



Annual Drinking Water Quality Monitoring Report

2025

Joseph Law, Utilities Superintendent
PUBLIC WORKS, UTILITIES DEPARTMENT | 1350 SWORD AVE

PURPOSE

The City of Quesnel Annual Drinking Water Quality Monitoring Report provides the public with the 2025 water quality monitoring results and a summary of water system operations. Annual reporting is required for all water suppliers in British Columbia under the Drinking Water Protection Act and the British Columbia Drinking Water Protection Regulation.

The Drinking Water Protection Act also requires:

- Water system construction proposals must be approved by Public Health Engineers.
- Water system operators must comply with the Act through operating permits approved by the Health Authority Drinking Water Officer, which may include specific conditions.
- Minimum water treatment and water quality standards must be met, with monitoring and testing carried out as required.
- Water suppliers must have microbiological samples analyzed by a laboratory approved by the Provincial Health Officer.
- Operators of drinking water systems serving more than 500 individuals must be certified as operators through the Environmental Operators Certification Program; and
- Public notification must be provided in the event of water quality issues to ensure accountability to the community.

These requirements help ensure the delivery of safe drinking water to all consumers.

WATER SYSTEM OVERVIEW

The City of Quesnel water distribution system provides untreated potable drinking water to approximately 10,000 residents, businesses, and local industries. The system consists of:

Six Groundwater Production Wells

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

Seven Reservoirs

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

Five Booster Pump Stations

- Northstar Booster Station
- Healy Street Booster Station
- Dawson Ave Booster Station
- Pinecrest Booster Station
- Findlay Booster Station

Three Main Pressure Reducing Valve (PRV) Stations

- Brownmiller PRV
- Johnston Ave PRV
- Lewis Drive PRV

The system includes approximately 114 km of water main, 460 fire hydrants, and 3,642 service connections.

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

In 2025, water consumption metered at the source totaled 2,285,392 cubic metres of groundwater pumped from the production wells, representing a 0.2% increase from the 2024 total of 2,281,557 cubic metres. For reference, one cubic metre equals 1,000 litres.

WATER MANAGEMENT

The Environmental Operators Certification Program (EOCP), under the Drinking Water Protection Act, is responsible for facility classification and water operator certification to support prudent water management in British Columbia and Yukon.

The EOCP requires each facility to have at least one operator on every shift whose certification matches the facility's classification. All operators must also hold certification appropriate to their role and level of responsibility. A facility's classification is based on its size, components, and complexity.

The City of Quesnel water distribution system is classified by the EOCP as a Class III facility. The requirements for Level III certification are:

- Operator Level II Certificate *PLUS*
- Two years of related post-secondary education or 90 CEUs (1 CEU = 10 hours of 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 2025, Water Distribution System staffing consisted of:

- 3 Level III Water Distribution Operator positions
- 4 Level II Water Distribution Operator positions
- 2 Level I Water Distribution Operator positions
- 1 Laborer / Operator-in-training position

Several City of Quesnel operators attained higher EOCP certification levels in 2025, strengthening the City's capacity to fill vacant positions with qualified staff, support junior employees, and maintain service continuity.

As EOCP-certified Water Distribution Operators, staff must achieve a minimum score of 70% on written examinations and complete 24 hours of approved training every two years to maintain certification. This training is essential to maintaining facility classification, meeting current industry standards and best practices, and supporting knowledge-sharing among operators addressing similar field conditions.

Operator duties include system monitoring, routine maintenance, fire hydrant maintenance and repair, water quality sampling, emergency repairs, new construction, investigation of water quality complaints, response to public service calls, water main flushing, and after-hours emergency response.

Operator time is also shared with the City of Quesnel wastewater collection system, stormwater collection system, snow removal operations, and support for other departments as required.

The City of Quesnel maintains a current Emergency Response and Contingency Plan (ERCP), which is reviewed annually to ensure procedures remain current and applicable. Maintaining an up-to-date ERCP is a condition of the water system's Permit to Operate. In response to the regional drought conditions experienced in 2024, Northern Health also required water systems to include drought-specific response measures in their ERCPs. In Quesnel, a bylaw regulating municipal water use authorizes temporary restrictions during emergencies or other extraordinary circumstances. The City's Water Conservation Strategy, adopted in 2020, further provides a framework for the sustainable use of the community's water supply.

Leak detection activities to identify and reduce water loss within the distribution system are undertaken annually. In September 2025, the City retained a specialized contractor to complete a leak detection survey in areas west of Baker Creek and in the Johnston and Carson areas. The survey identified three leaks, which were accurately located and repaired. Additional locations were flagged for ongoing monitoring. Overall, the results indicate a well-performing distribution system with relatively low leakage. Annual leak detection supports proactive asset management and helps reduce water loss, operating costs, and the risk of infrastructure failure.

The City of Quesnel uses a SCADA (supervisory control and data acquisition) monitoring system to track real-time operating conditions, including well operation and reservoir levels. This allows operators to respond remotely to system conditions and demand, reducing equipment failures, and improving pumping efficiency.

WATER QUALITY MONITORING

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

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 parameters indicate bacteriological, chemical, and physical water quality.

The number of required source and distribution samples is based on population. For the City of Quesnel's population of approximately 10,000, the provincial minimum is 13 samples per month. The City exceeds this requirement. Drinking water samples are collected bi-weekly at 16 sites and analyzed for total coliforms, E. coli, heterotrophic plate count (HPC), manganese, and turbidity. All reservoirs and wells are tested monthly for bacterial contaminants and manganese. Additional testing is also completed for chemical and physical parameters.

Samples are taken at the beginning, middle, and end of the City's water distribution system.

If testing shows that any parameter exceeds the limits set in the Guidelines for Canadian Drinking Water Quality or the British Columbia Drinking Water Regulation, procedures are in place for re-testing and notification where results or conditions could render the water unfit to drink.

When a water sample shows coliforms, even in a small amount, the standard protocol is to immediately resample at the same location and submit the new sample for testing. The provincial Environmental Health Officer determines whether further City action is required only if the second test also shows coliforms.

As required by its operating permit, the City has an emergency response plan in place to help ensure the continued delivery of safe drinking water.

Water sampling in 2025 showed:

- 371 samples were tested for E. coli, with no exceedances.
- 371 samples were tested for total coliform, with 14 exceedances. Follow-up testing was negative in all cases.

In every case of exceedance, Northern Health was notified immediately and approved the re-sampling plan.

City of Quesnel Bylaw 1567, adopted in 2005, includes provisions to eliminate cross connections between potable water and any non-potable source. The City has two certified Backflow Assembly Testers on staff who annually test assemblies in parks and across the water system to protect against potential backflow and cross connections. They also install backflow prevention devices as a secondary safeguard.

Owners or operators of private buildings are responsible for installing approved backflow assemblies and having them tested by a certified tester upon installation and annually thereafter. A copy of each test report must then be submitted to the City of Quesnel. A fully implemented Cross Connection Control Program is not yet in place due to limited staffing and resources to track these assemblies. Available staff time is focused on communication with contractors, plumbers, and high-risk users, particularly in industrial, commercial, and institutional settings.

Utilities Department staff remain alert to potential cross connections and communicate concerns as they arise.

WATER QUALITY ADVISORY – MANGANESE IN DRINKING WATER

In May 2019, the Guidelines for Canadian Drinking Water Quality were revised to establish a maximum allowable concentration (MAC) for manganese in drinking water. The MAC is 0.12 mg/L (120 µg/L), and the aesthetic objective is 0.02 mg/L (20 µg/L).

Manganese concentrations in the City of Quesnel water system currently average approximately 0.22 mg/L. Water from five of the six production wells exceeds the GCDWQ standard for manganese, and two wells are at end of life. The table below summarizes manganese concentration ranges for the main wells.

	Average (mg/L)	Maximum (mg/L)	Minimum (mg/L)
Well #7	0.017	0.080	0.009
Well #8	0.229	0.281	0.160
Well #9	0.170	0.564	0.134
Well #10	0.541	0.629	0.149
GCDWQ Maximum Acceptable Concentration ²			0.12 mg/L
GCDWQ Aesthetic Objective ³			≤ 0.02 mg/L

Sampling indicates that manganese concentrations within the distribution system fluctuate above and below the MAC because of mixing and settling within the system.

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

Six corrective actions are required to lift the Water Quality Advisory:

1. Distribute updated notice and information to residents.
2. Continue additional sampling to determine manganese levels in the distribution system.
3. Continue working with a qualified drinking water professional to assess the water source and propose a treatment system that reduces manganese below the maximum allowable concentration.
4. Submit the treatment proposal to Northern Health as a construction permit application.
5. After receiving approval from a Northern Health Public Health Engineer, install the approved treatment system.
6. Conduct post-treatment sampling in accordance with the construction permit to verify treatment effectiveness.

Since the introduction of the manganese MAC in 2019, the City of Quesnel has worked with qualified drinking water professionals to evaluate treatment options for the public water supply. The project has completed the predesign phase and has advanced to the next stage of regulatory and project development.

Following the 2022 Water Quality Advisory, Northern Health's 2024 Annual Routine Inspection identified the absence of a treatment system capable of reducing manganese below the GCDWQ MAC and confirmed that the advisory would remain in effect pending corrective action.

The Annual Routine Inspection Report required corrective action within a specified timeframe. As a result, additional conditions were added to the water system's Permit to Operate in 2024 and are reviewed annually by the regional health authority. The conditions are as follows:

- By June 2025, submit a preliminary water treatment report to reduce manganese below the maximum allowable concentration (MAC) of 0.12 mg/L in the Guidelines for Canadian Drinking Water Quality (GCDWQ). The submission must be in the form of a construction permit application to the Public Health Engineer.
- By June 2030, implement water treatment measures to reduce manganese below the MAC in the GCDWQ at distribution sites.
- Ensure operators are certified to the level required by the Environmental Operators Certification Program.

In June 2025, the City of Quesnel submitted a predesign report for a water treatment system intended to reduce manganese below the maximum allowable concentration. The City also submitted an update memorandum from its qualified professionals outlining completed work and the proposed project timeline.

The City continues to work with qualified drinking water professionals to satisfy the conditions of its Operating Permit, advance treatment implementation, and support future removal of the Water Quality Advisory.

DISTRIBUTION SYSTEM PROJECTS

In September 2025, Production Well 8 was redeveloped as part of routine water system maintenance funded through the operating budget. Post-redevelopment testing showed improved performance and efficiency.

In 2025, all system reservoirs were inspected. Reservoir cleaning is performed on a rotating basis or as needed based on inspection reports. Sugarloaf Reservoir was cleaned in 2025. Regular inspection and maintenance practices support proactive asset management and the continued delivery of safe drinking water.

All mains are flushed each fall to remove mineral scale and buildup and to support proper fire hydrant operation and maintenance.

In 2025 a Microscopic Particulate Analysis (MPA) program was completed for production wells PW7, PW8, PW9, and PW10 during three seasons across 2024 and 2025. MPA testing looks for particles and microorganisms that may indicate surface water influence on groundwater. The program found a low risk of surface water influence for all four wells.

COMMON ISSUES

Water quality complaints are addressed on a case-by-case basis. Many complaints relate to discoloured or black water caused by manganese sediment that adheres to pipe walls until disturbed. Residents are generally advised to run a cold-water tap until the water clears. Where required, operators also flush water mains through a hydrant or blowoff.

The City also receives occasional complaints of cold water with a sulphur or “rotten egg” odour. This condition is often associated with a reaction between the water and the small-diameter feed-line tubing connecting household plumbing to a faucet, particularly in homes with new or recently upgraded fixtures. Corrective measures may include replacing the feed lines with metal tubing, such as copper, or cleaning, rinsing, and reinstalling the lines using sodium hypochlorite (household bleach).

CONCLUSION

The 2025 Annual Drinking Water Quality Monitoring Report is provided to Council and the public in accordance with provincial legislation. The report confirms that routine monitoring, operational, and reporting requirements were met in 2025, while manganese-related regulatory work remains ongoing.

Council is asked to receive this report for information. For further information, please contact the City of Quesnel Public Works Utilities Department at (250) 992-6330, attention: Joseph Law, Utilities Superintendent.

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:		
PUBLIC NOTICE ISSUED <input checked="" type="checkbox"/> RESCINDED <input type="checkbox"/> *Note for rescinding notice:		
<u>Steps Taken to Remedy:</u> Information packages containing information on manganese in drinking water have been distributed by the operator to the residents.		
<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.		
<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.		

