

# Annual Drinking Water Report

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2022

Joe Law, Utilities Superintendent  
PUBLIC WORKS | 1350 SWORD AVE

## PURPOSE

The City of Quesnel Annual Drinking Water Report describes the water distribution system and provides a summary of water quality sampling results and water management practices for the 2022 calendar year. This report is created and made public each year as required by the Drinking Water Protection Act and the Drinking Water Protection Regulations. The Drinking Water Protection Act also requires that:

- Water system construction proposals must be approved by Public Health Engineers.
- Water system operators must operate their systems in compliance with the requirements of the Act through operating permits, which may contain specific conditions and are set and approved by the Health Authority Drinking Water Officer.
- Minimum water treatment and water quality standards are met, and monitoring and testing carried out, as required.
- Water suppliers must have microbiological samples analyzed by a laboratory which has been approved by the Provincial Health Officer;
- Operators of water systems serving more than 500 individuals must be certified as operators through the Environmental Operators Certification Program; and
- Public notification must be made in case of water quality problems. This ensures accountability to the community for the water service provided.

These requirements are placed on water purveyors to ensure the delivery of safe, potable drinking water to all users.

## WATER SYSTEM OVERVIEW

The City of Quesnel water distribution system provides untreated potable drinking water for use by approximately 10,200 residents, commercial businesses, and local industry. The water system is comprised of:

### Six Groundwater Production Wells

- |                               |                               |
|-------------------------------|-------------------------------|
| • Well 3 – Rolph Street       | • Well 8 – Hilborn Road       |
| • Well 6 – Rolph Street       | • Well 9 – Carson Subdivision |
| • Well 7 – North Fraser Drive | • Well 10 – Hilborn Road      |

### Eight Reservoirs

- |                           |                               |
|---------------------------|-------------------------------|
| • Sugarloaf Reservoir     | • Shadow Heights Reservoir    |
| • Pinecrest Reservoir     | • Dragon Hill Reservoir       |
| • South Quesnel Reservoir | • Abbott Heights Reservoir #1 |
| • Pinecrest Reservoir     | • Abbott Heights Reservoir #2 |

## Five Booster Pump Stations

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• Northstar Booster Station</li><li>• Healy Street Booster Station</li><li>• Dawson Ave Booster Station</li></ul> | <ul style="list-style-type: none"><li>• Pinecrest Booster Station</li><li>• Findlay Booster Station</li></ul> |
|---|---|

## Two Main PRV Stations

- Brownmiller PRV
- Johnston Ave PRV

There are approximately 114 km of water main, 460 fire hydrants, and 3642 individual service connections.

The City of Quesnel also operates one bulk water delivery site where, for a fee, customers may fill containers for personal use.

In 2022 water consumption (as metered at the source) for the City of Quesnel amounted to a total of 2,323,333 cubic meters of groundwater pumped by the production wells. This is a decrease of 395,663 cubic meters from the 2021 total volume of 2,718,996 cubic meters. For reference, 1 cubic meter of water contains 1000 liters.

## WATER MANAGEMENT

In the interest of public health and environmental protection, the Environmental Operators Certification Program (EOCP) is tasked by the Drinking Water Protection Act with the responsibility for classification of facilities and certification of water operators to enable the prudent management of water in British Columbia and the Yukon.

The EOCP requires that all facilities have (at minimum) one operator on each shift with a level of certification matching the facility classification. Furthermore, all system operators must be certified to a level appropriate to their role and level of responsibility. A facility's classification level is determined by its size, components, and level of complexity.

The City of Quesnel water distribution system is identified as a Class III facility by the EOCP. The experience and training requirements for an operator to receive a Level III certification are:

- Operator Level II Certificate *PLUS*
- 2 years related post-secondary or 90 CEUs (continuing education unit, 1 CEU equals 10 hours approved training) *PLUS*
- 4 years operating experience at a Class II facility (or higher)
- Including 2 years Direct Responsible Charge at a Class II facility (or higher)

In the fall of 2022, one City of Quesnel system operator achieved the prerequisite education and experience requirements and qualified to write the Level III EOCP certification exam. A passing grade was achieved, and the City of Quesnel system can now report as having an operator with certification commensurate with the facility classification.

In 2022, staffing of the Water Distribution System consisted of:

- 1 Level III Water Distribution Operator position
- 6 Level II Water Distribution Operator positions
- 2 Level I Water Distribution Operator positions
- 2 Operator-in-training positions

As EOCP certified Water Distribution Operators, staff are required to achieve a minimum score of 70% on written examinations and must receive 24 hours of approved training in every two-year period to maintain their certification. Operator training is critical to maintaining facility classification and ensures that current industry standards and best practices are being met. Training also provides staff with an opportunity to network with other operators over common challenges faced in field operations.

Operator duties include (but are not limited to) operating system monitoring, routine maintenance, fire hydrant maintenance and repair, water quality sampling, emergency repairs, new construction, investigation of water quality complaints, responding to calls for service from the general public, flushing of water mains, and responding to afterhours emergencies.

All operator time is also shared between duties within the City of Quesnel wastewater collection system, storm water collection system, snow removal operations, and in support provided to other departments as required.

The City of Quesnel maintains an up-to-date Emergency Response Plan, which is reviewed and updated annually to ensure that standard operating procedures remain applicable and up to date. This is a requirement of the City of Quesnel water distribution system's Permit to Operate, which is issued by the Northern Health Authority.

A SCADA (supervisory, control, and data acquisition) Monitoring System is utilized by the City of Quesnel, which enables staff to observe real-time data and information related to water system operating conditions, including water well operation and reservoir levels. System operators have the ability to remotely respond to system conditions and demands, which reduces equipment failure and increases pumping efficiency.

In 2022 an investment of capital funds was put toward a SCADA System Upgrade Project. This project includes upgrades to existing communications systems, control systems modernization, new installation at additional sites, hardware improvements, and an operating software platform overhaul. The project is ongoing and also includes upgrades to the Wastewater Collection System.

The City of Quesnel also invested 2022 capital funds in the much needed, Dragon Hill Reservoir Replacement Project to replace an existing (failing) concrete tank style reservoir which was constructed in the early 1980's. This project is scheduled for completion in 2023.

#### WATER QUALITY MONITORING

In order to ensure the delivery of safe drinking water, there is a program in place to monitor water quality at the source and throughout the distribution system network.

The City of Quesnel sends water samples to a laboratory approved by the Provincial Health Officer for all sampling points and is notified of results and concerns.

The sampling parameters used to monitor potability are listed in the Guidelines for Canadian Drinking Water Quality (GCDWQ) and the British Columbia Drinking Water Regulations (BCDWR). These sampling parameters are used as indicators for bacteriological, chemical and physical contaminants.

Please note that in May 2019, the Guidelines for Canadian Drinking Water Quality were revised to include a Maximum Allowable Concentration (MAC) for manganese in drinking water. The MAC for total manganese in drinking water is 0.12 mg/L (120 µg/L). The aesthetic objective (AO) for total manganese in drinking water is 0.02 mg/L (20 µg/L).

The water produced by 5 of the 6 production wells does not meet the standard set by the Guidelines for Canadian Drinking Water Quality for manganese concentrations. Although, sampling results do show that manganese levels in the distribution system vary from above to below the MAC due to mixing and settling.

On June 10, 2022, Northern Health placed a Water Quality Advisory on the City of Quesnel's water distribution system and required the City of Quesnel to issue a public notice containing information on manganese in drinking water.

In order to have the Water Quality Advisory lifted six corrective actions are needed:

1. Distribute updated notice and information to residents.
2. Continue additional sampling to determine the level of manganese in the distribution system.
3. Continue talks with a qualified drinking water professional to assess the water source and propose a suitable treatment system to reduce the level of manganese to below the Maximum Acceptable Concentration
4. Submit the treatment proposal to Northern Health in the form of a Construction Permit Application
5. Upon receipt of approval from a Northern Health Public Health Engineer, in the form of a Construction Permit, install the approved treatment system.
6. Conduct post-treatment samples in accordance with the conditions of the Construction Permit to verify treatment efficacy.

The City of Quesnel is working with qualified drinking water professionals to create a water treatment system designed to remove manganese from the drinking water. The project is currently in the design phase with a conceptual design and pilot testing completed.

## WATER QUALITY

The number of samples to be taken from the source and distribution system as required by provincial regulations is based upon population. The minimum number of samples to be taken for the City of Quesnel's approximately 10,200 people is 13 per month. The City of Quesnel exceeds that number of monthly samples. Drinking water samples are collected at 16 individual sites bi-weekly, and analyzed for total coliforms, E. coli, heterotrophic plate count (HPC), and turbidity. All reservoirs and wells are tested on a monthly basis for bacterial contaminants. In addition to the bacteriological parameters, additional testing is done for chemical & physical parameters.

Samples are taken at the start, middle and end of the entire City water distribution system.

If it is observed during testing that certain parameters exceed the limits specified in the Guidelines for Canadian Drinking Water Quality or the British Columbia Drinking Water Regulation, a procedure is in place for re-testing and notification for any results or conditions that render or could render the water unfit to drink.

The standard protocol when a water sample is found to contain the presence of coliforms, however minute, is to resample the water immediately at the same location and resubmit for testing. The provincial Environmental Health Officer will determine if any action by the City of Quesnel is necessary only after a second test also shows the presence of coliforms.

In accordance with the regulations of our operating permit, the City has a plan in effect to respond to emergencies to ensure the delivery of safe drinking water to all its residents.

Water sampling in 2022 showed:

- 329 samples tested for E. coli resulting in zero exceedances.
- 329 samples tested for Total Coliform resulting in 10 exceedances - with subsequent testing proving negative for total coliforms.

Complaints regarding water quality are addressed and followed up on a case-by-case basis. The majority of customer complaints are of "dirty" or black water. This is due to manganese found in the water which adheres to pipe walls in the distribution system until it is disturbed or breaks free. Homeowners are advised to run a cold tap until the water clears. In some cases, operators will flush the water mains through a hydrant or blowoff. All mains are flushed each fall to remove mineral scale and buildup in the lines in addition to ensuring proper operation and maintenance of all fire hydrants.

There are occasional complaints of cold water smelling like rotten eggs or sulfur. This is often caused by the water having a reaction with the small diameter "feed line" tubing which connects the household plumbing to the faucet under the sink. It is most common in homes that have new or recently upgraded taps or plumbing fixtures. A corrective measure for this is to suggest homeowners replace the feed lines with metal tubing such as copper or alternatively clean the lines with sodium hypochlorite (household bleach), then rinse and reinstall.

City of Quesnel Bylaw 1567 of 2004 was adopted in 2005 to ensure provisions for the elimination of Cross Connections between potable water and any non-potable source. The City of Quesnel has two

certified Backflow Assembly Testers on staff who annually test assemblies in parks and the water supply system to protect against potential backflows and cross connections. They also install backflow prevention devices, which are a secondary line of defence for backflow prevention. It is the responsibility of the owner or operator of private buildings to install and test the approved backflow assembly upon installation and annually thereafter by a certified tester. Following the test, a copy of the report is to be forwarded to the City of Quesnel. This program has not been completely implemented as there is a lack of resources and staff to track and account for these assemblies. What staff time is available is focused on communication with contractors, plumbers, and high-risk users. The main group addressed is industrial, commercial and institutions. Utilities Department staff communicate concerns and keep a watchful eye out for any potential cross connections.

#### CONCLUSION

The 2022 City of Quesnel Water System Annual Report is made available to the public and presented to Council as required by the British Columbia Drinking Water Regulations Drinking Water Protection Act, which has been established as a requirement in order to ensure accountability to the community for the water service provided.

Additional information may be obtained from the City of Quesnel Utilities Department at (250)992-6330, attention: Joseph Law, Utilities Superintendent.

#### ATTACHMENTS

##### **Attachment "A"**

- A list of the sampling point sites, and the parameters tested for the City of Quesnel

##### **Attachment "B"**

- Water sampling result summary reports for 2022.

#### LINKS

The Health Canada website ( [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca) ) contains "Summary of Guidelines for Canadian Drinking Water Quality", which Health Canada publishes on current guidelines and updates each spring on their website.

# Attachment "A"

## City of Quesnel Water Quality Monitoring Program

SITE	LOCATION	PARAMETERS
BI-WEEKLY (Distribution System)		
FIRST WEEK		
Water Trax Locator #		
94 E4	Airport	Parameters: Total coliforms, E.coli, HPC's, turbidity, temp
94 E5	Mills Rd	
94 E7	Marsh Dr	
94 E8	Graham Avenue	
94 E9	West Fraser Rd	
94 FO	Pedersen Rd	
35D91K	Carson Pit	
179 CA	Dennis Road	
THIRD WEEK		
94 E6	Carradice Rd	Parameters: Total coliforms, E.coli, HPC's, turbidity, temp
94 F1	Dixon St	
94 F2	Front St – Hospital	
94 F3	Nason St	
94 F4	N. Star Dragon Hill	
94 F6	N Star South Hill	
94 F7	Chew Rd	
21 D9B	Bulk Water on North Star	



MONTHLY (Reservoirs)		
94 EA	R-1 Shadow Heights	Parameters: Total coliforms, E.coli, Temp
94 F9	R-2 Pinecrest	
94 FA	R-3 Sugar Loaf	
94 EB	R-4 Abbott Dr 1	
94 EC	R-4 Abbott Dr 2	
94 FC	R-5 Dragon Hill	
94 FF	R-6 New Tatchell Reservoir	
MONTHLY (Wells)		
94 ED	Well A Sword Rd	Parameters: Total coliforms, E.coli, Temp
94 D1	Well 3 Rolph at Roddis	
94 DC	Well 6 Rolph at Robertson	
94 EO	Well 7 N. Fraser Dr	
94 E1	Well 8 Hilborn Rd	
94 DF	Well 9 Carson Sub	
28000	Well 10 Hilborn Rd	

<b><i>SEMI - ANNUALLY (Distribution System)</i></b> (first week April & Oct)		
94 E5	Mills Rd (94E5)	Parameters: Copper, Zinc, Lead, Iron, Vinyl chloride, Manganese, Temperature
94 FO	Pederson Rd (94F0)	
35D91K	Carson Pit	

<b><i>ANNUALLY (Wells)</i></b>		
94 D1	Well 3 Rolph at Roddis	Parameters:  Enhanced Potability, Metals, Langelier saturation index (LSI) Volatile Organic Compounds, Temp.
94 DC	Well 6 Rolph at Robertson	
94 EO	Well 7 N. Fraser Drive	
94 E1	Well 8 Hilborn Rd	
94 DF	Well 9 Carson Sub	
28000	Well 10 Hilborn Rd	

<b><i>QUARTERLY (Wells)</i></b>		
94 D1	Well 3 Rolph at Roddis	Parameters:  Chloride, Nitrate, Nitrite
94 DC	Well 6 Rolph at Robertson	
94 EO	Well 7 N. Fraser Drive	
94 E1	Well 8 Hilborn Rd	
94 DF	Well 9 Carson Sub	
28000	Well 10 Hilborn Rd	

# Attachment "B"

All Water sample report results from weekly sampling as per parameters in Attachment A.

# Public Notice – HealthSpace Data Entry

(Water Quality Advisory, Boil Water Notice, Do Not Use Notice)

OFFICER: **Lynnette Winsor**

TIME SPENT: 1hr

WATER SYSTEM NAME: Quesnel CWS		
WATER SYSTEM ADDRESS 410 Kinchant Street	CITY: Quesnel	POPULATION SERVED: 10,000
WATER SYSTEM TYPE:      WS1 <input checked="" type="checkbox"/> WS2 <input type="checkbox"/> WS3 <input type="checkbox"/> WS4 <input type="checkbox"/>	Reason for terminating the Public Notice:	
ADVISORY TYPE:   Do Not Use <input type="checkbox"/> Boil Water Notice <input type="checkbox"/> Water Quality Advisory <input checked="" type="checkbox"/>		
START DATE: 2022/06/10      END DATE:		
<b>PUBLIC NOTICE    ISSUED <input checked="" type="checkbox"/>      RESCINDED <input type="checkbox"/></b>		
<b>*Note for rescinding notice:</b>		
<p><u>Steps Taken to Remedy:</u> Information packages containing information on manganese in drinking water have been distributed by the operator to the residents.</p> <p><u>Corrective Actions Remaining:</u> 1. Distribute updated notice and information to residents 2. Continue additional sampling to determine the level of manganese in the distribution system. Collect samples from multiple points throughout the distribution system and submit to an accredited lab for manganese testing. Provide sample results to Northern Health. 3. Continue talks with a qualified drinking water professional to assess the water source and propose a suitable treatment system to reduce the level of manganese to below the Maximum Acceptable Concentration. 4. Submit the treatment proposal to Northern Health in the form of a Construction Permit application. 5. Upon receipt of approval from a Northern Health Public Health Engineer, in the form of a Construction Permit, install the approved treatment system. 6. Conduct post-treatment samples in accordance with the conditions of the Construction Permit to verify treatment efficacy.</p> <p><u>Underlying Problems:</u> Chemical sampling history shows consistent manganese concentrations above the MAC in 5 of the 6 wells. Manganese has long been considered an aesthetic concern in drinking water (e.g. causing stains on laundry, plumbing fixtures, etc.). However, new scientific studies show potential health effects from long term exposure to high levels of manganese in drinking water. This new information was used to revise the guideline for manganese in drinking water.</p>		

Health Canada has set a Maximum Acceptable Concentration (MAC) of 0.12 mg/L (120µg/L) for manganese in drinking water. The MAC is intended to protect all Canadians, but is based on the most vulnerable/sensitive population (e.g. infants and young children). If drinking water exceeds the MAC for manganese, another source of water, such as bottled water, should be used for preparing baby formula for infants and young children. Adults who drinking water with manganese levels above the MAC are at lower risk than infants and children, but may wish to consider other sources of drinking water or home treatment systems

Cause Category:

- |  |   |
|--|---|
| <input type="checkbox"/> Unapproved water supply system or construction works                                | <input checked="" type="checkbox"/> Unacceptable chemical and physical water quality results      |
| <input type="checkbox"/> Untreated drinking water at risk of containing pathogens                            | <input type="checkbox"/> Surveillance data indicates drinking water linked to outbreak or illness |
| <input type="checkbox"/> Insufficient treatment or disinfectant residual                                     | <input type="checkbox"/> Inadequate operations and maintenance                                    |
| <input type="checkbox"/> Source water quality deterioration or contamination                                 | <input type="checkbox"/> Water treatment equipment failure  |
| <input type="checkbox"/> Excessive turbidity compromising distributed water quality                          | <input type="checkbox"/> Distribution system integrity failure                                    |
| <input type="checkbox"/> Unacceptable microbiological water quality results                                  | <input type="checkbox"/> Routine maintenance and planned works                                    |
| <input type="checkbox"/> Inadequate construction or protection of distribution, storage and other waterworks | <input type="checkbox"/> Other cause not on this list   |



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(250)301-7898  
[www.wellnesswaterlab.com](http://www.wellnesswaterlab.com)  
[contact@wellnesswaterlab.com](mailto:contact@wellnesswaterlab.com)

Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT STREET QUESNEL BC V2J7J5

Report ID:

**12574-12578**

Sampler:

BRYAN

Collection Date:

2022-01-06

Receiving Date/Time:

2022-01-07 12:00

Analysis Start Date/Time:

2022-01-07 13:15

Analysis End Date/Time:

2022-01-08 13:15

Reported Date/Time:

2022-01-12 11:30

The information contained in this report is considered confidential and is intended for the addressee whose name is specified above. Should you receive this report by error, please notify us by phone and delete this message from your mailbox.

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### 1. Bacteriology Results:

#	Project Name, Address and Source	Site Code/Name	Lab Reference Number	Microorganisms (MPN/100 ML)		Comment
				Total Coliform	E.Coli	
1	94DC WELL 6 ROLPH AT ROBERTSON	QUESNEL BC	12574	<1	<1	BELOW MAC
2	94E0 WELL 7 N. FRASER DRIVE	QUESNEL BC	12575	<1	<1	BELOW MAC
3	94E1 WELL 8 HILBORN ROAD	QUESNEL BC	12576	<1	<1	BELOW MAC
4	94DF WELL 9 CARSON SUB	QUESNEL BC	12577	<1	<1	BELOW MAC
5	28000 WELL WELL 10 HILBORN ROAD	QUESNEL BC	12578	<1	<1	BELOW MAC

### 2. Analytical Comments:

- See section #12 for chemical & physical results

### 3. Sample Details:

#	Project Name & Address Provided on Chain of Custody Form and/or Sample Label	Source	Collection Date/Time	Hold Time (hh:mm)	Chlorination Turbidity Ph	Note
1	94DC WELL 6 ROLPH AT ROBERTSON	QUESNEL BC	2022-01-06 13:45	23:30	NI	D
2	94E0 WELL 7 N. FRASER DRIVE	QUESNEL BC	2022-01-06 13:15	24:00	NI	D
3	94E1 WELL 8 HILBORN ROAD	QUESNEL BC	2022-01-06 11:15	26:00	NI	D
4	94DF WELL 9 CARSON SUB	QUESNEL BC	2022-01-06 15:00	22:15	NI	D
5	28000 WELL WELL 10 HILBORN ROAD	QUESNEL BC	2022-01-06 14:15	23:00	NI	D

### 4. Note To Clients:

A	Sample/s Temperature (°C) :	5.0	
B	Sample/s Holding Time (hh):	<30	
C	Verbal Notification:	NO	
D	Additional Documents:	YES	• See section #12 for additional documents

a) Temperature shown in the above is the average of up to three sample temperatures in the same cooler taken at receipt

b) Sample Holding Time is the elapsed time between collection date/time and analysis start date/time



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2022-01-08 13:15

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2022-01-12 11:30

## 5. Quality Assurance:

#1 Positive Control, *Klebsiella pneumoniae*

#2 Positive Control, *Escherichia coli*

#3 Negative Control, *Pseudomonas aeruginosa*

## 6. Methodology:

Analyte: Total coliform & *Escherichia coli*

Method: Enzyme Substrate Colilert 24

Unit: MPN/100ml

Detection Limit: 1.0 MPN/100ml

## 7. Guideline:

Bacteria Growth Limit: None Detected = 0.0 = <1.0 MPN/100ml

Sample Temperature: 2 to 10 °C

Maximum Sample Holding Time: 30 hours

## 8. References:

British Columbia Drinking Water Protection Act

Guideline for Canadian Drinking Water Quality

Standard Methods for the Examination of Water and Wastewater, 23rd Edition

Enhanced Water Quality Assurance Program (EWQA)

## 9. PHO Approval:

[Provincial Health Officer Approved Laboratory List](#)

## 10. Acronyms:

**BML:** Below Minimum Limit

**BT:** Bathroom Tap

**BW:** Bottled Water

**CWS:** Community Water System

**EC:** *E. coli* (*Escherichia coli*)

**EML:** Exceeded Maximum Limit

**f:** Free Chlorine

**IL:** Illegible

**KT:** Kitchen Tap

**MAC:** Maximum Acceptable Concentration

**MPN:** Most Probable Number (per 100 ml)

**NA:** Not Applicable

**NC:** Non-Conformance

**NCD:** No Collection Date

**NCT:** No Collection Time

**NI:** Not Indicated

**NR:** No Result

**NSQ:** Not Sufficient Quantity

**NT:** Not Tested

**OT:** Outside Tap

**PW:** Private Well

**SC:** See Comment

**SPL:** Sampling Point Locator

**t:** Total Chlorine

**TC:** Total Coliform

**<:** Below

**>:** Above

**°C:** Degree Celsius

**\***: Indicates Criteria Not Met





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<b>Address:</b> 410 KINCHANT STREET QUESNEL BC V2J7J5	Receiving Date/Time:	2022-01-07 12:00
	Analysis Start Date/Time:	2022-01-07 13:15
	Analysis End Date/Time:	2022-01-08 13:15
	Reported Date/Time:	2022-01-12 11:30

## 11. Signature Page:

The results and Quality Control validations in this report were reviewed and approved by:

Arian Javaherdashti, MLT, CSMLS, Senior Analyst

The test results and additional information provided in this report applies only to the listed samples and is relevant only for the date, time and exact location of collections. Samples are tested as received and Wellness Water Testing Laboratory Inc. assumes no responsibility for the method of collection or samples shipment condition and disclaims any liability for damages arising from interpretation of results. The person and/or company performing the field work is advised to consult British Columbia Drinking Water official regulatory references when evaluating compliance. Please direct your inquiries about this report to us by phone at 250-301-7898.

## 12. Additional Documents:

- Manganese results will be sent in a separate report



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**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT STREET QUESNEL BC V2J7J5

Report ID:

**12654-12661**

Sampler:

SHAUN M.

Collection Date:

2022-01-11

Receiving Date/Time:

2022-01-12 12:20

Analysis Start Date/Time:

2022-01-12 13:00

Analysis End Date/Time:

2022-01-13 13:00

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**Address:**

410 KINCHANT STREET QUESNEL BC V2J7J5

Report ID:

**12654-12661**

Sampler:

SHAUN M.

Collection Date:

2022-01-11

Receiving Date/Time:

2022-01-12 12:20

Analysis Start Date/Time:

2022-01-12 13:00

Analysis End Date/Time:

2022-01-13 13:00

Reported Date/Time:

2022-01-14 13:00

## 1. Bacteriology Results:

#	Project Name, Address and Source	Site Code/Name	Lab Reference Number	Microorganisms (MPN/100 ML)		Comment
				Total Coliform	E.Coli	
1	94E4 S AIRPORT	CITY OF QUESNEL, BC	12654	<1	<1	BELOW MAC
2	94ES S MILLS RD.	CITY OF QUESNEL, BC	12655	<1	<1	BELOW MAC
3	94E7 S MARSH DR.	CITY OF QUESNEL, BC	12656	<1	<1	BELOW MAC
4	94E8 S GRAHAM AVE.	CITY OF QUESNEL, BC	12657	<1	<1	BELOW MAC
5	94E9 S WEST FRASER RD.	CITY OF QUESNEL, BC	12658	<1	<1	BELOW MAC
6	94F0 S PEDERSON RD.	CITY OF QUESNEL, BC	12659	<1	<1	BELOW MAC
7	35D91K NEW CARSON PIT	CITY OF QUESNEL, BC	12660	<1	<1	BELOW MAC
8	179CA S DENNIS RD.	CITY OF QUESNEL, BC	12661	<1	<1	BELOW MAC

## 2. Analytical Comments:

- See section #12 for chemical & physical results



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Report Status:  
**Final**

### General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT STREET QUESNEL BC V2J7J5

Report ID:

**12654-12661**

Sampler:

SHAUN M.

Collection Date:

2022-01-11

Receiving Date/Time:

2022-01-12 12:20

Analysis Start Date/Time:

2022-01-12 13:00

Analysis End Date/Time:

2022-01-13 13:00

Reported Date/Time:

2022-01-14 13:00

### 3. Sample Details:

#	Project Name & Address Provided on Chain of Custody Form and/or Sample Label	Source	Collection Date/Time	Hold Time (hh:mm)	Chlorination Turbidity Ph	Note
1	94E4 S AIRPORT	CITY OF QUESNEL, BC	2022-01-11 9:20	27:40	NI	D
2	94E5 S MILLS RD.	CITY OF QUESNEL, BC	2022-01-11 10:10	26:50	NI	D
3	94E7 S MARSH DR.	CITY OF QUESNEL, BC	2022-01-11 10:30	26:30	NI	D
4	94E8 S GRAHAM AVE.	CITY OF QUESNEL, BC	2022-01-11 11:30	25:30	NI	D
5	94E9 S WEST FRASER RD.	CITY OF QUESNEL, BC	2022-01-11 11:10	25:50	NI	D
6	94F0 S PEDERSON RD.	CITY OF QUESNEL, BC	2022-01-11 14:20	22:40	NI	D
7	35D91K NEW CARSON PIT	CITY OF QUESNEL, BC	2022-01-11 13:25	23:35	NI	D
8	179CA S DENNIS RD.	CITY OF QUESNEL, BC	2022-01-11 15:00	22:00	NI	D

### 4. Note To Clients:

A	Sample/s Temperature (°C) :	6.0	
B	Sample/s Holding Time (hh):	<30	
C	Verbal Notification:	NO	
D	Additional Documents:	YES	●See section #12 for additional documents

a) Temperature shown in the above is the average of up to three sample temperatures in the same cooler taken at receipt  
b) Sample Holding Time is the elapsed time between collection date/time and analysis start date/time



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT STREET QUESNEL BC V2J7J5

Report ID:

**12654-12661**

Sampler:

SHAUN M.

Collection Date:

2022-01-11

Receiving Date/Time:

2022-01-12 12:20

Analysis Start Date/Time:

2022-01-12 13:00

Analysis End Date/Time:

2022-01-13 13:00

Reported Date/Time:

2022-01-14 13:00

## 5. Quality Assurance:

#1 Positive Control, Klebsiella pneumoniae

#2 Positive Control, Escherichia coli

#3 Negative Control, Pseudomonas aeruginosa

## 6. Methodology:

Analyte: Total coliform & Escherichia coli

Method: Enzyme Substrate Colilert 24

Unit: MPN/100ml

Detection Limit: 1.0 MPN/100ml

## 7. Guideline:

Bacteria Growth Limit: None Detected = 0.0 = <1.0 MPN/100ml

Sample Temperature: 2 to 10 °C

Maximum Sample Holding Time: 30 hours

## 8. References:

British Columbia Drinking Water Protection Act

Guideline for Canadian Drinking Water Quality

Standard Methods for the Examination of Water and Wastewater, 23rd Edition

Enhanced Water Quality Assurance Program (EWQA)

## 9. PHO Approval:

[Provincial Health Officer Approved Laboratory List](#)

## 10. Acronyms:

**BML:** Below Minimum Limit

**BT:** Bathroom Tap

**BW:** Bottled Water

**CWS:** Community Water System

**EC:** E. coli (*Escherichia coli*)

**EML:** Exceeded Maximum Limit

**f:** Free Chlorine

**IL:** Illegible

**KT:** Kitchen Tap

**MAC:** Maximum Acceptable Concentration

**MPN:** Most Probable Number (per 100 ml)

**NA:** Not Applicable

**NC:** Non-Conformance

**NCD:** No Collection Date

**NCT:** No Collection Time

**NI:** Not Indicated

**NR:** No Result

**NSQ:** Not Sufficient Quantity

**NT:** Not Tested

**OT:** Outside Tap

**PW:** Private Well

**SC:** See Comment

**SPL:** Sampling Point Locator

**t:** Total Chlorine

**TC:** Total Coliform

**<:** Below

**>:** Above

**°C:** Degree Celsius

**\*:** Indicates Criteria Not Met



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Report Status:  
**Final**

## General Information Laboratory Report

<b>Client Name:</b> LAW, JOE	Report ID:	<b>12654-12661</b>
<b>Company:</b> CITY OF QUESNEL	Sampler:	SHAUN M.
<b>Bill To:</b> LAW, JOE	Collection Date:	2022-01-11
<b>Address:</b> 410 KINCHANT STREET QUESNEL BC V2J7J5	Receiving Date/Time:	2022-01-12 12:20
	Analysis Start Date/Time:	2022-01-12 13:00
	Analysis End Date/Time:	2022-01-13 13:00
	Reported Date/Time:	2022-01-14 13:00

## 11. Signature Page:

The results and Quality Control validations in this report were reviewed and approved by:

Arian Javaherdashti, MLT, CSMLS, Senior Analyst

The test results and additional information provided in this report applies only to the listed samples and is relevant only for the date, time and exact location of collections. Samples are tested as received and Wellness Water Testing Laboratory Inc. assumes no responsibility for the method of collection or samples shipment condition and disclaims any liability for damages arising from interpretation of results. The person and/or company performing the field work is advised to consult British Columbia Drinking Water official regulatory references when evaluating compliance. Please direct your inquiries about this report to us by phone at 250-301-7898.

## 12. Additional Documents:

- Pending for Manganese results



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT STREET QUESNEL BC V2J7J5

Report ID:

**12684-12691**

Sampler:

SHAUN M.

Collection Date:

2022-01-12

Receiving Date/Time:

2022-01-13 10:30

Analysis Start Date/Time:

2022-01-13 12:30

Analysis End Date/Time:

2022-01-14 12:30

Reported Date/Time:

2022-01-14 17:00

The information contained in this report is considered confidential and is intended for the addressee whose name is specified above. Should you receive this report by error, please notify us by phone and delete this message from your mailbox.