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 |

Escherichia coli / E. coli (counts)

# samples:	371	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	371	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	371	min:	< 1 counts/100ml
# detects:	17	max:	10 counts/100ml
# non-detects:	354	Geometric Mean:	1 counts/100ml (based on 16 numerical results)
# of Exceedences:	14		

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**



Facility: Distribution System
Sampling Point: Bulk Water Site #1 (7-15-QC, 21D9B)

Facility: Distribution System
Sampling Point: S- Airport (7-1-MR, 94E4)

Total Coliforms (counts)		Criteria	
* 03/25/2025 09:25	1 counts/100ml	<=0, OG, P	User-Defined
* 08/12/2025 10:30	> 8 counts/100ml	<=0, OG, P	User-Defined

# samples:	16	min:	< 1 counts/100ml
# detects:	2	max:	> 8 counts/100ml
# non-detects:	14	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	2		

Facility: Distribution System
Sampling Point: S- Carradice Rd (7-3-MR, 94E6)

Total Coliforms (counts)		Criteria	
* 02/04/2025 09:30	3 counts/100ml	<=0, OG, P	User-Defined
* 05/07/2025 09:20	4 counts/100ml	<=0, OG, P	User-Defined

# samples:	14	min:	< 1 counts/100ml
# detects:	2	max:	4 counts/100ml
# non-detects:	12	Geometric Mean:	3 counts/100ml (based on 2 numerical results)
# of Exceedences:	2		

Facility: Distribution System
Sampling Point: S- Chew Rd (7-13-MR, 94F7)

Facility: Distribution System
Sampling Point: S- Dennis Road (7-14-MD, 179CA)

Facility: Distribution System
Sampling Point: S- Dixon (7-8-MR, 94F1)



Total Coliforms (counts)		Criteria	
* 02/04/2025 10:50	1 counts/100ml	<=0, OG, P	User-Defined

# samples:	13	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml
# non-detects:	12	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Distribution System
Sampling Point: S- Marsh Drive (7-4-MD, 94E7)

Facility: Distribution System
Sampling Point: S- Mills Rd (7-2-MR, 94E5)

Facility: Distribution System
Sampling Point: S- N. Star Dragon Hill (7-11-MD, 94F4)

Total Coliforms (counts)		Criteria	
* 02/04/2025 13:30	1 counts/100ml	<=0, OG, P	User-Defined

* 05/07/2025 10:05	3 counts/100ml	<=0, OG, P	User-Defined
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# samples:	14	min:	< 1 counts/100ml
# detects:	2	max:	3 counts/100ml
# non-detects:	12	Geometric Mean:	2 counts/100ml (based on 2 numerical results)
# of Exceedences:	2		

Facility: Distribution System
Sampling Point: S- N.Star South Hill (7-12-MD, 94F6)

Facility: Distribution System
Sampling Point: S- Nason (7-10-MD, 94F3)

Total Coliforms (counts)		Criteria	
* 03/11/2025 11:35	1 counts/100ml	<=0, OG, P	User-Defined

# samples:	13	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml



# non-detects:	12	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Distribution System
Sampling Point: S- Pederson Rd (7-7-MD, 94F0)

Total Coliforms (counts)	Criteria		
* 02/25/2025 13:50	1 counts/100ml	<=0, OG, P	User-Defined

# samples:	13	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml
# non-detects:	12	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Distribution System
Sampling Point: S- West Fraser Rd (7-6-MR, 94E9)

Facility: Distribution System
Sampling Point: S-Carson Pit (7-16-MR, 35D91)

Total Coliforms (counts)	Criteria		
* 02/25/2025 12:40	2 counts/100ml	<=0, OG, P	User-Defined
* 08/12/2025 12:40	2 counts/100ml	<=0, OG, P	User-Defined

# samples:	14	min:	< 1 counts/100ml
# detects:	2	max:	2 counts/100ml
# non-detects:	12	Geometric Mean:	2 counts/100ml (based on 2 numerical results)
# of Exceedences:	2		

Facility: Distribution System
Sampling Point: S-Graham Ave (7-5-MD, 94E8)

Total Coliforms (counts)	Criteria		
* 02/25/2025 13:10	1 counts/100ml	<=0, OG, P	User-Defined

# samples:	13	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml



# non-detects:	12	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Distribution System
Sampling Point: S-Hospital (7-9-MD, 94F2)

Facility: Reservoirs
Sampling Point: R-1 Shadow Heights (8-1-MR, 94EA)

Facility: Reservoirs
Sampling Point: R-2 Pinecrest (8-4-MR, 94F9)

Facility: Reservoirs
Sampling Point: R-3 Sugarloaf (8-5-MR, 94FA)

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

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

Total Coliforms (counts)	Criteria		
* 06/24/2025 11:40	1 counts/100ml	<=0, OG, P	User-Defined

# samples:	14	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml
# non-detects:	13	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Reservoirs
Sampling Point: R-5 Dragon Hill (8-6-MR, 94FC)

Total Coliforms (counts)	Criteria		
* 11/12/2025 14:15	1 counts/100ml	<=0, OG, P	User-Defined

# samples:	14	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml
# non-detects:	13	Geometric Mean:	1 counts/100ml (based on 1 numerical results)



of Exceedences: 1

Facility:	Reservoirs
Sampling Point:	R-6 New Tatchell Reservoir (8-8-MR, 94FF)
Facility:	Well 10 Hilborn Rd.; Well No 10
Sampling Point:	Well No 10 Hilborn Rd. (9-1-EP, 28000)
Facility:	Well 3 Rolph at Roddis; Well No 3
Sampling Point:	Well 3 Rolph at Roddis (1-2-EP, 94D1)
Facility:	Well 6 Rolph at Robertson; Well No 6
Sampling Point:	Well 6 Rolph at Robertson (3-2-EP, 94DC)
Facility:	Well 7 N. Fraser Dr; Well No 7
Sampling Point:	Well 7 N. Fraser Dr (4-2-EP, 94E0)
Facility:	Well 8 Hilborn Rd; Well No 8
Sampling Point:	Well 8 Hilborn Rd (5-1-EP, 94E1)
Facility:	Well 9 Carson Sub; Well No 9
Sampling Point:	Well 9 Carson Sub (6-2-EP, 94DF)

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**



Facility: Well 10 Hilborn Rd.; Well No 10
Sampling Point: Well No 10 Hilborn Rd. (9-1-EP, 28000)

Manganese (total)		Criteria	
* 01/21/2025 14:00	0.558 mg/L	<=0.02	AO
* 02/18/2025 10:15	0.573 mg/L	<=0.02	AO
* 03/18/2025 14:00	0.566 mg/L	<=0.02	AO
* 04/01/2025 10:45	0.578 mg/L	<=0.02	AO
* 04/15/2025 09:40	0.589 mg/L	<=0.02	AO
* 05/13/2025 10:10	0.612 mg/L	<=0.02	AO
* 07/08/2025 14:06	0.590 mg/L	<=0.02	AO
* 08/05/2025 10:40	0.594 mg/L	<=0.02	AO
* 10/01/2025 14:30	0.655 mg/L	<=0.02	AO
* 10/21/2025 14:10	0.584 mg/L	<=0.02	AO
* 11/25/2025 10:50	0.567 mg/L	<=0.02	AO
* 12/16/2025 10:45	0.581 mg/L	<=0.02	AO

# samples:	12	min:	0.558 mg/L
# detects:	12	max:	0.655 mg/L
# non-detects:	0	avg:	0.587 mg/L (based on 12 numerical results)
# of Exceedences:	12		

Facility: Well 3 Rolph at Roddis; Well No 3
Sampling Point: Well 3 Rolph at Roddis (1-2-EP, 94D1)

Manganese (total)		Criteria	
* 01/21/2025 10:35	0.517 mg/L	<=0.02	AO
* 02/18/2025 13:10	0.511 mg/L	<=0.02	AO



Manganese (total)		Criteria	
* 03/18/2025 10:45	0.568 mg/L	<=0.02	AO
* 04/01/2025 11:10	0.543 mg/L	<=0.02	AO
* 04/15/2025 10:50	0.573 mg/L	<=0.02	AO
* 05/13/2025 11:25	0.560 mg/L	<=0.02	AO
* 07/08/2025 11:30	0.550 mg/L	<=0.02	AO
* 08/05/2025 09:50	0.611 mg/L	<=0.02	AO
* 10/01/2025 09:40	0.637 mg/L	<=0.02	AO
* 10/21/2025 11:20	0.551 mg/L	<=0.02	AO
* 11/25/2025 13:05	0.574 mg/L	<=0.02	AO
* 12/16/2025 13:30	0.642 mg/L	<=0.02	AO

# samples:	12	min:	0.511 mg/L
# detects:	12	max:	0.642 mg/L
# non-detects:	0	avg:	0.570 mg/L (based on 12 numerical results)
# of Exceedences:	12		

Facility: Well 6 Rolph at Robertson; Well No 6
Sampling Point: Well 6 Rolph at Robertson (3-2-EP, 94DC)

Manganese (total)		Criteria	
* 01/21/2025 10:00	0.289 mg/L	<=0.02	AO
* 02/18/2025 13:35	0.222 mg/L	<=0.02	AO
* 03/18/2025 11:15	0.275 mg/L	<=0.02	AO
* 04/01/2025 13:00	0.249 mg/L	<=0.02	AO
* 04/15/2025 11:40	0.254 mg/L	<=0.02	AO
* 05/13/2025 11:50	0.231 mg/L	<=0.02	AO

Manganese (total)		Criteria	
* 07/08/2025 10:45	0.216 mg/L	<=0.02	AO
* 08/05/2025 10:00	0.221 mg/L	<=0.02	AO
* 10/01/2025 09:30	0.223 mg/L	<=0.02	AO
* 10/21/2025 10:40	0.216 mg/L	<=0.02	AO
* 11/25/2025 11:40	0.224 mg/L	<=0.02	AO
* 12/16/2025 14:30	0.239 mg/L	<=0.02	AO

# samples:	12	min:	0.216 mg/L
# detects:	12	max:	0.289 mg/L
# non-detects:	0	avg:	0.238 mg/L (based on 12 numerical results)
# of Exceedences:	12		

Facility: Well 7 N. Fraser Dr; Well No 7
Sampling Point: Well 7 N. Fraser Dr (4-2-EP, 94E0)

Manganese (total)		Criteria	
01/21/2025 11:20	0.0173 mg/L	<=0.02	AO
02/18/2025 11:20	0.0165 mg/L	<=0.02	AO
03/18/2025 13:15	0.0164 mg/L	<=0.02	AO
04/01/2025 09:50	0.0158 mg/L	<=0.02	AO
04/15/2025 13:15	0.0144 mg/L	<=0.02	AO
05/13/2025 09:10	0.0144 mg/L	<=0.02	AO
07/08/2025 10:00	0.0120 mg/L	<=0.02	AO
08/05/2025 13:30	0.0136 mg/L	<=0.02	AO
10/01/2025 10:30	0.0147 mg/L	<=0.02	AO
10/21/2025 09:55	0.0149 mg/L	<=0.02	AO
11/25/2025 09:30	0.0148 mg/L	<=0.02	AO
12/16/2025 11:40	0.0145 mg/L	<=0.02	AO

# samples:	12	min:	0.0120 mg/L
# detects:	12	max:	0.0173 mg/L
# non-detects:	0	avg:	0.0149 mg/L (based on 12 numerical results)
# of Exceedences:	0		

Facility: Well 8 Hilborn Rd; Well No 8



Sampling Point: Well 8 Hilborn Rd (5-1-EP, 94E1)

Manganese (total)		Criteria	
* 01/21/2025 13:30	0.269 mg/L	<=0.02	AO
* 02/18/2025 10:40	0.253 mg/L	<=0.02	AO
* 03/18/2025 09:10	0.281 mg/L	<=0.02	AO
* 04/01/2025 10:20	0.278 mg/L	<=0.02	AO
* 04/15/2025 09:15	0.248 mg/L	<=0.02	AO
* 05/13/2025 10:35	0.260 mg/L	<=0.02	AO
* 07/08/2025 13:30	0.244 mg/L	<=0.02	AO
* 08/05/2025 11:20	0.250 mg/L	<=0.02	AO
* 10/21/2025 13:30	0.221 mg/L	<=0.02	AO
* 11/25/2025 11:20	0.240 mg/L	<=0.02	AO
* 12/16/2025 10:25	0.234 mg/L	<=0.02	AO

# samples:	11	min:	0.221 mg/L
# detects:	11	max:	0.281 mg/L
# non-detects:	0	avg:	0.253 mg/L (based on 11 numerical results)
# of Exceedences:	11		

Facility: Well 9 Carson Sub; Well No 9
Sampling Point: Well 9 Carson Sub (6-2-EP, 94DF)

Manganese (total)		Criteria	
* 01/21/2025 09:20	0.147 mg/L	<=0.02	AO
* 02/18/2025 09:30	0.141 mg/L	<=0.02	AO
* 03/18/2025 09:45	0.145 mg/L	<=0.02	AO
* 04/01/2025 11:45	0.143 mg/L	<=0.02	AO



Manganese (total)		Criteria	
* 04/15/2025 13:50	0.143 mg/L	<=0.02	AO
* 05/13/2025 09:35	0.145 mg/L	<=0.02	AO
* 07/08/2025 14:20	0.148 mg/L	<=0.02	AO
* 08/05/2025 14:10	0.161 mg/L	<=0.02	AO
* 10/01/2025 11:20	0.158 mg/L	<=0.02	AO
* 10/21/2025 11:50	0.148 mg/L	<=0.02	AO
* 11/25/2025 10:00	0.147 mg/L	<=0.02	AO
* 12/16/2025 09:30	0.141 mg/L	<=0.02	AO
# samples:	12	min:	0.141 mg/L
# detects:	12	max:	0.161 mg/L
# non-detects:	0	avg:	0.147 mg/L (based on 12 numerical results)
# of Exceedences:	12		

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



Facility: Distribution System
Sampling Point: Bulk Water Site #1 (7-15-QC, 21D9B)

Escherichia coli / E. coli (counts)

# samples:	15	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	15	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	15	min:	< 1 CFU/100ml
# detects:	3	max:	10 CFU/100ml
# non-detects:	12	Geometric Mean:	3 CFU/100ml (based on 3 numerical results)
# of Exceedences:	0		

Facility: Distribution System
Sampling Point: S- Airport (7-1-MR, 94E4)

Escherichia coli / E. coli (counts)

# samples:	16	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	16	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	16	min:	< 1 counts/100ml
# detects:	2	max:	> 8 counts/100ml
# non-detects:	14	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	2		

Facility: Distribution System
Sampling Point: S- Carradice Rd (7-3-MR, 94E6)

Escherichia coli / E. coli (counts)

# samples:	14	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	14	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	14	min:	< 1 counts/100ml
# detects:	2	max:	4 counts/100ml
# non-detects:	12	Geometric Mean:	3 counts/100ml (based on 2 numerical results)
# of Exceedences:	2		

Facility: Distribution System
Sampling Point: S- Chew Rd (7-13-MR, 94F7)

Escherichia coli / E. coli (counts)

# samples:	12	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	12	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	12	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	12	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Distribution System
Sampling Point: S- Dennis Road (7-14-MD, 179CA)

Escherichia coli / E. coli (counts)

# samples:	11	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	11	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	11	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	11	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Distribution System
Sampling Point: S- Dixon (7-8-MR, 94F1)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
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# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml
# non-detects:	12	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Distribution System
Sampling Point: S- Marsh Drive (7-4-MD, 94E7)

Escherichia coli / E. coli (counts)

# samples:	5	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	5	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	5	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	5	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Distribution System
Sampling Point: S- Mills Rd (7-2-MR, 94E5)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		



Facility: Distribution System
Sampling Point: S- N. Star Dragon Hill (7-11-MD, 94F4)

Escherichia coli / E. coli (counts)

# samples:	14	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	14	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	14	min:	< 1 counts/100ml
# detects:	2	max:	3 counts/100ml
# non-detects:	12	Geometric Mean:	2 counts/100ml (based on 2 numerical results)
# of Exceedences:	2		

Facility: Distribution System
Sampling Point: S- N.Star South Hill (7-12-MD, 94F6)

Escherichia coli / E. coli (counts)

# samples:	12	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	12	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	12	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	12	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Distribution System
Sampling Point: S- Nason (7-10-MD, 94F3)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)



# samples:	13	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml
# non-detects:	12	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Distribution System
Sampling Point: S- Pederson Rd (7-7-MD, 94F0)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml
# non-detects:	12	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Distribution System
Sampling Point: S- West Fraser Rd (7-6-MR, 94E9)

Escherichia coli / E. coli (counts)

# samples:	10	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	10	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	10	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	10	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Distribution System
Sampling Point: S-Carson Pit (7-16-MR, 35D91)

Escherichia coli / E. coli (counts)

# samples:	14	min:	< 1 CFU/100ml
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# detects:	0	max:	< 1 CFU/100ml
# non-detects:	14	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	14	min:	< 1 counts/100ml
# detects:	2	max:	2 counts/100ml
# non-detects:	12	Geometric Mean:	2 counts/100ml (based on 2 numerical results)
# of Exceedences:	2		

Facility: Distribution System
Sampling Point: S-Graham Ave (7-5-MD, 94E8)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml
# non-detects:	12	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Distribution System
Sampling Point: S-Hospital (7-9-MD, 94F2)

Escherichia coli / E. coli (counts)

# samples:	12	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	12	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	12	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	12	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		



Facility: Reservoirs
Sampling Point: R-1 Shadow Heights (8-1-MR, 94EA)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Reservoirs
Sampling Point: R-2 Pinecrest (8-4-MR, 94F9)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Reservoirs
Sampling Point: R-3 Sugarloaf (8-5-MR, 94FA)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)



# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

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

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

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

Escherichia coli / E. coli (counts)

# samples:	14	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	14	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	14	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml
# non-detects:	13	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Reservoirs
Sampling Point: R-5 Dragon Hill (8-6-MR, 94FC)

Escherichia coli / E. coli (counts)

# samples:	14	min:	< 1 CFU/100ml
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# detects:	0	max:	< 1 CFU/100ml
# non-detects:	14	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	14	min:	< 1 counts/100ml
# detects:	1	max:	1 counts/100ml
# non-detects:	13	Geometric Mean:	1 counts/100ml (based on 1 numerical results)
# of Exceedences:	1		

Facility: Reservoirs
Sampling Point: R-6 New Tatchell Reservoir (8-8-MR, 94FF)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Well 10 Hilborn Rd.; Well No 10
Sampling Point: Well No 10 Hilborn Rd. (9-1-EP, 28000)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		



Facility: Well 3 Rolph at Roddis; Well No 3
Sampling Point: Well 3 Rolph at Roddis (1-2-EP, 94D1)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Well 6 Rolph at Robertson; Well No 6
Sampling Point: Well 6 Rolph at Robertson (3-2-EP, 94DC)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Well 7 N. Fraser Dr; Well No 7
Sampling Point: Well 7 N. Fraser Dr (4-2-EP, 94E0)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Well 8 Hilborn Rd; Well No 8
Sampling Point: Well 8 Hilborn Rd (5-1-EP, 94E1)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Facility: Well 9 Carson Sub; Well No 9
Sampling Point: Well 9 Carson Sub (6-2-EP, 94DF)

Escherichia coli / E. coli (counts)

# samples:	13	min:	< 1 CFU/100ml
# detects:	0	max:	< 1 CFU/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

Total Coliforms (counts)

# samples:	13	min:	< 1 counts/100ml
# detects:	0	max:	< 1 counts/100ml
# non-detects:	13	Geometric Mean:	n/a (based on 0 numerical results)
# of Exceedences:	0		

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

PERMIT TO OPERATE

A Drinking Water System with
301-10000 Connections

System Name: Quesnel CWS
Physical Location: Quesnel CWS
410 Kinchant Street
Quesnel BC
Owner Name: City of Quesnel - Water

Conditions of Permit

Permitted to Operate: Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec

- Maintain a minimum of thirteen water bacteriology samples per month unless a greater frequency is requested by the Drinking Water Officer.
- Maintain an up-to-date Emergency Response and Contingency Plan.
- Submit water chemistry data once every year unless the Environmental Health Officer requests a greater frequency.
- Develop and implement a wellhead/aquifer protection program as well as a distribution system integrity program.
- Operator must be trained and certified to the level specified by the Environmental Operators Certification Program.
- By June 2025, propose a preliminary report for water treatment to reduce manganese to below maximum acceptable concentrations (MAC - 0.12 mg/L) given in the Guideline for Canadian Drinking Water Quality (GCDWQ). The proposal must be in form of construction permit application(s) to the Public Health Engineer.
- By June 2030, implement water treatment that include corrective measure(s) for reducing manganese to below MAC given in the GCDWQ at distribution site.

29-Sep-2009
Effective Permit Date

Lynnette Winsor
Environmental Health Officer

10-Sep-2024
Permit Revised Date



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - First Week

PROJECT INFO

WORK ORDER 25A0173

RECEIVED / TEMP 2025-01-03 12:30 / 3.3°C

REPORTED 2025-01-10 10:40

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25A0173
2025-01-10 10:40

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
179CA S Dennis Rd. (25A0173-01) Matrix: Ground Water Sampled: 2025-01-02 14:15						
<i>Field Parameters</i>						
Temperature, field	6.7	AO ≤ 15		°C	2025-01-02	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-01-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-03	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-03	
<i>Total Metals</i>						
Manganese, total	0.146	MAC = 0.12	0.00020	mg/L	2025-01-08	
35D91K New Carson Pit (25A0173-02) Matrix: Ground Water Sampled: 2025-01-02 13:00						
<i>Field Parameters</i>						
Temperature, field	6.6	AO ≤ 15		°C	2025-01-02	
<i>General Parameters</i>						
Turbidity	0.27	OG < 1	0.10	NTU	2025-01-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-03	
Heterotrophic Plate Count	5	N/A	5	CFU/mL	2025-01-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-03	
<i>Total Metals</i>						
Manganese, total	0.00523	MAC = 0.12	0.00020	mg/L	2025-01-08	
WT# 94E5 - S-Mills Rd (25A0173-03) Matrix: Water Sampled: 2025-01-02 10:30						
<i>Field Parameters</i>						
Temperature, field	7.1	AO ≤ 15		°C	2025-01-02	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-03	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-03	
<i>Total Metals</i>						
Manganese, total	0.00418	MAC = 0.12	0.00020	mg/L	2025-01-08	

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25A0173
2025-01-10 10:40

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25A0173-04) Matrix: Ground Water Sampled: 2025-01-02 10:00						
<i>Field Parameters</i>						
Temperature, field	7.2	AO ≤ 15		°C	2025-01-02	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-03	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-01-03	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-03	
<i>Total Metals</i>						
Manganese, total	0.00052	MAC = 0.12	0.00020	mg/L	2025-01-08	
94E9 S West Fraser Rd (25A0173-05) Matrix: Ground Water Sampled: 2025-01-02 11:00						
<i>Field Parameters</i>						
Temperature, field	6.5	AO ≤ 15		°C	2025-01-02	
<i>General Parameters</i>						
Turbidity	0.17	OG < 1	0.10	NTU	2025-01-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-03	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-01-03	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-03	
<i>Total Metals</i>						
Manganese, total	0.00077	MAC = 0.12	0.00020	mg/L	2025-01-08	
94E8 S Graham Ave. (25A0173-06) Matrix: Ground Water Sampled: 2025-01-02 11:30						
<i>Field Parameters</i>						
Temperature, field	7.7	AO ≤ 15		°C	2025-01-02	
<i>General Parameters</i>						
Turbidity	0.31	OG < 1	0.10	NTU	2025-01-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-03	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-01-03	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-03	
<i>Total Metals</i>						
Manganese, total	0.0122	MAC = 0.12	0.00020	mg/L	2025-01-08	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25A0173
2025-01-10 10:40

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E7 S Marsh Dr. (25A0173-07) Matrix: Ground Water Sampled: 2025-01-02						
<i>Field Parameters</i>						
Temperature, field	0.0	AO ≤ 15		°C	2025-01-02	
94F0 S Pedersen Rd. (25A0173-08) Matrix: Ground Water Sampled: 2025-01-02 13:30						
<i>Field Parameters</i>						
Temperature, field	7.1	AO ≤ 15		°C	2025-01-02	
<i>General Parameters</i>						
Turbidity	0.56	OG < 1	0.10	NTU	2025-01-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-03	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-01-03	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-03	HT4
<i>Total Metals</i>						
Manganese, total	0.0634	MAC = 0.12		0.00020 mg/L	2025-01-08	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT4 The collection date and/or time was not provided. Therefore holding time exceedances cannot be properly identified.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - First Week

WORK ORDER 25A0173
REPORTED 2025-01-10 10:40

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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



ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC # _____ PAGE _____ OF _____

CARO BC COC, Rev 08/12

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____

EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX

TURNAROUND ROUTINE: (4-7 Days) Other*
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

EMAIL PDF
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: _____
 MAIL HARD COPY HOLD FOR P/U

CLIENT SAMPLE ID:	MATRIX:			DATE	TIME	FILTERED	PRESERVED	COMMENTS:
	DRINKING WATER	OTHER WATER	SOIL					
94EA S Airport	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2-JAN-25	10:00			
94ES S Mills Rd.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	10:30			
94E7 S Marsh Dr.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	"			Frozen
94E8 S Graham Ave.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	11:30			
94E9 S West Fraser Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	11:00			
94F0 S Pederson Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	13:30			
3SD91K NEW CARSON PIT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	13:00			
179CA S Dennis Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	"	16:15			

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____
 OTHER INSTRUCTIONS: Return bottle order. NEW CARSON PITT - PART OF MAIN SYSTEM

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
B. Lypin	2-JAN-25		
	15:30		

PROJECT:	WEEK 1 DISTRIBUTION	SHIPPING INSTRUCTIONS:
		Return Cooler(s) <input checked="" type="checkbox"/> Ship Supplies (please specify below or in Other Instructions Section) <input type="checkbox"/> Return bottle order