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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT STREET QUESNEL BC V2J7J5

Report ID:

**12684-12691**

Sampler:

SHAUN M.

Collection Date:

2022-01-12

Receiving Date/Time:

2022-01-13 10:30

Analysis Start Date/Time:

2022-01-13 12:30

Analysis End Date/Time:

2022-01-14 12:30

Reported Date/Time:

2022-01-14 17:00

## 1. Bacteriology Results:

#	Project Name, Address and Source	Site Code/Name	Lab Reference Number	Microorganisms (MPN/100 ML)		Comment
				Total Coliform	E.Coli	
1	94E6 S CARRADIE RD.	CITY OF QUESNEL, BC	12684	<1	<1	BELOW MAC
2	94F1 S DIXON ST.	CITY OF QUESNEL, BC	12685	<1	<1	BELOW MAC
3	94F2 S HOSPITAL	CITY OF QUESNEL, BC	12686	<1	<1	BELOW MAC
4	94F3 NASON ST.	CITY OF QUESNEL, BC	12687	<1	<1	BELOW MAC
5	94F4 S N. STAR DRAGON HILL	CITY OF QUESNEL, BC	12688	<1	<1	BELOW MAC
6	94F6 S N. STAR SOUTH HILL	CITY OF QUESNEL, BC	12689	<1	<1	BELOW MAC
7	94F7 S CHEW RD.	CITY OF QUESNEL, BC	12690	<1	<1	BELOW MAC
8	21D98 BULK WATER SITE 1	CITY OF QUESNEL, BC	12691	<1	<1	BELOW MAC

## 2. Analytical Comments:

- See section #12 for chemical & physical results





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Report Status:  
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### General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT STREET QUESNEL BC V2J7J5

Report ID:

**12684-12691**

Sampler:

SHAUN M.

Collection Date:

2022-01-12

Receiving Date/Time:

2022-01-13 10:30

Analysis Start Date/Time:

2022-01-13 12:30

Analysis End Date/Time:

2022-01-14 12:30

Reported Date/Time:

2022-01-14 17:00

### 3. Sample Details:

#	Project Name & Address Provided on Chain of Custody Form and/or Sample Label	Source	Collection Date/Time	Hold Time (hh:mm)	Chlorination Turbidity Ph	Note
1	94E6 S CARRADIE RD.	CITY OF QUESNEL, BC	2022-01-12 9:20	27:10	NI	D
2	94F1 S DIXON ST.	CITY OF QUESNEL, BC	2022-01-12 10:00	26:30	NI	D
3	94F2 S HOSPITAL	CITY OF QUESNEL, BC	2022-01-12 10:40	25:50	NI	D
4	94F3 NASON ST.	CITY OF QUESNEL, BC	2022-01-12 11:30	25:00	NI	D
5	94F4 S N. STAR DRAGON HILL	CITY OF QUESNEL, BC	2022-01-12 13:45	22:45	NI	D
6	94F6 S N. STAR SOUTH HILL	CITY OF QUESNEL, BC	2022-01-12 13:30	23:00	NI	D
7	94F7 S CHEW RD.	CITY OF QUESNEL, BC	2022-01-12 14:30	22:00	NI	D
8	21D98 BULK WATER SITE 1	CITY OF QUESNEL, BC	2022-01-12 12:00	24:30	NI	D

### 4. Note To Clients:

A	Sample/s Temperature (°C) :	9.0	
B	Sample/s Holding Time (hh):	<30	
C	Verbal Notification:	NO	
D	Additional Documents:	YES	●See section #12 for additional documents

a) Temperature shown in the above is the average of up to three sample temperatures in the same cooler taken at receipt

b) Sample Holding Time is the elapsed time between collection date/time and analysis start date/time



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT STREET QUESNEL BC V2J7J5

Report ID:

**12684-12691**

Sampler:

SHAUN M.

Collection Date:

2022-01-12

Receiving Date/Time:

2022-01-13 10:30

Analysis Start Date/Time:

2022-01-13 12:30

Analysis End Date/Time:

2022-01-14 12:30

Reported Date/Time:

2022-01-14 17:00

## 5. Quality Assurance:

#1 Positive Control, Klebsiella pneumoniae

#2 Positive Control, Escherichia coli

#3 Negative Control, Pseudomonas aeruginosa

## 6. Methodology:

Analyte: Total coliform & Escherichia coli

Method: Enzyme Substrate Colilert 24

Unit: MPN/100ml

Detection Limit: 1.0 MPN/100ml

## 7. Guideline:

Bacteria Growth Limit: None Detected = 0.0 = <1.0 MPN/100ml

Sample Temperature: 2 to 10 °C

Maximum Sample Holding Time: 30 hours

## 8. References:

British Columbia Drinking Water Protection Act

Guideline for Canadian Drinking Water Quality

Standard Methods for the Examination of Water and Wastewater, 23rd Edition

Enhanced Water Quality Assurance Program (EWQA)

## 9. PHO Approval:

[Provincial Health Officer Approved Laboratory List](#)

## 10. Acronyms:

**BML:** Below Minimum Limit

**BT:** Bathroom Tap

**BW:** Bottled Water

**CWS:** Community Water System

**EC:** E. coli (*Escherichia coli*)

**EML:** Exceeded Maximum Limit

**f:** Free Chlorine

**IL:** Illegible

**KT:** Kitchen Tap

**MAC:** Maximum Acceptable Concentration

**MPN:** Most Probable Number (per 100 ml)

**NA:** Not Applicable

**NC:** Non-Conformance

**NCD:** No Collection Date

**NCT:** No Collection Time

**NI:** Not Indicated

**NR:** No Result

**NSQ:** Not Sufficient Quantity

**NT:** Not Tested

**OT:** Outside Tap

**PW:** Private Well

**SC:** See Comment

**SPL:** Sampling Point Locator

**t:** Total Chlorine

**TC:** Total Coliform

**<:** Below

**>:** Above

**°C:** Degree Celsius

**\*:** Indicates Criteria Not Met



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Report Status:  
**Final**

## General Information Laboratory Report

<b>Client Name:</b> LAW, JOE	Report ID:	<b>12684-12691</b>
<b>Company:</b> CITY OF QUESNEL	Sampler:	SHAUN M.
<b>Bill To:</b> LAW, JOE	Collection Date:	2022-01-12
<b>Address:</b> 410 KINCHANT STREET QUESNEL BC V2J7J5	Receiving Date/Time:	2022-01-13 10:30
	Analysis Start Date/Time:	2022-01-13 12:30
	Analysis End Date/Time:	2022-01-14 12:30
	Reported Date/Time:	2022-01-14 17:00

## 11. Signature Page:

The results and Quality Control validations in this report were reviewed and approved by:

Arian Javaherdashti, MLT, CSMLS, Senior Analyst

The test results and additional information provided in this report applies only to the listed samples and is relevant only for the date, time and exact location of collections. Samples are tested as received and Wellness Water Testing Laboratory Inc. assumes no responsibility for the method of collection or samples shipment condition and disclaims any liability for damages arising from interpretation of results. The person and/or company performing the field work is advised to consult British Columbia Drinking Water official regulatory references when evaluating compliance. Please direct your inquiries about this report to us by phone at 250-301-7898.

## 12. Additional Documents:

- Pending for Manganese result



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12750-12755**

Sampler:

LAW, JOE

Collection Date:

2022-01-17

Receiving Date/Time:

2022-01-18 12:00

Analysis Start Date/Time:

2022-01-18 13:00

Analysis End Date/Time:

2022-01-19 13:00

Reported Date/Time:

2022-01-20 8:00

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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12750-12755**

Sampler:

LAW, JOE

Collection Date:

2022-01-17

Receiving Date/Time:

2022-01-18 12:00

Analysis Start Date/Time:

2022-01-18 13:00

Analysis End Date/Time:

2022-01-19 13:00

Reported Date/Time:

2022-01-20 8:00

## 1. Bacteriology Results:

#	Project Name, Address and Source	Site Code/Name	Lab Reference Number	Microorganisms (MPN/100 ML)		Comment
				Total Coliform	E.Coli	
1	94D1 WELL 3 ROLPH AT RODDIS	CITY OF QUESNEL	12750	<1	<1	BELOW MAC
2	94DC WELL 6 ROLPH AT ROBERTSON	CITY OF QUESNEL	12751	<1	<1	BELOW MAC
3	94E0 WELL 7 N. FRASER DRIVE	CITY OF QUESNEL	12752	<1	<1	BELOW MAC
4	94E1 WELL 8 HILBORN ROAD	CITY OF QUESNEL	12753	<1	<1	BELOW MAC
5	94DF WELL 9 CARSON SUB	CITY OF QUESNEL	12754	<1	<1	BELOW MAC
6	28000 WELL 10 HILBORN ROAD	CITY OF QUESNEL	12755	<1	<1	BELOW MAC

## 2. Analytical Comments:



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Report Status:  
**Final**

### General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

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Sampler:

LAW, JOE

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2022-01-18 13:00

Analysis End Date/Time:

2022-01-19 13:00

Reported Date/Time:

2022-01-20 8:00

### 3. Sample Details:

#	Project Name & Address Provided on Chain of Custody Form and/or Sample Label	Source	Collection Date/Time	Hold Time (hh:mm)	Chlorination Turbidity Ph	Note
1	94D1 WELL 3 ROLPH AT RODDIS	CITY OF QUESNEL	2022-01-17 9:40	27:20	NI	
2	94DC WELL 6 ROLPH AT ROBERTSON	CITY OF QUESNEL	2022-01-17 10:05	26:55	NI	
3	94E0 WELL 7 N. FRASER DRIVE	CITY OF QUESNEL	2022-01-17 11:30	25:30	NI	
4	94E1 WELL 8 HILBORN ROAD	CITY OF QUESNEL	2022-01-17 13:20	23:40	NI	
5	94DF WELL 9 CARSON SUB	CITY OF QUESNEL	2022-01-17 10:45	26:15	NI	
6	28000 WELL 10 HILBORN ROAD	CITY OF QUESNEL	2022-01-17 13:45	23:15	NI	

### 4. Note To Clients:

A	Sample/s Temperature (°C) :	5.5	
B	Sample/s Holding Time (hh):	<30	
C	Verbal Notification:	NO	
D	Additional Documents:	NO	

a) Temperature shown in the above is the average of up to three sample temperatures in the same cooler taken at receipt

b) Sample Holding Time is the elapsed time between collection date/time and analysis start date/time



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

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2022-01-19 13:00

Reported Date/Time:

2022-01-20 8:00

## 5. Quality Assurance:

#1 Positive Control, *Klebsiella pneumoniae*

#2 Positive Control, *Escherichia coli*

#3 Negative Control, *Pseudomonas aeruginosa*

## 6. Methodology:

Analyte: Total coliform & *Escherichia coli*

Method: Enzyme Substrate Colilert 24

Unit: MPN/100ml

Detection Limit: 1.0 MPN/100ml

## 7. Guideline:

Bacteria Growth Limit: None Detected = 0.0 = <1.0 MPN/100ml

Sample Temperature: 2 to 10 °C

Maximum Sample Holding Time: 30 hours

## 8. References:

British Columbia Drinking Water Protection Act

Guideline for Canadian Drinking Water Quality

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## 9. PHO Approval:

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## 10. Acronyms:

**BML:** Below Minimum Limit

**BT:** Bathroom Tap

**BW:** Bottled Water

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**EC:** *E. coli* (*Escherichia coli*)

**EML:** Exceeded Maximum Limit

**f:** Free Chlorine

**IL:** Illegible

**KT:** Kitchen Tap

**MAC:** Maximum Acceptable Concentration

**MPN:** Most Probable Number (per 100 ml)

**NA:** Not Applicable

**NC:** Non-Conformance

**NCD:** No Collection Date

**NCT:** No Collection Time

**NI:** Not Indicated

**NR:** No Result

**NSQ:** Not Sufficient Quantity

**NT:** Not Tested

**OT:** Outside Tap

**PW:** Private Well

**SC:** See Comment

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**t:** Total Chlorine

**TC:** Total Coliform

**<:** Below

**>:** Above

**°C:** Degree Celsius

**\*:** Indicates Criteria Not Met



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12750-12755**

Sampler:

LAW, JOE

Collection Date:

2022-01-17

Receiving Date/Time:

2022-01-18 12:00

Analysis Start Date/Time:

2022-01-18 13:00

Analysis End Date/Time:

2022-01-19 13:00

Reported Date/Time:

2022-01-20 8:00

## 11. Signature Page:

The results and Quality Control validations in this report were reviewed and approved by:

Arian Javaherdashti, MLT, CSMLS, Senior Analyst

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## 12. Additional Documents:

# END OF REPORT





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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12795-12801**

Sampler:

SHAUN M.

Collection Date:

2022-01-18

Receiving Date/Time:

2022-01-19 12:00

Analysis Start Date/Time:

2022-01-19 13:00

Analysis End Date/Time:

2022-01-20 13:00

Reported Date/Time:

2022-01-21 13:00

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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12795-12801**

Sampler:

SHAUN M.

Collection Date:

2022-01-18

Receiving Date/Time:

2022-01-19 12:00

Analysis Start Date/Time:

2022-01-19 13:00

Analysis End Date/Time:

2022-01-20 13:00

Reported Date/Time:

2022-01-21 13:00

## 1. Bacteriology Results:

#	Project Name, Address and Source	Site Code/Name	Lab Reference Number	Microorganisms (MPN/100 ML)		Comment
				Total Coliform	E.Coli	
1	94EA R-1 SHADOW HEIGHTS	CITY OF QUESNEL	12795	<1	<1	BELOW MAC
2	94F9 R-2 PINECREST	CITY OF QUESNEL	12796	<1	<1	BELOW MAC
3	94FA R-3 SUGARLOAF	CITY OF QUESNEL	12797	<1	<1	BELOW MAC
4	94EB R-4 ABBOTT DR#1	CITY OF QUESNEL	12798	<1	<1	BELOW MAC
5	94EC R-4 ABBOTT DR#2	CITY OF QUESNEL	12799	<1	<1	BELOW MAC
6	94FC R-5 DRAGON HILL	CITY OF QUESNEL	12800	<1	<1	BELOW MAC
7	94FF R-6 NEW TACHELL reserv	CITY OF QUESNEL	12801	<1	<1	BELOW MAC

## 2. Analytical Comments:

See attached for additional documents



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Report Status:  
**Final**

### General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12795-12801**

Sampler:

SHAUN M.

Collection Date:

2022-01-18

Receiving Date/Time:

2022-01-19 12:00

Analysis Start Date/Time:

2022-01-19 13:00

Analysis End Date/Time:

2022-01-20 13:00

Reported Date/Time:

2022-01-21 13:00

### 3. Sample Details:

#	Project Name & Address Provided on Chain of Custody Form and/or Sample Label	Source	Collection Date/Time	Hold Time (hh:mm)	Chlorination Turbidity Ph	Note
1	94EA R-1 SHADOW HEIGHTS	CITY OF QUESNEL	2022-01-18 11:30	25:30	NI	
2	94F9 R-2 PINECREST	CITY OF QUESNEL	2022-01-18 11:45	25:15	NI	
3	94FA R-3 SUGARLOAF	CITY OF QUESNEL	2022-01-18 11:00	26:00	NI	
4	94EB R-4 ABBOTT DR#1	CITY OF QUESNEL	2022-01-18 10:00	27:00	NI	
5	94EC R-4 ABBOTT DR#2	CITY OF QUESNEL	2022-01-18 10:15	26:45	NI	
6	94FC R-5 DRAGON HILL	CITY OF QUESNEL	2022-01-18 13:20	23:40	NI	
7	94FF R-6 NEW TACHELL reserv	CITY OF QUESNEL	2022-01-18 15:00	22:00	NI	

### 4. Note To Clients:

A	Sample/s Temperature (°C) :	2.5	
B	Sample/s Holding Time (hh):	<30	
C	Verbal Notification:	NO	
D	Additional Documents:	YES	See attached for additional documents

a) Temperature shown in the above is the average of up to three sample temperatures in the same cooler taken at receipt

b) Sample Holding Time is the elapsed time between collection date/time and analysis start date/time



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12795-12801**

Sampler:

SHAUN M.

Collection Date:

2022-01-18

Receiving Date/Time:

2022-01-19 12:00

Analysis Start Date/Time:

2022-01-19 13:00

Analysis End Date/Time:

2022-01-20 13:00

Reported Date/Time:

2022-01-21 13:00

## 5. Quality Assurance:

#1 Positive Control, *Klebsiella pneumoniae*

#2 Positive Control, *Escherichia coli*

#3 Negative Control, *Pseudomonas aeruginosa*

## 6. Methodology:

Analyte: Total coliform & *Escherichia coli*

Method: Enzyme Substrate Colilert 24

Unit: MPN/100ml

Detection Limit: 1.0 MPN/100ml

## 7. Guideline:

Bacteria Growth Limit: None Detected = 0.0 = <1.0 MPN/100ml

Sample Temperature: 2 to 10 °C

Maximum Sample Holding Time: 30 hours

## 8. References:

British Columbia Drinking Water Protection Act

Guideline for Canadian Drinking Water Quality

Standard Methods for the Examination of Water and Wastewater, 23rd Edition

Enhanced Water Quality Assurance Program (EWQA)

## 9. PHO Approval:

[Provincial Health Officer Approved Laboratory List](#)

## 10. Acronyms:

**BML:** Below Minimum Limit

**BT:** Bathroom Tap

**BW:** Bottled Water

**CWS:** Community Water System

**EC:** *E. coli* (*Escherichia coli*)

**EML:** Exceeded Maximum Limit

**f:** Free Chlorine

**IL:** Illegible

**KT:** Kitchen Tap

**MAC:** Maximum Acceptable Concentration

**MPN:** Most Probable Number (per 100 ml)

**NA:** Not Applicable

**NC:** Non-Conformance

**NCD:** No Collection Date

**NCT:** No Collection Time

**NI:** Not Indicated

**NR:** No Result

**NSQ:** Not Sufficient Quantity

**NT:** Not Tested

**OT:** Outside Tap

**PW:** Private Well

**SC:** See Comment

**SPL:** Sampling Point Locator

**t:** Total Chlorine

**TC:** Total Coliform

**<:** Below

**>:** Above

**°C:** Degree Celsius

**\***: Indicates Criteria Not Met



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Report Status:  
**Final**

## General Information Laboratory Report

<b>Client Name:</b> LAW, JOE	Report ID:	<b>12795-12801</b>
<b>Company:</b> CITY OF QUESNEL	Sampler:	SHAUN M.
<b>Bill To:</b> LAW, JOE	Collection Date:	2022-01-18
<b>Address:</b> 410 KINCHANT ST. QUESNEL BC V2J7J5	Receiving Date/Time:	2022-01-19 12:00
	Analysis Start Date/Time:	2022-01-19 13:00
	Analysis End Date/Time:	2022-01-20 13:00
	Reported Date/Time:	2022-01-21 13:00

## 11. Signature Page:

The results and Quality Control validations in this report were reviewed and approved by:

Arian Javaherdashti, MLT, CSMLS, Senior Analyst

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## 12. Additional Documents:

- Pending for chemical results



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## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12909-12916**

Sampler:

LEPINE, BRYAN

Collection Date:

2022-01-26

Receiving Date/Time:

2022-01-27 12:40

Analysis Start Date/Time:

2022-01-27 13:00

Analysis End Date/Time:

2022-01-28 13:00

Reported Date/Time:

2022-01-29 15:30

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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12909-12916**

Sampler:

LEPINE, BRYAN

Collection Date:

2022-01-26

Receiving Date/Time:

2022-01-27 12:40

Analysis Start Date/Time:

2022-01-27 13:00

Analysis End Date/Time:

2022-01-28 13:00

Reported Date/Time:

2022-01-29 15:30

## 1. Bacteriology Results:

#	Project Name, Address and Source	Site Code/Name	Lab Reference Number	Microorganisms (MPN/100 ML)		Comment
				Total Coliform	E.Coli	
1	94E6 S CARRADIE RD.	CITY OF QUESNEL	12909	<1	<1	BELOW MAC
2	94F1 S DIXON ST.	CITY OF QUESNEL	12910	<1	<1	BELOW MAC
3	94F2 S HOSPITAL	CITY OF QUESNEL	12911	<1	<1	BELOW MAC
4	94F3 NASON ST.	CITY OF QUESNEL	12912	<1	<1	BELOW MAC
5	94F4 S N. STAR DRAGON HILL	CITY OF QUESNEL	12913	<1	<1	BELOW MAC
6	94F6 S N. STAR SOUTH HILL	CITY OF QUESNEL	12914	<1	<1	BELOW MAC
7	94F7 S CHEW RD.	CITY OF QUESNEL	12915	<1	<1	BELOW MAC
8	21D98 BULK WATER SITE 1	CITY OF QUESNEL	12916	<1	<1	BELOW MAC

## 2. Analytical Comments:

- See section #12 for chemical & physical results



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Report Status:  
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### General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12909-12916**

Sampler:

LEPINE, BRYAN

Collection Date:

2022-01-26

Receiving Date/Time:

2022-01-27 12:40

Analysis Start Date/Time:

2022-01-27 13:00

Analysis End Date/Time:

2022-01-28 13:00

Reported Date/Time:

2022-01-29 15:30

### 3. Sample Details:

#	Project Name & Address Provided on Chain of Custody Form and/or Sample Label	Source	Collection Date/Time	Hold Time (hh:mm)	Chlorination Turbidity Ph	Note
1	94E6 S CARRADIE RD.	CITY OF QUESNEL	2022-01-26 14:30	22:30	NI	
2	94F1 S DIXON ST.	CITY OF QUESNEL	2022-01-26 10:45	26:15	NI	
3	94F2 S HOSPITAL	CITY OF QUESNEL	2022-01-26 13:45	23:15	NI	
4	94F3 NASON ST.	CITY OF QUESNEL	2022-01-26 11:15	25:45	NI	
5	94F4 S N. STAR DRAGON HILL	CITY OF QUESNEL	2022-01-26 9:50	27:10	NI	
6	94F6 S N. STAR SOUTH HILL	CITY OF QUESNEL	2022-01-26 9:30	27:30	NI	
7	94F7 S CHEW RD.	CITY OF QUESNEL	2022-01-26 13:15	23:45	NI	
8	21D98 BULK WATER SITE 1	CITY OF QUESNEL	2022-01-26 11:45	25:15	NI	

### 4. Note To Clients:

A	Sample/s Temperature (°C) :	2.5	
B	Sample/s Holding Time (hh):	<30	
C	Verbal Notification:	NO	
D	Additional Documents:	YES	●See section #12 for additional documents

a)Temperature shown in the above is the average of up to three sample temperatures in the same cooler taken at receipt

b)Sample Holding Time is the elapsed time between collection date/time and analysis start date/time





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Report Status:  
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## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12909-12916**

Sampler:

LEPINE, BRYAN

Collection Date:

2022-01-26

Receiving Date/Time:

2022-01-27 12:40

Analysis Start Date/Time:

2022-01-27 13:00

Analysis End Date/Time:

2022-01-28 13:00

Reported Date/Time:

2022-01-29 15:30

## 5. Quality Assurance:

#1 Positive Control, Klebsiella pneumoniae

#2 Positive Control, Escherichia coli

#3 Negative Control, Pseudomonas aeruginosa

## 6. Methodology:

Analyte: Total coliform & Escherichia coli

Method: Enzyme Substrate Colilert 24

Unit: MPN/100ml

Detection Limit: 1.0 MPN/100ml

## 7. Guideline:

Bacteria Growth Limit: None Detected = 0.0 = <1.0 MPN/100ml

Sample Temperature: 2 to 10 °C

Maximum Sample Holding Time: 30 hours

## 8. References:

British Columbia Drinking Water Protection Act

Guideline for Canadian Drinking Water Quality

Standard Methods for the Examination of Water and Wastewater, 23rd Edition

Enhanced Water Quality Assurance Program (EWQA)

## 9. PHO Approval:

[Provincial Health Officer Approved Laboratory List](#)

## 10. Acronyms:

**BML:** Below Minimum Limit

**BT:** Bathroom Tap

**BW:** Bottled Water

**CWS:** Community Water System

**EC:** E. coli (*Escherichia coli*)

**EML:** Exceeded Maximum Limit

**f:** Free Chlorine

**IL:** Illegible

**KT:** Kitchen Tap

**MAC:** Maximum Acceptable Concentration

**MPN:** Most Probable Number (per 100 ml)

**NA:** Not Applicable

**NC:** Non-Conformance

**NCD:** No Collection Date

**NCT:** No Collection Time

**NI:** Not Indicated

**NR:** No Result

**NSQ:** Not Sufficient Quantity

**NT:** Not Tested

**OT:** Outside Tap

**PW:** Private Well

**SC:** See Comment

**SPL:** Sampling Point Locator

**t:** Total Chlorine

**TC:** Total Coliform

**<:** Below

**>:** Above

**°C:** Degree Celsius

**\*:** Indicates Criteria Not Met



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**12909-12916**

Sampler:

LEPINE, BRYAN

Collection Date:

2022-01-26

Receiving Date/Time:

2022-01-27 12:40

Analysis Start Date/Time:

2022-01-27 13:00

Analysis End Date/Time:

2022-01-28 13:00

Reported Date/Time:

2022-01-29 15:30

## 11. Signature Page:

The results and Quality Control validations in this report were reviewed and approved by:

Arian Javaherdashti, MLT, CSMLS, Senior Analyst

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## 12. Additional Documents:

- Pending for Manganese results



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**13002-13006**

Sampler:

WATSON, TIE

Collection Date:

2022-02-02

Receiving Date/Time:

2022-02-03 11:35

Analysis Start Date/Time:

2022-02-03 12:30

Analysis End Date/Time:

2022-02-04 12:30

Reported Date/Time:

2022-02-04 15:30

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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**13002-13006**

Sampler:

WATSON, TIE

Collection Date:

2022-02-02

Receiving Date/Time:

2022-02-03 11:35

Analysis Start Date/Time:

2022-02-03 12:30

Analysis End Date/Time:

2022-02-04 12:30

Reported Date/Time:

2022-02-04 15:30

## 1. Bacteriology Results:

#	Project Name, Address and Source	Site Code/Name	Lab Reference Number	Microorganisms (MPN/100 ML)		Comment
				Total Coliform	E.Coli	
1	94DC WELL 6 ROLPH AT ROBERTSON	CITY OF QUESNEL	13002	<1	<1	BELOW MAC
2	94E0 WELL 7 N. FRASER DRIVE	CITY OF QUESNEL	13003	<1	<1	BELOW MAC
3	94E1 WELL 8 HILBORN ROAD	CITY OF QUESNEL	13004	<1	<1	BELOW MAC
4	94DF WELL 9 CARSON SUB	CITY OF QUESNEL	13005	<1	<1	BELOW MAC
5	28000 WELL 10 HILBORN ROAD	CITY OF QUESNEL	13006	<1	<1	BELOW MAC

## 2. Analytical Comments:



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Report Status:  
**Final**

### General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**13002-13006**

Sampler:

WATSON, TIE

Collection Date:

2022-02-02

Receiving Date/Time:

2022-02-03 11:35

Analysis Start Date/Time:

2022-02-03 12:30

Analysis End Date/Time:

2022-02-04 12:30

Reported Date/Time:

2022-02-04 15:30

### 3. Sample Details:

#	Project Name & Address Provided on Chain of Custody Form and/or Sample Label	Source	Collection Date/Time	Hold Time (hh:mm)	Chlorination Turbidity Ph	Note
1	94DC WELL 6 ROLPH AT ROBERTSON	CITY OF QUESNEL	2022-02-02 9:30	27:00	NI	
2	94E0 WELL 7 N. FRASER DRIVE	CITY OF QUESNEL	2022-02-02 10:30	26:00	NI	
3	94E1 WELL 8 HILBORN ROAD	CITY OF QUESNEL	2022-02-02 11:35	24:55	NI	
4	94DF WELL 9 CARSON SUB	CITY OF QUESNEL	2022-02-02 9:00	27:30	NI	
5	28000 WELL 10 HILBORN ROAD	CITY OF QUESNEL	2022-02-02 11:00	25:30	NI	

### 4. Note To Clients:

A	Sample/s Temperature (°C) :	6.5	
B	Sample/s Holding Time (hh):	<30	
C	Verbal Notification:	NO	
D	Additional Documents:	NO	

a) Temperature shown in the above is the average of up to three sample temperatures in the same cooler taken at receipt

b) Sample Holding Time is the elapsed time between collection date/time and analysis start date/time



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Report Status:  
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## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

LAW, JOE

**Address:**

410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:

**13002-13006**

Sampler:

WATSON, TIE

Collection Date:

2022-02-02

Receiving Date/Time:

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2022-02-03 12:30

Analysis End Date/Time:

2022-02-04 12:30

Reported Date/Time:

2022-02-04 15:30

## 5. Quality Assurance:

#1 Positive Control, *Klebsiella pneumoniae*

#2 Positive Control, *Escherichia coli*

#3 Negative Control, *Pseudomonas aeruginosa*

## 6. Methodology:

Analyte: Total coliform & *Escherichia coli*

Method: Enzyme Substrate Colilert 24

Unit: MPN/100ml

Detection Limit: 1.0 MPN/100ml

## 7. Guideline:

Bacteria Growth Limit: None Detected = 0.0 = <1.0 MPN/100ml

Sample Temperature: 2 to 10 °C

Maximum Sample Holding Time: 30 hours

## 8. References:

British Columbia Drinking Water Protection Act

Guideline for Canadian Drinking Water Quality

Standard Methods for the Examination of Water and Wastewater, 23rd Edition

Enhanced Water Quality Assurance Program (EWQA)

## 9. PHO Approval:

[Provincial Health Officer Approved Laboratory List](#)

## 10. Acronyms:

**BML:** Below Minimum Limit

**BT:** Bathroom Tap

**BW:** Bottled Water

**CWS:** Community Water System

**EC:** *E. coli* (*Escherichia coli*)

**EML:** Exceeded Maximum Limit

**f:** Free Chlorine

**IL:** Illegible

**KT:** Kitchen Tap

**MAC:** Maximum Acceptable Concentration

**MPN:** Most Probable Number (per 100 ml)

**NA:** Not Applicable

**NC:** Non-Conformance

**NCD:** No Collection Date

**NCT:** No Collection Time

**NI:** Not Indicated

**NR:** No Result

**NSQ:** Not Sufficient Quantity

**NT:** Not Tested

**OT:** Outside Tap

**PW:** Private Well

**SC:** See Comment

**SPL:** Sampling Point Locator

**t:** Total Chlorine

**TC:** Total Coliform

**<:** Below

**>:** Above

**°C:** Degree Celsius

**\*:** Indicates Criteria Not Met



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**  
LAW, JOE

**Company:**  
CITY OF QUESNEL

**Bill To:**  
LAW, JOE

**Address:**  
410 KINCHANT ST. QUESNEL BC V2J7J5

Report ID:	<b>13002-13006</b>
Sampler:	WATSON, TIE
Collection Date:	2022-02-02
Receiving Date/Time:	2022-02-03 11:35
Analysis Start Date/Time:	2022-02-03 12:30
Analysis End Date/Time:	2022-02-04 12:30
Reported Date/Time:	2022-02-04 15:30

## 11. Signature Page:

The results and Quality Control validations in this report were reviewed and approved by:

Arian Javaherdashti, MLT, CSMLS, Senior Analyst

The test results and additional information provided in this report applies only to the listed samples and is relevant only for the date, time and exact location of collections. Samples are tested as received and Wellness Water Testing Laboratory Inc. assumes no responsibility for the method of collection or samples shipment condition and disclaims any liability for damages arising from interpretation of results. The person and/or company performing the field work is advised to consult British Columbia Drinking Water official regulatory references when evaluating compliance. Please direct your inquiries about this report to us by phone at 250-301-7898.

## 12. Additional Documents:

# END OF REPORT



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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

LAW, JOE

**Company:**

CITY OF QUESNEL

**Bill To:**

CITY OF QUESNEL

**Address:**

410 KINCHANT STREET QUESNEL BC V2J7J5

Report ID:

**13086-13093**

Sampler:

FRANK, COLE

Collection Date:

2022-02-08

Receiving Date/Time:

2022-02-09 11:25

Analysis Start Date/Time:

2022-02-09 14:00

Analysis End Date/Time:

2022-02-10 14:00

Reported Date/Time:

2022-02-11 8:00

The information contained in this report is considered confidential and is intended for the addressee whose name is specified above. Should you receive this report by error, please notify us by phone and delete this message from your mailbox.