ANALYSES REQUESTED:	DATE:	TIME:
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>		
EPH (not PAH Corrected)		
VOC <input type="checkbox"/> VPH <input type="checkbox"/>		
L/HEPH (PAH corrected)		
PAH		
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>		
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>		
METALS - WATER TOTAL		
METALS - WATER DISSOLVED		
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>		
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>		
TSS <input type="checkbox"/> TDS <input type="checkbox"/>		
BOD <input type="checkbox"/> COD <input type="checkbox"/>		
FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>		
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>		
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>		
SOIL VAPOUR		
ASBESTOS		
TURBIDITY		
TEMPERATURE		
Manganese		
HOLD		

PAYMENT: CHECK CREDIT DEBIT CASH INVOICE
 SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - First Week

PROJECT INFO

WORK ORDER 25A2881

RECEIVED / TEMP 2025-01-29 15:00 / 3.3°C

REPORTED 2025-02-05 15:26

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25A2881
2025-02-05 15:26

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25A2881-01) Matrix: Ground Water Sampled: 2025-01-28 10:00						
<i>Field Parameters</i>						
Temperature, field	5.3	AO ≤ 15		°C	2025-01-28	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-29	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-29	
<i>Total Metals</i>						
Manganese, total	0.00086	MAC = 0.12	0.00020	mg/L	2025-01-31	
94E5 S Mills Rd. (25A2881-02) Matrix: Ground Water Sampled: 2025-01-28 10:45						
<i>Field Parameters</i>						
Temperature, field	6.1	AO ≤ 15		°C	2025-01-28	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-29	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-29	
<i>Total Metals</i>						
Manganese, total	0.00192	MAC = 0.12	0.00020	mg/L	2025-01-31	
94E7 S Marsh Dr. (25A2881-03) Matrix: Ground Water Sampled: 2025-01-28 13:00						
<i>Field Parameters</i>						
Temperature, field	7.1	AO ≤ 15		°C	2025-01-28	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-29	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-29	
<i>Total Metals</i>						
Manganese, total	0.00393	MAC = 0.12	0.00020	mg/L	2025-01-31	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25A2881
2025-02-05 15:26

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
179CA S Dennis Rd. (25A2881-07) Matrix: Ground Water Sampled: 2025-01-28 14:15						
<i>Field Parameters</i>						
Temperature, field	5.3	AO ≤ 15		°C	2025-01-28	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-29	
<i>Total Metals</i>						
Manganese, total	0.148	MAC = 0.12	0.00020	mg/L	2025-01-31	

Sample Qualifiers:

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



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25A2881
2025-02-05 15:26

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E8 S Graham Ave. (25A2881-04) Matrix: Ground Water Sampled: 2025-01-28 13:45						
<i>Field Parameters</i>						
Temperature, field	5.9	AO ≤ 15		°C	2025-01-28	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-29	
<i>Total Metals</i>						
Manganese, total	0.00567	MAC = 0.12	0.00020	mg/L	2025-01-31	
94E9 S West Fraser Rd (25A2881-05) Matrix: Ground Water Sampled: 2025-01-28 13:20						
<i>Field Parameters</i>						
Temperature, field	7.3	AO ≤ 15		°C	2025-01-28	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-29	
<i>Total Metals</i>						
Manganese, total	0.00419	MAC = 0.12	0.00020	mg/L	2025-01-31	
35D91K New Carson Pit (25A2881-06) Matrix: Ground Water Sampled: 2025-01-28 15:10						
<i>Field Parameters</i>						
Temperature, field	5.4	AO ≤ 15		°C	2025-01-28	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-29	
<i>Total Metals</i>						
Manganese, total	0.00399	MAC = 0.12	0.00020	mg/L	2025-01-31	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - First Week

WORK ORDER 25A2881
REPORTED 2025-02-05 15:26

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD COC# _____ PAGE _____ OF _____
 CARO BC COC, Rev 08/12

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____

EMAIL PDF EDO
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearte@quesnel.ca
 MAIL HARDCOPY HOLD FOR P/U FAX
 MAIL HARDCOPY HOLD FOR P/U

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:	OTHER WATER	SOIL	OTHER	# CONTAINERS	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
94E4 S Airport	✓				3	28 JAN 15	10:00			
94E5 S Mills Rd.	✓				3	28 JAN 15	10:45			
94E7 S Marsh Dr.	✓				3	28 JAN 15	13:00			
94E8 S Graham Ave.	✓				3	28 JAN 15	13:45			
94E9 S West Fraser Rd	✓				3	28 JAN 15	13:20			
94F0 S Pederson Rd	✓				3	—	—			Freezer
3SD91k NEW CARSON PIT	✓				3	28 JAN 15	15:10			
179CA S Dennis Rd	✓				3	28 JAN 15	2:15			

RELINQUISHED BY: *Bryan Wain*
 DATE: 28 JAN 15
 TIME: 15:30
 RECEIVED BY: _____
 DATE: _____
 TIME: _____

PROJECT: B. Wain
 WEEK 1 DISTRIBUTION
 SAMPLED BY: *Bryan Wain*
 SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order

ANALYSES REQUESTED:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>					
EPH (not PAH Corrected)					
VOC <input type="checkbox"/> VPH <input type="checkbox"/>					
L/HEPH (PAH corrected)					
PAH					
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>					
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>					
METALS - WATER TOTAL					
METALS - WATER DISSOLVED					
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>					
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>					
TSS <input type="checkbox"/> TDS <input type="checkbox"/>					
BOD <input type="checkbox"/> COD <input type="checkbox"/>					
FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>					
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>					
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>					
SOIL VAPOUR					
ASBESTOS					
TURBIDITY					
TEMPERATURE					
Manganese					
HOLD					

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____
 OTHER INSTRUCTIONS: Return bottle order. NEW CARSON PITT - PART OF MAIN SYSTEM

PAYMENT: CHEQUE CREDIT DEBIT CASH INVOICE
 SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

*Retested
Graham, Rederson,
Carson Pit*

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - First Week
PROJECT INFO

WORK ORDER 25B2684

RECEIVED / TEMP 2025-02-26 12:55 / 4.8°C
REPORTED 2025-03-05 09:56
COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25B2684
2025-03-05 09:56

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25B2684-01) Matrix: Ground Water Sampled: 2025-02-25 14:45						
<i>Field Parameters</i>						
Temperature, field	8.4	AO ≤ 15		°C	2025-02-25	
<i>General Parameters</i>						
Turbidity	0.14	OG < 1	0.10	NTU	2025-02-26	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
<i>Total Metals</i>						
Manganese, total	0.00103	MAC = 0.12	0.00020	mg/L	2025-02-28	
94E5 S Mills Rd. (25B2684-02) Matrix: Ground Water Sampled: 2025-02-25 10:50						
<i>Field Parameters</i>						
Temperature, field	7.8	AO ≤ 15		°C	2025-02-25	
<i>General Parameters</i>						
Turbidity	0.12	OG < 1	0.10	NTU	2025-02-26	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
<i>Total Metals</i>						
Manganese, total	0.00364	MAC = 0.12	0.00020	mg/L	2025-02-27	
94E7 S Marsh Dr. (25B2684-03) Matrix: Ground Water Sampled: 2025-02-25 11:25						
<i>Field Parameters</i>						
Temperature, field	8.1	AO ≤ 15		°C	2025-02-25	
<i>General Parameters</i>						
Turbidity	0.31	OG < 1	0.10	NTU	2025-02-26	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
<i>Total Metals</i>						
Manganese, total	0.0124	MAC = 0.12	0.00020	mg/L	2025-02-28	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25B2684
2025-03-05 09:56

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E8 S Graham Ave. (25B2684-04) Matrix: Ground Water Sampled: 2025-02-25 13:10						
<i>Field Parameters</i>						
Temperature, field	8.7	AO ≤ 15		°C	2025-02-25	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-02-26	
<i>Microbiological Parameters</i>						
Coliforms, Total	1	MAC = 0		1 CFU/100 mL	2025-02-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
<i>Total Metals</i>						
Manganese, total	0.0110	MAC = 0.12	0.00020	mg/L	2025-02-28	
94E9 S West Fraser Rd (25B2684-05) Matrix: Ground Water Sampled: 2025-02-25 11:45						
<i>Field Parameters</i>						
Temperature, field	8.4	AO ≤ 15		°C	2025-02-25	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-02-26	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
<i>Total Metals</i>						
Manganese, total	0.00289	MAC = 0.12	0.00020	mg/L	2025-02-27	
94F0 S Pedersen Rd. (25B2684-06) Matrix: Ground Water Sampled: 2025-02-25 13:50						
<i>Field Parameters</i>						
Temperature, field	8.9	AO ≤ 15		°C	2025-02-25	
<i>General Parameters</i>						
Turbidity	0.14	OG < 1	0.10	NTU	2025-02-26	
<i>Microbiological Parameters</i>						
Coliforms, Total	1	MAC = 0		1 CFU/100 mL	2025-02-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
<i>Total Metals</i>						
Manganese, total	0.0816	MAC = 0.12	0.00020	mg/L	2025-02-28	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25B2684
2025-03-05 09:56

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
35D91 New Carson Pit (25B2684-07) Matrix: Ground Water Sampled: 2025-02-25 12:40						
<i>Field Parameters</i>						
Temperature, field	8.9	AO ≤ 15		°C	2025-02-25	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-02-26	
<i>Microbiological Parameters</i>						
Coliforms, Total	2	MAC = 0	1	CFU/100 mL	2025-02-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
<i>Total Metals</i>						
Manganese, total	0.00383	MAC = 0.12	0.00020	mg/L	2025-02-27	

179CA S Dennis Rd. (25B2684-08) | Matrix: Ground Water | Sampled: 2025-02-25 13:30

<i>Field Parameters</i>						
Temperature, field	8.6	AO ≤ 15		°C	2025-02-25	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-02-26	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-26	
<i>Total Metals</i>						
Manganese, total	0.148	MAC = 0.12	0.00020	mg/L	2025-02-27	

Sample Qualifiers:

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



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - First Week

WORK ORDER 25B2684
REPORTED 2025-03-05 09:56

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any **Bold** and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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



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 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD COC# _____ PAGE 1 OF 1
 CARO BC COC, Rev 08/12

REPORT TO:
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX

INVOICE TO: SAME AS REPORT TO

COMPANY: _____
ADDRESS: _____
CONTACT: Accounts Payable - Joe Law
TEL/FAX: _____
EMAIL PDF
EMAIL 1: jlaw@quesnel.ca
EMAIL 2: jlaw@quesnel.ca
MAIL HARD COPY HOLD FOR P/U

RELINQUISHED BY: Shaun Monaghan
RECEIVED BY: _____
DATE: 25-02-25
TIME: 3:45
DATE: _____
TIME: _____

PROJECT INFO: PROJECT: WEEK 1 DISTRIBUTION
 PO #: _____

SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section)
 Return Cooler(s) Section
 Return bottle order

ANALYSES REQUESTED:

ANALYSES REQUESTED	DATE	TIME	RESULTS
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>			
EPH (not PAH Corrected) <input type="checkbox"/> VPH <input type="checkbox"/>			
L/HEPH (PAH corrected) <input type="checkbox"/>			
PAH <input type="checkbox"/>			
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>			
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>			
METALS - WATER TOTAL <input type="checkbox"/>			
METALS - WATER DISSOLVED <input type="checkbox"/>			
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>			
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>			
TSS <input type="checkbox"/> TDS <input type="checkbox"/>			
BOD <input type="checkbox"/> COD <input type="checkbox"/>			
FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>			
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>			
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>			
SOIL VAPOUR <input type="checkbox"/>			
ASBESTOS <input type="checkbox"/>			
TURBIDITY <input type="checkbox"/>			
TEMPERATURE <input type="checkbox"/>			
Manganese <input type="checkbox"/>			

CLIENT SAMPLE ID:	MATRIX:	DATE	TIME	COMMENTS:
94E4 S Airport	DRINKING WATER	25-02-25	2:45	
94E5 S Mills Rd.	OTHER WATER	25-02-25	10:50	
94E7 S Marsh Dr.	OTHER	25-02-25	11:25	
94E8 S Graham Ave.	SOIL	25-02-25	1:10	
94E9 S West Fraser Rd	OTHER	25-02-25	11:45	
94F0 S Pederson Rd	OTHER	25-02-25	1:50	
35D91k NEW CARSON PIT	OTHER	25-02-25	16:40	
179CA S Dennis Rd	OTHER	25-02-25	1:30	

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1

OTHER INSTRUCTIONS:
 Return bottle order. NEW CARSON PIT - PART OF MAIN SYSTEM

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

PAYMENT:
 CHECK
 CREDIT
 DEBIT
 CASH
 INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

TURNAROUND Routine: (4-7 Days)
 Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

OTHER INSTRUCTIONS:
 Return bottle order. NEW CARSON PIT - PART OF MAIN SYSTEM

Retest
Results
with 25B2684

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - First Week

PROJECT INFO

WORK ORDER 25C0499

RECEIVED / TEMP 2025-03-05 12:45 / 5.4°C

REPORTED 2025-03-12 14:29

COC NUMBER No Number

Introduction:

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You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25C0499
2025-03-12 14:29