Contents	Section #
Bacteriology Results	1
Analytical Comments	2
Sample Details	3
Note To Clients	4
Quality Assurance	5
Methodology	6
Guideline	7
References	8
PHO Approval	9
Acronyms	10
Signature Page	11
Additional Documents	12





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Report Status:  
**Final**

## General Information Laboratory Report

**Client Name:**

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2022-02-09 14:00

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2022-02-10 14:00

Reported Date/Time:

2022-02-11 8:00

## 1. Bacteriology Results:

#	Project Name, Address and Source	Site Code/Name	Lab Reference Number	Microorganisms (MPN/100 ML)		Comment
				Total Coliform	E.Coli	
1	94E4 S AIRPORT	CITY OF QUESNEL	13086	<1	<1	BELOW MAC
2	94E5 S MILLS ROAD	CITY OF QUESNEL	13087	<1	<1	BELOW MAC
3	94E7 S MARSH DR.	CITY OF QUESNEL	13088	<1	<1	BELOW MAC
4	94E8 S GRAHAM AVE.	CITY OF QUESNEL	13089	<1	<1	BELOW MAC
5	94E9 S WEST FRASER RD.	CITY OF QUESNEL	13090	<1	<1	BELOW MAC
6	94F0 S PEDERSON RD.	CITY OF QUESNEL	13091	<1	<1	BELOW MAC
7	35D9 1K NEW CARSON PIT	CITY OF QUESNEL	13092	<1	<1	BELOW MAC
8	179CA S DENNIS RD.	CITY OF QUESNEL	13093	<1	<1	BELOW MAC

## 2. Analytical Comments:

- See section #12 for chemical & physical results



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Report Status:  
**Final**

### General Information Laboratory Report

<b>Client Name:</b> LAW, JOE	Report ID:	<b>13086-13093</b>
<b>Company:</b> CITY OF QUESNEL	Sampler:	FRANK, COLE
<b>Bill To:</b> CITY OF QUESNEL	Collection Date:	2022-02-08
<b>Address:</b> 410 KINCHANT STREET QUESNEL BC V2J7J5	Receiving Date/Time:	2022-02-09 11:25
	Analysis Start Date/Time:	2022-02-09 14:00
	Analysis End Date/Time:	2022-02-10 14:00
	Reported Date/Time:	2022-02-11 8:00

### 3. Sample Details:

#	Project Name & Address Provided on Chain of Custody Form and/or Sample Label	Source	Collection Date/Time	Hold Time (hh:mm)	Chlorination Turbidity Ph	Note
1	94E4 S AIRPORT	CITY OF QUESNEL	2022-02-08 11:45	26:15	NI	D
2	94E5 S MILLS ROAD	CITY OF QUESNEL	2022-02-08 9:50	28:10	NI	D
3	94E7 S MARSH DR.	CITY OF QUESNEL	2022-02-08 11:10	26:50	NI	D
4	94E8 S GRAHAM AVE.	CITY OF QUESNEL	2022-02-08 14:15	23:45	NI	D
5	94E9 S WEST FRASER RD.	CITY OF QUESNEL	2022-02-08 10:45	27:15	NI	D
6	94F0 S PEDERSON RD.	CITY OF QUESNEL	2022-02-08 13:45	24:15	NI	D
7	35D9 1K NEW CARSON PIT	CITY OF QUESNEL	2022-02-08 15:10	22:50	NI	D
8	179CA S DENNIS RD.	CITY OF QUESNEL	2022-02-08 13:15	24:45	NI	D

### 4. Note To Clients:

A	Sample/s Temperature (°C) :	10.0	
B	Sample/s Holding Time (hh):	<30	
C	Verbal Notification:	NO	
D	Additional Documents:	YES	●See section #12 for additional documents

a) Temperature shown in the above is the average of up to three sample temperatures in the same cooler taken at receipt  
b) Sample Holding Time is the elapsed time between collection date/time and analysis start date/time



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## General Information Laboratory Report

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FRANK, COLE

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2022-02-09 14:00

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2022-02-10 14:00

Reported Date/Time:

2022-02-11 8:00

## 5. Quality Assurance:

#1 Positive Control, Klebsiella pneumoniae

#2 Positive Control, Escherichia coli

#3 Negative Control, Pseudomonas aeruginosa

## 6. Methodology:

Analyte: Total coliform & Escherichia coli

Method: Enzyme Substrate Colilert 24

Unit: MPN/100ml

Detection Limit: 1.0 MPN/100ml

## 7. Guideline:

Bacteria Growth Limit: None Detected = 0.0 = <1.0 MPN/100ml

Sample Temperature: 2 to 10 °C

Maximum Sample Holding Time: 30 hours

## 8. References:

British Columbia Drinking Water Protection Act

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## 10. Acronyms:

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**PW:** Private Well

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**t:** Total Chlorine

**TC:** Total Coliform

**<:** Below

**>:** Above

**°C:** Degree Celsius

**\*:** Indicates Criteria Not Met



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Report Status:  
**Final**

## General Information Laboratory Report

<b>Client Name:</b> LAW, JOE	Report ID:	<b>13086-13093</b>
<b>Company:</b> CITY OF QUESNEL	Sampler:	FRANK, COLE
<b>Bill To:</b> CITY OF QUESNEL	Collection Date:	2022-02-08
<b>Address:</b> 410 KINCHANT STREET QUESNEL BC V2J7J5	Receiving Date/Time:	2022-02-09 11:25
	Analysis Start Date/Time:	2022-02-09 14:00
	Analysis End Date/Time:	2022-02-10 14:00
	Reported Date/Time:	2022-02-11 8:00

## 11. Signature Page:

The results and Quality Control validations in this report were reviewed and approved by:

Arian Javaherdashti, MLT, CSMLS, Senior Analyst

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## 12. Additional Documents:

- Pending for Manganese results

## Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 03/18/2022 17:01  
Report ID: 22C2228  
Report Name: 22C2228\_FINAL\_WaterTrax\_18\_Mar\_22\_1048.txt

**Sample ID:** 22C2228-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/15/2022 13:45

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

### Result Legend

*P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown*

*> means greater than upper detection limit shown*

*« means detected & less than number shown*

*» means detected & greater than number shown*

*\* Indicates Criteria is exceeded*

Approved on:  
**06/17/2022** mm/dd/yyyy  
Approved by:  
**Krystal Earle**

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 02/25/2022 17:00  
Report ID: 22B2461  
Report Name: 22B2461\_FINAL\_WaterTrax\_25\_Feb\_22\_1033.txt

**Sample ID:** 22B2461-01  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-1 Shadow Heights (8-1-MR, 94EA)  
**Comment:** Generated by File Transfer  
**Sampled:** 02/16/2022 11:10

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0854 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.0 degrees C		Final

**Sample ID:** 22B2461-02  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-2 Pinecrest (8-4-MR, 94F9)  
**Comment:** Generated by File Transfer  
**Sampled:** 02/16/2022 11:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.512 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	9.1 degrees C		Final

**Sample ID:** 22B2461-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-3 Sugarloaf (8-5-MR, 94FA)  
**Comment:** Generated by File Transfer  
**Sampled:** 02/16/2022 13:00

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00282 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 03/16/2022 17:00  
Report ID: 22B2978  
Report Name: 22B2978\_FINAL\_WaterTrax\_16\_Mar\_22\_1514.txt

**Sample ID: 22B2978-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Carradice Rd (7-3-MR, 94E6)  
Comment: Generated by File Transfer  
Sampled: 02/22/2022 14:15

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00950 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	7.0 degrees C			Final
Turbidity	0.13 NTU	<=1	User-Defined	Final

**Sample ID: 22B2978-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Dixon (7-8-MR, 94F1)  
Comment: Generated by File Transfer  
Sampled: 02/22/2022 13:10

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00114 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	6.2 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final



# Laboratory Report

Caro Analytical Services

Report Name: 22B2978\_FINAL\_WaterTrax\_16\_Mar\_22\_1514.txt

**Sample ID:** 22B2978-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:** Generated by File Transfer  
**Sampled:** 02/22/2022 11:15

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0625 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	6.9 degrees C		Final
Turbidity	0.11 NTU	<=1 User-Defined	Final

**Sample ID:** 22B2978-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Nason (7-10-MD, 94F3)  
**Comment:** Generated by File Transfer  
**Sampled:** 02/22/2022 10:40

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0661 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	5.4 degrees C		Final
Turbidity	0.12 NTU	<=1 User-Defined	Final

**Sample ID:** 22B2978-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:** Generated by File Transfer  
**Sampled:** 02/22/2022 09:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0668 mg/L	<=0.02 AO	Final

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 03/10/2022 17:00  
Report ID: 22C0618  
Report Name: 22C0618\_FINAL\_WaterTrax\_10\_Mar\_22\_1317.txt

**Sample ID:** 22C0618-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/01/2022 13:30

INORGANIC		Criteria & Type	Status
Chloride	10.4 mg/L	<=250 AO	Final
* Manganese (total)	0.643 mg/L	<=0.02 AO	Final
Nitrate (as N)	< 0.010 mg/L		Final
Nitrite (as N)	< 0.010 mg/L		Final
PHYSICAL		Criteria & Type	Status
Temperature	10.8 degrees C		Final

**Sample ID:** 22C0618-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/01/2022 11:30

INORGANIC		Criteria & Type	Status
Chloride	19.8 mg/L	<=250 AO	Final
* Manganese (total)	0.200 mg/L	<=0.02 AO	Final
Nitrate (as N)	0.042 mg/L		Final
Nitrite (as N)	< 0.010 mg/L		Final
PHYSICAL		Criteria & Type	Status
Temperature	8.1 degrees C		Final

**Sample ID:** 22C0618-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/01/2022 10:40

# Laboratory Report

# Caro Analytical Services

Report Name: 22C0618\_FINAL\_WaterTrax\_10\_Mar\_22\_1317.txt

**Sample ID:** 22C0618-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/01/2022 10:40

INORGANIC		Criteria & Type		Status
Chloride	6.49 mg/L	<=250	AO	Final
Manganese (total)	0.0117 mg/L	<=0.02	AO	Final
Nitrate (as N)	0.066 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
PHYSICAL		Criteria & Type		Status
Temperature	8.3 degrees C			Final

**Sample ID:** 22C0618-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/01/2022 10:00

INORGANIC		Criteria & Type		Status
Chloride	4.09 mg/L	<=250	AO	Final
* Manganese (total)	0.230 mg/L	<=0.02	AO	Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
PHYSICAL		Criteria & Type		Status
Temperature	8.9 degrees C			Final

**Sample ID:** 22C0618-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/01/2022 14:00

INORGANIC		Criteria & Type		Status
Chloride	0.92 mg/L	<=250	AO	Final
* Manganese (total)	0.139 mg/L	<=0.02	AO	Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22C0618\_FINAL\_WaterTrax\_10\_Mar\_22\_1317.txt

**Sample ID:** 22C0618-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/01/2022 14:00

PHYSICAL	Criteria & Type	Status
Temperature 9.3 degrees C		Final

**Sample ID:** 22C0618-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 10 Hilborn Rd.  
**Facility:** Well No 10  
**Sampling Pt:** Well No 10 Hilborn Rd. (9-1-EP, 28000)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/01/2022 14:30

INORGANIC	Criteria & Type	Status
Chloride 14.7 mg/L	<=250 AO	Final
* Manganese (total) 0.564 mg/L	<=0.02 AO	Final
Nitrate (as N) < 0.010 mg/L		Final
Nitrite (as N) < 0.010 mg/L		Final

  

PHYSICAL	Criteria & Type	Status
Temperature 9.5 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

> means greater than upper detection limit shown

« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

Approved on:  
**03/16/2022** mm/dd/yyyy  
Approved by:  
**Krystal Earle**

## Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 03/08/2022 17:01  
Report ID: 22C0729  
Report Name: 22C0729\_FINAL\_WaterTrax\_08\_Mar\_22\_0952.txt

**Sample ID: 22C0729-01**

Water System: City of Quesnel – Main System  
Source: Well 3 Rolph at Roddis  
Facility: Well No 3  
Sampling Pt: Well 3 Rolph at Roddis (1-2-EP, 94D1)  
Comment: Generated by File Transfer  
Sampled: 03/03/2022 13:25

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final

**PHYSICAL**

Temperature 12.9 degrees C

**Criteria & Type**

**Status**

Final

**Sample ID: 22C0729-02**

Water System: City of Quesnel – Main System  
Source: Well 6 Rolph at Robertson  
Facility: Well No 6  
Sampling Pt: Well 6 Rolph at Robertson (3-2-EP, 94DC)  
Comment: Generated by File Transfer  
Sampled: 03/03/2022 14:00

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final

**PHYSICAL**

Temperature 10.8 degrees C

**Criteria & Type**

**Status**

Final

**Sample ID: 22C0729-03**

Water System: City of Quesnel – Main System  
Source: Well 7 N. Fraser Dr  
Facility: Well No 7  
Sampling Pt: Well 7 N. Fraser Dr (4-2-EP, 94E0)  
Comment: Generated by File Transfer  
Sampled: 03/03/2022 14:40

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final

**PHYSICAL**

Temperature 8.2 degrees C

**Criteria & Type**

**Status**

Final

## Laboratory Report

Caro Analytical Services

Report Name: 22C0729\_FINAL\_WaterTrax\_08\_Mar\_22\_0952.txt

**Sample ID:** 22C0729-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/03/2022 14:30

### MICROORGANISMS

**\* Background Bacteria** > 200 CFU/100ml  
Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

### Criteria & Type

Criteria & Type	Status
<=200 User-Defined	Final
<=0,P,PR User-Defined	Final
<=0,P,OG User-Defined	Final

### PHYSICAL

Temperature 8.6 degrees C

### Criteria & Type

### Status

Final

**Sample ID:** 22C0729-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/03/2022 13:20

### MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

### Criteria & Type

Criteria & Type	Status
<=0,P,PR User-Defined	Final
<=0,P,OG User-Defined	Final

### PHYSICAL

Temperature 9.8 degrees C

### Criteria & Type

### Status

Final

**Sample ID:** 22C0729-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/03/2022 14:00

### MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

### Criteria & Type

Criteria & Type	Status
<=0,P,PR User-Defined	Final
<=0,P,OG User-Defined	Final

### PHYSICAL

Temperature 9.1 degrees C

### Criteria & Type

### Status

Final

**Result Legend**

*P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown*

*> means greater than upper detection limit shown*

*« means detected & less than number shown*

*» means detected & greater than number shown*

*\* Indicates Criteria is exceeded*

Approved on:

**03/16/2022** mm/dd/yyyy

Approved by:

**Krystal Earle**

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 03/14/2022 17:01  
Report ID: 22C1263  
Report Name: 22C1263\_FINAL\_WaterTrax\_14\_Mar\_22\_1604.txt

**Sample ID: 22C1263-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment: Generated by File Transfer  
Sampled: 03/08/2022 09:40

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00104 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	4.8 degrees C			Final
Turbidity	0.11 NTU	<=1	User-Defined	Final

**Sample ID: 22C1263-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment: Generated by File Transfer  
Sampled: 03/08/2022 10:10

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00260 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	5.4 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22C1263\_FINAL\_WaterTrax\_14\_Mar\_22\_1604.txt

**Sample ID:** 22C1263-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Marsh Drive (7-4-MD, 94E7)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/08/2022 11:25

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0250 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	5.2 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22C1263-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Graham Ave (7-5-MD, 94E8)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/08/2022 11:05

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0136 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	4.7 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22C1263-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/08/2022 10:40

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00480 mg/L	<=0.02 AO	Final

## Laboratory Report

## Caro Analytical Services

Report Name: 22C1263\_FINAL\_WaterTrax\_14\_Mar\_22\_1604.txt

**Sample ID:** 22C1263-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/08/2022 10:40

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final
<=0,P,OG	User-Defined	Final

### Status

### PHYSICAL

Temperature	3.5 degrees C
Turbidity	< 0.10 NTU

### Criteria & Type

<=1	User-Defined	Final
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### Status

**Sample ID:** 22C1263-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/08/2022 13:25

### INORGANIC

Manganese (total)	0.0153 mg/L
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### Criteria & Type

<=0.02	AO	Final
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### Status

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final
<=0,P,OG	User-Defined	Final

### Status

### PHYSICAL

Temperature	5.9 degrees C
Turbidity	< 0.10 NTU

### Criteria & Type

<=1	User-Defined	Final
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### Status

**Sample ID:** 22C1263-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/08/2022 13:55

### INORGANIC

Manganese (total)	0.0164 mg/L
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### Criteria & Type

<=0.02	AO	Final
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### Status

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml

### Criteria & Type

<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final

### Status

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 03/21/2022 17:00  
Report ID: 22C2225  
Report Name: 22C2225\_FINAL\_WaterTrax\_21\_Mar\_22\_1320.txt

**Sample ID: 22C2225-01**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-1 Shadow Heights (8-1-MR, 94EA)  
Comment: Generated by File Transfer  
Sampled: 03/15/2022 09:20

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.143 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.4 degrees C		Final

**Sample ID: 22C2225-02**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-2 Pinecrest (8-4-MR, 94F9)  
Comment: Generated by File Transfer  
Sampled: 03/15/2022 09:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.515 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.0 degrees C		Final

**Sample ID: 22C2225-03**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)  
Comment: Generated by File Transfer  
Sampled: 03/15/2022 11:45

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00401 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22C2225\_FINAL\_WaterTrax\_21\_Mar\_22\_1320.txt

**Sample ID:** 22C2225-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-3 Sugarloaf (8-5-MR, 94FA)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/15/2022 11:45

	Criteria & Type	Status
PHYSICAL		
Temperature	7.7 degrees C	Final

**Sample ID:** 22C2225-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 1 (8-2-MR, 94EB)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/15/2022 13:05

	Criteria & Type	Status
INORGANIC		
Manganese (total)	0.00088 mg/L	
	<=0.02 AO	Final

	Criteria & Type	Status
MICROORGANISMS		
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	
	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	
	<=0,P,OG User-Defined	Final

	Criteria & Type	Status
PHYSICAL		
Temperature	5.9 degrees C	Final

**Sample ID:** 22C2225-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 2 (8-3-MR, 94EC)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/15/2022 13:15

	Criteria & Type	Status
INORGANIC		
Manganese (total)	0.00075 mg/L	
	<=0.02 AO	Final

	Criteria & Type	Status
MICROORGANISMS		
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	
	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	
	<=0,P,OG User-Defined	Final

	Criteria & Type	Status
PHYSICAL		
Temperature	6.7 degrees C	Final

## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 03/30/2022 21:58  
Report ID: 22C3147  
Report Name: 22C3147\_FINAL\_WaterTrax\_30\_Mar\_22\_1218.txt

**Sample ID: 22C3147-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Carradice Rd (7-3-MR, 94E6)  
Comment: Generated by File Transfer  
Sampled: 03/22/2022 09:15

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0155 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	7.3 degrees C			Final

**Sample ID: 22C3147-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Dixon (7-8-MR, 94F1)  
Comment: Generated by File Transfer  
Sampled: 03/22/2022 13:15

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00062 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	7.2 degrees C			Final
Turbidity	0.26 NTU	<=1	User-Defined	Final

**Sample ID: 22C3147-03**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S-Hospital (7-9-MD, 94F2)  
Comment: Generated by File Transfer  
Sampled: 03/22/2022 11:20

# Laboratory Report

Caro Analytical Services

Report Name: 22C3147\_FINAL\_WaterTrax\_30\_Mar\_22\_1218.txt

**Sample ID:** 22C3147-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/22/2022 11:20

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0427 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	7.4 degrees C		Final
Turbidity	0.15 NTU	<=1 User-Defined	Final

**Sample ID:** 22C3147-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Nason (7-10-MD, 94F3)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/22/2022 11:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0796 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	5.7 degrees C		Final
Turbidity	0.11 NTU	<=1 User-Defined	Final

**Sample ID:** 22C3147-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/22/2022 10:35

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0289 mg/L	<=0.02 AO	Final

## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 04/07/2022 17:00  
Report ID: 22C4276  
Report Name: 22C4276\_FINAL\_WaterTrax\_07\_Apr\_22\_1354.txt

**Sample ID:** 22C4276-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/30/2022 09:55

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.727 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.5 degrees C		Final

**Sample ID:** 22C4276-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/30/2022 09:20

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.234 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.0 degrees C		Final

**Sample ID:** 22C4276-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/30/2022 09:05



# Laboratory Report

# Caro Analytical Services

Report Name: 22C4276\_FINAL\_WaterTrax\_07\_Apr\_22\_1354.txt

**Sample ID:** 22C4276-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/30/2022 09:05

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0113 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.1 degrees C		Final

**Sample ID:** 22C4276-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/30/2022 11:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.227 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	7.8 degrees C		Final

**Sample ID:** 22C4276-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 03/30/2022 11:40

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.143 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Report created on 06/13/2023 11:23:00

page 2 of 4



# Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 06/14/2022 17:00  
Report ID: 22D1829  
Report Name: 22D1829\_FINAL\_WaterTrax\_14\_Jun\_22\_0902.txt

**Sample ID: 22D1829-01**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-1 Shadow Heights (8-1-MR, 94EA)  
Comment: Generated by File Transfer  
Sampled: 04/13/2022 09:50

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0823 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
* Background Bacteria	> 200 CFU/100ml	<=200 User-Defined	Final
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	2.8 degrees C		Final

**Sample ID: 22D1829-02**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-2 Pinecrest (8-4-MR, 94F9)  
Comment: Generated by File Transfer  
Sampled: 04/13/2022 13:10

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.326 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.0 degrees C		Final

**Sample ID: 22D1829-03**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)  
Comment: Generated by File Transfer  
Sampled: 04/13/2022 13:50

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00923 mg/L	<=0.02 AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22D1829\_FINAL\_WaterTrax\_14\_Jun\_22\_0902.txt

**Sample ID:** 22D1829-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-3 Sugarloaf (8-5-MR, 94FA)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 13:50

MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.0 degrees C		Final

**Sample ID:** 22D1829-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 1 (8-2-MR, 94EB)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 08:35

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00111 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	5.3 degrees C		Final

**Sample ID:** 22D1829-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 2 (8-3-MR, 94EC)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 08:45

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00128 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	5.0 degrees C		Final

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 06/14/2022 17:00  
Report ID: 22D2478  
Report Name: 22D2478\_FINAL\_WaterTrax\_14\_Jun\_22\_0901.txt

**Sample ID: 22D2478-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Carradice Rd (7-3-MR, 94E6)  
Comment: Generated by File Transfer  
Sampled: 04/20/2022 09:25

**INORGANIC****\* Manganese (total)****0.170 mg/L****Criteria & Type****<=0.02 AO****Status****Final****MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

&lt; 5 CFU/ml

&lt;=500 User-Defined

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

8.0 degrees C

**Criteria & Type****Status**

Final

Turbidity

0.13 NTU

&lt;=1 User-Defined

Final

**Sample ID: 22D2478-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Dixon (7-8-MR, 94F1)  
Comment: Generated by File Transfer  
Sampled: 04/20/2022 10:15

**INORGANIC****Manganese (total)****0.00042 mg/L****Criteria & Type****<=0.02 AO****Status****Final****MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

&lt; 5 CFU/ml

&lt;=500 User-Defined

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

7.3 degrees C

**Criteria & Type****Status**

Final

Turbidity

0.12 NTU

&lt;=1 User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22D2478\_FINAL\_WaterTrax\_14\_Jun\_22\_0901.txt

**Sample ID:** 22D2478-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 09:50

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.175 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.2 degrees C		Final
Turbidity	0.19 NTU	<=1 User-Defined	Final

**Sample ID:** 22D2478-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Nason (7-10-MD, 94F3)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 10:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0738 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	6.5 degrees C		Final
Turbidity	0.12 NTU	<=1 User-Defined	Final

**Sample ID:** 22D2478-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 11:40

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0324 mg/L	<=0.02 AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22D2478\_FINAL\_WaterTrax\_14\_Jun\_22\_0901.txt

**Sample ID:** 22D2478-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 11:40

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 9.5 degrees C  
Turbidity 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22D2478-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N.Star South Hill (7-12-MD, 94F6)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 11:35

## INORGANIC

\* Manganese (total) 0.145 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 8.6 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22D2478-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 11:10

## INORGANIC

\* Manganese (total) 0.152 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

## Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 04/28/2022 17:01  
Report ID: 22D3274  
Report Name: 22D3274\_FINAL\_WaterTrax\_28\_Apr\_22\_1522.txt

**Sample ID:** 22D3274-01  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-1 Shadow Heights (8-1-MR, 94EA)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/26/2022 14:45

### MICROORGANISMS

Escherichia coli / E. coli (counts)	ND CFU/100ml
Total Coliforms (counts)	ND CFU/100ml

### Criteria & Type

<=0,P,PR	User-Defined
<=0,P,OG	User-Defined

### Status

Final
Final

### PHYSICAL

Temperature	9.0 degrees C
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### Criteria & Type

### Status

Final
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### Result Legend

*P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no, TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment*  
*< means less than lower detection limit shown*  
*> means greater than upper detection limit shown*  
*« means detected & less than number shown*  
*» means detected & greater than number shown*  
*\* Indicates Criteria is exceeded*

Approved on:

**06/17/2022** mm/dd/yyyy

Approved by:

**Krystal Earle**



## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 06/14/2022 17:00  
Report ID: 22D3277  
Report Name: 22D3277\_FINAL\_WaterTrax\_14\_Jun\_22\_0901.txt

**Sample ID:** 22D3277-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/26/2022 13:10

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.704 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.6 degrees C		Final

**Sample ID:** 22D3277-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/26/2022 13:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.268 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.8 degrees C		Final

**Sample ID:** 22D3277-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/26/2022 11:45

# Laboratory Report

# Caro Analytical Services

Report Name: 22D3277\_FINAL\_WaterTrax\_14\_Jun\_22\_0901.txt

**Sample ID:** 22D3277-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/26/2022 11:45

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0111 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	7.9 degrees C		Final

**Sample ID:** 22D3277-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/26/2022 11:17

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.204 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.9 degrees C		Final

**Sample ID:** 22D3277-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/26/2022 09:50

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.135 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Report created on 06/13/2023 11:23:47

page 2 of 4



Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22D3277\_FINAL\_WaterTrax\_14\_Jun\_22\_0901.txt

**Sample ID:** 22D3277-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/26/2022 09:50

PHYSICAL	Criteria & Type	Status
Temperature 9.1 degrees C		Final

**Sample ID:** 22D3277-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/26/2022 10:57

INORGANIC	Criteria & Type	Status
* Manganese (total) 0.515 mg/L	<=0.02 AO	Final

MICROORGANISMS	Criteria & Type	Status
Escherichia coli / E. coli (counts) < 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts) < 1 CFU/100ml	<=0,P,OG User-Defined	Final

PHYSICAL	Criteria & Type	Status
Temperature 10.0 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

> means greater than upper detection limit shown

« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

Approved on:  
**06/17/2022** mm/dd/yyyy  
Approved by:  
**Krystal Earle**

## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 06/14/2022 17:00  
Report ID: 22E0493  
Report Name: 22E0493\_FINAL\_WaterTrax\_14\_Jun\_22\_0859.txt

**Sample ID: 22E0493-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment: Generated by File Transfer  
Sampled: 05/03/2022 09:15

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00119 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	8.1 degrees C			Final
Turbidity	0.16 NTU	<=1	User-Defined	Final

**Sample ID: 22E0493-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment: Generated by File Transfer  
Sampled: 05/03/2022 09:40

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00424 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	6.5 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22E0493\_FINAL\_WaterTrax\_14\_Jun\_22\_0859.txt

**Sample ID:** 22E0493-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Marsh Drive (7-4-MD, 94E7)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/03/2022 10:15

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00871 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	7.3 degrees C			Final
Turbidity	0.11 NTU	<=1	User-Defined	Final

**Sample ID:** 22E0493-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Graham Ave (7-5-MD, 94E8)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/03/2022 11:15

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.0216 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	6.8 degrees C			Final
Turbidity	0.12 NTU	<=1	User-Defined	Final

**Sample ID:** 22E0493-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/03/2022 10:45

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00504 mg/L	<=0.02	AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22E0493\_FINAL\_WaterTrax\_14\_Jun\_22\_0859.txt

**Sample ID:** 22E0493-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/03/2022 10:45

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 5.0 degrees C  
Turbidity 0.12 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22E0493-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/03/2022 13:10

## INORGANIC

\* Manganese (total) 0.0450 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 6.4 degrees C  
Turbidity 0.11 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22E0493-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/03/2022 11:40

## INORGANIC

Manganese (total) 0.0177 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

# Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 05/26/2022 17:00  
Report ID: 22E2484  
Report Name: 22E2484\_FINAL\_WaterTrax\_26\_May\_22\_1053.txt

**Sample ID: 22E2484-01**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-1 Shadow Heights (8-1-MR, 94EA)  
Comment: Generated by File Transfer  
Sampled: 05/17/2022 09:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0778 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	9.4 degrees C		Final

**Sample ID: 22E2484-02**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-2 Pinecrest (8-4-MR, 94F9)  
Comment: Generated by File Transfer  
Sampled: 05/17/2022 10:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.318 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.9 degrees C		Final

**Sample ID: 22E2484-03**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)  
Comment: Generated by File Transfer  
Sampled: 05/17/2022 11:00

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00356 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final



Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 05/30/2022 17:00  
Report ID: 22E2734  
Report Name: 22E2734\_FINAL\_WaterTrax\_30\_May\_22\_1643.txt

**Sample ID: 22E2734-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Carradice Rd (7-3-MR, 94E6)  
Comment: Generated by File Transfer  
Sampled: 05/18/2022 15:00

**INORGANIC****\* Manganese (total)****0.450 mg/L****Criteria & Type****<=0.02 AO****Status****Final****MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

&lt; 5 CFU/ml

&lt;=500 User-Defined

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

8.9 degrees C

**Criteria & Type****Status**

Final

Turbidity

0.51 NTU

&lt;=1 User-Defined

Final

**Sample ID: 22E2734-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Dixon (7-8-MR, 94F1)  
Comment: Generated by File Transfer  
Sampled: 05/18/2022 11:15

**INORGANIC****Manganese (total)****0.00050 mg/L****Criteria & Type****<=0.02 AO****Status****Final****MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

&lt; 5 CFU/ml

&lt;=500 User-Defined

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

9.6 degrees C

**Criteria & Type****Status**

Final

Turbidity

0.10 NTU

&lt;=1 User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22E2734\_FINAL\_WaterTrax\_30\_May\_22\_1643.txt

**Sample ID:** 22E2734-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/18/2022 13:45

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0140 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	9.2 degrees C			Final
Turbidity	0.12 NTU	<=1	User-Defined	Final

**Sample ID:** 22E2734-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Nason (7-10-MD, 94F3)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/18/2022 13:15

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.0852 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	7.1 degrees C			Final
Turbidity	0.16 NTU	<=1	User-Defined	Final

**Sample ID:** 22E2734-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/18/2022 10:00

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.0835 mg/L	<=0.02	AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22E2734\_FINAL\_WaterTrax\_30\_May\_22\_1643.txt

**Sample ID:** 22E2734-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/18/2022 10:00

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 10.1 degrees C  
Turbidity 0.22 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22E2734-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N.Star South Hill (7-12-MD, 94F6)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/18/2022 09:45

## INORGANIC

\* Manganese (total) 0.140 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 8.8 degrees C  
Turbidity 0.20 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22E2734-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/18/2022 14:30

## INORGANIC

\* Manganese (total) 0.141 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22E2734\_FINAL\_WaterTrax\_30\_May\_22\_1643.txt

**Sample ID:** 22E2734-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/18/2022 14:30

PHYSICAL		Criteria & Type		Status
Temperature	9.1 degrees C			Final
Turbidity	0.24 NTU	<=1	User-Defined	Final

**Sample ID:** 22E2734-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** Bulk Water Site #1 (7-15-QC, 21D9B)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/18/2022 09:15

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0487 mg/L			Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml			Final
Heterotrophic Plate Count / HPC	8 CFU/ml			Final
Total Coliforms (counts)	< 1 CFU/100ml			Final

PHYSICAL		Criteria & Type		Status
Temperature	7.8 degrees C			Final
Turbidity	0.41 NTU			Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

> means greater than upper detection limit shown

« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

Approved on:  
**06/17/2022** mm/dd/yyyy  
Approved by:  
**Krystal Earle**

## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 05/31/2022 17:00  
Report ID: 22E3554  
Report Name: 22E3554\_FINAL\_WaterTrax\_31\_May\_22\_1055.txt