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E8 S Graham Ave. (25C0499-01) Matrix: Ground Water Sampled: 2025-03-04 13:35						
<i>Field Parameters</i>						
Temperature, field	4.3	AO ≤ 15		°C	2025-03-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-05	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-05	

94F0 S Pedersen Rd. (25C0499-02) | Matrix: Ground Water | Sampled: 2025-03-04 13:10

<i>Field Parameters</i>						
Temperature, field	6.5	AO ≤ 15		°C	2025-03-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-05	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-05	

35D91K New Carson Pit (25C0499-03) | Matrix: Ground Water | Sampled: 2025-03-04 12:40

<i>Field Parameters</i>						
Temperature, field	4.7	AO ≤ 15		°C	2025-03-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-05	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-05	

Sample Qualifiers:

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

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - First Week

WORK ORDER 25C0499
REPORTED 2025-03-12 14:29

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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#110-4011 Viking Way, Richmond, BC V6V 2K9
 #102-3677 Highway 97N, Kelowna, BC V1X 5C3
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 #108-4475 Wayburne Drive, Burnaby, BC V5G 4X4

RELINQUISHED BY: B. Wilde DATE: 4-Mar-15 RECEIVED BY: _____ DATE: _____
 TIME: 14:30 TIME: _____

REGULATORY APPLICATION:
 Canadian Drinking Water Quality BC WQG BC HMR
 BC CSR Soil: WL AL PL RL-LD RL-HD CL IL
 BC CSR Water: AW IW LW DW

INVOICE TO: _____ SAME AS REPORT TO
 COMPANY: _____
 ADDRESS: _____

REPORT TO:
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
Quesnel B.C. V2S 7J5
 CONTACT: Joe Law
 TEL/FAX: 250-992-6330

DELIVERY METHOD: EMAIL ONLINE OTHER*
 DATA FORMAT: EXCEL WATERTRAX ESdat
 EQUIS BC EMS OTHER*
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: _____
 EMAIL 3: _____
 PO #: _____

DELIVERY METHOD: EMAIL ONLINE OTHER*
 DATA FORMAT: EXCEL WATERTRAX ESdat
 EQUIS BC EMS OTHER*
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: _____
 EMAIL 3: _____

** If you would like to sign up for ClientConnect and/or EnviroChain, CARO's online service offerings, please check here:

CLIENT SAMPLE ID:	CONTAINER QTY	DATE YYYY-MM-DD	TIME HH:MM	COMMENTS:	MATRIX:		
					DRINKING WATER	OTHER WATER	SOIL
<u>94E85 Graham Ave</u>	<u>1</u>	<u>2015-03-04</u>	<u>13:35</u>				
<u>94F0 5 Pederson Rd.</u>	<u>1</u>	<u>2015-03-04</u>	<u>13:10</u>				
<u>35D91K New Carson Pit.</u>	<u>1</u>	<u>2015-03-04</u>	<u>12:40</u>				

*Contact Lab To Confirm. Surcharge May Apply

PROJECT NUMBER / INFO: Re-sample

ANALYSES REQUESTED:

<input type="checkbox"/> BTX <input type="checkbox"/> VPH <input type="checkbox"/> PHCF1	<input type="checkbox"/> VOC <input type="checkbox"/> VPH	<input type="checkbox"/> EPH <input type="checkbox"/> PHC F2-F4	<input type="checkbox"/> PAH <input type="checkbox"/> L/HEPH	<input type="checkbox"/> PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor.	<input type="checkbox"/> PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/> THM	<input type="checkbox"/> PESTICIDES <input type="checkbox"/> ACID HERBICIDES	<input type="checkbox"/> METALS - WATER TOTAL <input type="checkbox"/> Hg	<input type="checkbox"/> METALS - WATER DISSOLVED <input type="checkbox"/> Hg	<input type="checkbox"/> METALS - SOIL (SALM) <input type="checkbox"/> Inc. pH	<input type="checkbox"/> pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/> ANIONS	<input type="checkbox"/> TSS <input type="checkbox"/> VSS <input type="checkbox"/> TDS	<input type="checkbox"/> BOD <input type="checkbox"/> COD <input type="checkbox"/> TOG <input type="checkbox"/> MOG	<input type="checkbox"/> TN <input type="checkbox"/> NH3 <input type="checkbox"/> TKN	<input checked="" type="checkbox"/> FECAL COLIFORMS <input type="checkbox"/> HPC	<input checked="" type="checkbox"/> TOTAL COLIFORMS <input type="checkbox"/> E.coli	<input type="checkbox"/> ESSENTIAL DRINKING WATER PACKAGE	<input type="checkbox"/> ASBESTOS	<input type="checkbox"/> HOLD	

SHIPPING INSTRUCTIONS: Return Cooler(s)
 Supplies Needed:

SAMPLE RETENTION:
 30 Days (default)
 60 Days 90 Days
 Other (surcharges will apply): _____

* OTHER INSTRUCTIONS:

SAMPLE RECEIPT CONDITION:
 COOLER 1 (°C): _____ ICE: Y N
 COOLER 2 (°C): _____ ICE: Y N
 COOLER 3 (°C): _____ ICE: Y N
 CUSTODY SEALS INTACT: NA Y N

If you would like to talk to a real live Scientist about your project requirements, please check here:

Retested
Airport

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - First Week
PROJECT INFO

WORK ORDER 25C3115

RECEIVED / TEMP 2025-03-26 13:20 / 7.8°C
REPORTED 2025-04-02 10:54
COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: <https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25C3115
2025-04-02 10:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25C3115-01) Matrix: Ground Water Sampled: 2025-03-25 09:25						
<i>Field Parameters</i>						
Temperature, field	4.1	AO ≤ 15		°C	2025-03-25	
<i>General Parameters</i>						
Turbidity	0.13	OG < 1	0.10	NTU	2025-03-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	1	MAC = 0	1	CFU/100 mL	2025-03-26	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	HT3
<i>Total Metals</i>						
Manganese, total	0.00102	MAC = 0.12	0.00020	mg/L	2025-03-27	
94E5 S Mills Rd. (25C3115-02) Matrix: Ground Water Sampled: 2025-03-25 10:00						
<i>Field Parameters</i>						
Temperature, field	4.6	AO ≤ 15		°C	2025-03-25	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-03-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	
<i>Total Metals</i>						
Manganese, total	0.00616	MAC = 0.12	0.00020	mg/L	2025-03-27	
94E7 S Marsh Dr. (25C3115-03) Matrix: Ground Water Sampled: 2025-03-25 10:40						
<i>Field Parameters</i>						
Temperature, field	7.4	AO ≤ 15		°C	2025-03-25	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-03-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	
<i>Total Metals</i>						
Manganese, total	0.00297	MAC = 0.12	0.00020	mg/L	2025-03-27	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25C3115
2025-04-02 10:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E8 S Graham Ave. (25C3115-04) Matrix: Ground Water Sampled: 2025-03-25 11:40						
<i>Field Parameters</i>						
Temperature, field	4.9	AO ≤ 15		°C	2025-03-25	
<i>General Parameters</i>						
Turbidity	0.14	OG < 1	0.10	NTU	2025-03-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	
<i>Total Metals</i>						
Manganese, total	0.0398	MAC = 0.12	0.00020	mg/L	2025-03-27	

94E9 S West Fraser Rd (25C3115-05) | Matrix: Ground Water | Sampled: 2025-03-25 11:05

<i>Field Parameters</i>						
Temperature, field	3.9	AO ≤ 15		°C	2025-03-25	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-03-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	
<i>Total Metals</i>						
Manganese, total	0.00107	MAC = 0.12	0.00020	mg/L	2025-03-27	

94F0 S Pedersen Rd. (25C3115-06) | Matrix: Ground Water | Sampled: 2025-03-25 13:50

<i>Field Parameters</i>						
Temperature, field	6.0	AO ≤ 15		°C	2025-03-25	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-03-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-26	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-26	
<i>Total Metals</i>						
Manganese, total	0.0700	MAC = 0.12	0.00020	mg/L	2025-03-27	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25C3115
2025-04-02 10:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
35D91K New Carson Pit (25C3115-07) Matrix: Ground Water Sampled: 2025-03-25 13:10						
<i>Field Parameters</i>						
Temperature, field	4.6	AO ≤ 15		°C	2025-03-25	
<i>General Parameters</i>						
Turbidity	0.12	OG < 1	0.10	NTU	2025-03-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-26	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-03-26	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-26	
<i>Total Metals</i>						
Manganese, total	0.00825	MAC = 0.12	0.00020	mg/L	2025-03-27	

179CA S Dennis Rd. (25C3115-08) | Matrix: Ground Water | Sampled: 2025-03-25 14:20

<i>Field Parameters</i>						
Temperature, field	6.2	AO ≤ 15		°C	2025-03-25	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-03-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-26	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-03-26	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-26	
<i>Total Metals</i>						
Manganese, total	0.141	MAC = 0.12	0.00020	mg/L	2025-03-27	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25C3115
2025-04-02 10:54

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700



REPORT TO:
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX

INVOICE TO: SAME AS REPORT TO

COMPANY: _____
ADDRESS: _____
CONTACT: Accounts Payable - Joe Law
TEL/FAX: _____
EMAIL PDF **EMAIL 1:** jlaw@quesnel.ca
EMAIL 2: _____
MAIL HARD COPY **HOLD FOR P/U**

RELINQUISHED BY:
 DATE: 25 Mar 25 RECEIVED BY: _____
 TIME: 1530
RELINQUISHED BY: _____
 DATE: _____ RECEIVED BY: _____
 TIME: _____

PROJECT: WEEK 1 DISTRIBUTION
SAMPLED BY: Cole Frank

PROJECT INFO: PO #:
SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section) Return Cooler(s)
 Return bottle order

ANALYSES REQUESTED:			
TEST	UNIT	RESULT	STATUS
BTEX	VPH	MTBE	<input type="checkbox"/>
EPA (not PAH Corrected)	VOC	VPH	<input type="checkbox"/>
L/HEPH (PAH corrected)	VOC	VPH	<input type="checkbox"/>
PAH	PHENOLS Chlorinated	Non-Chlor.	<input type="checkbox"/>
PCB	GLYCOLS	HAA	<input type="checkbox"/>
METALS - WATER TOTAL	METALS - WATER DISSOLVED	METALS - SOIL (SALM)	inc. pH <input type="checkbox"/>
PH	EC	ALK	<input type="checkbox"/>
TSS	TDS	BOD	COD <input type="checkbox"/>
FECAL COLIFORMS	HPC	TOTAL COLIFORMS	E. coli <input checked="" type="checkbox"/>
PESTICIDES	HERBICIDES	SOIL VAPOR	ASBESTOS
TURBIDITY	TEMPERATURE	Manganese	HOLD

TURNAROUND Routine: (4-7 Days)
 Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

MATRIX: DRINKING WATER OTHER WATER SOIL OTHER
 # CONTAINERS: 3 PRESERVED FILTERED (i.e. flow/volume needs ID/notes)

SAMPLING: DATE DD-MMM-YY TIME HH:MM
 25 Mar 25 09:25
 25 Mar 25 10:00
 25 Mar 25 10:40
 25 Mar 25 11:40
 25 Mar 25 11:05
 25 Mar 25 13:50
 25 Mar 25 13:10
 25 Mar 25 14:20

CLIENT SAMPLE ID:
 94E4 S Airport
 94E5 S Mills Rd.
 94E7 S Marsh Dr.
 94E8 S Graham Ave.
 94E9 S West Fraser Rd
 94F0 S Pederson Rd
 35D91k NEW CARSON PIT
 179CA S Dennis Rd

CLIENT SAMPLE ID	DATE	TIME	OTHER	DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	SAMPLING	DATE	TIME	PRESERVED	FILTERED	COMMENTS
94E4 S Airport	25 Mar 25	09:25		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3		25 Mar 25	09:25	<input type="checkbox"/>	<input type="checkbox"/>	
94E5 S Mills Rd.	25 Mar 25	10:00		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3		25 Mar 25	10:00	<input type="checkbox"/>	<input type="checkbox"/>	
94E7 S Marsh Dr.	25 Mar 25	10:40		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3		25 Mar 25	10:40	<input type="checkbox"/>	<input type="checkbox"/>	
94E8 S Graham Ave.	25 Mar 25	11:40		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3		25 Mar 25	11:40	<input type="checkbox"/>	<input type="checkbox"/>	
94E9 S West Fraser Rd	25 Mar 25	11:05		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3		25 Mar 25	11:05	<input type="checkbox"/>	<input type="checkbox"/>	
94F0 S Pederson Rd	25 Mar 25	13:50		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3		25 Mar 25	13:50	<input type="checkbox"/>	<input type="checkbox"/>	
35D91k NEW CARSON PIT	25 Mar 25	13:10		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3		25 Mar 25	13:10	<input type="checkbox"/>	<input type="checkbox"/>	
179CA S Dennis Rd	25 Mar 25	14:20		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3		25 Mar 25	14:20	<input type="checkbox"/>	<input type="checkbox"/>	

TEST	UNIT	RESULT	STATUS
BTEX	VPH	MTBE	<input type="checkbox"/>
EPA (not PAH Corrected)	VOC	VPH	<input type="checkbox"/>
L/HEPH (PAH corrected)	VOC	VPH	<input type="checkbox"/>
PAH	PHENOLS Chlorinated	Non-Chlor.	<input type="checkbox"/>
PCB	GLYCOLS	HAA	<input type="checkbox"/>
METALS - WATER TOTAL	METALS - WATER DISSOLVED	METALS - SOIL (SALM)	inc. pH <input type="checkbox"/>
PH	EC	ALK	<input type="checkbox"/>
TSS	TDS	BOD	COD <input type="checkbox"/>
FECAL COLIFORMS	HPC	TOTAL COLIFORMS	E. coli <input checked="" type="checkbox"/>
PESTICIDES	HERBICIDES	SOIL VAPOR	ASBESTOS
TURBIDITY	TEMPERATURE	Manganese	HOLD

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1

OTHER INSTRUCTIONS: Return bottle order. NEW CARSON PIT - PART OF MAIN SYSTEM

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

PAYMENT: CHEQUE CREDIT DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): _____

Work Order # _____

CUSTODY SEAL INTACT Y N NA

*Resample Results
w/ 25C3115*

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - First Week
PROJECT INFO

WORK ORDER 25D1329

RECEIVED / TEMP 2025-04-09 12:30 / 10.0°C

REPORTED 2025-04-15 12:07

COC NUMBER No Number

Introduction:

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Big Picture Sidekicks



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We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25D1329
2025-04-15 12:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25D1329-01) Matrix: Ground Water Sampled: 2025-04-08 13:10						
<i>Field Parameters</i>						
Temperature, field	6.3	AO ≤ 15		°C	2025-04-08	
<i>Microbiological Parameters</i>						
Colliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-09	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-04-09	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-09	

Sample Qualifiers:

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



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - First Week

WORK ORDER 25D1329
REPORTED 2025-04-15 12:07

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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



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 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC # _____ PAGE / OF | CARO BC COC, Rev 08/12

REPORT TO:

COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: SAME AS REPORT TO

COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____

EMAIL PDF EDD

EMAIL 1: jlww@quesnel.ca
 EMAIL 2: vwest@quesnel.ca kearle@quesnel.ca

EMAIL PDF

EMAIL 1: jlww@quesnel.ca
 EMAIL 2: _____

MAIL HARDCOPY HOLD FOR P/U FAX

MAIL HARDCOPY HOLD FOR P/U

TURNAROUND Routine: (4-7 Days)

TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

MATRIX: DRINKING WATER OTHER WATER

SAMPLING: DATE DD-MMM-YY TIME HH:MM

COMMENTS:

CLIENT SAMPLE ID:

94E4 S Airport

CONTAINERS: 1

8 APR 25

1310

✓

6.3

- BTEX VPH MTBE
- EPH (not PAH Corrected)
- VOC VPH
- L/HEPH (PAH corrected)
- PAH
- PHENOLS Chlorinated Non-Chlor.
- PCB GLYCOLS HAA
- METALS - WATER TOTAL
- METALS - WATER DISSOLVED
- METALS - SOIL (SALM) inc. pH
- pH EC ALK
- TSS TDS
- BOD COD
- FECAL COLIFORMS HPC
- TOTAL COLIFORMS E. coli
- PESTICIDES HERBICIDES
- SOIL VAPOUR
- ASBESTOS
- TURBIDITY
- TEMPERATURE
- Manganese

HOLD

RELINQUISHED BY: Cole Frank	DATE: 8425	RECEIVED BY:	DATE:
	TIME: 1530		TIME:
PROJECT: Airport Re-Sample	PROJECT INFO:	RECEIVED BY:	DATE:
SAMPLED BY: Cole Frank	PO #:		TIME:

SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order

ANALYSES REQUESTED:

APPLICABLE REGULATORY LIMITS:

Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):

60 Days 90 Days Longer Date (surcharges will Apply): _____

PAYMENT:

CHEQUE CREDIT
 CASH INVOICE

SAMPLE RECEIPT TEMP (°C):

Work Order # _____
 CUSTOMY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - First Week
PROJECT INFO

WORK ORDER 25D2926

RECEIVED / TEMP 2025-04-23 12:48 / 7.8°C

REPORTED 2025-04-29 12:28

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25D2926
2025-04-29 12:28

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25D2926-01) Matrix: Ground Water Sampled: 2025-04-22 10:40						
<i>Field Parameters</i>						
Temperature, field	6.0	AO ≤ 15		°C	2025-04-22	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-04-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-23	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
<i>Total Metals</i>						
Manganese, total	0.00133	MAC = 0.12	0.00020	mg/L	2025-04-29	
94E5 S Mills Rd. (25D2926-02) Matrix: Ground Water Sampled: 2025-04-22 11:15						
<i>Field Parameters</i>						
Temperature, field	5.9	AO ≤ 15		°C	2025-04-22	
<i>General Parameters</i>						
Turbidity	0.20	OG < 1	0.10	NTU	2025-04-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-23	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
<i>Total Metals</i>						
Manganese, total	0.00787	MAC = 0.12	0.00020	mg/L	2025-04-28	
94E7 S Marsh Dr. (25D2926-03) Matrix: Ground Water Sampled: 2025-04-22 11:45						
<i>Field Parameters</i>						
Temperature, field	8.4	AO ≤ 15		°C	2025-04-22	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-04-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-23	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
<i>Total Metals</i>						
Manganese, total	0.0100	MAC = 0.12	0.00020	mg/L	2025-04-28	

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25D2926
2025-04-29 12:28

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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94E8 S Graham Ave. (25D2926-04) | Matrix: Ground Water | Sampled: 2025-04-22 13:50

Field Parameters

Temperature, field	7.7	AO ≤ 15		°C	2025-04-22	
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General Parameters

Turbidity	< 0.10	OG < 1	0.10	NTU	2025-04-24	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-23	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	

Total Metals

Manganese, total	0.00640	MAC = 0.12	0.00020	mg/L	2025-04-28	
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94E9 S West Fraser Rd (25D2926-05) | Matrix: Ground Water | Sampled: 2025-04-22 14:50

Field Parameters

Temperature, field	5.4	AO ≤ 15		°C	2025-04-22	
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General Parameters

Turbidity	< 0.10	OG < 1	0.10	NTU	2025-04-24	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-23	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	

Total Metals

Manganese, total	0.00108	MAC = 0.12	0.00020	mg/L	2025-04-29	
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94F0 S Pedersen Rd. (25D2926-06) | Matrix: Ground Water | Sampled: 2025-04-22 09:50

Field Parameters

Temperature, field	6.2	AO ≤ 15		°C	2025-04-22	
--------------------	-----	---------	--	----	------------	--

General Parameters

Turbidity	< 0.10	OG < 1	0.10	NTU	2025-04-24	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-23	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	

Total Metals

Manganese, total	0.0618	MAC = 0.12	0.00020	mg/L	2025-04-28	
------------------	--------	------------	---------	------	------------	--



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25D2926
2025-04-29 12:28

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
35D91K New Carson Pit (25D2926-07) Matrix: Ground Water Sampled: 2025-04-22 13:00						
<i>Field Parameters</i>						
Temperature, field	6.4	AO ≤ 15		°C	2025-04-22	
<i>General Parameters</i>						
Turbidity	0.10	OG < 1	0.10	NTU	2025-04-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-23	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	
<i>Total Metals</i>						
Manganese, total	0.00570	MAC = 0.12	0.00020	mg/L	2025-04-28	

179CA S Dennis Rd. (25D2926-08) | Matrix: Ground Water | Sampled: 2025-04-22 09:20

<i>Field Parameters</i>						
Temperature, field	6.4	AO ≤ 15		°C	2025-04-22	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-04-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-23	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-23	HT3
<i>Total Metals</i>						
Manganese, total	0.147	MAC = 0.12	0.00020	mg/L	2025-04-28	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - First Week

WORK ORDER 25D2926
REPORTED 2025-04-29 12:28

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CARCO
 ANALYTICAL SERVICES

CHAIN OF CUSTODY RECORD COC# 101 PAGE 1 of 1

RELINQUISHING BY: Cole Frank DATE: 22 Apr 25 RECEIVED BY: _____ DATE: _____
 RELINQUISHED BY: _____ TIME: 15:50 RECEIVED BY: _____ DATE: _____
 PROJECT: WEEK 1 DISTRIBUTION PO #: _____
 SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section) Return Cooler(s) Section Return bottle order

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF EDD jlaw@quesnel.ca
 EMAIL 1: vbest@quesnel.ca kearle@quesnel.ca
 EMAIL 2: _____
 MAIL HARD COPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:			SAMPLING:		COMMENTS:
	DRINKING WATER	OTHER WATER	SOIL	DATE	TIME	
94E4 S Airport	<input checked="" type="checkbox"/>			22 Apr 25	1040	
94E5 S Mills Rd.	<input checked="" type="checkbox"/>			22 Apr 25	1115	
94E7 S Marsh Dr.	<input checked="" type="checkbox"/>			22 Apr 25	1145	
94E8 S Graham Ave.	<input checked="" type="checkbox"/>			22 Apr 25	1350	
94E9 S West Fraser Rd	<input checked="" type="checkbox"/>			22 Apr 25	1450	
94F0 S Pederson Rd	<input checked="" type="checkbox"/>			22 Apr 25	0950	
35D91k NEW CARSON PIT	<input checked="" type="checkbox"/>			22 Apr 25	1300	
179CA S Dennis Rd	<input checked="" type="checkbox"/>			22 Apr 25	0920	

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

ANALYSES REQUESTED:

TEST	RESULT	TEST	RESULT
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>		MANGANESE	✓ 6.1
EPH (not PAH Corrected) <input type="checkbox"/> VPH <input type="checkbox"/>		TEMPERATURE	✓ 5.9
L/HEPH (PAH corrected) <input type="checkbox"/> VPH <input type="checkbox"/>		TURBIDITY	✓ 8.4
PAH <input type="checkbox"/>		ASBESTOS	✓ 7.7
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>		SOIL VAPOR	✓ 5.4
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>		FECAL COLIFORMS <input checked="" type="checkbox"/> HPC <input checked="" type="checkbox"/>	✓ 6.2
METALS - WATER TOTAL		TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	✓ 6.4
METALS - WATER DISSOLVED		BOD <input type="checkbox"/> COD <input type="checkbox"/>	✓ 6.4
METALS - SOIL (SALM) <input type="checkbox"/> Inc. pH <input type="checkbox"/>		TSS <input type="checkbox"/> TDS <input type="checkbox"/>	
		PH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	
		PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	

PAYMENT: CHECK CREDIT DEBIT CASH INVOICE
 SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - First Week
PROJECT INFO

WORK ORDER 25E2759

RECEIVED / TEMP 2025-05-21 13:37 / 11.3°C

REPORTED 2025-05-28 14:05

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

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<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25E2759
2025-05-28 14:05

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25E2759-01) Matrix: Ground Water Sampled: 2025-05-20 10:12						
<i>Field Parameters</i>						
Temperature, field	8.7	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-05-21	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.00094	MAC = 0.12	0.00020	mg/L	2025-05-28	
94E5 S Mills Rd. (25E2759-02) Matrix: Ground Water Sampled: 2025-05-20 10:45						
<i>Field Parameters</i>						
Temperature, field	8.9	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-05-21	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.00478	MAC = 0.12	0.00020	mg/L	2025-05-28	
94E7 S Marsh Dr. (25E2759-03) Matrix: Ground Water Sampled: 2025-05-20 11:20						
<i>Field Parameters</i>						
Temperature, field	8.2	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-05-21	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.00640	MAC = 0.12	0.00020	mg/L	2025-05-28	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25E2759
2025-05-28 14:05

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E8 S Graham Ave. (25E2759-04) Matrix: Ground Water Sampled: 2025-05-20 12:40						
<i>Field Parameters</i>						
Temperature, field	8.4	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	0.10	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-05-21	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.0169	MAC = 0.12	0.00020	mg/L	2025-05-27	RS1
94E9 S West Fraser Rd. (25E2759-05) Matrix: Ground Water Sampled: 2025-05-20 11:45						
<i>Field Parameters</i>						
Temperature, field	8.7	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	0.10	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
Background Colonies	>200	N/A	200	CFU/100 mL	2025-05-21	
Heterotrophic Plate Count	6	N/A	5	CFU/mL	2025-05-21	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.00717	MAC = 0.12	0.00020	mg/L	2025-05-27	RS1
94F0 S Pedersen Rd. (25E2759-06) Matrix: Ground Water Sampled: 2025-05-20 13:55						
<i>Field Parameters</i>						
Temperature, field	8.8	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-05-21	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.0332	MAC = 0.12	0.00020	mg/L	2025-05-27	RS1