**Sample ID:** 22E3554-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/25/2022 10:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.700 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	7.1 degrees C		Final

**Sample ID:** 22E3554-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/25/2022 11:10

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.250 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	9.2 degrees C		Final

**Sample ID:** 22E3554-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/25/2022 11:45

# Laboratory Report

# Caro Analytical Services

Report Name: 22E3554\_FINAL\_WaterTrax\_31\_May\_22\_1055.txt

**Sample ID:** 22E3554-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/25/2022 11:45

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0104 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	6.9 degrees C		Final

**Sample ID:** 22E3554-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/25/2022 10:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.213 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.7 degrees C		Final

**Sample ID:** 22E3554-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/25/2022 09:10

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.124 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Report created on 06/13/2023 11:23:13

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Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22E3554\_FINAL\_WaterTrax\_31\_May\_22\_1055.txt

**Sample ID:** 22E3554-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/25/2022 09:10

PHYSICAL	Criteria & Type	Status
Temperature 9.5 degrees C		Final

**Sample ID:** 22E3554-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/25/2022 09:35

INORGANIC	Criteria & Type	Status
* Manganese (total) 0.493 mg/L	<=0.02 AO	Final

MICROORGANISMS	Criteria & Type	Status
Escherichia coli / E. coli (counts) < 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts) < 1 CFU/100ml	<=0,P,OG User-Defined	Final

PHYSICAL	Criteria & Type	Status
Temperature 8.2 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

> means greater than upper detection limit shown

« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

Approved on:  
**06/17/2022** mm/dd/yyyy  
Approved by:  
**Krystal Earle**



# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 06/10/2022 17:00  
Report ID: 22F0214  
Report Name: 22F0214\_FINAL\_WaterTrax\_10\_Jun\_22\_1352.txt

**Sample ID: 22F0214-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment: Generated by File Transfer  
Sampled: 05/31/2022 09:50

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00075 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	8.6 degrees C			Final
Turbidity	0.17 NTU	<=1	User-Defined	Final

**Sample ID: 22F0214-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment: Generated by File Transfer  
Sampled: 05/31/2022 10:20

INORGANIC		Criteria & Type		Status
Aluminum (total)	< 0.0050 mg/L	<=0.2	Operational - Other	Final
Antimony (total)	< 0.00020 mg/L	<=0.006	MAC	Final
Arsenic (total)	0.00050 mg/L		Current Level	Final
Barium (total)	0.0280 mg/L	<=2	MAC	Final
Beryllium (total)	< 0.00010 mg/L			Final
Bismuth (total)	< 0.00010 mg/L			Final
Boron (total)	< 0.0500 mg/L	<=5	MAC	Final
Cadmium (total)	< 0.000010 mg/L	<=0.005	MAC	Final
Calcium (total)	48.0 mg/L			Final
Chromium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Cobalt (total)	< 0.00010 mg/L			Final
Copper (total)	0.00943 mg/L	<=1	AO	Final
Iron (total)	< 0.010 mg/L	<=0.3	AO	Final
Lead (total)	0.00032 mg/L	<=0.005	MAC	Final
Lithium (total)	0.00145 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22F0214\_FINAL\_WaterTrax\_10\_Jun\_22\_1352.txt

**Sample ID:** 22F0214-02 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Mills Rd (7-2-MR, 94E5)  
**Comment:** Generated by File Transfer  
**Sampled:** 05/31/2022 10:20

## INORGANIC

		Criteria & Type		Status
Magnesium (total)	14.4 mg/L			Final
Manganese (total)	0.00234 mg/L	<=0.02	AO	Final
Molybdenum (total)	0.00118 mg/L			Final
Nickel (total)	0.00065 mg/L			Final
Phosphorus (total)	< 0.050 mg/L			Final
Potassium (total)	1.72 mg/L			Final
Selenium (total)	0.00172 mg/L	<=0.05	MAC	Final
Silicon (total, as Si)	6.1 mg/L			Final
Silver (total)	< 0.000050 mg/L			Final
Sodium (total)	5.83 mg/L	<=200	AO	Final
Strontium (total)	0.204 mg/L			Final
Sulfur (total)	6.6 mg/L			Final
Tellurium (total)	< 0.00050 mg/L			Final
Thallium (total)	< 0.000020 mg/L			Final
Thorium (total)	< 0.00010 mg/L			Final
Tin (total)	< 0.00020 mg/L			Final
Titanium (total)	< 0.0050 mg/L			Final
Tungsten (total)	< 0.0002 mg/L			Final
Vanadium (total)	< 0.0050 mg/L			Final
Zinc (total)	0.0051 mg/L	<=5	AO	Final
Zirconium (total)	< 0.00010 mg/L			Final

## MICROORGANISMS

		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

## PHYSICAL

		Criteria & Type		Status
Hardness (total, as CaCO3)	179 mg/L			Final
Temperature	8.2 degrees C			Final
Turbidity	0.10 NTU	<=1	User-Defined	Final

## RADIONUCLIDES

		Criteria & Type		Status
Uranium (total)	0.000721 mg/L	<=0.02	MAC	Final

## VOCS

		Criteria & Type		Status
Vinyl chloride	< 1.0 ug/L	<=2	MAC	Final

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 06/14/2022 17:01  
Report ID: 22F1431  
Report Name: 22F1431\_FINAL\_WaterTrax\_14\_Jun\_22\_1259.txt

**Sample ID: 22F1431-01**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-1 Shadow Heights (8-1-MR, 94EA)  
Comment: Generated by File Transfer  
Sampled: 06/08/2022 10:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0715 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.7 degrees C		Final

**Sample ID: 22F1431-02**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-2 Pinecrest (8-4-MR, 94F9)  
Comment: Generated by File Transfer  
Sampled: 06/08/2022 11:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.403 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	9.9 degrees C		Final

**Sample ID: 22F1431-03**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)  
Comment: Generated by File Transfer  
Sampled: 06/08/2022 13:45

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00366 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 06/14/2022 17:00  
Report ID: 22D1824  
Report Name: 22D1824\_FINAL\_WaterTrax\_14\_Jun\_22\_0903.txt

**Sample ID: 22D1824-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment: Generated by File Transfer  
Sampled: 04/13/2022 09:20

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00069 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	5.7 degrees C			Final
Turbidity	0.12 NTU	<=1	User-Defined	Final

**Sample ID: 22D1824-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment: Generated by File Transfer  
Sampled: 04/13/2022 09:55

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00185 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	6.1 degrees C			Final
Turbidity	0.13 NTU	<=1	User-Defined	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22D1824\_FINAL\_WaterTrax\_14\_Jun\_22\_0903.txt

**Sample ID:** 22D1824-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Marsh Drive (7-4-MD, 94E7)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 10:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0460 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	6.7 degrees C		Final
Turbidity	0.11 NTU	<=1 User-Defined	Final

**Sample ID:** 22D1824-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Graham Ave (7-5-MD, 94E8)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 11:20

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0315 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	5.7 degrees C		Final
Turbidity	0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22D1824-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 10:55

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00670 mg/L	<=0.02 AO	Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22D1824\_FINAL\_WaterTrax\_14\_Jun\_22\_0903.txt

**Sample ID:** 22D1824-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 10:55

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 5.5 degrees C  
Turbidity 0.11 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22D1824-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 13:35

## INORGANIC

\* Manganese (total) 0.0453 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 6.5 degrees C  
Turbidity 0.13 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22D1824-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 11:50

## INORGANIC

\* Manganese (total) 0.151 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22D1824\_FINAL\_WaterTrax\_14\_Jun\_22\_0903.txt

**Sample ID:** 22D1824-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 11:50

PHYSICAL		Criteria & Type		Status
Temperature	5.9 degrees C			Final
Turbidity	0.45 NTU	<=1	User-Defined	Final

**Sample ID:** 22D1824-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Dennis Road (7-14-MD, 179CA)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/13/2022 13:05

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.149 mg/L	<=0.02	AO	Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

PHYSICAL		Criteria & Type		Status
Temperature	6.1 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

> means greater than upper detection limit shown

« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

Approved on:  
**06/17/2022** mm/dd/yyyy  
Approved by:  
**Krystal Earle**

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 06/14/2022 17:00  
Report ID: 22D2478  
Report Name: 22D2478\_FINAL\_WaterTrax\_14\_Jun\_22\_0901.txt

**Sample ID: 22D2478-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Carradice Rd (7-3-MR, 94E6)  
Comment: Generated by File Transfer  
Sampled: 04/20/2022 09:25

**INORGANIC****\* Manganese (total)****0.170 mg/L****Criteria & Type****<=0.02 AO****Status****Final****MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

&lt; 5 CFU/ml

&lt;=500 User-Defined

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

8.0 degrees C

**Criteria & Type****Status**

Final

Turbidity

0.13 NTU

&lt;=1 User-Defined

Final

**Sample ID: 22D2478-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Dixon (7-8-MR, 94F1)  
Comment: Generated by File Transfer  
Sampled: 04/20/2022 10:15

**INORGANIC****Manganese (total)****0.00042 mg/L****Criteria & Type****<=0.02 AO****Status****Final****MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

&lt; 5 CFU/ml

&lt;=500 User-Defined

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

7.3 degrees C

**Criteria & Type****Status**

Final

Turbidity

0.12 NTU

&lt;=1 User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22D2478\_FINAL\_WaterTrax\_14\_Jun\_22\_0901.txt

**Sample ID:** 22D2478-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 09:50

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.175 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.2 degrees C		Final
Turbidity	0.19 NTU	<=1 User-Defined	Final

**Sample ID:** 22D2478-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Nason (7-10-MD, 94F3)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 10:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0738 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	6.5 degrees C		Final
Turbidity	0.12 NTU	<=1 User-Defined	Final

**Sample ID:** 22D2478-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 11:40

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0324 mg/L	<=0.02 AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22D2478\_FINAL\_WaterTrax\_14\_Jun\_22\_0901.txt

**Sample ID:** 22D2478-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 11:40

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	9.5 degrees C			Final
Turbidity	0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22D2478-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N.Star South Hill (7-12-MD, 94F6)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 11:35

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.145 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	8.6 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22D2478-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 11:10

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.152 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22D2478\_FINAL\_WaterTrax\_14\_Jun\_22\_0901.txt

**Sample ID:** 22D2478-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 11:10

PHYSICAL		Criteria & Type		Status
Temperature	7.5 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22D2478-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** Bulk Water Site #1 (7-15-QC, 21D9B)  
**Comment:** Generated by File Transfer  
**Sampled:** 04/20/2022 13:15

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0868 mg/L			Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml			Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml			Final
Total Coliforms (counts)	< 1 CFU/100ml			Final

PHYSICAL		Criteria & Type		Status
Temperature	7.7 degrees C			Final
Turbidity	0.25 NTU			Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

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\* Indicates Criteria is exceeded

Approved on:  
**06/17/2022** mm/dd/yyyy  
Approved by:  
**Krystal Earle**



# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 06/21/2022 17:00  
Report ID: 22F2232  
Report Name: 22F2232\_FINAL\_WaterTrax\_21\_Jun\_22\_1506.txt

**Sample ID: 22F2232-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Carradice Rd (7-3-MR, 94E6)  
Comment: Generated by File Transfer  
Sampled: 06/14/2022 09:20

**INORGANIC****\* Manganese (total)**

0.112 mg/L

**Criteria & Type**

&lt;=0.02 AO

**Status**

Final

**MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

&lt; 5 CFU/ml

&lt;=500 User-Defined

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

9.5 degrees C

**Criteria & Type****Status**

Final

Turbidity

0.14 NTU

&lt;=1 User-Defined

Final

**Sample ID: 22F2232-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Dixon (7-8-MR, 94F1)  
Comment: Generated by File Transfer  
Sampled: 06/14/2022 11:10

**INORGANIC****Manganese (total)**

0.00061 mg/L

**Criteria & Type**

&lt;=0.02 AO

**Status**

Final

**MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

&lt; 5 CFU/ml

&lt;=500 User-Defined

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

8.1 degrees C

**Criteria & Type****Status**

Final

Turbidity

0.12 NTU

&lt;=1 User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22F2232\_FINAL\_WaterTrax\_21\_Jun\_22\_1506.txt

**Sample ID:** 22F2232-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/14/2022 09:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0480 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.0 degrees C		Final
Turbidity	0.35 NTU	<=1 User-Defined	Final

**Sample ID:** 22F2232-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Nason (7-10-MD, 94F3)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/14/2022 10:40

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0592 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.1 degrees C		Final
Turbidity	0.14 NTU	<=1 User-Defined	Final

**Sample ID:** 22F2232-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/14/2022 13:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0263 mg/L	<=0.02 AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22F2232\_FINAL\_WaterTrax\_21\_Jun\_22\_1506.txt

**Sample ID:** 22F2232-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/14/2022 13:30

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 10.1 degrees C  
Turbidity 0.15 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22F2232-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N.Star South Hill (7-12-MD, 94F6)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/14/2022 13:35

## INORGANIC

\* Manganese (total) 0.141 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 10.4 degrees C  
Turbidity 0.14 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22F2232-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/14/2022 11:45

## INORGANIC

\* Manganese (total) 0.108 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22F2232\_FINAL\_WaterTrax\_21\_Jun\_22\_1506.txt

**Sample ID:** 22F2232-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/14/2022 11:45

PHYSICAL		Criteria & Type		Status
Temperature	8.9 degrees C			Final
Turbidity	0.20 NTU	<=1	User-Defined	Final

**Sample ID:** 22F2232-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** Bulk Water Site #1 (7-15-QC, 21D9B)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/14/2022 13:00

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0614 mg/L			Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml			Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml			Final
Total Coliforms (counts)	< 1 CFU/100ml			Final

PHYSICAL		Criteria & Type		Status
Temperature	11.0 degrees C			Final
Turbidity	0.30 NTU			Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

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« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 06/28/2022 17:00  
Report ID: 22F3630  
Report Name: 22F3630\_FINAL\_WaterTrax\_28\_Jun\_22\_1553.txt

**Sample ID:** 22F3630-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/21/2022 11:30

INORGANIC		Criteria & Type		Status
Chloride	10.7 mg/L	<=250	AO	Final
* Manganese (total)	0.755 mg/L	<=0.02	AO	Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
PHYSICAL		Criteria & Type		Status
Temperature	10.9 degrees C			Final

**Sample ID:** 22F3630-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/21/2022 13:20

INORGANIC		Criteria & Type		Status
Chloride	19.6 mg/L	<=250	AO	Final
* Manganese (total)	0.279 mg/L	<=0.02	AO	Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
PHYSICAL		Criteria & Type		Status
Temperature	12.0 degrees C			Final

**Sample ID:** 22F3630-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/21/2022 13:45

## Laboratory Report

## Caro Analytical Services

Report Name: 22F3630\_FINAL\_WaterTrax\_28\_Jun\_22\_1553.txt

**Sample ID:** 22F3630-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/21/2022 13:45

INORGANIC		Criteria & Type		Status
Chloride	6.45 mg/L	<=250	AO	Final
Manganese (total)	0.0110 mg/L	<=0.02	AO	Final
Nitrate (as N)	0.168 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
PHYSICAL		Criteria & Type		Status
Temperature	8.9 degrees C			Final

**Sample ID:** 22F3630-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/21/2022 10:10

INORGANIC		Criteria & Type		Status
Chloride	3.28 mg/L	<=250	AO	Final
* Manganese (total)	0.203 mg/L	<=0.02	AO	Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
PHYSICAL		Criteria & Type		Status
Temperature	9.8 degrees C			Final

**Sample ID:** 22F3630-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/21/2022 09:20

INORGANIC		Criteria & Type		Status
Chloride	1.01 mg/L	<=250	AO	Final
* Manganese (total)	0.136 mg/L	<=0.02	AO	Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22F3630\_FINAL\_WaterTrax\_28\_Jun\_22\_1553.txt

**Sample ID:** 22F3630-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/21/2022 09:20

PHYSICAL	Criteria & Type	Status
Temperature 10.7 degrees C		Final

**Sample ID:** 22F3630-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/21/2022 10:45

INORGANIC	Criteria & Type	Status
Chloride 14.5 mg/L	<=250 AO	Final
* Manganese (total) 0.543 mg/L	<=0.02 AO	Final
Nitrate (as N) < 0.010 mg/L		Final
Nitrite (as N) < 0.010 mg/L		Final

  

PHYSICAL	Criteria & Type	Status
Temperature 11.6 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded



## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 07/06/2022 17:00  
Report ID: 22F4341  
Report Name: 22F4341\_FINAL\_WaterTrax\_06\_Jul\_22\_1404.txt

**Sample ID: 22F4341-01**

Water System: City of Quesnel – Main System  
Source: Well 3 Rolph at Roddis  
Facility: Well No 3  
Sampling Pt: Well 3 Rolph at Roddis (1-2-EP, 94D1)  
Comment: Generated by File Transfer  
Sampled: 06/28/2022 09:30

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final

**PHYSICAL**

Temperature 11.7 degrees C

**Criteria & Type****Status**

Final

**Sample ID: 22F4341-02**

Water System: City of Quesnel – Main System  
Source: Well 6 Rolph at Robertson  
Facility: Well No 6  
Sampling Pt: Well 6 Rolph at Robertson (3-2-EP, 94DC)  
Comment: Generated by File Transfer  
Sampled: 06/28/2022 10:10

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final

**PHYSICAL**

Temperature 11.0 degrees C

**Criteria & Type****Status**

Final

**Sample ID: 22F4341-03**

Water System: City of Quesnel – Main System  
Source: Well 7 N. Fraser Dr  
Facility: Well No 7  
Sampling Pt: Well 7 N. Fraser Dr (4-2-EP, 94E0)  
Comment: Generated by File Transfer  
Sampled: 06/28/2022 11:00

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final

**PHYSICAL**

Temperature 8.8 degrees C

**Criteria & Type****Status**

Final

## Laboratory Report

## Caro Analytical Services

Report Name: 22F4341\_FINAL\_WaterTrax\_06\_Jul\_22\_1404.txt

**Sample ID:** 22F4341-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/28/2022 11:30

### MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

### Criteria & Type

<=0,P,PR User-Defined  
<=0,P,OG User-Defined

### Status

Final  
Final

### PHYSICAL

Temperature 11.6 degrees C

### Criteria & Type

### Status

Final

**Sample ID:** 22F4341-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/28/2022 14:30

### MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

### Criteria & Type

<=0,P,PR User-Defined  
<=0,P,OG User-Defined

### Status

Final  
Final

### PHYSICAL

Temperature 9.9 degrees C

### Criteria & Type

### Status

Final

**Sample ID:** 22F4341-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:** Generated by File Transfer  
**Sampled:** 06/28/2022 12:10

### MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

### Criteria & Type

<=0,P,PR User-Defined  
<=0,P,OG User-Defined

### Status

Final  
Final

### PHYSICAL

Temperature 12.7 degrees C

### Criteria & Type

### Status

Final

**Result Legend**

*P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded*

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 07/25/2022 13:02  
Report ID: 22G0833  
Report Name: 22G0833\_FINAL\_WaterTrax\_13\_Jul\_22\_0807.txt

**Sample ID: 22G0833-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment:  
Sampled: 07/05/2022 09:45

INORGANIC			Criteria & Type		Status
Manganese (total)	0.00227	mg/L	<=0.02	AO	Final
PHYSICAL			Criteria & Type		Status
Temperature	12.5	degrees C			Final
Turbidity	0.18	NTU	<=1	User-Defined	Final

**Sample ID: 22G0833-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment:  
Sampled: 07/05/2022 11:50

INORGANIC			Criteria & Type		Status
Manganese (total)	0.00391	mg/L	<=0.02	AO	Final
Temperature	10.4	degrees C			Final
Turbidity	< 0.10	NTU	<=1	User-Defined	Final

**Sample ID: 22G0833-03**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Marsh Drive (7-4-MD, 94E7)  
Comment:  
Sampled: 07/05/2022 10:45

INORGANIC			Criteria & Type		Status
Manganese (total)	0.00454	mg/L	<=0.02	AO	Final
Temperature	12.2	degrees C			Final
Turbidity	< 0.10	NTU	<=1	User-Defined	Final

## Laboratory Report

## Caro Analytical Services

Report Name: 22G0833\_FINAL\_WaterTrax\_13\_Jul\_22\_0807.txt

**Sample ID: 22G0833-04**

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S-Graham Ave (7-5-MD, 94E8)

Comment:

Sampled: 07/05/2022 13:00

**INORGANIC**

		<b>Criteria &amp; Type</b>		<b>Status</b>
Manganese (total)	0.0116 mg/L	<=0.02	AO	Final
Temperature	14.2 degrees C			Final
Turbidity	0.12 NTU	<=1	User-Defined	Final

**Sample ID: 22G0833-05**

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- West Fraser Rd (7-6-MR, 94E9)

Comment:

Sampled: 07/05/2022 11:15

**INORGANIC**

		<b>Criteria &amp; Type</b>		<b>Status</b>
Manganese (total)	0.00215 mg/L	<=0.02	AO	Final
Temperature	12.0 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID: 22G0833-06**

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Pederson Rd (7-7-MD, 94F0)

Comment:

Sampled: 07/05/2022 13:30

**INORGANIC**

		<b>Criteria &amp; Type</b>		<b>Status</b>
* Manganese (total)	0.0503 mg/L	<=0.02	AO	Final
Temperature	10.6 degrees C			Final
Turbidity	0.10 NTU	<=1	User-Defined	Final

**Sample ID: 22G0833-07**

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S-Carson Pit (7-16-MR, 35D91)

Comment:

Sampled: 07/05/2022 14:30

# Laboratory Report

# Caro Analytical Services

Report Name: 22G0833\_FINAL\_WaterTrax\_13\_Jul\_22\_0807.txt

**Sample ID:** 22G0833-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 07/05/2022 14:30

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00409 mg/L	<=0.02	AO	Final
Temperature	11.2 degrees C			Final
Turbidity	0.11 NTU	<=1	User-Defined	Final

**Sample ID:** 22G0833-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Dennis Road (7-14-MD, 179CA)  
**Comment:**  
**Sampled:** 07/05/2022 14:00

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.140 mg/L	<=0.02	AO	Final
Temperature	11.2 degrees C			Final
Turbidity	0.11 NTU	<=1	User-Defined	Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

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« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

## Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 07/13/2022 17:01  
Report ID: 22G0853  
Report Name: 22G0853\_FINAL\_WaterTrax\_13\_Jul\_22\_1006.txt

**Sample ID: 22G0853-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Carradice Rd (7-3-MR, 94E6)  
Comment:  
Sampled: 07/06/2022 13:15

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0891 mg/L	<=0.02 AO	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.5 degrees C		Final
Turbidity	0.26 NTU	<=1 User-Defined	Final

**Sample ID: 22G0853-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Dixon (7-8-MR, 94F1)  
Comment:  
Sampled: 07/06/2022 10:45

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00045 mg/L	<=0.02 AO	Final
Temperature	11.3 degrees C		Final
Turbidity	0.11 NTU	<=1 User-Defined	Final

**Sample ID: 22G0853-03**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S-Hospital (7-9-MD, 94F2)  
Comment:  
Sampled: 07/06/2022 13:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0209 mg/L	<=0.02 AO	Final
Temperature	11.4 degrees C		Final
Turbidity	0.10 NTU	<=1 User-Defined	Final

## Laboratory Report

Caro Analytical Services

Report Name: 22G0853\_FINAL\_WaterTrax\_13\_Jul\_22\_1006.txt

**Sample ID:** 22G0853-04

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Nason (7-10-MD, 94F3)

Comment:

Sampled: 07/06/2022 11:30

### INORGANIC

\* Manganese (total)

0.0424 mg/L

### Criteria & Type

<=0.02

AO

### Status

Final

Temperature

12.1 degrees C

Final

Turbidity

0.14 NTU

<=1

User-Defined

Final

**Sample ID:** 22G0853-05

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- N. Star Dragon Hill (7-11-MD, 94F4)

Comment:

Sampled: 07/06/2022 09:15

### INORGANIC

\* Manganese (total)

0.0462 mg/L

### Criteria & Type

<=0.02

AO

### Status

Final

Temperature

11.1 degrees C

Final

Turbidity

0.11 NTU

<=1

User-Defined

Final

**Sample ID:** 22G0853-06

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- N.Star South Hill (7-12-MD, 94F6)

Comment:

Sampled: 07/06/2022 09:35

### INORGANIC

\* Manganese (total)

0.135 mg/L

### Criteria & Type

<=0.02

AO

### Status

Final

Temperature

12.3 degrees C

Final

Turbidity

0.18 NTU

<=1

User-Defined

Final

**Sample ID:** 22G0853-07

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Chew Rd (7-13-MR, 94F7)

Comment:

Sampled: 07/06/2022 14:30



# Laboratory Report

Caro Analytical Services

Report Name: 22G0853\_FINAL\_WaterTrax\_13\_Jul\_22\_1006.txt

**Sample ID:** 22G0853-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:**  
**Sampled:** 07/06/2022 14:30

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.139 mg/L	<=0.02	AO	Final
Temperature	10.7 degrees C			Final
Turbidity	0.29 NTU	<=1	User-Defined	Final

**Sample ID:** 22G0853-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** Bulk Water Site #1 (7-15-QC, 21D9B)  
**Comment:**  
**Sampled:** 07/06/2022 10:00

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0236 mg/L			Final
Temperature	10.5 degrees C			Final
Turbidity	0.16 NTU			Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded

## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 07/19/2022 17:00  
Report ID: 22G1373  
Report Name: 22G1373\_FINAL\_WaterTrax\_19\_Jul\_22\_1311.txt

**Sample ID: 22G1373-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Carradice Rd (7-3-MR, 94E6)  
Comment:  
Sampled: 07/11/2022 09:45

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 12.4 degrees C

**Criteria & Type****Status**

Final

**Sample ID: 22G1373-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Dixon (7-8-MR, 94F1)  
Comment:  
Sampled: 07/11/2022 11:30

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 11.4 degrees C

**Criteria & Type****Status**

Final

**Sample ID: 22G1373-03**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S-Hospital (7-9-MD, 94F2)  
Comment:  
Sampled: 07/11/2022 11:00

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
\* Total Coliforms (counts) 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 12.3 degrees C

**Criteria & Type****Status**

Final

## Laboratory Report

## Caro Analytical Services

Report Name: 22G1373\_FINAL\_WaterTrax\_19\_Jul\_22\_1311.txt

**Sample ID:** 22G1373-04

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Nason (7-10-MD, 94F3)

Comment:

Sampled: 07/11/2022 12:00

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

Criteria	Type	Status
<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final
<=0,P,OG	User-Defined	Final

### PHYSICAL

Temperature	12.6 degrees C
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### Criteria & Type

### Status

Final

**Sample ID:** 22G1373-05

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- N. Star Dragon Hill (7-11-MD, 94F4)

Comment:

Sampled: 07/11/2022 13:40

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

Criteria	Type	Status
<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final
<=0,P,OG	User-Defined	Final

### PHYSICAL

Temperature	12.4 degrees C
-------------	----------------

### Criteria & Type

### Status

Final

**Sample ID:** 22G1373-06

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- N.Star South Hill (7-12-MD, 94F6)

Comment:

Sampled: 07/11/2022 13:50

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

Criteria	Type	Status
<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final
<=0,P,OG	User-Defined	Final

### PHYSICAL

Temperature	12.6 degrees C
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### Criteria & Type

### Status

Final

## Laboratory Report

Caro Analytical Services

Report Name: 22G1373\_FINAL\_WaterTrax\_19\_Jul\_22\_1311.txt

**Sample ID:** 22G1373-07

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Chew Rd (7-13-MR, 94F7)

Comment:

Sampled: 07/11/2022 10:30

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final
<=0,P,OG	User-Defined	Final

### Status

### PHYSICAL

Temperature	10.6 degrees C
-------------	----------------

### Criteria & Type

### Status

Final

**Sample ID:** 22G1373-08

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: Bulk Water Site #1 (7-15-QC, 21D9B)

Comment:

Sampled: 07/11/2022 12:45

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

### Status

Final  
Final  
Final

### PHYSICAL

Temperature	13.6 degrees C
-------------	----------------

### Criteria & Type

### Status

Final

### Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded

## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 07/19/2022 17:00  
Report ID: 22G1371  
Report Name: 22G1371\_FINAL\_WaterTrax\_19\_Jul\_22\_1241.txt

**Sample ID: 22G1371-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment:  
Sampled: 07/11/2022 13:20

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 13.2 degrees C

**Criteria & Type****Status**

Final

**Sample ID: 22G1371-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment:  
Sampled: 07/11/2022 10:45

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 12.1 degrees C

**Criteria & Type****Status**

Final

**Sample ID: 22G1371-03**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Marsh Drive (7-4-MD, 94E7)  
Comment:  
Sampled: 07/11/2022 10:55

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 12.4 degrees C

**Criteria & Type****Status**

Final

## Laboratory Report

## Caro Analytical Services

Report Name: 22G1371\_FINAL\_WaterTrax\_19\_Jul\_22\_1241.txt

**Sample ID:** 22G1371-04

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S-Graham Ave (7-5-MD, 94E8)

Comment:

Sampled: 07/11/2022 14:00

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

Criteria	Type	Status
<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final
<=0,P,OG	User-Defined	Final

### PHYSICAL

Temperature	14.3 degrees C
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### Criteria & Type

### Status

Final

**Sample ID:** 22G1371-05

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- West Fraser Rd (7-6-MR, 94E9)

Comment:

Sampled: 07/11/2022 11:20

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

Criteria	Type	Status
<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final
<=0,P,OG	User-Defined	Final

### PHYSICAL

Temperature	12.1 degrees C
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### Criteria & Type

### Status

Final

**Sample ID:** 22G1371-06

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Pederson Rd (7-7-MD, 94F0)

Comment:

Sampled: 07/11/2022 09:45

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	6 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

Criteria	Type	Status
<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final
<=0,P,OG	User-Defined	Final

### PHYSICAL

Temperature	10.3 degrees C
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### Criteria & Type

### Status

Final

## Laboratory Report

## Caro Analytical Services

Report Name: 22G1371\_FINAL\_WaterTrax\_19\_Jul\_22\_1241.txt

**Sample ID:** 22G1371-07

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S-Carson Pit (7-16-MR, 35D91)

Comment:

Sampled: 07/11/2022 11:55

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

<=0,P,PR	User-Defined
<=500	User-Defined
<=0,P,OG	User-Defined

### Status

Final
Final
Final

### PHYSICAL

Temperature	13.9 degrees C
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### Criteria & Type

### Status

Final
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**Sample ID:** 22G1371-08

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Dennis Road (7-14-MD, 179CA)

Comment:

Sampled: 07/11/2022 09:55

### MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	56 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

### Criteria & Type

<=0,P,PR	User-Defined
<=500	User-Defined
<=0,P,OG	User-Defined

### Status

Final
Final
Final

### PHYSICAL

Temperature	11.1 degrees C
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### Criteria & Type

### Status

Final
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### Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,

TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

< means less than lower detection limit shown

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« means detected & less than number shown

» means detected & greater than number shown

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# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 07/19/2022 17:00  
Report ID: 22G1589  
Report Name: 22G1589\_FINAL\_WaterTrax\_19\_Jul\_22\_1326.txt

**Sample ID: 22G1589-01**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-1 Shadow Heights (8-1-MR, 94EA)  
Comment:  
Sampled: 07/12/2022 09:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.113 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	11.2 degrees C		Final

**Sample ID: 22G1589-02**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-2 Pinecrest (8-4-MR, 94F9)  
Comment:  
Sampled: 07/12/2022 10:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.327 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.9 degrees C		Final

**Sample ID: 22G1589-03**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)  
Comment:  
Sampled: 07/12/2022 10:20

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00347 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final



Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

## Laboratory Report

## Caro Analytical Services

Report Name: 22G1589\_FINAL\_WaterTrax\_19\_Jul\_22\_1326.txt

**Sample ID:** 22G1589-03 (continued)

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)

Comment:

Sampled: 07/12/2022 10:20

### PHYSICAL

Temperature 10.0 degrees C

### Criteria & Type

### Status

Final

**Sample ID:** 22G1589-04

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-4 Abbott Dr 1 (8-2-MR, 94EB)

Comment:

Sampled: 07/12/2022 10:45

### INORGANIC

Manganese (total) 0.00063 mg/L

### Criteria & Type

<=0.02 AO

### Status

Final

### MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

### Criteria & Type

<=0,P,PR User-Defined

### Status

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

### PHYSICAL

Temperature 12.2 degrees C

### Criteria & Type

### Status

Final

**Sample ID:** 22G1589-05

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-4 Abbott Dr 2 (8-3-MR, 94EC)

Comment:

Sampled: 07/12/2022 11:00

### INORGANIC

Manganese (total) 0.00055 mg/L

### Criteria & Type

<=0.02 AO

### Status

Final

### MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

### Criteria & Type

<=0,P,PR User-Defined

### Status

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

### PHYSICAL

Temperature 12.2 degrees C

### Criteria & Type

### Status

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22G1589\_FINAL\_WaterTrax\_19\_Jul\_22\_1326.txt

**Sample ID:** 22G1589-06

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-5 Dragon Hill (8-6-MR, 94FC)

Comment:

Sampled: 07/12/2022 11:50

## INORGANIC

Manganese (total) 0.00487 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature 16.0 degrees C

## Criteria & Type

## Status

Final

**Sample ID:** 22G1589-07

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-6 New Tatchell Reservoir (8-8-MR, 94FF)

Comment:

Sampled: 07/12/2022 13:20

## INORGANIC

Manganese (total) 0.0139 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature 10.0 degrees C

## Criteria & Type

## Status

Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,

TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

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Report For: City of Quesnel  
Received: 07/27/2022 17:00  
Report ID: 22G2857  
Report Name: 22G2857\_FINAL\_WaterTrax\_27\_Jul\_22\_1529.txt

**Sample ID:** 22G2857-01  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:**  
**Sampled:** 07/20/2022 09:20

## MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

## Criteria &amp; Type

## Status

<=0,P,PR	User-Defined	Final
<=500	User-Defined	Final
<=0,P,OG	User-Defined	Final

## PHYSICAL

Temperature	11.0 degrees C
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## Criteria &amp; Type

## Status

	Final
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**Result Legend**

*P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no, TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment*  
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*» means detected & greater than number shown*  
*\* Indicates Criteria is exceeded*

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 08/09/2022 17:00  
Report ID: 22G2859  
Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:**  
**Sampled:** 07/20/2022 10:30

INORGANIC		Criteria & Type		Status
Aluminum (dissolved)	< 0.0050 mg/L			Final
Aluminum (total)	< 0.0050 mg/L	<=0.2	Operational - Other	Final
Antimony (dissolved)	< 0.00020 mg/L			Final
Antimony (total)	< 0.00020 mg/L	<=0.006	MAC	Final
Arsenic (dissolved)	0.00128 mg/L			Final
Arsenic (total)	0.00124 mg/L		Current Level	Final
Barium (dissolved)	0.0688 mg/L			Final
Barium (total)	0.0667 mg/L	<=2	MAC	Final
Beryllium (dissolved)	< 0.00010 mg/L			Final
Beryllium (total)	< 0.00010 mg/L			Final
Bismuth (dissolved)	< 0.00010 mg/L			Final
Bismuth (total)	< 0.00010 mg/L			Final
Boron (dissolved)	< 0.0500 mg/L			Final
Boron (total)	< 0.0500 mg/L	<=5	MAC	Final
Cadmium (dissolved)	< 0.000010 mg/L			Final
Cadmium (total)	0.000013 mg/L	<=0.005	MAC	Final
Calcium (dissolved)	59.6 mg/L			Final
Calcium (total)	58.7 mg/L			Final
Chloride	10.2 mg/L	<=250	AO	Final
Chromium (extractable)	< 0.00050 mg/L			Final
Chromium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Cobalt (dissolved)	0.00015 mg/L			Final
Cobalt (total)	0.00014 mg/L			Final
Copper (extractable)	0.00198 mg/L			Final
Copper (total)	0.00290 mg/L	<=1	AO	Final
Fluoride	< 0.10 mg/L	<=1.5	MAC	Final
Iron (dissolved)	0.073 mg/L	<=0.3	User-Defined	Final
Iron (total)	0.076 mg/L	<=0.3	AO	Final
Lead (dissolved)	0.00024 mg/L			Final
Lead (total)	0.00026 mg/L	<=0.005	MAC	Final
Lithium (dissolved)	0.00109 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-01 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:**  
**Sampled:** 07/20/2022 10:30

INORGANIC		Criteria & Type		Status
Lithium (total)	0.00120 mg/L			Final
Magnesium (dissolved)	19.8 mg/L			Final
Magnesium (total)	20.0 mg/L			Final
* Manganese (dissolved)	0.624 mg/L	<=0.05	aesthetic objective	Final
* Manganese (total)	0.665 mg/L	<=0.02	AO	Final
Mercury (dissolved)	< 0.000040 mg/L			Final
Mercury (total)	< 0.000010 mg/L	<=0.001	MAC	Final
Molybdenum (dissolved)	0.00233 mg/L			Final
Molybdenum (total)	0.00234 mg/L			Final
Nickel (dissolved)	0.00104 mg/L			Final
Nickel (total)	0.00099 mg/L			Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
Phosphorus (total dissolved)	< 0.050 mg/L			Final
Phosphorus (total)	< 0.050 mg/L			Final
Potassium (dissolved)	2.85 mg/L			Final
Potassium (total)	2.91 mg/L			Final
Selenium (dissolved)	< 0.00050 mg/L			Final
Selenium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Silicon (dissolved, as Si)	10.5 mg/L			Final
Silicon (total, as Si)	10.9 mg/L			Final
Silver (dissolved)	< 0.000050 mg/L			Final
Silver (total)	< 0.000050 mg/L			Final
Sodium (dissolved)	9.02 mg/L	<=200	AO	Final
Sodium (total)	9.27 mg/L	<=200	AO	Final
Strontium (dissolved)	0.277 mg/L			Final
Strontium (total)	0.276 mg/L			Final
Sulfur (dissolved)	5.8 mg/L			Final
Sulfur (total)	5.9 mg/L			Final
Sulphate	17.9 mg/L	<=500	AO	Final
Tellurium (dissolved)	< 0.00050 mg/L			Final
Tellurium (total)	< 0.00050 mg/L			Final
Thallium (dissolved)	< 0.000020 mg/L			Final
Thallium (total)	< 0.000020 mg/L			Final
Thorium (dissolved)	< 0.00010 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-01 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:**  
**Sampled:** 07/20/2022 10:30

## INORGANIC

		Criteria & Type	Status
Thorium (total)	< 0.00010 mg/L		Final
Tin (dissolved)	< 0.00020 mg/L		Final
Tin (total)	< 0.00020 mg/L		Final
Titanium (dissolved)	< 0.0050 mg/L		Final
Titanium (total)	< 0.0050 mg/L		Final
Tungsten (dissolved)	< 0.0010 mg/L		Final
Tungsten (total)	< 0.0002 mg/L		Final
Uranium (dissolved)	0.000589 mg/L		Final
Vanadium (dissolved)	< 0.0050 mg/L		Final
Vanadium (total)	< 0.0050 mg/L		Final
Zinc (dissolved)	0.0041 mg/L		Final
Zinc (total)	0.0041 mg/L	<=5 AO	Final
Zirconium (dissolved)	< 0.00010 mg/L		Final
Zirconium (total)	< 0.00010 mg/L		Final

## MICROORGANISMS

		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final

## ORGANIC

		Criteria & Type	Status
Bromodichloromethane (dichlorobromomethane)	< 1.0 ug/L	<=100 Standard for TTHM expressed as a running annual average of quarterly samples	Final
Bromoform	< 1.0 ug/L	<=100 Standard for TTHM expressed as a running annual average of quarterly samples	Final
Chloroethane	< 2.0 ug/L		Final
Chloroform	< 1.0 ug/L	<=100 Standard for TTHM expressed as a running annual average of quarterly samples	Final
Dibromochloromethane (Chlorodibromomethane)	< 1.0 ug/L	<=100 Standard for TTHM expressed as a running annual average of quarterly samples	Final
Dibromomethane	< 1.0 ug/L		Final
1,3-Dichlorobenzene	< 1.0 ug/L		Final
Methyl tert-butyl ether / MTBE	< 1.0 ug/L		Final

Report created on 06/13/2023 15:00:06

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Trichlorofluoromethane	< 1.0 ug/L		Final
PHYSICAL		<b>Criteria &amp; Type</b>	<b>Status</b>
Aggressiveness Index	12.9		Final
Alkalinity (bicarbonate, as CaCO3)	243 mg/L		Final
Alkalinity (carbonate, as CaCO3)	< 1.0 mg/L		Final
Alkalinity (hydroxide, as CaCO3)	< 1.0 mg/L		Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-01 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:**  
**Sampled:** 07/20/2022 10:30

## PHYSICAL

		Criteria & Type		Status
Alkalinity (phenolphthalein, as CaCO <sub>3</sub> )	< 1.0 mg/L			Final
Alkalinity (total, as CaCO <sub>3</sub> )	243 mg/L			Final
Colour	< 5.0 CU	<=15	AO	Final
Conductivity	460 umho/cm			Final
Hardness (total, as CaCO <sub>3</sub> )	231 mg/L			Final
Hardness (total, as CaCO <sub>3</sub> )	229 mg/L			Final
Langelier Index	0.7			Final
pH	8.14		Current Level	Final
Temperature, at pH	23.2 degrees C			Final
Total Dissolved Solids / TDS (computed)	276 mg/L			Final
Turbidity	0.24 NTU	<=1	User-Defined	Final

## RADIONUCLIDES

		Criteria & Type		Status
Uranium (total)	0.000582 mg/L	<=0.02	MAC	Final

## SOCS

		Criteria & Type		Status
Ethylene dibromide / EDB	< 0.3 ug/L			Final

## VOCS

		Criteria & Type		Status
Benzene	< 0.5 ug/L	<=5	MAC	Final
Carbon tetrachloride	< 0.5 ug/L	<=2	MAC	Final
Chlorobenzene	< 1.0 ug/L	<=80	MAC	Final
1,2-Dichlorobenzene	< 0.5 ug/L	<=200	MAC	Final
1,4-Dichlorobenzene	< 1.0 ug/L	<=5	MAC	Final
1,1-Dichloroethane	< 1.0 ug/L			Final
1,2-Dichloroethane	< 1.0 ug/L	<=5	MAC	Final
1,1-Dichloroethylene	< 1.0 ug/L	<=14	MAC	Final
cis-1,2-Dichloroethylene	< 1.0 ug/L			Final
trans-1,2-Dichloroethylene	< 1.0 ug/L			Final
Dichloromethane	< 3.0 ug/L	<=50	MAC	Final
1,2-Dichloropropane	< 1.0 ug/L			Final
1,3-Dichloropropene	< 1.0 ug/L			Final
Ethylbenzene	< 1.0 ug/L	<=1.6	AO	Final
Styrene	< 1.0 ug/L			Final
1,1,2,2-Tetrachloroethane	< 0.5 ug/L			Final
Tetrachloroethylene / PCE	< 1.0 ug/L	<=10	MAC	Final
Toluene	< 1.0 ug/L	<=24	AO	Final
1,1,1-Trichloroethane	< 1.0 ug/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-01 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:**  
**Sampled:** 07/20/2022 10:30

## VOCS

		Criteria & Type		Status
1,1,2-Trichloroethane	< 1.0 ug/L			Final
Trichloroethylene / TCE	< 1.0 ug/L	<=5	MAC	Final
Vinyl chloride	< 1.0 ug/L	<=2	MAC	Final
Xylenes (total)	< 2.0 ug/L	<=20	AO	Final

**Sample ID:** 22G2859-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:**  
**Sampled:** 07/20/2022 10:00

## INORGANIC

		Criteria & Type		Status
Aluminum (dissolved)	< 0.0050 mg/L			Final
Aluminum (total)	< 0.0050 mg/L	<=0.2	Operational - Other	Final
Antimony (dissolved)	< 0.00020 mg/L			Final
Antimony (total)	< 0.00020 mg/L	<=0.006	MAC	Final
Arsenic (dissolved)	0.00065 mg/L			Final
Arsenic (total)	0.00060 mg/L		Current Level	Final
Barium (dissolved)	0.0805 mg/L			Final
Barium (total)	0.0786 mg/L	<=2	MAC	Final
Beryllium (dissolved)	< 0.00010 mg/L			Final
Beryllium (total)	< 0.00010 mg/L			Final
Bismuth (dissolved)	< 0.00010 mg/L			Final
Bismuth (total)	< 0.00010 mg/L			Final
Boron (dissolved)	< 0.0500 mg/L			Final
Boron (total)	< 0.0500 mg/L	<=5	MAC	Final
Cadmium (dissolved)	0.000037 mg/L			Final
Cadmium (total)	0.000030 mg/L	<=0.005	MAC	Final
Calcium (dissolved)	77.4 mg/L			Final
Calcium (total)	76.1 mg/L			Final
Chloride	20.2 mg/L	<=250	AO	Final
Chromium (extractable)	< 0.00050 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-02 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:**  
**Sampled:** 07/20/2022 10:00

INORGANIC		Criteria & Type		Status
Chromium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Cobalt (dissolved)	0.00017 mg/L			Final
Cobalt (total)	0.00017 mg/L			Final
Copper (extractable)	0.00155 mg/L			Final
Copper (total)	0.00169 mg/L	<=1	AO	Final
Fluoride	< 0.10 mg/L	<=1.5	MAC	Final
Iron (dissolved)	0.073 mg/L	<=0.3	User-Defined	Final
Iron (total)	0.075 mg/L	<=0.3	AO	Final
Lead (dissolved)	< 0.00020 mg/L			Final
Lead (total)	< 0.00020 mg/L	<=0.005	MAC	Final
Lithium (dissolved)	0.00179 mg/L			Final
Lithium (total)	0.00191 mg/L			Final
Magnesium (dissolved)	24.8 mg/L			Final
Magnesium (total)	25.6 mg/L			Final
* Manganese (dissolved)	0.225 mg/L	<=0.05	aesthetic objective	Final
* Manganese (total)	0.238 mg/L	<=0.02	AO	Final
Mercury (dissolved)	< 0.000040 mg/L			Final
Mercury (total)	< 0.000010 mg/L	<=0.001	MAC	Final
Molybdenum (dissolved)	0.00150 mg/L			Final
Molybdenum (total)	0.00155 mg/L			Final
Nickel (dissolved)	0.00229 mg/L			Final
Nickel (total)	0.00236 mg/L			Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
Phosphorus (total dissolved)	< 0.050 mg/L			Final
Phosphorus (total)	< 0.050 mg/L			Final
Potassium (dissolved)	3.68 mg/L			Final
Potassium (total)	3.80 mg/L			Final
Selenium (dissolved)	< 0.00050 mg/L			Final
Selenium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Silicon (dissolved, as Si)	10.1 mg/L			Final
Silicon (total, as Si)	10.4 mg/L			Final
Silver (dissolved)	< 0.000050 mg/L			Final
Silver (total)	< 0.000050 mg/L			Final
Sodium (dissolved)	9.95 mg/L	<=200	AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-02 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:**  
**Sampled:** 07/20/2022 10:00

## INORGANIC

		Criteria & Type		Status
Sodium (total)	10.5 mg/L	<=200	AO	Final
Strontium (dissolved)	0.329 mg/L			Final
Strontium (total)	0.338 mg/L			Final
Sulfur (dissolved)	9.2 mg/L			Final
Sulfur (total)	9.2 mg/L			Final
Sulphate	28.7 mg/L	<=500	AO	Final
Tellurium (dissolved)	< 0.00050 mg/L			Final
Tellurium (total)	< 0.00050 mg/L			Final
Thallium (dissolved)	< 0.000020 mg/L			Final
Thallium (total)	< 0.000020 mg/L			Final
Thorium (dissolved)	< 0.00010 mg/L			Final
Thorium (total)	< 0.00010 mg/L			Final
Tin (dissolved)	< 0.00020 mg/L			Final
Tin (total)	< 0.00020 mg/L			Final
Titanium (dissolved)	< 0.0050 mg/L			Final
Titanium (total)	< 0.0050 mg/L			Final
Tungsten (dissolved)	< 0.0010 mg/L			Final
Tungsten (total)	< 0.0002 mg/L			Final
Uranium (dissolved)	0.000976 mg/L			Final
Vanadium (dissolved)	< 0.0050 mg/L			Final
Vanadium (total)	< 0.0050 mg/L			Final
Zinc (dissolved)	< 0.0040 mg/L			Final
Zinc (total)	< 0.0040 mg/L	<=5	AO	Final
Zirconium (dissolved)	< 0.00010 mg/L			Final
Zirconium (total)	< 0.00010 mg/L			Final

## MICROORGANISMS

		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

## ORGANIC

		Criteria & Type		Status
Bromodichloromethane (dichlorobromomethane)	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Bromoform	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Chloroethane	< 2.0 ug/L			Final

Chloroform

< 1.0 ug/L

<=100

Standard for  
TTHM expressed  
as a running  
annual average  
of quarterly  
samples

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-02 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:**  
**Sampled:** 07/20/2022 10:00

## ORGANIC

		Criteria & Type	Status
Dibromochloromethane (Chlorodibromomethane)	< 1.0 ug/L	<=100 Standard for TTHM expressed as a running annual average of quarterly samples	Final
Dibromomethane	< 1.0 ug/L		Final
1,3-Dichlorobenzene	< 1.0 ug/L		Final
Methyl tert-butyl ether / MTBE	< 1.0 ug/L		Final
Trichlorofluoromethane	< 1.0 ug/L		Final

## PHYSICAL

		Criteria & Type	Status
Aggressiveness Index	13.0		Final
Alkalinity (bicarbonate, as CaCO3)	292 mg/L		Final
Alkalinity (carbonate, as CaCO3)	< 1.0 mg/L		Final
Alkalinity (hydroxide, as CaCO3)	< 1.0 mg/L		Final
Alkalinity (phenolphthalein, as CaCO3)	< 1.0 mg/L		Final
Alkalinity (total, as CaCO3)	292 mg/L		Final
Colour	< 5.0 CU	<=15 AO	Final
Conductivity	585 umho/cm		Final
Hardness (total, as CaCO3)	295 mg/L		Final
Hardness (total, as CaCO3)	296 mg/L		Final
Langelier Index	0.8		Final
pH	8.03	Current Level	Final
Temperature, at pH	23.3 degrees C		Final
Total Dissolved Solids / TDS (computed)	342 mg/L		Final
Turbidity	0.44 NTU	<=1 User-Defined	Final

## RADIONUCLIDES

		Criteria & Type	Status
Uranium (total)	0.00102 mg/L	<=0.02 MAC	Final

## SOCS

		Criteria & Type	Status
Ethylene dibromide / EDB	< 0.3 ug/L		Final

## VOCS

		Criteria & Type	Status
Benzene	< 0.5 ug/L	<=5 MAC	Final
Carbon tetrachloride	< 0.5 ug/L	<=2 MAC	Final
Chlorobenzene	< 1.0 ug/L	<=80 MAC	Final
1,2-Dichlorobenzene	< 0.5 ug/L	<=200 MAC	Final
1,4-Dichlorobenzene	< 1.0 ug/L	<=5 MAC	Final
1,1-Dichloroethane	< 1.0 ug/L		Final
1,2-Dichloroethane	< 1.0 ug/L	<=5 MAC	Final
1,1-Dichloroethylene	< 1.0 ug/L	<=14 MAC	Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-02 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:**  
**Sampled:** 07/20/2022 10:00

VOCS		Criteria & Type		Status
cis-1,2-Dichloroethylene	< 1.0 ug/L			Final
trans-1,2-Dichloroethylene	< 1.0 ug/L			Final
Dichloromethane	< 3.0 ug/L	<=50	MAC	Final
1,2-Dichloropropane	< 1.0 ug/L			Final
1,3-Dichloropropene	< 1.0 ug/L			Final
Ethylbenzene	< 1.0 ug/L	<=1.6	AO	Final
Styrene	< 1.0 ug/L			Final
1,1,2,2-Tetrachloroethane	< 0.5 ug/L			Final
Tetrachloroethylene / PCE	< 1.0 ug/L	<=10	MAC	Final
Toluene	< 1.0 ug/L	<=24	AO	Final
1,1,1-Trichloroethane	< 1.0 ug/L			Final
1,1,2-Trichloroethane	< 1.0 ug/L			Final
Trichloroethylene / TCE	< 1.0 ug/L	<=5	MAC	Final
Vinyl chloride	< 1.0 ug/L	<=2	MAC	Final
Xylenes (total)	< 2.0 ug/L	<=20	AO	Final

**Sample ID:** 22G2859-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 07/20/2022 11:00

INORGANIC		Criteria & Type		Status
Aluminum (dissolved)	< 0.0050 mg/L			Final
Aluminum (total)	< 0.0050 mg/L	<=0.2	Operational - Other	Final
Antimony (dissolved)	< 0.00020 mg/L			Final
Antimony (total)	< 0.00020 mg/L	<=0.006	MAC	Final
Arsenic (dissolved)	< 0.00050 mg/L			Final
Arsenic (total)	< 0.00050 mg/L		Current Level	Final
Barium (dissolved)	0.0293 mg/L			Final
Barium (total)	0.0300 mg/L	<=2	MAC	Final
Beryllium (dissolved)	< 0.00010 mg/L			Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 07/20/2022 11:00

INORGANIC		Criteria & Type		Status
Beryllium (total)	< 0.00010 mg/L			Final
Bismuth (dissolved)	< 0.00010 mg/L			Final
Bismuth (total)	< 0.00010 mg/L			Final
Boron (dissolved)	< 0.0500 mg/L			Final
Boron (total)	< 0.0500 mg/L	<=5	MAC	Final
Cadmium (dissolved)	< 0.000010 mg/L			Final
Cadmium (total)	< 0.000010 mg/L	<=0.005	MAC	Final
Calcium (dissolved)	52.5 mg/L			Final
Calcium (total)	51.7 mg/L			Final
Chloride	8.62 mg/L	<=250	AO	Final
Chromium (extractable)	< 0.00050 mg/L			Final
Chromium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Cobalt (dissolved)	< 0.00010 mg/L			Final
Cobalt (total)	< 0.00010 mg/L			Final
Copper (extractable)	0.00301 mg/L			Final
Copper (total)	0.00318 mg/L	<=1	AO	Final
Fluoride	< 0.10 mg/L	<=1.5	MAC	Final
Iron (dissolved)	< 0.010 mg/L	<=0.3	User-Defined	Final
Iron (total)	< 0.010 mg/L	<=0.3	AO	Final
Lead (dissolved)	0.00036 mg/L			Final
Lead (total)	0.00036 mg/L	<=0.005	MAC	Final
Lithium (dissolved)	0.00126 mg/L			Final
Lithium (total)	0.00138 mg/L			Final
Magnesium (dissolved)	15.0 mg/L			Final
Magnesium (total)	15.2 mg/L			Final
Manganese (dissolved)	0.0111 mg/L	<=0.05	aesthetic objective	Final
Manganese (total)	0.0113 mg/L	<=0.02	AO	Final
Mercury (dissolved)	< 0.000040 mg/L			Final
Mercury (total)	< 0.000010 mg/L	<=0.001	MAC	Final
Molybdenum (dissolved)	0.00124 mg/L			Final
Molybdenum (total)	0.00127 mg/L			Final
Nickel (dissolved)	0.00065 mg/L			Final
Nickel (total)	0.00064 mg/L			Final
Nitrate (as N)	0.181 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 07/20/2022 11:00

INORGANIC		Criteria & Type		Status
Phosphorus (total dissolved)	< 0.050 mg/L			Final
Phosphorus (total)	< 0.050 mg/L			Final
Potassium (dissolved)	1.91 mg/L			Final
Potassium (total)	1.92 mg/L			Final
Selenium (dissolved)	0.00227 mg/L			Final
Selenium (total)	0.00247 mg/L	<=0.05	MAC	Final
Silicon (dissolved, as Si)	5.7 mg/L			Final
Silicon (total, as Si)	6.0 mg/L			Final
Silver (dissolved)	< 0.000050 mg/L			Final
Silver (total)	< 0.000050 mg/L			Final
Sodium (dissolved)	5.99 mg/L	<=200	AO	Final
Sodium (total)	6.34 mg/L	<=200	AO	Final
Strontium (dissolved)	0.207 mg/L			Final
Strontium (total)	0.208 mg/L			Final
Sulfur (dissolved)	5.8 mg/L			Final
Sulfur (total)	5.9 mg/L			Final
Sulphate	18.1 mg/L	<=500	AO	Final
Tellurium (dissolved)	< 0.00050 mg/L			Final
Tellurium (total)	< 0.00050 mg/L			Final
Thallium (dissolved)	< 0.000020 mg/L			Final
Thallium (total)	< 0.000020 mg/L			Final
Thorium (dissolved)	< 0.00010 mg/L			Final
Thorium (total)	< 0.00010 mg/L			Final
Tin (dissolved)	< 0.00020 mg/L			Final
Tin (total)	< 0.00020 mg/L			Final
Titanium (dissolved)	< 0.0050 mg/L			Final
Titanium (total)	< 0.0050 mg/L			Final
Tungsten (dissolved)	< 0.0010 mg/L			Final
Tungsten (total)	< 0.0002 mg/L			Final
Uranium (dissolved)	0.000823 mg/L			Final
Vanadium (dissolved)	< 0.0050 mg/L			Final
Vanadium (total)	< 0.0050 mg/L			Final
Zinc (dissolved)	0.0080 mg/L			Final
Zinc (total)	0.0076 mg/L	<=5	AO	Final
Zirconium (dissolved)	< 0.00010 mg/L			Final
Zirconium (total)	< 0.00010 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 07/20/2022 11:00

## MICROORGANISMS

			Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

## ORGANIC

			Criteria & Type	Status
Bromodichloromethane (dichlorobromomethane)	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Bromoform	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Chloroethane	< 2.0 ug/L			Final
Chloroform	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Dibromochloromethane (Chlorodibromomethane)	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Dibromomethane	< 1.0 ug/L			Final
1,3-Dichlorobenzene	< 1.0 ug/L			Final
Methyl tert-butyl ether / MTBE	< 1.0 ug/L			Final
Trichlorofluoromethane	< 1.0 ug/L			Final

## PHYSICAL

			Criteria & Type	Status
Aggressiveness Index	12.6			Final
Alkalinity (bicarbonate, as CaCO3)	191 mg/L			Final
Alkalinity (carbonate, as CaCO3)	< 1.0 mg/L			Final
Alkalinity (hydroxide, as CaCO3)	< 1.0 mg/L			Final
Alkalinity (phenolphthalein, as CaCO3)	< 1.0 mg/L			Final
Alkalinity (total, as CaCO3)	191 mg/L			Final
Colour	< 5.0 CU	<=15	AO	Final
Conductivity	379 umho/cm			Final
Hardness (total, as CaCO3)	193 mg/L			Final
Hardness (total, as CaCO3)	192 mg/L			Final
Langelier Index	0.5			Final
pH	8.08		Current Level	Final
Temperature, at pH	23.6 degrees C			Final

Total Dissolved Solids / TDS (computed)	211 mg/L			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final
RADIONUCLIDES		<b>Criteria &amp; Type</b>		<b>Status</b>
Uranium (total)	0.000824 mg/L	<=0.02	MAC	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 07/20/2022 11:00

SOCS	Criteria & Type	Status
Ethylene dibromide / EDB	< 0.3 ug/L	Final

VOCS	Criteria & Type	Status
Benzene	< 0.5 ug/L	<=5 MAC Final
Carbon tetrachloride	< 0.5 ug/L	<=2 MAC Final
Chlorobenzene	< 1.0 ug/L	<=80 MAC Final
1,2-Dichlorobenzene	< 0.5 ug/L	<=200 MAC Final
1,4-Dichlorobenzene	< 1.0 ug/L	<=5 MAC Final
1,1-Dichloroethane	< 1.0 ug/L	Final
1,2-Dichloroethane	< 1.0 ug/L	<=5 MAC Final
1,1-Dichloroethylene	< 1.0 ug/L	<=14 MAC Final
cis-1,2-Dichloroethylene	< 1.0 ug/L	Final
trans-1,2-Dichloroethylene	< 1.0 ug/L	Final
Dichloromethane	< 3.0 ug/L	<=50 MAC Final
1,2-Dichloropropane	< 1.0 ug/L	Final
1,3-Dichloropropane	< 1.0 ug/L	Final
Ethylbenzene	< 1.0 ug/L	<=1.6 AO Final
Styrene	< 1.0 ug/L	Final
1,1,2,2-Tetrachloroethane	< 0.5 ug/L	Final
Tetrachloroethylene / PCE	< 1.0 ug/L	<=10 MAC Final
Toluene	< 1.0 ug/L	<=24 AO Final
1,1,1-Trichloroethane	< 1.0 ug/L	Final
1,1,2-Trichloroethane	< 1.0 ug/L	Final
Trichloroethylene / TCE	< 1.0 ug/L	<=5 MAC Final
Vinyl chloride	< 1.0 ug/L	<=2 MAC Final
Xylenes (total)	< 2.0 ug/L	<=20 AO Final

**Sample ID:** 22G2859-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 07/20/2022 13:00

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-04 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 07/20/2022 13:00

INORGANIC		Criteria & Type		Status
Aluminum (dissolved)	< 0.0050 mg/L			Final
Aluminum (total)	< 0.0050 mg/L	<=0.2	Operational - Other	Final
Antimony (dissolved)	< 0.00020 mg/L			Final
Antimony (total)	< 0.00020 mg/L	<=0.006	MAC	Final
Arsenic (dissolved)	0.00119 mg/L			Final
Arsenic (total)	0.00116 mg/L		Current Level	Final
Barium (dissolved)	0.101 mg/L			Final
Barium (total)	0.100 mg/L	<=2	MAC	Final
Beryllium (dissolved)	< 0.00010 mg/L			Final
Beryllium (total)	< 0.00010 mg/L			Final
Bismuth (dissolved)	< 0.00010 mg/L			Final
Bismuth (total)	< 0.00010 mg/L			Final
Boron (dissolved)	< 0.0500 mg/L			Final
Boron (total)	< 0.0500 mg/L	<=5	MAC	Final
Cadmium (dissolved)	< 0.000010 mg/L			Final
Cadmium (total)	< 0.000010 mg/L	<=0.005	MAC	Final
Calcium (dissolved)	59.1 mg/L			Final
Calcium (total)	53.6 mg/L			Final
Chloride	3.89 mg/L	<=250	AO	Final
Chromium (extractable)	< 0.00050 mg/L			Final
Chromium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Cobalt (dissolved)	< 0.00010 mg/L			Final
Cobalt (total)	< 0.00010 mg/L			Final
Copper (extractable)	0.00112 mg/L			Final
Copper (total)	0.00226 mg/L	<=1	AO	Final
Fluoride	< 0.10 mg/L	<=1.5	MAC	Final
Iron (dissolved)	< 0.010 mg/L	<=0.3	User-Defined	Final
Iron (total)	< 0.010 mg/L	<=0.3	AO	Final
Lead (dissolved)	< 0.00020 mg/L			Final
Lead (total)	< 0.00020 mg/L	<=0.005	MAC	Final
Lithium (dissolved)	0.00067 mg/L			Final
Lithium (total)	0.00066 mg/L			Final
Magnesium (dissolved)	11.5 mg/L			Final
Magnesium (total)	11.5 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-04 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 07/20/2022 13:00

## INORGANIC

		Criteria & Type		Status
* Manganese (dissolved)	0.216 mg/L	<=0.05	aesthetic objective	Final
* Manganese (total)	0.231 mg/L	<=0.02	AO	Final
Mercury (dissolved)	< 0.000040 mg/L			Final
Mercury (total)	< 0.000010 mg/L	<=0.001	MAC	Final
Molybdenum (dissolved)	0.00153 mg/L			Final
Molybdenum (total)	0.00155 mg/L			Final
Nickel (dissolved)	0.00147 mg/L			Final
Nickel (total)	0.00163 mg/L			Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
Phosphorus (total dissolved)	< 0.050 mg/L			Final
Phosphorus (total)	< 0.050 mg/L			Final
Potassium (dissolved)	1.30 mg/L			Final
Potassium (total)	1.33 mg/L			Final
Selenium (dissolved)	< 0.00050 mg/L			Final
Selenium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Silicon (dissolved, as Si)	6.3 mg/L			Final
Silicon (total, as Si)	6.5 mg/L			Final
Silver (dissolved)	< 0.000050 mg/L			Final
Silver (total)	< 0.000050 mg/L			Final
Sodium (dissolved)	4.80 mg/L	<=200	AO	Final
Sodium (total)	5.06 mg/L	<=200	AO	Final
Strontium (dissolved)	0.307 mg/L			Final
Strontium (total)	0.315 mg/L			Final
Sulfur (dissolved)	11.2 mg/L			Final
Sulfur (total)	11.3 mg/L			Final
Sulphate	34.8 mg/L	<=500	AO	Final
Tellurium (dissolved)	< 0.00050 mg/L			Final
Tellurium (total)	< 0.00050 mg/L			Final
Thallium (dissolved)	< 0.000020 mg/L			Final
Thallium (total)	< 0.000020 mg/L			Final
Thorium (dissolved)	< 0.00010 mg/L			Final
Thorium (total)	< 0.00010 mg/L			Final
Tin (dissolved)	< 0.00020 mg/L			Final
Tin (total)	< 0.00020 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-04 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 07/20/2022 13:00