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25E2759
2025-05-28 14:05

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
35D91K New Carson Pit (25E2759-07) Matrix: Ground Water Sampled: 2025-05-20 13:00						
<i>Field Parameters</i>						
Temperature, field	8.6	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	0.20	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-21	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-05-21	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.00120	MAC = 0.12	0.00020	mg/L	2025-05-27	RS1

179CA S Dennis Rd. (25E2759-08) | Matrix: Ground Water | Sampled: 2025-05-20 14:20

<i>Field Parameters</i>						
Temperature, field	8.7	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-21	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-05-21	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.150	MAC = 0.12	0.00020	mg/L	2025-05-27	RS1

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- RS1 The Reporting Limits for this sample have been raised due to high analyte concentration.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - First Week

WORK ORDER 25E2759
REPORTED 2025-05-28 14:05

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
>2	Greater than the specified Result
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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

CARCO

ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC#

PAGE 1 OF 1

CARCO BC COC, Rev 08/12

REPORT TO:

COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5

INVOICE TO:

COMPANY:
 ADDRESS:

SAME AS REPORT TO

CONTACT: Joe Law

CONTACT: Accounts Payable - Joe Law

TEL/FAX: 250 992-6330 250 992-5392

TEL/FAX:

EMAIL PDF EDD

EMAIL PDF

EMAIL 1: jlaw@quesnel.ca

EMAIL 1: jlaw@quesnel.ca

EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca

EMAIL 2: MAIL HARD COPY HOLD FOR P/U

MAIL HARD COPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days) Other*
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:		# CONTAINERS	SAMPLING:		COMMENTS:	
	DRINKING WATER	OTHER WATER		DATE	TIME	FILTERED	PRESERVED
94E4 S Airport	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	20-05-25	10:12		
94E5 S Mills Rd.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	20-05-25	10:45		
94E7 S Marsh Dr.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	20-05-25	11:10		
94E8 S Graham Ave.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	20-05-25	12:40		
94E9 S West Fraser Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	20-05-25	11:45		
94F0 S Pederson Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	20-05-25	12:55		
35D91K NEW CARSON PIT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	20-05-25	1:00		
179CA S Dennis Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	20-05-24	7:10		

APPLICABLE REGULATORY LIMITS:

- Canadian Drinking Water Quality Guidelines
- BC Drinking Water Protection Act / Reg.
- BC CSR AL RL CL IL AW
- CAME ALBERTA TIER 1
- OTHER:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):

60 Days 90 Days Longer Date (Surcharges will Apply):

OTHER INSTRUCTIONS:

Return bottle order. NEW CARSON PITT - PART OF MAIN SYSTEM

ANALYSES REQUESTED:	RESULTS
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	
EPH (not PAH Corrected)	
VOC <input type="checkbox"/> VPH <input type="checkbox"/>	
L/HEPH (PAH corrected)	
PAH	
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	
METALS - WATER TOTAL	
METALS - WATER DISSOLVED	
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>	
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	
TSS <input type="checkbox"/> TDS <input type="checkbox"/>	
BOD <input type="checkbox"/> COD <input type="checkbox"/>	
FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>	
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	
SOIL VAPOUR	
ASBESTOS	
TURBIDITY	
TEMPERATURE	
Manganese	
HOLD	

RELINQUISHED BY: *Shawn Wenzel* DATE: 20-05-24 RECEIVED BY: _____ DATE: _____

RELINQUISHED BY: _____ DATE: _____ RECEIVED BY: _____ DATE: _____

PROJECT: _____ PROJECT INFO: _____ PO #: _____

WEEK 1 DISTRIBUTION

SAMPLED BY: # 292 *Shawn Wenzel*

SHIPPING INSTRUCTIONS: _____

SHIP Supplies (please specify below or in Other Instructions Section)

Return bottle order

Return Coolers

PAYMENT:

- CHEQUE
- CREDIT
- DEBIT
- CASH
- INVOICE

SAMPLE RECEIPT TEMP (°C):

Work Order #

CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - First Week

PROJECT INFO

WORK ORDER 25F2621

RECEIVED / TEMP 2025-06-18 13:12 / 17.3°C

REPORTED 2025-06-25 11:51

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25F2621
2025-06-25 11:51

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94E4 S Airport (25F2621-01) Matrix: Ground Water Sampled: 2025-06-17 09:45						
<i>Field Parameters</i>						
Temperature, field	10.2	AO ≤ 15		°C	2025-06-17	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-06-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-18	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-18	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-18	HT3
<i>Total Metals</i>						
Manganese, total	0.00111	MAC = 0.12	0.00020	mg/L	2025-06-21	
WT# 94E5 S Mills Rd. (25F2621-02) Matrix: Ground Water Sampled: 2025-06-17 10:15						
<i>Field Parameters</i>						
Temperature, field	10.4	AO ≤ 15		°C	2025-06-17	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-06-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-18	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-18	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-18	
<i>Total Metals</i>						
Manganese, total	0.00644	MAC = 0.12	0.00020	mg/L	2025-06-21	
WT# 94E8 S Graham Ave. (25F2621-03) Matrix: Ground Water Sampled: 2025-06-17 11:30						
<i>Field Parameters</i>						
Temperature, field	10.2	AO ≤ 15		°C	2025-06-17	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-06-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-18	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-18	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-18	
<i>Total Metals</i>						
Manganese, total	0.0234	MAC = 0.12	0.00020	mg/L	2025-06-21	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25F2621
2025-06-25 11:51

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
WT# 94E9 S West Fraser Rd (25F2621-04) Matrix: Ground Water Sampled: 2025-06-17 13:35					
<i>Field Parameters</i>					
Temperature, field	10.8	AO ≤ 15	°C	2025-06-17	
<i>General Parameters</i>					
Turbidity	< 0.10	OG < 1	0.10 NTU	2025-06-19	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-06-18	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-06-18	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-06-18	
<i>Total Metals</i>					
Manganese, total	0.00210	MAC = 0.12	0.00020 mg/L	2025-06-21	
WT# 94F0 S Pedersen Rd. (25F2621-05) Matrix: Ground Water Sampled: 2025-06-17 14:10					
<i>Field Parameters</i>					
Temperature, field	11.0	AO ≤ 15	°C	2025-06-17	
<i>General Parameters</i>					
Turbidity	< 0.10	OG < 1	0.10 NTU	2025-06-19	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-06-18	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-06-18	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-06-18	
<i>Total Metals</i>					
Manganese, total	0.0718	MAC = 0.12	0.00020 mg/L	2025-06-21	
WT# 35D91 NEW CARSON PIT (25F2621-06) Matrix: Ground Water Sampled: 2025-06-17 13:00					
<i>Field Parameters</i>					
Temperature, field	11.2	AO ≤ 15	°C	2025-06-17	
<i>General Parameters</i>					
Turbidity	0.12	OG < 1	0.10 NTU	2025-06-19	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-06-18	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-06-18	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-06-18	
<i>Total Metals</i>					
Manganese, total	0.0392	MAC = 0.12	0.00020 mg/L	2025-06-21	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25F2621
2025-06-25 11:51

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 179CA S Dennis Rd. (25F2621-07) Matrix: Ground Water Sampled: 2025-06-17 14:15						
<i>Field Parameters</i>						
Temperature, field	9.6	AO ≤ 15		°C	2025-06-17	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-06-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-18	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-18	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-18	
<i>Total Metals</i>						
Manganese, total	0.151	MAC = 0.12	0.00020	mg/L	2025-06-21	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25F2621
2025-06-25 11:51

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
Tel: (604) 279-1499 Fax: (604) 279-1599
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Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC#

PAGE / OF /

CARCO BC COC, Rev 08/12

REPORT TO:

COMPANY: City of Quesnel
ADDRESS: 410 Kinchant St.
Quesnel, V2J 7J5

CONTACT: Joe Law

TEL/FAX: 250 992-6330 250 992-5392

EMAIL PDF EDD
EMAIL 1: jlaw@quesnel.ca

EMAIL 2: vbest@quesnel.ca kear@quesnel.ca

MAIL HARDCOPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days)
TIME REQUESTED: Rush: 1 Day 2 Day 3 Day

INVOICE TO: SAME AS REPORT TO

COMPANY:
ADDRESS:

CONTACT: Accounts Payable - Joe Law

TEL/FAX:

EMAIL PDF
EMAIL 1: jlaw@quesnel.ca

EMAIL 2:

MAIL HARDCOPY HOLD FOR P/U

Other *
*Contact Lab To Confirm. Surcharge May Apply

RELINQUISHED BY: Shaun Monaghan

RELINQUISHED BY:

DATE: 17-06-25 RECEIVED BY:
TIME: 5:30
DATE:
TIME:

PROJECT: WEEK 1 DISTRIBUTION

SAMPLED BY: Shaun, M.

PROJECT INFO: PO #:

SHIPPING INSTRUCTIONS: Return Cooler(s)
Ship Supplies (please specify below or in Other Instructions Section)
Return bottle order

ANALYSES REQUESTED:

Table with columns: CLIENT SAMPLE ID, MATRIX, SAMPLING (DATE, TIME), COMMENTS, and various chemical analysis parameters (BTEX, VOC, PAH, METALS, etc.). Includes handwritten sample IDs and dates.

APPLICABLE REGULATORY LIMITS:
Canadian Drinking Water Quality Guidelines
BC Drinking Water Protection Act / Reg.
CCME ALBERTA TIER 1

SAMPLE RETENTION INSTRUCTIONS (discarded 30 days after Report unless otherwise specified):
OTHER INSTRUCTIONS: Return bottle order. NEW CARSON PITT - PART OF MAIN SYSTEM

PAYMENT:
CHECK
CREDIT
DEBIT
CASH
INVOICE
SAMPLE RECEIPT TEMP (°C):
Work Order #
CUSTODY SEAL INTACT

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - First Week

PROJECT INFO

WORK ORDER 25G2369

RECEIVED / TEMP 2025-07-16 13:20 / 16.4°C

REPORTED 2025-07-22 16:38

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

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You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 | #108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25G2369
2025-07-22 16:38

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25G2369-01) Matrix: Ground Water Sampled: 2025-07-15 09:30						
<i>Field Parameters</i>						
Temperature, field	12.6	AO ≤ 15		°C	2025-07-15	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-07-17	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-16	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
<i>Total Metals</i>						
Manganese, total	0.00206	MAC = 0.12	0.00020	mg/L	2025-07-18	
94E5 S Mills Rd. (25G2369-02) Matrix: Ground Water Sampled: 2025-07-15 10:00						
<i>Field Parameters</i>						
Temperature, field	12.1	AO ≤ 15		°C	2025-07-15	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-07-17	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-16	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
<i>Total Metals</i>						
Manganese, total	0.00387	MAC = 0.12	0.00020	mg/L	2025-07-18	
94E8 S Graham Ave. (25G2369-03) Matrix: Ground Water Sampled: 2025-07-15 11:20						
<i>Field Parameters</i>						
Temperature, field	14.0	AO ≤ 15		°C	2025-07-15	
<i>General Parameters</i>						
Turbidity	0.29	OG < 1	0.10	NTU	2025-07-17	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
Heterotrophic Plate Count	8	N/A	5	CFU/mL	2025-07-16	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
<i>Total Metals</i>						
Manganese, total	0.162	MAC = 0.12	0.00020	mg/L	2025-07-18	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25G2369
2025-07-22 16:38

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E9 S West Fraser Rd. (25G2369-04) Matrix: Ground Water Sampled: 2025-07-15 10:40						
<i>Field Parameters</i>						
Temperature, field	13.0	AO ≤ 15		°C	2025-07-15	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-07-17	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-16	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
<i>Total Metals</i>						
Manganese, total	0.0172	MAC = 0.12	0.00020	mg/L	2025-07-17	
94F0 S Pedersen Rd. (25G2369-05) Matrix: Ground Water Sampled: 2025-07-15 13:20						
<i>Field Parameters</i>						
Temperature, field	12.8	AO ≤ 15		°C	2025-07-15	
<i>General Parameters</i>						
Turbidity	0.14	OG < 1	0.10	NTU	2025-07-17	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-16	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
<i>Total Metals</i>						
Manganese, total	0.0342	MAC = 0.12	0.00020	mg/L	2025-07-18	
35D91 New Carson Pit (25G2369-06) Matrix: Ground Water Sampled: 2025-07-15 11:20						
<i>Field Parameters</i>						
Temperature, field	12.8	AO ≤ 15		°C	2025-07-15	
<i>General Parameters</i>						
Turbidity	0.13	OG < 1	0.10	NTU	2025-07-17	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-16	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-16	
<i>Total Metals</i>						
Manganese, total	0.00839	MAC = 0.12	0.00020	mg/L	2025-07-18	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25G2369
2025-07-22 16:38

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
179CA S Dennis Rd. (25G2369-07) Matrix: Ground Water Sampled: 2025-07-15 14:10						
<i>Field Parameters</i>						
Temperature, field	11.2	AO ≤ 15		°C	2025-07-15	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-07-17	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-07-16	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-07-16	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-07-16	
<i>Total Metals</i>						
Manganese, total	0.156	MAC = 0.12		0.00020 mg/L	2025-07-17	