## INORGANIC

		Criteria & Type	Status
Titanium (dissolved)	< 0.0050 mg/L		Final
Titanium (total)	< 0.0050 mg/L		Final
Tungsten (dissolved)	< 0.0010 mg/L		Final
Tungsten (total)	< 0.0002 mg/L		Final
Uranium (dissolved)	0.00120 mg/L		Final
Vanadium (dissolved)	< 0.0050 mg/L		Final
Vanadium (total)	< 0.0050 mg/L		Final
Zinc (dissolved)	< 0.0040 mg/L		Final
Zinc (total)	< 0.0040 mg/L	<=5 AO	Final
Zirconium (dissolved)	< 0.00010 mg/L		Final
Zirconium (total)	< 0.00010 mg/L		Final

## MICROORGANISMS

		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final

## ORGANIC

		Criteria & Type	Status
Bromodichloromethane (dichlorobromomethane)	< 1.0 ug/L	<=100 Standard for TTHM expressed as a running annual average of quarterly samples	Final
Bromoform	< 1.0 ug/L	<=100 Standard for TTHM expressed as a running annual average of quarterly samples	Final
Chloroethane	< 2.0 ug/L		Final
Chloroform	< 1.0 ug/L	<=100 Standard for TTHM expressed as a running annual average of quarterly samples	Final
Dibromochloromethane (Chlorodibromomethane)	< 1.0 ug/L	<=100 Standard for TTHM expressed as a running annual average of quarterly samples	Final
Dibromomethane	< 1.0 ug/L		Final
1,3-Dichlorobenzene	< 1.0 ug/L		Final
Methyl tert-butyl ether / MTBE	< 1.0 ug/L		Final
Trichlorofluoromethane	< 1.0 ug/L		Final

## PHYSICAL

Criteria & Type Status



Aggressiveness Index	12.7				Final
Alkalinity (bicarbonate, as CaCO3)	160 mg/L				Final
Alkalinity (carbonate, as CaCO3)	< 1.0 mg/L				Final
Alkalinity (hydroxide, as CaCO3)	< 1.0 mg/L				Final
Alkalinity (phenolphthalein, as CaCO3)	< 1.0 mg/L				Final
Alkalinity (total, as CaCO3)	160 mg/L				Final
Colour	< 5.0 CU	<=15	AO		Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-04 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 07/20/2022 13:00

## PHYSICAL

		Criteria & Type	Status
Conductivity	355 umho/cm		Final
Hardness (total, as CaCO3)	181 mg/L		Final
Hardness (total, as CaCO3)	195 mg/L		Final
Langelier Index	0.6		Final
pH	8.18	Current Level	Final
Temperature, at pH	23.9 degrees C		Final
Total Dissolved Solids / TDS (computed)	213 mg/L		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

## RADIONUCLIDES

		Criteria & Type	Status
Uranium (total)	0.00122 mg/L	<=0.02 MAC	Final

## SOCS

		Criteria & Type	Status
Ethylene dibromide / EDB	< 0.3 ug/L		Final

## VOCS

		Criteria & Type	Status
Benzene	< 0.5 ug/L	<=5 MAC	Final
Carbon tetrachloride	< 0.5 ug/L	<=2 MAC	Final
Chlorobenzene	< 1.0 ug/L	<=80 MAC	Final
1,2-Dichlorobenzene	< 0.5 ug/L	<=200 MAC	Final
1,4-Dichlorobenzene	< 1.0 ug/L	<=5 MAC	Final
1,1-Dichloroethane	< 1.0 ug/L		Final
1,2-Dichloroethane	< 1.0 ug/L	<=5 MAC	Final
1,1-Dichloroethylene	< 1.0 ug/L	<=14 MAC	Final
cis-1,2-Dichloroethylene	< 1.0 ug/L		Final
trans-1,2-Dichloroethylene	< 1.0 ug/L		Final
Dichloromethane	< 3.0 ug/L	<=50 MAC	Final
1,2-Dichloropropane	< 1.0 ug/L		Final
1,3-Dichloropropene	< 1.0 ug/L		Final
Ethylbenzene	< 1.0 ug/L	<=1.6 AO	Final
Styrene	< 1.0 ug/L		Final
1,1,2,2-Tetrachloroethane	< 0.5 ug/L		Final
Tetrachloroethylene / PCE	< 1.0 ug/L	<=10 MAC	Final
Toluene	< 1.0 ug/L	<=24 AO	Final
1,1,1-Trichloroethane	< 1.0 ug/L		Final
1,1,2-Trichloroethane	< 1.0 ug/L		Final
Trichloroethylene / TCE	< 1.0 ug/L	<=5 MAC	Final
Vinyl chloride	< 1.0 ug/L	<=2 MAC	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-04 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 07/20/2022 13:00

VOCS		Criteria & Type	Status
Xylenes (total)	< 2.0 ug/L	<=20 AO	Final

**Sample ID:** 22G2859-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 07/20/2022 13:30

INORGANIC		Criteria & Type	Status
Aluminum (dissolved)	< 0.0050 mg/L		Final
Aluminum (total)	< 0.0050 mg/L	<=0.2 Operational - Other	Final
Antimony (dissolved)	< 0.00020 mg/L		Final
Antimony (total)	< 0.00020 mg/L	<=0.006 MAC	Final
Arsenic (dissolved)	0.00107 mg/L		Final
Arsenic (total)	0.00112 mg/L	Current Level	Final
Barium (dissolved)	0.0637 mg/L		Final
Barium (total)	0.0633 mg/L	<=2 MAC	Final
Beryllium (dissolved)	< 0.00010 mg/L		Final
Beryllium (total)	< 0.00010 mg/L		Final
Bismuth (dissolved)	< 0.00010 mg/L		Final
Bismuth (total)	< 0.00010 mg/L		Final
Boron (dissolved)	< 0.0500 mg/L		Final
Boron (total)	< 0.0500 mg/L	<=5 MAC	Final
Cadmium (dissolved)	< 0.000010 mg/L		Final
Cadmium (total)	< 0.000010 mg/L	<=0.005 MAC	Final
Calcium (dissolved)	35.1 mg/L		Final
Calcium (total)	30.7 mg/L		Final
Chloride	0.82 mg/L	<=250 AO	Final
Chromium (extractable)	< 0.00050 mg/L		Final
Chromium (total)	< 0.00050 mg/L	<=0.05 MAC	Final
Cobalt (dissolved)	< 0.00010 mg/L		Final
Cobalt (total)	< 0.00010 mg/L		Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 07/20/2022 13:30

INORGANIC		Criteria & Type		Status
Copper (extractable)	0.00463 mg/L			Final
Copper (total)	< 0.00040 mg/L	<=1	AO	Final
Fluoride	< 0.10 mg/L	<=1.5	MAC	Final
Iron (dissolved)	< 0.010 mg/L	<=0.3	User-Defined	Final
Iron (total)	< 0.010 mg/L	<=0.3	AO	Final
Lead (dissolved)	0.00028 mg/L			Final
Lead (total)	0.00041 mg/L	<=0.005	MAC	Final
Lithium (dissolved)	0.00144 mg/L			Final
Lithium (total)	0.00135 mg/L			Final
Magnesium (dissolved)	7.20 mg/L			Final
Magnesium (total)	7.36 mg/L			Final
* Manganese (dissolved)	0.132 mg/L	<=0.05	aesthetic objective	Final
* Manganese (total)	0.137 mg/L	<=0.02	AO	Final
Mercury (dissolved)	< 0.000040 mg/L			Final
Mercury (total)	< 0.000010 mg/L	<=0.001	MAC	Final
Molybdenum (dissolved)	0.00166 mg/L			Final
Molybdenum (total)	0.00171 mg/L			Final
Nickel (dissolved)	< 0.00040 mg/L			Final
Nickel (total)	< 0.00040 mg/L			Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
Phosphorus (total dissolved)	< 0.050 mg/L			Final
Phosphorus (total)	< 0.050 mg/L			Final
Potassium (dissolved)	0.90 mg/L			Final
Potassium (total)	0.90 mg/L			Final
Selenium (dissolved)	< 0.00050 mg/L			Final
Selenium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Silicon (dissolved, as Si)	6.0 mg/L			Final
Silicon (total, as Si)	6.3 mg/L			Final
Silver (dissolved)	< 0.000050 mg/L			Final
Silver (total)	< 0.000050 mg/L			Final
Sodium (dissolved)	4.22 mg/L	<=200	AO	Final
Sodium (total)	4.16 mg/L	<=200	AO	Final
Strontium (dissolved)	0.175 mg/L			Final
Strontium (total)	0.175 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 07/20/2022 13:30

## INORGANIC

		Criteria & Type		Status
Sulfur (dissolved)	5.5 mg/L			Final
Sulfur (total)	5.3 mg/L			Final
Sulphate	16.9 mg/L	<=500	AO	Final
Tellurium (dissolved)	< 0.00050 mg/L			Final
Tellurium (total)	< 0.00050 mg/L			Final
Thallium (dissolved)	< 0.000020 mg/L			Final
Thallium (total)	< 0.000020 mg/L			Final
Thorium (dissolved)	< 0.00010 mg/L			Final
Thorium (total)	< 0.00010 mg/L			Final
Tin (dissolved)	< 0.00020 mg/L			Final
Tin (total)	< 0.00020 mg/L			Final
Titanium (dissolved)	< 0.0050 mg/L			Final
Titanium (total)	< 0.0050 mg/L			Final
Tungsten (dissolved)	< 0.0010 mg/L			Final
Tungsten (total)	< 0.0002 mg/L			Final
Uranium (dissolved)	0.000301 mg/L			Final
Vanadium (dissolved)	< 0.0050 mg/L			Final
Vanadium (total)	< 0.0050 mg/L			Final
Zinc (dissolved)	< 0.0040 mg/L			Final
Zinc (total)	< 0.0040 mg/L	<=5	AO	Final
Zirconium (dissolved)	< 0.00010 mg/L			Final
Zirconium (total)	< 0.00010 mg/L			Final

## MICROORGANISMS

		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

## ORGANIC

		Criteria & Type		Status
Bromodichloromethane (dichlorobromomethane)	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Bromoform	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Chloroethane	< 2.0 ug/L			Final
Chloroform	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average	Final

Dibromochloromethane (Chlorodibromomethane)	< 1.0 ug/L	<=100	of quarterly samples Standard for TTHM expressed as a running annual average of quarterly samples	Final
Dibromomethane	< 1.0 ug/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 07/20/2022 13:30

ORGANIC		Criteria & Type	Status
1,3-Dichlorobenzene	< 1.0 ug/L		Final
Methyl tert-butyl ether / MTBE	< 1.0 ug/L		Final
Trichlorofluoromethane	< 1.0 ug/L		Final

PHYSICAL		Criteria & Type	Status
Aggressiveness Index	12.2		Final
Alkalinity (bicarbonate, as CaCO3)	111 mg/L		Final
Alkalinity (carbonate, as CaCO3)	< 1.0 mg/L		Final
Alkalinity (hydroxide, as CaCO3)	< 1.0 mg/L		Final
Alkalinity (phenolphthalein, as CaCO3)	< 1.0 mg/L		Final
Alkalinity (total, as CaCO3)	111 mg/L		Final
Colour	< 5.0 CU	<=15 AO	Final
Conductivity	220 umho/cm		Final
Hardness (total, as CaCO3)	117 mg/L		Final
Hardness (total, as CaCO3)	107 mg/L		Final
Langelier Index	0.1		Final
pH	8.10	Current Level	Final
Temperature, at pH	24.2 degrees C		Final
Total Dissolved Solids / TDS (computed)	122 mg/L		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

RADIONUCLIDES		Criteria & Type	Status
Uranium (total)	0.000288 mg/L	<=0.02 MAC	Final

SOCS		Criteria & Type	Status
Ethylene dibromide / EDB	< 0.3 ug/L		Final

VOCS		Criteria & Type	Status
Benzene	< 0.5 ug/L	<=5 MAC	Final
Carbon tetrachloride	< 0.5 ug/L	<=2 MAC	Final
Chlorobenzene	< 1.0 ug/L	<=80 MAC	Final
1,2-Dichlorobenzene	< 0.5 ug/L	<=200 MAC	Final
1,4-Dichlorobenzene	< 1.0 ug/L	<=5 MAC	Final
1,1-Dichloroethane	< 1.0 ug/L		Final
1,2-Dichloroethane	< 1.0 ug/L	<=5 MAC	Final
1,1-Dichloroethylene	< 1.0 ug/L	<=14 MAC	Final
cis-1,2-Dichloroethylene	< 1.0 ug/L		Final
trans-1,2-Dichloroethylene	< 1.0 ug/L		Final
Dichloromethane	< 3.0 ug/L	<=50 MAC	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 07/20/2022 13:30

VOCS		Criteria & Type		Status
1,2-Dichloropropane	< 1.0 ug/L			Final
1,3-Dichloropropene	< 1.0 ug/L			Final
Ethylbenzene	< 1.0 ug/L	<=1.6	AO	Final
Styrene	< 1.0 ug/L			Final
1,1,2,2-Tetrachloroethane	< 0.5 ug/L			Final
Tetrachloroethylene / PCE	< 1.0 ug/L	<=10	MAC	Final
Toluene	< 1.0 ug/L	<=24	AO	Final
1,1,1-Trichloroethane	< 1.0 ug/L			Final
1,1,2-Trichloroethane	< 1.0 ug/L			Final
Trichloroethylene / TCE	< 1.0 ug/L	<=5	MAC	Final
Vinyl chloride	< 1.0 ug/L	<=2	MAC	Final
Xylenes (total)	< 2.0 ug/L	<=20	AO	Final

**Sample ID:** 22G2859-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 10 Hilborn Rd.  
**Facility:** Well No 10  
**Sampling Pt:** Well No 10 Hilborn Rd. (9-1-EP, 28000)  
**Comment:**  
**Sampled:** 07/20/2022 11:30

INORGANIC		Criteria & Type		Status
Aluminum (dissolved)	< 0.0050 mg/L			Final
Aluminum (total)	< 0.0050 mg/L	<=0.2	Operational - Other	Final
Antimony (dissolved)	< 0.00020 mg/L			Final
Antimony (total)	< 0.00020 mg/L	<=0.006	MAC	Final
Arsenic (dissolved)	0.00125 mg/L			Final
Arsenic (total)	0.00125 mg/L		Current Level	Final
Barium (dissolved)	0.207 mg/L			Final
Barium (total)	0.203 mg/L	<=2	MAC	Final
Beryllium (dissolved)	< 0.00010 mg/L			Final
Beryllium (total)	< 0.00010 mg/L			Final
Bismuth (dissolved)	< 0.00010 mg/L			Final
Bismuth (total)	< 0.00010 mg/L			Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-06 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 10 Hilborn Rd.  
**Facility:** Well No 10  
**Sampling Pt:** Well No 10 Hilborn Rd. (9-1-EP, 28000)  
**Comment:**  
**Sampled:** 07/20/2022 11:30

INORGANIC		Criteria & Type		Status
Boron (dissolved)	< 0.0500 mg/L			Final
Boron (total)	< 0.0500 mg/L	<=5	MAC	Final
Cadmium (dissolved)	0.000041 mg/L			Final
Cadmium (total)	0.000033 mg/L	<=0.005	MAC	Final
Calcium (dissolved)	91.3 mg/L			Final
Calcium (total)	88.9 mg/L			Final
Chloride	14.1 mg/L	<=250	AO	Final
Chromium (extractable)	< 0.00050 mg/L			Final
Chromium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Cobalt (dissolved)	< 0.00010 mg/L			Final
Cobalt (total)	< 0.00010 mg/L			Final
Copper (extractable)	0.00309 mg/L			Final
Copper (total)	0.00447 mg/L	<=1	AO	Final
Fluoride	< 0.10 mg/L	<=1.5	MAC	Final
Iron (dissolved)	< 0.010 mg/L	<=0.3	User-Defined	Final
Iron (total)	0.014 mg/L	<=0.3	AO	Final
Lead (dissolved)	< 0.00020 mg/L			Final
Lead (total)	< 0.00020 mg/L	<=0.005	MAC	Final
Lithium (dissolved)	0.00106 mg/L			Final
Lithium (total)	0.00109 mg/L			Final
Magnesium (dissolved)	25.6 mg/L			Final
Magnesium (total)	26.2 mg/L			Final
* Manganese (dissolved)	0.522 mg/L	<=0.05	aesthetic objective	Final
* Manganese (total)	0.546 mg/L	<=0.02	AO	Final
Mercury (dissolved)	< 0.000040 mg/L			Final
Mercury (total)	< 0.000010 mg/L	<=0.001	MAC	Final
Molybdenum (dissolved)	0.00116 mg/L			Final
Molybdenum (total)	0.00116 mg/L			Final
Nickel (dissolved)	0.00517 mg/L			Final
Nickel (total)	0.00535 mg/L			Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
Phosphorus (total dissolved)	< 0.050 mg/L			Final
Phosphorus (total)	< 0.050 mg/L			Final
Potassium (dissolved)	2.15 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-06 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 10 Hilborn Rd.  
**Facility:** Well No 10  
**Sampling Pt:** Well No 10 Hilborn Rd. (9-1-EP, 28000)  
**Comment:**  
**Sampled:** 07/20/2022 11:30

## INORGANIC

		Criteria & Type		Status
Potassium (total)	2.17 mg/L			Final
Selenium (dissolved)	< 0.00050 mg/L			Final
Selenium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Silicon (dissolved, as Si)	7.5 mg/L			Final
Silicon (total, as Si)	7.9 mg/L			Final
Silver (dissolved)	< 0.000050 mg/L			Final
Silver (total)	< 0.000050 mg/L			Final
Sodium (dissolved)	15.3 mg/L	<=200	AO	Final
Sodium (total)	15.9 mg/L	<=200	AO	Final
Strontium (dissolved)	0.551 mg/L			Final
Strontium (total)	0.570 mg/L			Final
Sulfur (dissolved)	26.8 mg/L			Final
Sulfur (total)	27.9 mg/L			Final
Sulphate	80.0 mg/L	<=500	AO	Final
Tellurium (dissolved)	< 0.00050 mg/L			Final
Tellurium (total)	< 0.00050 mg/L			Final
Thallium (dissolved)	< 0.000020 mg/L			Final
Thallium (total)	< 0.000020 mg/L			Final
Thorium (dissolved)	< 0.00010 mg/L			Final
Thorium (total)	< 0.00010 mg/L			Final
Tin (dissolved)	< 0.00020 mg/L			Final
Tin (total)	< 0.00020 mg/L			Final
Titanium (dissolved)	< 0.0050 mg/L			Final
Titanium (total)	< 0.0050 mg/L			Final
Tungsten (dissolved)	< 0.0010 mg/L			Final
Tungsten (total)	< 0.0002 mg/L			Final
Uranium (dissolved)	0.00278 mg/L			Final
Vanadium (dissolved)	< 0.0050 mg/L			Final
Vanadium (total)	< 0.0050 mg/L			Final
Zinc (dissolved)	0.0113 mg/L			Final
Zinc (total)	< 0.0040 mg/L	<=5	AO	Final
Zirconium (dissolved)	< 0.00010 mg/L			Final
Zirconium (total)	< 0.00010 mg/L			Final

## MICROORGANISMS

		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-06 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 10 Hilborn Rd.  
**Facility:** Well No 10  
**Sampling Pt:** Well No 10 Hilborn Rd. (9-1-EP, 28000)  
**Comment:**  
**Sampled:** 07/20/2022 11:30

## ORGANIC

			Criteria & Type	Status
Bromodichloromethane (dichlorobromomethane)	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Bromoform	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Chloroethane	< 2.0 ug/L			Final
Chloroform	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Dibromochloromethane (Chlorodibromomethane)	< 1.0 ug/L	<=100	Standard for TTHM expressed as a running annual average of quarterly samples	Final
Dibromomethane	< 1.0 ug/L			Final
1,3-Dichlorobenzene	< 1.0 ug/L			Final
Methyl tert-butyl ether / MTBE	< 1.0 ug/L			Final
Trichlorofluoromethane	< 1.0 ug/L			Final

## PHYSICAL

			Criteria & Type	Status
Aggressiveness Index	13.2			Final
Alkalinity (bicarbonate, as CaCO3)	293 mg/L			Final
Alkalinity (carbonate, as CaCO3)	< 1.0 mg/L			Final
Alkalinity (hydroxide, as CaCO3)	< 1.0 mg/L			Final
Alkalinity (phenolphthalein, as CaCO3)	< 1.0 mg/L			Final
Alkalinity (total, as CaCO3)	293 mg/L			Final
Colour	< 5.0 CU	<=15	AO	Final
Conductivity	671 umho/cm			Final
Hardness (total, as CaCO3)	334 mg/L			Final
Hardness (total, as CaCO3)	330 mg/L			Final
Langelier Index	1.0			Final
pH	8.16		Current Level	Final
Temperature, at pH	24.0 degrees C			Final
Total Dissolved Solids / TDS (computed)	400 mg/L			Final
Turbidity	0.12 NTU	<=1	User-Defined	Final

RADIONUCLIDES		<b>Criteria &amp; Type</b>		<b>Status</b>
Uranium (total)	0.00274 mg/L	<=0.02	MAC	Final
SOCS		<b>Criteria &amp; Type</b>		<b>Status</b>
Ethylene dibromide / EDB	< 0.3 ug/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G2859\_FINAL\_WaterTrax\_08\_Aug\_22\_1727.txt

**Sample ID:** 22G2859-06 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 10 Hilborn Rd.  
**Facility:** Well No 10  
**Sampling Pt:** Well No 10 Hilborn Rd. (9-1-EP, 28000)  
**Comment:**  
**Sampled:** 07/20/2022 11:30

VOCS		Criteria & Type		Status
Benzene	< 0.5 ug/L	<=5	MAC	Final
Carbon tetrachloride	< 0.5 ug/L	<=2	MAC	Final
Chlorobenzene	< 1.0 ug/L	<=80	MAC	Final
1,2-Dichlorobenzene	< 0.5 ug/L	<=200	MAC	Final
1,4-Dichlorobenzene	< 1.0 ug/L	<=5	MAC	Final
1,1-Dichloroethane	< 1.0 ug/L			Final
1,2-Dichloroethane	< 1.0 ug/L	<=5	MAC	Final
1,1-Dichloroethylene	< 1.0 ug/L	<=14	MAC	Final
cis-1,2-Dichloroethylene	< 1.0 ug/L			Final
trans-1,2-Dichloroethylene	< 1.0 ug/L			Final
Dichloromethane	< 3.0 ug/L	<=50	MAC	Final
1,2-Dichloropropane	< 1.0 ug/L			Final
1,3-Dichloropropene	< 1.0 ug/L			Final
Ethylbenzene	< 1.0 ug/L	<=1.6	AO	Final
Styrene	< 1.0 ug/L			Final
1,1,2,2-Tetrachloroethane	< 0.5 ug/L			Final
Tetrachloroethylene / PCE	< 1.0 ug/L	<=10	MAC	Final
Toluene	< 1.0 ug/L	<=24	AO	Final
1,1,1-Trichloroethane	< 1.0 ug/L			Final
1,1,2-Trichloroethane	< 1.0 ug/L			Final
Trichloroethylene / TCE	< 1.0 ug/L	<=5	MAC	Final
Vinyl chloride	< 1.0 ug/L	<=2	MAC	Final
Xylenes (total)	< 2.0 ug/L	<=20	AO	Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

> means greater than upper detection limit shown

« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 08/08/2022 17:00  
Report ID: 22G3789  
Report Name: 22G3789\_FINAL\_WaterTrax\_08\_Aug\_22\_1106.txt

**Sample ID: 22G3789-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment:  
Sampled: 07/26/2022 11:25

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00354 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	14.2 degrees C			Final
Turbidity	0.12 NTU	<=1	User-Defined	Final

**Sample ID: 22G3789-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment:  
Sampled: 07/26/2022 13:10

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00439 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	14.2 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G3789\_FINAL\_WaterTrax\_08\_Aug\_22\_1106.txt

**Sample ID:** 22G3789-03

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Marsh Drive (7-4-MD, 94E7)

Comment:

Sampled: 07/26/2022 12:35

## INORGANIC

Manganese (total) 0.00745 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Heterotrophic Plate Count / HPC < 5 CFU/ml

<=500 User-Defined

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature 14.7 degrees C

## Criteria & Type

## Status

Final

Turbidity < 0.10 NTU

<=1 User-Defined

Final

**Sample ID:** 22G3789-04

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S-Graham Ave (7-5-MD, 94E8)

Comment:

Sampled: 07/26/2022 13:55

## INORGANIC

Manganese (total) 0.00519 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Heterotrophic Plate Count / HPC < 5 CFU/ml

<=500 User-Defined

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature 15.4 degrees C

## Criteria & Type

## Status

Final

Turbidity < 0.10 NTU

<=1 User-Defined

Final

**Sample ID:** 22G3789-05

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- West Fraser Rd (7-6-MR, 94E9)

Comment:

Sampled: 07/26/2022 12:15

## INORGANIC

Manganese (total) 0.00249 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G3789\_FINAL\_WaterTrax\_08\_Aug\_22\_1106.txt

**Sample ID:** 22G3789-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 07/26/2022 12:15

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 14.2 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22G3789-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:**  
**Sampled:** 07/26/2022 10:20

## INORGANIC

\* Manganese (total) 0.0424 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 12.2 degrees C  
Turbidity 0.11 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22G3789-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 07/26/2022 13:35

## INORGANIC

Manganese (total) 0.0137 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status



Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22G3789\_FINAL\_WaterTrax\_08\_Aug\_22\_1106.txt

**Sample ID:** 22G3789-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 07/26/2022 13:35

PHYSICAL		Criteria & Type		Status
Temperature	14.1 degrees C			Final
Turbidity	0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22G3789-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Dennis Road (7-14-MD, 179CA)  
**Comment:**  
**Sampled:** 07/26/2022 10:45

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.131 mg/L	<=0.02	AO	Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

PHYSICAL		Criteria & Type		Status
Temperature	11.7 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
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« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 08/15/2022 17:00  
Report ID: 22H0345  
Report Name: 22H0345\_FINAL\_WaterTrax\_15\_Aug\_22\_0826.txt

**Sample ID:** 22H0345-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:**  
**Sampled:** 08/02/2022 09:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.569 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
* Background Bacteria	> 200 CFU/100ml	<=200 User-Defined	Final
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	12.5 degrees C		Final

**Sample ID:** 22H0345-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:**  
**Sampled:** 08/02/2022 10:10

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.195 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	11.5 degrees C		Final

**Sample ID:** 22H0345-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 08/02/2022 11:30

# Laboratory Report

# Caro Analytical Services

Report Name: 22H0345\_FINAL\_WaterTrax\_15\_Aug\_22\_0826.txt

**Sample ID:** 22H0345-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 08/02/2022 11:30

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0119 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	9.7 degrees C		Final

**Sample ID:** 22H0345-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 08/02/2022 12:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.204 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	9.2 degrees C		Final

**Sample ID:** 22H0345-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 08/02/2022 14:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.135 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
* Background Bacteria	> 200 CFU/100ml	<=200 User-Defined	Final

Report created on 06/13/2023 15:00:11

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Escherichia coli / E. coli (counts)

< 1 CFU/100ml

<=0,P,PR

User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22H0345\_FINAL\_WaterTrax\_15\_Aug\_22\_0826.txt

**Sample ID:** 22H0345-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 08/02/2022 14:00

MICROORGANISMS		Criteria & Type	Status
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	11.2 degrees C		Final

**Sample ID:** 22H0345-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 08/02/2022 13:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.576 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.4 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
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# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 08/21/2022 17:00  
Report ID: 22H1541  
Report Name: 22H1541\_FINAL\_WaterTrax\_21\_Aug\_22\_1642.txt

**Sample ID:** 22H1541-01  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Airport (7-1-MR, 94E4)  
**Comment:**  
**Sampled:** 08/09/2022 13:15

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.0601 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	14.9 degrees C			Final
Turbidity	0.11 NTU	<=1	User-Defined	Final

**Sample ID:** 22H1541-02  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Mills Rd (7-2-MR, 94E5)  
**Comment:**  
**Sampled:** 08/09/2022 11:00

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00475 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	26 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	13.1 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

# Laboratory Report

Caro Analytical Services

Report Name: 22H1541\_FINAL\_WaterTrax\_21\_Aug\_22\_1642.txt

**Sample ID:** 22H1541-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Marsh Drive (7-4-MD, 94E7)  
**Comment:**  
**Sampled:** 08/09/2022 10:50

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.155 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	16 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	13.7 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22H1541-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Graham Ave (7-5-MD, 94E8)  
**Comment:**  
**Sampled:** 08/09/2022 13:50

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0227 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	14.3 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22H1541-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 08/09/2022 11:35

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00561 mg/L	<=0.02 AO	Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22H1541\_FINAL\_WaterTrax\_21\_Aug\_22\_1642.txt

**Sample ID:** 22H1541-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 08/09/2022 11:35

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 14.1 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22H1541-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:**  
**Sampled:** 08/09/2022 09:50

## INORGANIC

\* Manganese (total) 0.0541 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC 48 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 12.4 degrees C  
Turbidity 0.12 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22H1541-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 08/09/2022 14:15

## INORGANIC

Manganese (total) 0.0111 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22H1541\_FINAL\_WaterTrax\_21\_Aug\_22\_1642.txt

**Sample ID:** 22H1541-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 08/09/2022 14:15

PHYSICAL		Criteria & Type		Status
Temperature	15.2 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22H1541-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Dennis Road (7-14-MD, 179CA)  
**Comment:**  
**Sampled:** 08/09/2022 09:40

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.141 mg/L	<=0.02	AO	Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

PHYSICAL		Criteria & Type		Status
Temperature	11.6 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 08/24/2022 17:00  
Report ID: 22H2588  
Report Name: 22H2588\_FINAL\_WaterTrax\_24\_Aug\_22\_1025.txt

**Sample ID: 22H2588-01**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-1 Shadow Heights (8-1-MR, 94EA)  
Comment:  
Sampled: 08/16/2022 11:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0754 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	13.7 degrees C		Final

**Sample ID: 22H2588-02**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-2 Pinecrest (8-4-MR, 94F9)  
Comment:  
Sampled: 08/16/2022 10:40

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.351 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
* Background Bacteria	> 200 CFU/100ml	<=200 User-Defined	Final
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
* Total Coliforms (counts)	> 2 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	11.5 degrees C		Final

**Sample ID: 22H2588-03**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)  
Comment:  
Sampled: 08/16/2022 13:00

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00417 mg/L	<=0.02 AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22H2588\_FINAL\_WaterTrax\_24\_Aug\_22\_1025.txt

**Sample ID:** 22H2588-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-3 Sugarloaf (8-5-MR, 94FA)  
**Comment:**  
**Sampled:** 08/16/2022 13:00

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 12.9 degrees C

## Criteria & Type

## Status

Final

**Sample ID:** 22H2588-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 1 (8-2-MR, 94EB)  
**Comment:**  
**Sampled:** 08/16/2022 10:00

## INORGANIC

Manganese (total) 0.00098 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

\* **Background Bacteria** > 200 CFU/100ml  
Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=200 User-Defined Final  
<=0,P,PR User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 14.0 degrees C

## Criteria & Type

## Status

Final

**Sample ID:** 22H2588-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 2 (8-3-MR, 94EC)  
**Comment:**  
**Sampled:** 08/16/2022 10:10

## INORGANIC

Manganese (total) 0.00053 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 13.8 degrees C

## Criteria & Type

## Status

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22H2588\_FINAL\_WaterTrax\_24\_Aug\_22\_1025.txt

**Sample ID:** 22H2588-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-5 Dragon Hill (8-6-MR, 94FC)  
**Comment:**  
**Sampled:** 08/16/2022 14:00

INORGANIC			Criteria & Type	Status
Manganese (total)	0.00719 mg/L		<=0.02 AO	Final
MICROORGANISMS			Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml		<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml		<=0,P,OG User-Defined	Final
PHYSICAL			Criteria & Type	Status
Temperature	17.4 degrees C			Final

**Sample ID:** 22H2588-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-6 New Tatchell Reservoir (8-8-MR, 94FF)  
**Comment:**  
**Sampled:** 08/16/2022 14:30

INORGANIC			Criteria & Type	Status
Manganese (total)	0.0116 mg/L		<=0.02 AO	Final
MICROORGANISMS			Criteria & Type	Status
* Background Bacteria	> 200 CFU/100ml		<=200 User-Defined	Final
Escherichia coli / E. coli (counts)	< 1 CFU/100ml		<=0,P,PR User-Defined	Final
* Total Coliforms (counts)	> 8 CFU/100ml		<=0,P,OG User-Defined	Final
PHYSICAL			Criteria & Type	Status
Temperature	14.1 degrees C			Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
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\* Indicates Criteria is exceeded

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 08/26/2022 17:00  
Report ID: 22H3371  
Report Name: 22H3371\_FINAL\_WaterTrax\_26\_Aug\_22\_1635.txt

**Sample ID:** 22H3371-01  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Carradice Rd (7-3-MR, 94E6)  
**Comment:**  
**Sampled:** 08/22/2022 11:15

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.0313 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	11.6 degrees C			Final
Turbidity	0.15 NTU	<=1	User-Defined	Final

**Sample ID:** 22H3371-02  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Dixon (7-8-MR, 94F1)  
**Comment:**  
**Sampled:** 08/22/2022 10:50

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00193 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	5 CFU/ml	<=500	User-Defined	Final
* Total Coliforms (counts)	30 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	10.8 degrees C			Final
Turbidity	0.38 NTU	<=1	User-Defined	Final

# Laboratory Report

Caro Analytical Services

Report Name: 22H3371\_FINAL\_WaterTrax\_26\_Aug\_22\_1635.txt

**Sample ID:** 22H3371-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:**  
**Sampled:** 08/22/2022 11:40

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0204 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	13.4 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22H3371-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Nason (7-10-MD, 94F3)  
**Comment:**  
**Sampled:** 08/22/2022 10:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0567 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	14.0 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22H3371-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:**  
**Sampled:** 08/22/2022 09:35

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0600 mg/L	<=0.02 AO	Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22H3371\_FINAL\_WaterTrax\_26\_Aug\_22\_1635.txt

**Sample ID:** 22H3371-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:**  
**Sampled:** 08/22/2022 09:35

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 10.8 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22H3371-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N.Star South Hill (7-12-MD, 94F6)  
**Comment:**  
**Sampled:** 08/22/2022 09:40

## INORGANIC

\* Manganese (total) 0.137 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 9.7 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22H3371-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:**  
**Sampled:** 08/22/2022 13:05

## INORGANIC

\* Manganese (total) 0.101 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22H3371\_FINAL\_WaterTrax\_26\_Aug\_22\_1635.txt

**Sample ID:** 22H3371-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:**  
**Sampled:** 08/22/2022 13:05

PHYSICAL		Criteria & Type		Status
Temperature	11.8 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22H3371-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** Bulk Water Site #1 (7-15-QC, 21D9B)  
**Comment:**  
**Sampled:** 08/22/2022 09:25

INORGANIC		Criteria & Type		Status
Manganese (total)	0.269 mg/L			Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml			Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml			Final
Total Coliforms (counts)	< 1 CFU/100ml			Final

PHYSICAL		Criteria & Type		Status
Temperature	12.3 degrees C			Final
Turbidity	0.24 NTU			Final

## Result Legend

*P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no, TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment*  
*< means less than lower detection limit shown*  
*> means greater than upper detection limit shown*  
*« means detected & less than number shown*  
*» means detected & greater than number shown*  
*\* Indicates Criteria is exceeded*

# Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 08/24/2022 17:00  
Report ID: 22H3375  
Report Name: 22H3375\_FINAL\_WaterTrax\_24\_Aug\_22\_1600.txt

**Sample ID:** 22H3375-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:**  
**Sampled:** 08/22/2022 13:00

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	12.8 degrees C			Final

**Sample ID:** 22H3375-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 08/22/2022 13:40

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	10.2 degrees C			Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded

Report For: City of Quesnel  
Received: 08/24/2022 17:00  
Report ID: 22H3376  
Report Name: 22H3376\_FINAL\_WaterTrax\_24\_Aug\_22\_1601.txt

**Sample ID:** 22H3376-01  
Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-2 Pinecrest (8-4-MR, 94F9)  
Comment:  
Sampled: 08/22/2022 13:20

MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.0 degrees C		Final

**Sample ID:** 22H3376-02  
Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-6 New Tatchell Reservoir (8-8-MR, 94FF)  
Comment:  
Sampled: 08/22/2022 14:30

MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	15.2 degrees C		Final

**Result Legend**

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 09/07/2022 18:04  
Report ID: 22H3592  
Report Name: 22H3592\_FINAL\_WaterTrax\_29\_Aug\_22\_1237.txt

**Sample ID: 22H3592-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment:  
Sampled: 08/23/2022 13:30

**INORGANIC****\* Manganese (total)**

0.157 mg/L

**Criteria & Type**

&lt;=0.02 AO

**Status**

Final

**MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

&lt; 5 CFU/ml

&lt;=500 User-Defined

Final

**\* Total Coliforms (counts)**

2 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

10.3 degrees C

**Criteria & Type****Status**

Final

Turbidity

0.29 NTU

&lt;=1 User-Defined

Final

**Sample ID: 22H3592-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment:  
Sampled: 08/23/2022 10:00

**INORGANIC****Manganese (total)**

0.00458 mg/L

**Criteria & Type**

&lt;=0.02 AO

**Status**

Final

**MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

&lt; 5 CFU/ml

&lt;=500 User-Defined

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

13.4 degrees C

**Criteria & Type****Status**

Final

Turbidity

0.12 NTU

&lt;=1 User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22H3592\_FINAL\_WaterTrax\_29\_Aug\_22\_1237.txt

**Sample ID:** 22H3592-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Marsh Drive (7-4-MD, 94E7)  
**Comment:**  
**Sampled:** 08/23/2022 10:50

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0111 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
* Total Coliforms (counts)	1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	13.2 degrees C			Final
Turbidity	0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22H3592-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Graham Ave (7-5-MD, 94E8)  
**Comment:**  
**Sampled:** 08/23/2022 11:35

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0146 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	14.6 degrees C			Final
Turbidity	0.12 NTU	<=1	User-Defined	Final

**Sample ID:** 22H3592-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 08/23/2022 11:10

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00094 mg/L	<=0.02	AO	Final

## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 09/08/2022 11:09  
Report ID: 22H4301  
Report Name: 22H4301\_FINAL\_WaterTrax\_02\_Sep\_22\_1607.txt

**Sample ID: 22H4301-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment:  
Sampled: 08/29/2022 09:30

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 13.2 degrees C

**Criteria & Type**

**Status**

Final

**Sample ID: 22H4301-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Marsh Drive (7-4-MD, 94E7)  
Comment:  
Sampled: 08/29/2022 10:40

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 12.9 degrees C

**Criteria & Type**

**Status**

Final

**Sample ID: 22H4301-03**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- West Fraser Rd (7-6-MR, 94E9)  
Comment:  
Sampled: 08/29/2022 11:20

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 14.5 degrees C

**Criteria & Type**

**Status**

Final



# Laboratory Report

Caro Analytical Services

Report Name: 22H4301\_FINAL\_WaterTrax\_02\_Sep\_22\_1607.txt

Sample ID: 22H4301-04

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Dixon (7-8-MR, 94F1)

Comment:

Sampled: 08/29/2022 10:15

## MICROORGANISMS

Escherichia coli / E. coli (counts)	< 1 CFU/100ml
Heterotrophic Plate Count / HPC	< 5 CFU/ml
Total Coliforms (counts)	< 1 CFU/100ml

## Criteria & Type

<=0,P,PR	User-Defined
<=500	User-Defined
<=0,P,OG	User-Defined

## Status

Final
Final
Final

## PHYSICAL

Temperature	13.2 degrees C
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## Criteria & Type

## Status

Final
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## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,

TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

< means less than lower detection limit shown

> means greater than upper detection limit shown

« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 09/07/2022 17:00  
Report ID: 22H4546  
Report Name: 22H4546\_FINAL\_WaterTrax\_07\_Sep\_22\_1039.txt

**Sample ID: 22H4546-01**

Water System: City of Quesnel – Main System  
Source: Well 3 Rolph at Roddis  
Facility: Well No 3  
Sampling Pt: Well 3 Rolph at Roddis (1-2-EP, 94D1)  
Comment:  
Sampled: 08/30/2022 10:45

**INORGANIC**

Chloride 10.5 mg/L  
Nitrate (as N) < 0.010 mg/L  
Nitrite (as N) < 0.010 mg/L

**Criteria & Type**

<=250 AO

**Status**

Final

Final

Final

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined

<=0,P,OG User-Defined

**Status**

Final

Final

**PHYSICAL**

Temperature 9.4 degrees C

**Criteria & Type****Status**

Final

**Sample ID: 22H4546-02**

Water System: City of Quesnel – Main System  
Source: Well 6 Rolph at Robertson  
Facility: Well No 6  
Sampling Pt: Well 6 Rolph at Robertson (3-2-EP, 94DC)  
Comment:  
Sampled: 08/30/2022 11:10

**INORGANIC**

Chloride 20.1 mg/L  
Nitrate (as N) 0.020 mg/L  
Nitrite (as N) < 0.010 mg/L

**Criteria & Type**

<=250 AO

**Status**

Final

Final

Final

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined

<=0,P,OG User-Defined

**Status**

Final

Final

**PHYSICAL**

Temperature 9.6 degrees C

**Criteria & Type****Status**

Final

## Laboratory Report

## Caro Analytical Services

Report Name: 22H4546\_FINAL\_WaterTrax\_07\_Sep\_22\_1039.txt

**Sample ID:** 22H4546-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 08/30/2022 10:00

INORGANIC		Criteria & Type	Status
Chloride	9.62 mg/L	<=250 AO	Final
Nitrate (as N)	0.158 mg/L		Final
Nitrite (as N)	< 0.010 mg/L		Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.1 degrees C		Final

**Sample ID:** 22H4546-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 08/30/2022 11:45

INORGANIC		Criteria & Type	Status
Chloride	4.03 mg/L	<=250 AO	Final
Nitrate (as N)	< 0.010 mg/L		Final
Nitrite (as N)	< 0.010 mg/L		Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.1 degrees C		Final

**Sample ID:** 22H4546-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 08/30/2022 14:20

# Laboratory Report

# Caro Analytical Services

Report Name: 22H4546\_FINAL\_WaterTrax\_07\_Sep\_22\_1039.txt

**Sample ID:** 22H4546-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 08/30/2022 14:20

INORGANIC		Criteria & Type	Status
Chloride	1.03 mg/L	<=250 AO	Final
Nitrate (as N)	< 0.010 mg/L		Final
Nitrite (as N)	< 0.010 mg/L		Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	11.2 degrees C		Final

**Sample ID:** 22H4546-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 08/30/2022 13:30

INORGANIC		Criteria & Type	Status
Chloride	15.1 mg/L	<=250 AO	Final
Nitrate (as N)	< 0.010 mg/L		Final
Nitrite (as N)	< 0.010 mg/L		Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	11.0 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

> means greater than upper detection limit shown

« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

Approved on:  
**05/08/2023** mm/dd/yyyy  
Approved by:  
**Krystal Earle**

# Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 09/15/2022 16:37  
Report ID: 22I0761  
Report Name: 22I0761\_FINAL\_WaterTrax\_14\_Sep\_22\_1718.txt

**Sample ID:** 22I0761-01

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Airport (7-1-MR, 94E4)

Comment:

Sampled: 09/06/2022

## INORGANIC

\* Manganese (total)

0.0724 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts)

< 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Heterotrophic Plate Count / HPC

< 5 CFU/ml

<=500 User-Defined

Final

\* Total Coliforms (counts)

1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature

11.6 degrees C

## Criteria & Type

## Status

Final

Turbidity

0.14 NTU

<=1 User-Defined

Final

**Sample ID:** 22I0761-02

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Mills Rd (7-2-MR, 94E5)

Comment:

Sampled: 09/06/2022 10:10

## INORGANIC

Manganese (total)

0.00308 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts)

< 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Heterotrophic Plate Count / HPC

< 5 CFU/ml

<=500 User-Defined

Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature

14.2 degrees C

## Criteria & Type

## Status

Final

Turbidity

< 0.10 NTU

<=1 User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22I0761\_FINAL\_WaterTrax\_14\_Sep\_22\_1718.txt

**Sample ID:** 22I0761-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Marsh Drive (7-4-MD, 94E7)  
**Comment:**  
**Sampled:** 09/06/2022 10:25

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00735 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	13.4 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22I0761-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Graham Ave (7-5-MD, 94E8)  
**Comment:**  
**Sampled:** 09/06/2022 09:50

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00425 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	15.3 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22I0761-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 09/06/2022 14:00

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00177 mg/L	<=0.02	AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22I0761\_FINAL\_WaterTrax\_14\_Sep\_22\_1718.txt

**Sample ID:** 22I0761-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 09/06/2022 14:00

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC 10 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 15.4 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22I0761-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:**  
**Sampled:** 09/06/2022 11:10

## INORGANIC

\* Manganese (total) 0.0807 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC 6 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 13.1 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22I0761-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 09/06/2022 11:35

## INORGANIC

\* Manganese (total) 0.0213 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22I0761\_FINAL\_WaterTrax\_14\_Sep\_22\_1718.txt

**Sample ID:** 22I0761-07 (continued)

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S-Carson Pit (7-16-MR, 35D91)

Comment:

Sampled: 09/06/2022 11:35

## PHYSICAL

Temperature 14.9 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined

## Status

Final

Final

**Sample ID:** 22I0761-08

Water System: City of Quesnel – Main System

Facility: Distribution System

Sampling Pt: S- Dennis Road (7-14-MD, 179CA)

Comment:

Sampled: 09/06/2022 10:45

## INORGANIC

\* Manganese (total) 0.137 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

## Status

Final

Final

Final

## PHYSICAL

Temperature 13.7 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined

## Status

Final

Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,

TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

< means less than lower detection limit shown

> means greater than upper detection limit shown

« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

## Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 09/20/2022 17:00  
Report ID: 22I1815  
Report Name: 22I1815\_FINAL\_WaterTrax\_20\_Sep\_22\_1002.txt

**Sample ID:** 22I1815-01  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Airport (7-1-MR, 94E4)  
**Comment:**  
**Sampled:** 09/13/2022 09:00

### MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
**\* Total Coliforms (counts) 2 CFU/100ml**

### Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
**<=0,P,OG User-Defined Final**

### Status

### PHYSICAL

Temperature 11.2 degrees C

### Criteria & Type

### Status

Final

### Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
**\* Indicates Criteria is exceeded**

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 09/20/2022 17:00  
Report ID: 22I1817  
Report Name: 22I1817\_FINAL\_WaterTrax\_20\_Sep\_22\_1120.txt

**Sample ID: 22I1817-01**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-1 Shadow Heights (8-1-MR, 94EA)  
Comment:  
Sampled: 09/13/2022 11:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.103 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.9 degrees C		Final

**Sample ID: 22I1817-02**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-2 Pinecrest (8-4-MR, 94F9)  
Comment:  
Sampled: 09/13/2022 10:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.389 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
* Total Coliforms (counts)	7 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	12.6 degrees C		Final

**Sample ID: 22I1817-03**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)  
Comment:  
Sampled: 09/13/2022 13:00

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00297 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22I1817\_FINAL\_WaterTrax\_20\_Sep\_22\_1120.txt

**Sample ID:** 22I1817-03 (continued)

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)

Comment:

Sampled: 09/13/2022 13:00

## PHYSICAL

Temperature 10.5 degrees C

## Criteria & Type

## Status

Final

**Sample ID:** 22I1817-04

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-4 Abbott Dr 1 (8-2-MR, 94EB)

Comment:

Sampled: 09/13/2022 09:45

## INORGANIC

Manganese (total) 0.00115 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature 12.0 degrees C

## Criteria & Type

## Status

Final

**Sample ID:** 22I1817-05

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-4 Abbott Dr 2 (8-3-MR, 94EC)

Comment:

Sampled: 09/13/2022 10:00

## INORGANIC

Manganese (total) 0.00119 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature 12.1 degrees C

## Criteria & Type

## Status

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22I1817\_FINAL\_WaterTrax\_20\_Sep\_22\_1120.txt

**Sample ID:** 22I1817-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-5 Dragon Hill (8-6-MR, 94FC)  
**Comment:**  
**Sampled:** 09/13/2022 14:30

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00231 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	16.0 degrees C		Final

**Sample ID:** 22I1817-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-6 New Tatchell Reservoir (8-8-MR, 94FF)  
**Comment:**  
**Sampled:** 09/13/2022 13:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0207 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	13.0 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 09/26/2022 17:00  
Report ID: 22I2720  
Report Name: 22I2720\_FINAL\_WaterTrax\_26\_Sep\_22\_1339.txt

**Sample ID:** 22I2720-01  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Carradice Rd (7-3-MR, 94E6)  
**Comment:**  
**Sampled:** 09/20/2022 09:30

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.0400 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	10.7 degrees C			Final
Turbidity	0.12 NTU	<=1	User-Defined	Final

**Sample ID:** 22I2720-02  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Dixon (7-8-MR, 94F1)  
**Comment:**  
**Sampled:** 09/20/2022 10:25

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00099 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	12.0 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

# Laboratory Report

Caro Analytical Services

Report Name: 22I2720\_FINAL\_WaterTrax\_26\_Sep\_22\_1339.txt

**Sample ID:** 22I2720-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:**  
**Sampled:** 09/20/2022 10:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0209 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	12.9 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22I2720-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Nason (7-10-MD, 94F3)  
**Comment:**  
**Sampled:** 09/20/2022 11:05

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0680 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	14.8 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22I2720-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:**  
**Sampled:** 09/20/2022 11:25

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0882 mg/L	<=0.02 AO	Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22I2720\_FINAL\_WaterTrax\_26\_Sep\_22\_1339.txt

**Sample ID:** 22I2720-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:**  
**Sampled:** 09/20/2022 11:25

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 10.4 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22I2720-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N.Star South Hill (7-12-MD, 94F6)  
**Comment:**  
**Sampled:** 09/20/2022 11:40

## INORGANIC

\* Manganese (total) 0.134 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 12.8 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22I2720-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:**  
**Sampled:** 09/20/2022 13:40

## INORGANIC

\* Manganese (total) 0.151 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22I2720\_FINAL\_WaterTrax\_26\_Sep\_22\_1339.txt

**Sample ID:** 22I2720-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:**  
**Sampled:** 09/20/2022 13:40

PHYSICAL		Criteria & Type		Status
Temperature	12.8 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22I2720-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** Bulk Water Site #1 (7-15-QC, 21D9B)  
**Comment:**  
**Sampled:** 09/20/2022 13:10

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0818 mg/L			Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml			Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml			Final
Total Coliforms (counts)	< 1 CFU/100ml			Final

PHYSICAL		Criteria & Type		Status
Temperature	12.2 degrees C			Final
Turbidity	< 0.10 NTU			Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
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\* Indicates Criteria is exceeded

Report For: City of Quesnel  
Received: 09/28/2022 17:00  
Report ID: 22I3109  
Report Name: 22I3109\_FINAL\_WaterTrax\_28\_Sep\_22\_0920.txt

**Sample ID: 22I3109-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment:  
Sampled: 09/22/2022 13:40

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 11.0 degrees C

**Criteria & Type****Status**

Final

**Sample ID: 22I3109-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment:  
Sampled: 09/22/2022 14:50

**MICROORGANISMS**

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined  
<=500 User-Defined  
<=0,P,OG User-Defined

**Status**

Final  
Final  
Final

**PHYSICAL**

Temperature 9.0 degrees C

**Criteria & Type****Status**

Final

**Result Legend**

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded

## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 10/05/2022 17:00  
Report ID: 2213748  
Report Name: 2213748\_FINAL\_WaterTrax\_05\_Oct\_22\_1601.txt

**Sample ID:** 2213748-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:**  
**Sampled:** 09/27/2022 10:20

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.558 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.2 degrees C		Final

**Sample ID:** 2213748-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:**  
**Sampled:** 09/27/2022 10:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.202 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.3 degrees C		Final

**Sample ID:** 2213748-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 09/27/2022 10:00

# Laboratory Report

# Caro Analytical Services

Report Name: 22I3748\_FINAL\_WaterTrax\_05\_Oct\_22\_1601.txt

**Sample ID:** 22I3748-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 09/27/2022 10:00

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0115 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.6 degrees C		Final

**Sample ID:** 22I3748-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 09/27/2022 13:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.203 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.6 degrees C		Final

**Sample ID:** 22I3748-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 09/27/2022 11:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.130 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Report created on 06/13/2023 15:52:35

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Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22I3748\_FINAL\_WaterTrax\_05\_Oct\_22\_1601.txt

**Sample ID:** 22I3748-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 09/27/2022 11:30

PHYSICAL	Criteria & Type	Status
Temperature 9.0 degrees C		Final

**Sample ID:** 22I3748-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 09/27/2022 14:20

INORGANIC	Criteria & Type	Status
* Manganese (total) 0.539 mg/L	<=0.02 AO	Final

MICROORGANISMS	Criteria & Type	Status
Escherichia coli / E. coli (counts) < 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts) < 1 CFU/100ml	<=0,P,OG User-Defined	Final

PHYSICAL	Criteria & Type	Status
Temperature 10.2 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded



# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 10/13/2022 17:00  
Report ID: 22J0557  
Report Name: 22J0557\_FINAL\_WaterTrax\_13\_Oct\_22\_1425.txt

**Sample ID: 22J0557-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment:  
Sampled: 10/04/2022 10:30

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00362 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	16.4 degrees C			Final
Turbidity	0.14 NTU	<=1	User-Defined	Final

**Sample ID: 22J0557-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment:  
Sampled: 10/04/2022 11:00

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00304 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	14.5 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

# Laboratory Report

Caro Analytical Services

Report Name: 22J0557\_FINAL\_WaterTrax\_13\_Oct\_22\_1425.txt

**Sample ID:** 22J0557-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Marsh Drive (7-4-MD, 94E7)  
**Comment:**  
**Sampled:** 10/04/2022 11:45

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00369 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	14.0 degrees C		Final
Turbidity	0.11 NTU	<=1 User-Defined	Final

**Sample ID:** 22J0557-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Graham Ave (7-5-MD, 94E8)  
**Comment:**  
**Sampled:** 10/04/2022 13:40

INORGANIC		Criteria & Type	Status
* Manganese (total)	1.32 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	14.1 degrees C		Final
* Turbidity	2.19 NTU	<=1 User-Defined	Final

**Sample ID:** 22J0557-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 10/04/2022 12:20

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00188 mg/L	<=0.02 AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22J0557\_FINAL\_WaterTrax\_13\_Oct\_22\_1425.txt

**Sample ID:** 22J0557-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 10/04/2022 12:20

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 14.2 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22J0557-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:**  
**Sampled:** 10/04/2022 14:35

## INORGANIC

\* Manganese (total) 0.0625 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 13.4 degrees C  
Turbidity 0.18 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22J0557-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 10/04/2022 13:20

## INORGANIC

Manganese (total) 0.00812 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22J0557\_FINAL\_WaterTrax\_13\_Oct\_22\_1425.txt

**Sample ID:** 22J0557-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 10/04/2022 13:20

PHYSICAL		Criteria & Type		Status
Temperature	14.2 degrees C			Final
Turbidity	0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22J0557-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Dennis Road (7-14-MD, 179CA)  
**Comment:**  
**Sampled:** 10/04/2022 14:10

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.142 mg/L	<=0.02	AO	Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

PHYSICAL		Criteria & Type		Status
Temperature	13.5 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

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« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 10/18/2022 17:00  
Report ID: 22J1600  
Report Name: 22J1600\_FINAL\_WaterTrax\_18\_Oct\_22\_1050.txt

**Sample ID: 22J1600-01**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-1 Shadow Heights (8-1-MR, 94EA)  
Comment:  
Sampled: 10/12/2022 10:10

INORGANIC		<b>Criteria &amp; Type</b>	<b>Status</b>
* Manganese (total)	0.0757 mg/L	<=0.02 AO	Final
MICROORGANISMS		<b>Criteria &amp; Type</b>	<b>Status</b>
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		<b>Criteria &amp; Type</b>	<b>Status</b>
Temperature	10.5 degrees C		Final

**Sample ID: 22J1600-02**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-2 Pinecrest (8-4-MR, 94F9)  
Comment:  
Sampled: 10/12/2022 11:15

INORGANIC		<b>Criteria &amp; Type</b>	<b>Status</b>
* Manganese (total)	0.371 mg/L	<=0.02 AO	Final
MICROORGANISMS		<b>Criteria &amp; Type</b>	<b>Status</b>
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		<b>Criteria &amp; Type</b>	<b>Status</b>
Temperature	9.2 degrees C		Final

**Sample ID: 22J1600-03**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)  
Comment:  
Sampled: 10/12/2022 13:10

INORGANIC		<b>Criteria &amp; Type</b>	<b>Status</b>
Manganese (total)	0.00349 mg/L	<=0.02 AO	Final
MICROORGANISMS		<b>Criteria &amp; Type</b>	<b>Status</b>
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22J1600\_FINAL\_WaterTrax\_18\_Oct\_22\_1050.txt

**Sample ID:** 22J1600-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-3 Sugarloaf (8-5-MR, 94FA)  
**Comment:**  
**Sampled:** 10/12/2022 13:10

	Criteria & Type	Status
PHYSICAL		
Temperature	10.7 degrees C	Final

**Sample ID:** 22J1600-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 1 (8-2-MR, 94EB)  
**Comment:**  
**Sampled:** 10/12/2022 09:20

	Criteria & Type	Status
INORGANIC		
Manganese (total)	0.00069 mg/L	
	<=0.02 AO	Final

	Criteria & Type	Status
MICROORGANISMS		
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	
	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	
	<=0,P,OG User-Defined	Final

	Criteria & Type	Status
PHYSICAL		
Temperature	10.1 degrees C	Final

**Sample ID:** 22J1600-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 2 (8-3-MR, 94EC)  
**Comment:**  
**Sampled:** 10/12/2022 09:30

	Criteria & Type	Status
INORGANIC		
Manganese (total)	0.00064 mg/L	
	<=0.02 AO	Final

	Criteria & Type	Status
MICROORGANISMS		
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	
	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	
	<=0,P,OG User-Defined	Final

	Criteria & Type	Status
PHYSICAL		
Temperature	10.3 degrees C	Final



# Laboratory Report

Caro Analytical Services

Report Name: 22J1600\_FINAL\_WaterTrax\_18\_Oct\_22\_1050.txt

**Sample ID:** 22J1600-06

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-5 Dragon Hill (8-6-MR, 94FC)

Comment:

Sampled: 10/12/2022 12:40

## INORGANIC

Manganese (total) 0.00114 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature 11.2 degrees C

## Criteria & Type

## Status

Final

**Sample ID:** 22J1600-07

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-6 New Tatchell Reservoir (8-8-MR, 94FF)

Comment:

Sampled: 10/12/2022 14:30

## INORGANIC

Manganese (total) 0.0116 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature 9.8 degrees C

## Criteria & Type

## Status

Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,

TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

< means less than lower detection limit shown

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« means detected & less than number shown

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\* Indicates Criteria is exceeded

# Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 10/26/2022 17:00  
Report ID: 22J2499  
Report Name: 22J2499\_FINAL\_WaterTrax\_26\_Oct\_22\_0959.txt

**Sample ID: 22J2499-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Carradice Rd (7-3-MR, 94E6)  
Comment:  
Sampled: 10/18/2022 10:30

**INORGANIC**

**\* Manganese (total)**

0.0355 mg/L

**Criteria & Type**

<=0.02 AO

**Status**

Final

**MICROORGANISMS**

Escherichia coli / E. coli (counts)

< 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

< 5 CFU/ml

<=500 User-Defined

Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

9.9 degrees C

**Criteria & Type**

**Status**

Final

Turbidity

0.14 NTU

<=1 User-Defined

Final

**Sample ID: 22J2499-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Dixon (7-8-MR, 94F1)  
Comment:  
Sampled: 10/18/2022 11:55

**INORGANIC**

**Manganese (total)**

0.00158 mg/L

**Criteria & Type**

<=0.02 AO

**Status**

Final

**MICROORGANISMS**

Escherichia coli / E. coli (counts)

< 1 CFU/100ml

**Criteria & Type**

<=0,P,PR User-Defined

**Status**

Final

Heterotrophic Plate Count / HPC

< 5 CFU/ml

<=500 User-Defined

Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

12.3 degrees C

**Criteria & Type**

**Status**

Final

Turbidity

0.34 NTU

<=1 User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22J2499\_FINAL\_WaterTrax\_26\_Oct\_22\_0959.txt

**Sample ID:** 22J2499-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:**  
**Sampled:** 10/18/2022 11:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0879 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	9.3 degrees C		Final
Turbidity	0.15 NTU	<=1 User-Defined	Final

**Sample ID:** 22J2499-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Nason (7-10-MD, 94F3)  
**Comment:**  
**Sampled:** 10/18/2022 09:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0667 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	13.8 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22J2499-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:**  
**Sampled:** 10/18/2022 08:55

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0501 mg/L	<=0.02 AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22J2499\_FINAL\_WaterTrax\_26\_Oct\_22\_0959.txt

**Sample ID:** 22J2499-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:**  
**Sampled:** 10/18/2022 08:55

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 11.1 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22J2499-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N.Star South Hill (7-12-MD, 94F6)  
**Comment:**  
**Sampled:** 10/18/2022 09:00

## INORGANIC

\* Manganese (total) 0.137 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 10.5 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22J2499-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:**  
**Sampled:** 10/18/2022 11:35

## INORGANIC

\* Manganese (total) 0.140 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22J2499\_FINAL\_WaterTrax\_26\_Oct\_22\_0959.txt

**Sample ID:** 22J2499-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:**  
**Sampled:** 10/18/2022 11:35

PHYSICAL		Criteria & Type		Status
Temperature	12.0 degrees C			Final
Turbidity	0.11 NTU	<=1	User-Defined	Final

**Sample ID:** 22J2499-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** Bulk Water Site #1 (7-15-QC, 21D9B)  
**Comment:**  
**Sampled:** 10/18/2022 09:55

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0430 mg/L			Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml			Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml			Final
Total Coliforms (counts)	< 1 CFU/100ml			Final

PHYSICAL		Criteria & Type		Status
Temperature	10.1 degrees C			Final
Turbidity	< 0.10 NTU			Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
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\* Indicates Criteria is exceeded

## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 10/31/2022 17:00  
Report ID: 22J3374  
Report Name: 22J3374\_FINAL\_WaterTrax\_31\_Oct\_22\_0948.txt

**Sample ID: 22J3374-01**

Water System: City of Quesnel – Main System  
Source: Well 3 Rolph at Roddis  
Facility: Well No 3  
Sampling Pt: Well 3 Rolph at Roddis (1-2-EP, 94D1)  
Comment:  
Sampled: 10/25/2022 10:45

**INORGANIC****\* Manganese (total)****0.665 mg/L****Criteria & Type****<=0.02 AO****Status****Final****MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

9.5 degrees C

**Criteria & Type****Status**

Final

**Sample ID: 22J3374-02**

Water System: City of Quesnel – Main System  
Source: Well 6 Rolph at Robertson  
Facility: Well No 6  
Sampling Pt: Well 6 Rolph at Robertson (3-2-EP, 94DC)  
Comment:  
Sampled: 10/25/2022 09:50

**INORGANIC****\* Manganese (total)****0.189 mg/L****Criteria & Type****<=0.02 AO****Status****Final****MICROORGANISMS**

Escherichia coli / E. coli (counts)

&lt; 1 CFU/100ml

**Criteria & Type**

&lt;=0,P,PR User-Defined

**Status**

Final

Total Coliforms (counts)

&lt; 1 CFU/100ml

&lt;=0,P,OG User-Defined

Final

**PHYSICAL**

Temperature

9.8 degrees C

**Criteria & Type****Status**

Final

**Sample ID: 22J3374-03**

Water System: City of Quesnel – Main System  
Source: Well 7 N. Fraser Dr  
Facility: Well No 7  
Sampling Pt: Well 7 N. Fraser Dr (4-2-EP, 94E0)  
Comment:  
Sampled: 10/25/2022 11:15

# Laboratory Report

# Caro Analytical Services

Report Name: 22J3374\_FINAL\_WaterTrax\_31\_Oct\_22\_0948.txt

**Sample ID:** 22J3374-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 10/25/2022 11:15

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0116 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.2 degrees C		Final

**Sample ID:** 22J3374-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 10/25/2022 13:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.220 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.5 degrees C		Final

**Sample ID:** 22J3374-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 10/25/2022 14:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.133 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Report created on 06/13/2023 15:52:24

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Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22J3374\_FINAL\_WaterTrax\_31\_Oct\_22\_0948.txt

**Sample ID:** 22J3374-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 10/25/2022 14:00

PHYSICAL	Criteria & Type	Status
Temperature 8.7 degrees C		Final

**Sample ID:** 22J3374-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 10/25/2022 13:30

INORGANIC	Criteria & Type	Status
* Manganese (total) 0.507 mg/L	<=0.02 AO	Final

MICROORGANISMS	Criteria & Type	Status
Escherichia coli / E. coli (counts) < 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts) < 1 CFU/100ml	<=0,P,OG User-Defined	Final

PHYSICAL	Criteria & Type	Status
Temperature 9.2 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
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» means detected & greater than number shown  
\* Indicates Criteria is exceeded



# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 11/02/2022 17:01  
Report ID: 22J3636  
Report Name: 22J3636\_FINAL\_WaterTrax\_02\_Nov\_22\_1051.txt

**Sample ID:** 22J3636-01  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Mills Rd (7-2-MR, 94E5)  
**Comment:**  
**Sampled:** 10/25/2022 11:40

INORGANIC		Criteria & Type		Status
Aluminum (total)	< 0.0050 mg/L	<=0.2	Operational - Other	Final
Antimony (total)	< 0.00020 mg/L	<=0.006	MAC	Final
Arsenic (total)	0.00053 mg/L		Current Level	Final
Barium (total)	0.0287 mg/L	<=2	MAC	Final
Beryllium (total)	< 0.00010 mg/L			Final
Bismuth (total)	< 0.00010 mg/L			Final
Boron (total)	< 0.0500 mg/L	<=5	MAC	Final
Cadmium (total)	< 0.000010 mg/L	<=0.005	MAC	Final
Calcium (total)	48.7 mg/L			Final
Chromium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Cobalt (total)	< 0.00010 mg/L			Final
Copper (total)	0.0132 mg/L	<=1	AO	Final
Iron (total)	0.015 mg/L	<=0.3	AO	Final
Lead (total)	0.00025 mg/L	<=0.005	MAC	Final
Lithium (total)	0.00122 mg/L			Final
Magnesium (total)	15.3 mg/L			Final
Manganese (total)	0.00267 mg/L	<=0.02	AO	Final
Molybdenum (total)	0.00118 mg/L			Final
Nickel (total)	0.00069 mg/L			Final
Phosphorus (total)	< 0.050 mg/L			Final
Potassium (total)	1.86 mg/L			Final
Selenium (total)	0.00177 mg/L	<=0.05	MAC	Final
Silicon (total, as Si)	5.9 mg/L			Final
Silver (total)	< 0.000050 mg/L			Final
Sodium (total)	6.55 mg/L	<=200	AO	Final
Strontium (total)	0.209 mg/L			Final
Sulfur (total)	6.4 mg/L			Final
Tellurium (total)	< 0.00050 mg/L			Final
Thallium (total)	< 0.000020 mg/L			Final
Thorium (total)	< 0.00010 mg/L			Final
Tin (total)	< 0.00020 mg/L			Final
Titanium (total)	< 0.0050 mg/L			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22J3636\_FINAL\_WaterTrax\_02\_Nov\_22\_1051.txt

**Sample ID:** 22J3636-01 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Mills Rd (7-2-MR, 94E5)  
**Comment:**  
**Sampled:** 10/25/2022 11:40

INORGANIC		Criteria & Type	Status
Tungsten (total)	< 0.0002 mg/L		Final
Vanadium (total)	< 0.0050 mg/L		Final
Zinc (total)	0.0065 mg/L	<=5 AO	Final
Zirconium (total)	< 0.00010 mg/L		Final
PHYSICAL		Criteria & Type	Status
Hardness (total, as CaCO3)	185 mg/L		Final
RADIONUCLIDES		Criteria & Type	Status
Uranium (total)	0.000843 mg/L	<=0.02 MAC	Final

**Sample ID:** 22J3636-02  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:**  
**Sampled:** 10/25/2022 15:00

INORGANIC		Criteria & Type	Status
Aluminum (total)	< 0.0050 mg/L	<=0.2 Operational - Other	Final
Antimony (total)	< 0.00020 mg/L	<=0.006 MAC	Final
Arsenic (total)	0.00109 mg/L	Current Level	Final
Barium (total)	0.0606 mg/L	<=2 MAC	Final
Beryllium (total)	< 0.00010 mg/L		Final
Bismuth (total)	< 0.00010 mg/L		Final
Boron (total)	< 0.0500 mg/L	<=5 MAC	Final
Cadmium (total)	< 0.000010 mg/L	<=0.005 MAC	Final
Calcium (total)	29.7 mg/L		Final
Chromium (total)	< 0.00050 mg/L	<=0.05 MAC	Final
Cobalt (total)	< 0.00010 mg/L		Final
Copper (total)	0.00190 mg/L	<=1 AO	Final
Iron (total)	< 0.010 mg/L	<=0.3 AO	Final
Lead (total)	0.00049 mg/L	<=0.005 MAC	Final
Lithium (total)	0.00125 mg/L		Final
Magnesium (total)	7.35 mg/L		Final
* Manganese (total)	0.0700 mg/L	<=0.02 AO	Final
Molybdenum (total)	0.00173 mg/L		Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22J3636\_FINAL\_WaterTrax\_02\_Nov\_22\_1051.txt

**Sample ID:** 22J3636-02 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:**  
**Sampled:** 10/25/2022 15:00

INORGANIC		Criteria & Type		Status
Nickel (total)	< 0.00040 mg/L			Final
Phosphorus (total)	< 0.050 mg/L			Final
Potassium (total)	0.84 mg/L			Final
Selenium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Silicon (total, as Si)	6.0 mg/L			Final
Silver (total)	< 0.000050 mg/L			Final
Sodium (total)	3.96 mg/L	<=200	AO	Final
Strontium (total)	0.173 mg/L			Final
Sulfur (total)	5.6 mg/L			Final
Tellurium (total)	< 0.00050 mg/L			Final
Thallium (total)	< 0.000020 mg/L			Final
Thorium (total)	< 0.00010 mg/L			Final
Tin (total)	< 0.00020 mg/L			Final
Titanium (total)	< 0.0050 mg/L			Final
Tungsten (total)	< 0.0002 mg/L			Final
Vanadium (total)	< 0.0050 mg/L			Final
Zinc (total)	0.0164 mg/L	<=5	AO	Final
Zirconium (total)	< 0.00010 mg/L			Final
PHYSICAL		Criteria & Type		Status
Hardness (total, as CaCO3)	105 mg/L			Final
RADIONUCLIDES		Criteria & Type		Status
Uranium (total)	0.000281 mg/L	<=0.02	MAC	Final

**Sample ID:** 22J3636-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 10/25/2022 14:25

INORGANIC		Criteria & Type		Status
Aluminum (total)	< 0.0050 mg/L	<=0.2	Operational - Other	Final
Antimony (total)	< 0.00020 mg/L	<=0.006	MAC	Final
Arsenic (total)	0.00107 mg/L		Current Level	Final
Barium (total)	0.0638 mg/L	<=2	MAC	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22J3636\_FINAL\_WaterTrax\_02\_Nov\_22\_1051.txt

**Sample ID:** 22J3636-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 10/25/2022 14:25

## INORGANIC

		Criteria & Type		Status
Beryllium (total)	< 0.00010 mg/L			Final
Bismuth (total)	< 0.00010 mg/L			Final
Boron (total)	< 0.0500 mg/L	<=5	MAC	Final
Cadmium (total)	< 0.000010 mg/L	<=0.005	MAC	Final
Calcium (total)	32.7 mg/L			Final
Chromium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Cobalt (total)	< 0.00010 mg/L			Final
Copper (total)	0.00463 mg/L	<=1	AO	Final
Iron (total)	< 0.010 mg/L	<=0.3	AO	Final
Lead (total)	0.00022 mg/L	<=0.005	MAC	Final
Lithium (total)	0.00120 mg/L			Final
Magnesium (total)	8.06 mg/L			Final
Manganese (total)	0.00836 mg/L	<=0.02	AO	Final
Molybdenum (total)	0.00168 mg/L			Final
Nickel (total)	< 0.00040 mg/L			Final
Phosphorus (total)	< 0.050 mg/L			Final
Potassium (total)	0.92 mg/L			Final
Selenium (total)	< 0.00050 mg/L	<=0.05	MAC	Final
Silicon (total, as Si)	6.2 mg/L			Final
Silver (total)	< 0.000050 mg/L			Final
Sodium (total)	4.41 mg/L	<=200	AO	Final
Strontium (total)	0.190 mg/L			Final
Sulfur (total)	6.5 mg/L			Final
Tellurium (total)	< 0.00050 mg/L			Final
Thallium (total)	< 0.000020 mg/L			Final
Thorium (total)	< 0.00010 mg/L			Final
Tin (total)	< 0.00020 mg/L			Final
Titanium (total)	< 0.0050 mg/L			Final
Tungsten (total)	< 0.0002 mg/L			Final
Vanadium (total)	< 0.0050 mg/L			Final
Zinc (total)	0.0116 mg/L	<=5	AO	Final
Zirconium (total)	< 0.00010 mg/L			Final

## PHYSICAL

		Criteria & Type	Status
Hardness (total, as CaCO3)	115 mg/L		Final

## RADIONUCLIDES

		Criteria & Type	Status
Uranium (total)	0.000394 mg/L	<=0.02 MAC	Final

**Result Legend**

*P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded*

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 11/08/2022 17:00  
Report ID: 22K0303  
Report Name: 22K0303\_FINAL\_WaterTrax\_08\_Nov\_22\_1646.txt

**Sample ID: 22K0303-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment:  
Sampled: 11/01/2022 09:30

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00764 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	12.1 degrees C			Final
Turbidity	0.58 NTU	<=1	User-Defined	Final

**Sample ID: 22K0303-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment:  
Sampled: 11/01/2022 10:10

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00277 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	12.3 degrees C			Final
Turbidity	0.55 NTU	<=1	User-Defined	Final



# Laboratory Report

Caro Analytical Services

Report Name: 22K0303\_FINAL\_WaterTrax\_08\_Nov\_22\_1646.txt

**Sample ID:** 22K0303-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Marsh Drive (7-4-MD, 94E7)  
**Comment:**  
**Sampled:** 11/01/2022 10:45

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.213 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	11.3 degrees C			Final
Turbidity	0.82 NTU	<=1	User-Defined	Final

**Sample ID:** 22K0303-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Graham Ave (7-5-MD, 94E8)  
**Comment:**  
**Sampled:** 11/01/2022 13:25

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00114 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	11.0 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22K0303-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 11/01/2022 11:20

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00304 mg/L	<=0.02	AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22K0303\_FINAL\_WaterTrax\_08\_Nov\_22\_1646.txt

**Sample ID:** 22K0303-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 11/01/2022 11:20

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 11.6 degrees C  
Turbidity 0.19 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22K0303-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:**  
**Sampled:** 11/01/2022 14:20

## INORGANIC

\* Manganese (total) 0.0551 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 11.4 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22K0303-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 11/01/2022 12:40

## INORGANIC

Manganese (total) 0.00307 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22K0303\_FINAL\_WaterTrax\_08\_Nov\_22\_1646.txt

**Sample ID:** 22K0303-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 11/01/2022 12:40

PHYSICAL		Criteria & Type		Status
Temperature	11.4 degrees C			Final
Turbidity	0.30 NTU	<=1	User-Defined	Final

**Sample ID:** 22K0303-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Dennis Road (7-14-MD, 179CA)  
**Comment:**  
**Sampled:** 11/01/2022 14:20

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.154 mg/L	<=0.02	AO	Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

PHYSICAL		Criteria & Type		Status
Temperature	11.7 degrees C			Final
Turbidity	0.48 NTU	<=1	User-Defined	Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded

# Laboratory Report

Caro Analytical Services

Report For: City of Quesnel  
Received: 11/16/2022 00:00  
Report ID: 22K1231  
Report Name: 22K1231\_FINAL\_WaterTrax\_15\_Nov\_22\_1809.txt

**Sample ID:** 22K1231-01  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-1 Shadow Heights (8-1-MR, 94EA)  
**Comment:**  
**Sampled:** 11/08/2022 10:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.132 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	6.1 degrees C		Final

**Sample ID:** 22K1231-02  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-2 Pinecrest (8-4-MR, 94F9)  
**Comment:**  
**Sampled:** 11/08/2022 11:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.377 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.6 degrees C		Final

**Sample ID:** 22K1231-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-3 Sugarloaf (8-5-MR, 94FA)  
**Comment:**  
**Sampled:** 11/08/2022 14:00

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00327 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22K1231\_FINAL\_WaterTrax\_15\_Nov\_22\_1809.txt

**Sample ID:** 22K1231-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-3 Sugarloaf (8-5-MR, 94FA)  
**Comment:**  
**Sampled:** 11/08/2022 14:00

	Criteria & Type	Status
PHYSICAL		
Temperature	6.5 degrees C	Final

**Sample ID:** 22K1231-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 1 (8-2-MR, 94EB)  
**Comment:**  
**Sampled:** 11/08/2022 09:20

	Criteria & Type	Status
INORGANIC		
Manganese (total)	0.00119 mg/L	
	<=0.02 AO	Final

	Criteria & Type	Status
MICROORGANISMS		
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	
	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	
	<=0,P,OG User-Defined	Final

	Criteria & Type	Status
PHYSICAL		
Temperature	5.6 degrees C	Final

**Sample ID:** 22K1231-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 2 (8-3-MR, 94EC)  
**Comment:**  
**Sampled:** 11/08/2022 09:35

	Criteria & Type	Status
INORGANIC		
Manganese (total)	0.00059 mg/L	
	<=0.02 AO	Final

	Criteria & Type	Status
MICROORGANISMS		
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	
	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	
	<=0,P,OG User-Defined	Final

	Criteria & Type	Status
PHYSICAL		
Temperature	5.6 degrees C	Final

# Laboratory Report

Caro Analytical Services

Report Name: 22K1231\_FINAL\_WaterTrax\_15\_Nov\_22\_1809.txt

**Sample ID:** 22K1231-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-5 Dragon Hill (8-6-MR, 94FC)  
**Comment:**  
**Sampled:** 11/08/2022 11:55

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0113 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	7.2 degrees C		Final

**Sample ID:** 22K1231-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-6 New Tatchell Reservoir (8-8-MR, 94FF)  
**Comment:**  
**Sampled:** 11/08/2022 13:30

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0111 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	64.0 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded



# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 11/21/2022 17:00  
Report ID: 22K1896  
Report Name: 22K1896\_FINAL\_WaterTrax\_21\_Nov\_22\_1237.txt

**Sample ID: 22K1896-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Carradice Rd (7-3-MR, 94E6)  
Comment:  
Sampled: 11/15/2022 09:00

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0189 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	9.6 degrees C			Final
Turbidity	0.36 NTU	<=1	User-Defined	Final

**Sample ID: 22K1896-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Dixon (7-8-MR, 94F1)  
Comment:  
Sampled: 11/15/2022 10:00

INORGANIC		Criteria & Type		Status
Manganese (total)	0.00087 mg/L	<=0.02	AO	Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	9 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	12.2 degrees C			Final
Turbidity	0.16 NTU	<=1	User-Defined	Final

# Laboratory Report

Caro Analytical Services

Report Name: 22K1896\_FINAL\_WaterTrax\_21\_Nov\_22\_1237.txt

**Sample ID:** 22K1896-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Hospital (7-9-MD, 94F2)  
**Comment:**  
**Sampled:** 11/15/2022 13:20

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.157 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	8.7 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22K1896-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Nason (7-10-MD, 94F3)  
**Comment:**  
**Sampled:** 11/15/2022 11:10

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0540 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	13.0 degrees C		Final
Turbidity	0.23 NTU	<=1 User-Defined	Final

**Sample ID:** 22K1896-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:**  
**Sampled:** 11/15/2022 11:45

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0135 mg/L	<=0.02 AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22K1896\_FINAL\_WaterTrax\_21\_Nov\_22\_1237.txt

**Sample ID:** 22K1896-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N. Star Dragon Hill (7-11-MD, 94F4)  
**Comment:**  
**Sampled:** 11/15/2022 11:45

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 11.2 degrees C  
Turbidity 0.17 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22K1896-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- N.Star South Hill (7-12-MD, 94F6)  
**Comment:**  
**Sampled:** 11/15/2022 11:50

## INORGANIC

\* Manganese (total) 0.140 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 11.0 degrees C  
Turbidity 0.18 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22K1896-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:**  
**Sampled:** 11/15/2022 14:00

## INORGANIC

\* Manganese (total) 0.147 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

Caro Analytical Services

Report Name: 22K1896\_FINAL\_WaterTrax\_21\_Nov\_22\_1237.txt

**Sample ID:** 22K1896-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Chew Rd (7-13-MR, 94F7)  
**Comment:**  
**Sampled:** 11/15/2022 14:00

PHYSICAL		Criteria & Type		Status
Temperature	11.2 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22K1896-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** Bulk Water Site #1 (7-15-QC, 21D9B)  
**Comment:**  
**Sampled:** 11/15/2022 10:40

INORGANIC		Criteria & Type		Status
Manganese (total)	0.0417 mg/L			Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml			Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml			Final
Total Coliforms (counts)	< 1 CFU/100ml			Final

PHYSICAL		Criteria & Type		Status
Temperature	10.5 degrees C			Final
Turbidity	0.15 NTU			Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown

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» means detected & greater than number shown

\* Indicates Criteria is exceeded

## Laboratory Report

## Caro Analytical Services

Report For: City of Quesnel  
Received: 11/30/2022 17:00  
Report ID: 22K2721  
Report Name: 22K2721\_FINAL\_WaterTrax\_30\_Nov\_22\_1206.txt

**Sample ID:** 22K2721-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:**  
**Sampled:** 11/22/2022 11:15

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.742 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	13.1 degrees C		Final

**Sample ID:** 22K2721-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:**  
**Sampled:** 11/22/2022 10:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.217 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	11.2 degrees C		Final

**Sample ID:** 22K2721-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 11/22/2022 09:45

# Laboratory Report

# Caro Analytical Services

Report Name: 22K2721\_FINAL\_WaterTrax\_30\_Nov\_22\_1206.txt

**Sample ID:** 22K2721-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 11/22/2022 09:45

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0144 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	9.5 degrees C		Final

**Sample ID:** 22K2721-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 11/22/2022 13:15

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.223 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.0 degrees C		Final

**Sample ID:** 22K2721-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 11/22/2022 09:15

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.139 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Report created on 06/13/2023 16:27:32

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Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final



# Laboratory Report

# Caro Analytical Services

Report Name: 22K2721\_FINAL\_WaterTrax\_30\_Nov\_22\_1206.txt

**Sample ID:** 22K2721-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 11/22/2022 09:15

PHYSICAL	Criteria & Type	Status
Temperature 10.2 degrees C		Final

**Sample ID:** 22K2721-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 11/22/2022 13:45

INORGANIC	Criteria & Type	Status
* Manganese (total) 0.528 mg/L	<=0.02 AO	Final

MICROORGANISMS	Criteria & Type	Status
Escherichia coli / E. coli (counts) < 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts) < 1 CFU/100ml	<=0,P,OG User-Defined	Final

PHYSICAL	Criteria & Type	Status
Temperature 11.4 degrees C		Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
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# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 12/05/2022 12:00  
Report ID: 22K3573  
Report Name: 22K3573\_FINAL\_WaterTrax\_05\_Dec\_22\_1148.txt

**Sample ID: 22K3573-01**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-1 Shadow Heights (8-1-MR, 94EA)  
Comment:  
Sampled: 11/29/2022 09:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0968 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	7.6 degrees C		Final

**Sample ID: 22K3573-02**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-2 Pinecrest (8-4-MR, 94F9)  
Comment:  
Sampled: 11/29/2022 10:00

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.376 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	10.1 degrees C		Final

**Sample ID: 22K3573-03**

Water System: City of Quesnel – Main System  
Facility: Reservoirs  
Sampling Pt: R-3 Sugarloaf (8-5-MR, 94FA)  
Comment:  
Sampled: 11/29/2022 10:45

INORGANIC		Criteria & Type	Status
Manganese (total)	0.0153 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final

Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22K3573\_FINAL\_WaterTrax\_05\_Dec\_22\_1148.txt

**Sample ID:** 22K3573-03 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-3 Sugarloaf (8-5-MR, 94FA)  
**Comment:**  
**Sampled:** 11/29/2022 10:45

	Criteria & Type	Status
PHYSICAL		
Temperature	7.1 degrees C	Final

**Sample ID:** 22K3573-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 1 (8-2-MR, 94EB)  
**Comment:**  
**Sampled:** 11/29/2022 13:00

	Criteria & Type	Status
INORGANIC		
* Manganese (total)	0.0219 mg/L	Final
	<=0.02 AO	
MICROORGANISMS		
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	Final
Total Coliforms (counts)	< 1 CFU/100ml	Final
	<=0,P,PR User-Defined	
	<=0,P,OG User-Defined	
PHYSICAL		
Temperature	5.8 degrees C	Final

**Sample ID:** 22K3573-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Reservoirs  
**Sampling Pt:** R-4 Abbott Dr 2 (8-3-MR, 94EC)  
**Comment:**  
**Sampled:** 11/29/2022 13:15

	Criteria & Type	Status
INORGANIC		
Manganese (total)	0.00175 mg/L	Final
	<=0.02 AO	
MICROORGANISMS		
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	Final
Total Coliforms (counts)	< 1 CFU/100ml	Final
	<=0,P,PR User-Defined	
	<=0,P,OG User-Defined	
PHYSICAL		
Temperature	5.8 degrees C	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22K3573\_FINAL\_WaterTrax\_05\_Dec\_22\_1148.txt

**Sample ID:** 22K3573-06

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-5 Dragon Hill (8-6-MR, 94FC)

Comment:

Sampled: 11/29/2022 14:00

## INORGANIC

Manganese (total) 0.00157 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature 6.8 degrees C

## Criteria & Type

## Status

Final

**Sample ID:** 22K3573-07

Water System: City of Quesnel – Main System

Facility: Reservoirs

Sampling Pt: R-6 New Tatchell Reservoir (8-8-MR, 94FF)

Comment:

Sampled: 11/29/2022 11:20

## INORGANIC

Manganese (total) 0.0129 mg/L

## Criteria & Type

<=0.02 AO

## Status

Final

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined

## Status

Final

Total Coliforms (counts) < 1 CFU/100ml

<=0,P,OG User-Defined

Final

## PHYSICAL

Temperature 8.3 degrees C

## Criteria & Type

## Status

Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,

TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment

< means less than lower detection limit shown

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« means detected & less than number shown

» means detected & greater than number shown

\* Indicates Criteria is exceeded

# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 12/13/2022 17:00  
Report ID: 22L0719  
Report Name: 22L0719\_FINAL\_WaterTrax\_13\_Dec\_22\_1449.txt

**Sample ID: 22L0719-01**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Airport (7-1-MR, 94E4)  
Comment:  
Sampled: 12/06/2022 09:45

INORGANIC			Criteria & Type		Status
Manganese (total)	0.00131	mg/L	<=0.02	AO	Final
MICROORGANISMS			Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1	CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5	CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1	CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL			Criteria & Type		Status
Temperature	8.9	degrees C			Final
Turbidity	0.16	NTU	<=1	User-Defined	Final

**Sample ID: 22L0719-02**

Water System: City of Quesnel – Main System  
Facility: Distribution System  
Sampling Pt: S- Mills Rd (7-2-MR, 94E5)  
Comment:  
Sampled: 12/06/2022 10:15

INORGANIC			Criteria & Type		Status
Manganese (total)	0.00200	mg/L	<=0.02	AO	Final
MICROORGANISMS			Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1	CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5	CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1	CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL			Criteria & Type		Status
Temperature	9.0	degrees C			Final
Turbidity	< 0.10	NTU	<=1	User-Defined	Final

# Laboratory Report

Caro Analytical Services

Report Name: 22L0719\_FINAL\_WaterTrax\_13\_Dec\_22\_1449.txt

**Sample ID:** 22L0719-03  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Marsh Drive (7-4-MD, 94E7)  
**Comment:**  
**Sampled:** 12/06/2022 10:45

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0792 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	1.3 degrees C		Final
Turbidity	0.24 NTU	<=1 User-Defined	Final

**Sample ID:** 22L0719-04  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Graham Ave (7-5-MD, 94E8)  
**Comment:**  
**Sampled:** 12/06/2022 11:30

INORGANIC		Criteria & Type	Status
* Manganese (total)	0.0393 mg/L	<=0.02 AO	Final
MICROORGANISMS		Criteria & Type	Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500 User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG User-Defined	Final
PHYSICAL		Criteria & Type	Status
Temperature	7.5 degrees C		Final
Turbidity	< 0.10 NTU	<=1 User-Defined	Final

**Sample ID:** 22L0719-05  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 12/06/2022 13:15

INORGANIC		Criteria & Type	Status
Manganese (total)	0.00703 mg/L	<=0.02 AO	Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22L0719\_FINAL\_WaterTrax\_13\_Dec\_22\_1449.txt

**Sample ID:** 22L0719-05 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- West Fraser Rd (7-6-MR, 94E9)  
**Comment:**  
**Sampled:** 12/06/2022 13:15

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC 97 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 7.0 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22L0719-06  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Pederson Rd (7-7-MD, 94F0)  
**Comment:**  
**Sampled:** 12/06/2022 13:45

## INORGANIC

\* Manganese (total) 0.0734 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml  
Total Coliforms (counts) < 1 CFU/100ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final  
<=0,P,OG User-Defined Final

## Status

## PHYSICAL

Temperature 9.1 degrees C  
Turbidity < 0.10 NTU

## Criteria & Type

<=1 User-Defined Final

## Status

**Sample ID:** 22L0719-07  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 12/06/2022 15:30

## INORGANIC

Manganese (total) 0.00039 mg/L

## Criteria & Type

<=0.02 AO Final

## Status

## MICROORGANISMS

Escherichia coli / E. coli (counts) < 1 CFU/100ml  
Heterotrophic Plate Count / HPC < 5 CFU/ml

## Criteria & Type

<=0,P,PR User-Defined Final  
<=500 User-Defined Final

## Status



Total Coliforms (counts)

< 1 CFU/100ml

<=0,P,OG

User-Defined

Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22L0719\_FINAL\_WaterTrax\_13\_Dec\_22\_1449.txt

**Sample ID:** 22L0719-07 (continued)  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S-Carson Pit (7-16-MR, 35D91)  
**Comment:**  
**Sampled:** 12/06/2022 15:30

PHYSICAL		Criteria & Type		Status
Temperature	7.5 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

**Sample ID:** 22L0719-08  
**Water System:** City of Quesnel – Main System  
**Facility:** Distribution System  
**Sampling Pt:** S- Dennis Road (7-14-MD, 179CA)  
**Comment:**  
**Sampled:** 12/06/2022 14:15

INORGANIC		Criteria & Type		Status
* Manganese (total)	0.156 mg/L	<=0.02	AO	Final

MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Heterotrophic Plate Count / HPC	< 5 CFU/ml	<=500	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final

PHYSICAL		Criteria & Type		Status
Temperature	8.7 degrees C			Final
Turbidity	< 0.10 NTU	<=1	User-Defined	Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
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# Laboratory Report

# Caro Analytical Services

Report For: City of Quesnel  
Received: 12/21/2022 12:00  
Report ID: 22L1544  
Report Name: 22L1544\_FINAL\_WaterTrax\_21\_Dec\_22\_1028.txt

**Sample ID:** 22L1544-01  
**Water System:** City of Quesnel – Main System  
**Source:** Well 3 Rolph at Roddis  
**Facility:** Well No 3  
**Sampling Pt:** Well 3 Rolph at Roddis (1-2-EP, 94D1)  
**Comment:**  
**Sampled:** 12/13/2022 14:35

INORGANIC		Criteria & Type		Status
Chloride	10.3 mg/L	<=250	AO	Final
* Manganese (total)	0.612 mg/L	<=0.02	AO	Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	9.1 degrees C			Final

**Sample ID:** 22L1544-02  
**Water System:** City of Quesnel – Main System  
**Source:** Well 6 Rolph at Robertson  
**Facility:** Well No 6  
**Sampling Pt:** Well 6 Rolph at Robertson (3-2-EP, 94DC)  
**Comment:**  
**Sampled:** 12/13/2022 11:20

INORGANIC		Criteria & Type		Status
Chloride	18.9 mg/L	<=250	AO	Final
* Manganese (total)	0.226 mg/L	<=0.02	AO	Final
Nitrate (as N)	0.071 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	9.7 degrees C			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22L1544\_FINAL\_WaterTrax\_21\_Dec\_22\_1028.txt

**Sample ID:** 22L1544-03  
**Water System:** City of Quesnel – Main System  
**Source:** Well 7 N. Fraser Dr  
**Facility:** Well No 7  
**Sampling Pt:** Well 7 N. Fraser Dr (4-2-EP, 94E0)  
**Comment:**  
**Sampled:** 12/13/2022 14:00

INORGANIC		Criteria & Type		Status
Chloride	11.2 mg/L	<=250	AO	Final
Manganese (total)	0.0154 mg/L	<=0.02	AO	Final
Nitrate (as N)	0.045 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	10.2 degrees C			Final

**Sample ID:** 22L1544-04  
**Water System:** City of Quesnel – Main System  
**Source:** Well 8 Hilborn Rd  
**Facility:** Well No 8  
**Sampling Pt:** Well 8 Hilborn Rd (5-1-EP, 94E1)  
**Comment:**  
**Sampled:** 12/13/2022 09:30

INORGANIC		Criteria & Type		Status
Chloride	4.45 mg/L	<=250	AO	Final
* Manganese (total)	0.236 mg/L	<=0.02	AO	Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	8.6 degrees C			Final

# Laboratory Report

# Caro Analytical Services

Report Name: 22L1544\_FINAL\_WaterTrax\_21\_Dec\_22\_1028.txt

**Sample ID:** 22L1544-05  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 12/13/2022 13:30

INORGANIC		Criteria & Type		Status
Chloride	1.13 mg/L	<=250	AO	Final
* Manganese (total)	0.140 mg/L	<=0.02	AO	Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	9.2 degrees C			Final

**Sample ID:** 22L1544-06  
**Water System:** City of Quesnel – Main System  
**Source:** Well 9 Carson Sub  
**Facility:** Well No 9  
**Sampling Pt:** Well 9 Carson Sub (6-2-EP, 94DF)  
**Comment:**  
**Sampled:** 12/13/2022 10:20

INORGANIC		Criteria & Type		Status
Chloride	13.7 mg/L	<=250	AO	Final
* Manganese (total)	0.496 mg/L	<=0.02	AO	Final
Nitrate (as N)	< 0.010 mg/L			Final
Nitrite (as N)	< 0.010 mg/L			Final
MICROORGANISMS		Criteria & Type		Status
Escherichia coli / E. coli (counts)	< 1 CFU/100ml	<=0,P,PR	User-Defined	Final
Total Coliforms (counts)	< 1 CFU/100ml	<=0,P,OG	User-Defined	Final
PHYSICAL		Criteria & Type		Status
Temperature	9.2 degrees C			Final

## Result Legend

P=present, A=absent, PR=presumptive, ND=non-detect, OR=over-range, OG=overgrown, Y=yes, N=no,  
TNTC=too numerous to count, NR=no result, NT=not tested, IG=ignore, ER=external report, SC=see comment  
< means less than lower detection limit shown  
> means greater than upper detection limit shown  
« means detected & less than number shown  
» means detected & greater than number shown  
\* Indicates Criteria is exceeded