Sample Qualifiers:

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

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25G2369
2025-07-22 16:38

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

CO# PAGE 1 OF 1

CARO BC COC, Rev 08/12

REPORT TO:

COMPANY: City of Quesnel

ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5

CONTACT: Joe Law

TEL/FAX: 250 992-6330 250 992-5392

EMAIL PDF EDD

EMAIL 1: jlaw@quesnel.ca

EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca

MAIL HARDCOPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days) Other*

TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day*

INVOICE TO:

COMPANY:

ADDRESS:

CONTACT: Accounts Payable - Joe Law

TEL/FAX:

EMAIL PDF

EMAIL 1: jlaw@quesnel.ca

EMAIL 2:

MAIL HARDCOPY HOLD FOR P/U

SAME AS REPORT TO

RELINQUISHED BY: Shaun M.
 RECEIVED BY:

DATE: 15-07-25
 TIME: 3:30
 DATE:
 TIME:

RECEIVED BY:

DATE:
 TIME:

PROJECT: WEEK 1 DISTRIBUTION

PROJECT INFO:

PO #:

SAMPLED BY: Shaun Mondyhar

SHIPPING INSTRUCTIONS:

Return Cooler(s)

Ship Supplies (please specify below or in Other Instructions Section)

Return bottle order

ANALYSES REQUESTED:

BTEX <input type="checkbox"/>	VPH <input type="checkbox"/>	MTBE <input type="checkbox"/>
EPH (not PAH Corrected)		
VOC <input type="checkbox"/>	VPH <input type="checkbox"/>	
L/HEPH (PAH corrected)		
PAH		
PHENOLS Chlorinated <input type="checkbox"/>	Non-Chlor. <input type="checkbox"/>	
PCB <input type="checkbox"/>	GLYCOLS <input type="checkbox"/>	HAA <input type="checkbox"/>
METALS - WATER TOTAL		
METALS - WATER DISSOLVED		
METALS - SOIL (SALM) <input type="checkbox"/>	inc. pH <input type="checkbox"/>	
pH <input type="checkbox"/>	EC <input type="checkbox"/>	ALK <input type="checkbox"/>
TSS <input type="checkbox"/>	TDS <input type="checkbox"/>	
BOD <input type="checkbox"/>	COD <input type="checkbox"/>	
FECAL COLIFORMS <input type="checkbox"/>	HPC <input checked="" type="checkbox"/>	
TOTAL COLIFORMS <input checked="" type="checkbox"/>	E. coli <input checked="" type="checkbox"/>	
PESTICIDES <input type="checkbox"/>	HERBICIDES <input type="checkbox"/>	
SOIL VAPOUR		
ASBESTOS		
TURBIDITY		
TEMPERATURE		
Manganese		
HOLD		

CLIENT SAMPLE ID:	DATE	TIME	FILTERED	PRESERVED	COMMENTS:	MATRIX:		# CONTAINERS	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
						DRINKING WATER	OTHER WATER						
94E4 S Airport	15-07-25	9:30				<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	15-07-25	10:30			
94E5 S Mills Rd.	15-07-25	10:30				<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	15-07-25	11:20			
94E8 S Graham Ave.	15-07-25	11:20				<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	15-07-25	11:20			
94E9 S West Fraser Rd	15-07-25	10:40				<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	15-07-25	11:20			
94F0 S Pederson Rd	15-07-25	1:10				<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	15-07-25	11:20			
35D91K NEW CARSON PTT	15-07-25	11:20				<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	15-07-25	11:20			
179CA S Dennis Rd	15-07-25	11:20				<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	15-07-25	11:20			

APPLICABLE REGULATORY LIMITS:

Canadian Drinking Water Quality Guidelines

BC Drinking Water Protection Act / Reg.

BC CSR AL RL CL IL AW

CCME ALBERTA TIER 1

OTHER:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):

60 Days 90 Days Longer Date (Surcharges will Apply):

OTHER INSTRUCTIONS: Return bottle order, NEW CARSON PITT - PART OF MAIN SYSTEM

PAYMENT: CHEQUE CREDIT DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C):

Work Order #

CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - First Week
PROJECT INFO

WORK ORDER 25H1748

RECEIVED / TEMP 2025-08-13 13:27 / 16.4°C
REPORTED 2025-08-20 11:44

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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Airport + New Carsan Pit*

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25H1748
2025-08-20 11:44

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25H1748-01) Matrix: Ground Water Sampled: 2025-08-12 10:30						
<i>Field Parameters</i>						
Temperature, field	14.0	AO ≤ 15		°C	2025-08-12	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-08-14	
<i>Microbiological Parameters</i>						
Coliforms, Total	≥ 8	MAC = 0	1	CFU/100 mL	2025-08-13	
Background Colonies	>200	N/A	200	CFU/100 mL	2025-08-13	
Heterotrophic Plate Count	29	N/A	5	CFU/mL	2025-08-13	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	
<i>Total Metals</i>						
Manganese, total	0.00367	MAC = 0.12	0.00020	mg/L	2025-08-18	
94E5 S Mills Rd. (25H1748-02) Matrix: Ground Water Sampled: 2025-08-12 11:00						
<i>Field Parameters</i>						
Temperature, field	14.0	AO ≤ 15		°C	2025-08-12	
<i>General Parameters</i>						
Turbidity	0.10	OG < 1	0.10	NTU	2025-08-14	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-08-13	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	
<i>Total Metals</i>						
Manganese, total	0.00400	MAC = 0.12	0.00020	mg/L	2025-08-20	
94E8 S Graham Ave. (25H1748-03) Matrix: Ground Water Sampled: 2025-08-12 09:35						
<i>Field Parameters</i>						
Temperature, field	16.0	AO ≤ 15		°C	2025-08-12	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-08-14	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	HT3
Heterotrophic Plate Count	17	N/A	5	CFU/mL	2025-08-13	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	HT3
<i>Total Metals</i>						
Manganese, total	0.0732	MAC = 0.12	0.00020	mg/L	2025-08-16	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25H1748
2025-08-20 11:44

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E9 S West Fraser Rd. (25H1748-04) Matrix: Ground Water Sampled: 2025-08-12 11:35						
<i>Field Parameters</i>						
Temperature, field	14.0	AO ≤ 15		°C	2025-08-12	
<i>General Parameters</i>						
Turbidity	0.13	OG < 1	0.10	NTU	2025-08-14	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	
Heterotrophic Plate Count	5	N/A	5	CFU/mL	2025-08-13	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	
<i>Total Metals</i>						
Manganese, total	0.0144	MAC = 0.12	0.00020	mg/L	2025-08-20	
94F0 S Pedersen Rd. (25H1748-05) Matrix: Ground Water Sampled: 2025-08-12 13:25						
<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-08-12	
<i>General Parameters</i>						
Turbidity	0.26	OG < 1	0.10	NTU	2025-08-14	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-08-13	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	
<i>Total Metals</i>						
Manganese, total	0.00902	MAC = 0.12	0.00020	mg/L	2025-08-17	
35D91 New Carson Pit (25H1748-06) Matrix: Ground Water Sampled: 2025-08-12 12:40						
<i>Field Parameters</i>						
Temperature, field	14.0	AO ≤ 15		°C	2025-08-12	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-08-14	
<i>Microbiological Parameters</i>						
Coliforms, Total	2	MAC = 0	1	CFU/100 mL	2025-08-13	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-08-13	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	
<i>Total Metals</i>						
Manganese, total	0.0314	MAC = 0.12	0.00020	mg/L	2025-08-20	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25H1748
2025-08-20 11:44

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
179CA S Dennis Rd. (25H1748-07) Matrix: Ground Water Sampled: 2025-08-12 13:55						
<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-08-12	
<i>General Parameters</i>						
Turbidity	0.16	OG < 1	0.10	NTU	2025-08-14	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-08-13	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-13	
<i>Total Metals</i>						
Manganese, total	0.158	MAC = 0.12	0.00020	mg/L	2025-08-16	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25H1748
2025-08-20 11:44

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
>=	Greater than or equal to the specified Result
>2	Greater than the specified Result
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
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 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC# _____ PAGE / OF _____

CARO BC COC, Rev 08/12

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____

EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX

EMAIL PDF
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: _____
 MAIL HARD COPY HOLD FOR P/U

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm, Surcharge May Apply

PROJECT: _____
 WEEK 1 DISTRIBUTION
 SAMPLED BY: *B. Wilde*
 SHIPPING INSTRUCTIONS: Return Coolers
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order

CLIENT SAMPLE ID: _____

ANALYSES REQUESTED:
 BTEX VPH MTBE
 EPH (not PAH Corrected)
 VOC VPH
 L/HEPH (PAH corrected)
 PAH
 PHENOLS Chlorinated Non-Chlor.
 PCB GLYCOLS HAA
 METALS - WATER TOTAL
 METALS - WATER DISSOLVED
 METALS - SOIL (SALM) inc. pH
 pH EC ALK
 TSS TDS
 BOD COD
 FECAL COLIFORMS HPC
 TOTAL COLIFORMS E. coli
 PESTICIDES HERBICIDES
 SOIL VAPOUR
 ASBESTOS
 TURBIDITY
 TEMPERATURE *14*
 Manganese
 HOLD

CLIENT SAMPLE ID:	MATRIX:	# CONTAINERS	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
94E4 S Airport	DRINKING WATER	3	12-Aug-25	10:30			
94E5 S Mills Rd.	OTHER WATER	3	12-Aug-25	11:00			
94E7 S Marsh Dr.	SOIL	3	12-Aug-25				
94E8 S Graham Ave.	OTHER	3	12-Aug-25	9:35			
94E9 S West Fraser Rd		3	12-Aug-25	11:35			
94F0 S Pederson Rd		3	12-Aug-25	13:25			
35D91K NEW CARSON PTT		3	12-Aug-25	12:40			
179CA S Dennis Rd		3	12-Aug-25	13:55			

DRINKING WATER
 OTHER WATER
 SOIL
 OTHER

DATE
 TIME
 FILTERED
 PRESERVED
 COMMENTS:
 (i.e. flow/volume media divided)

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCNE ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____
 OTHER INSTRUCTIONS: Return bottle order, NEW CARSON PITT - PART OF MAIN SYSTEM

PAYMENT: CREDIT
 DEBIT
 CASH
 INVOICE
 SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - First Week

PROJECT INFO

WORK ORDER 25H2798

RECEIVED / TEMP 2025-08-20 13:40 / 11.8°C

REPORTED 2025-08-26 09:16

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Resample results
Airport & New Carson Pit
WO# 25H1748

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25H2798
2025-08-26 09:16

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport - ReSample (25H2798-01) Matrix: Ground Water Sampled: 2025-08-19 14:20						
<i>Field Parameters</i>						
Temperature, field	12.4	AO ≤ 15		°C	2025-08-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-08-20	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	

35D91k New Carson Pit - ReSample (25H2798-02) | Matrix: Ground Water | Sampled: 2025-08-19 13:10

<i>Field Parameters</i>						
Temperature, field	12.2	AO ≤ 15		°C	2025-08-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-08-20	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	

Sample Qualifiers:

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



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25H2798
2025-08-26 09:16

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - First Week
PROJECT INFO

WORK ORDER 2511356

RECEIVED / TEMP 2025-09-10 13:21 / 12.6°C
REPORTED 2025-09-17 09:37
COC NUMBER No Number

Introduction:

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<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 2511356
2025-09-17 09:37

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (2511356-01) Matrix: Ground Water Sampled: 2025-09-09 10:35						
<i>Field Parameters</i>						
Temperature, field	14.0	AO ≤ 15		°C	2025-09-09	
<i>General Parameters</i>						
Turbidity	0.13	OG < 1	0.10	NTU	2025-09-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	
Background Colonies	>200	N/A	200	CFU/100 mL	2025-09-10	
Heterotrophic Plate Count	14	N/A	5	CFU/mL	2025-09-10	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	
<i>Total Metals</i>						
Manganese, total	0.0148	MAC = 0.12	0.00020	mg/L	2025-09-12	
94E5 S Mills Rd. (2511356-02) Matrix: Ground Water Sampled: 2025-09-09 09:35						
<i>Field Parameters</i>						
Temperature, field	15.0	AO ≤ 15		°C	2025-09-09	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-09-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-10	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	HT3
<i>Total Metals</i>						
Manganese, total	0.00354	MAC = 0.12	0.00020	mg/L	2025-09-12	
94E8 S Graham Ave. (2511356-03) Matrix: Ground Water Sampled: 2025-09-09 11:10						
<i>Field Parameters</i>						
Temperature, field	14.0	AO ≤ 15		°C	2025-09-09	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-09-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-10	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	
<i>Total Metals</i>						
Manganese, total	0.0809	MAC = 0.12	0.00020	mg/L	2025-09-15	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 2511356
2025-09-17 09:37

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E9 S West Fraser Rd. (2511356-04) Matrix: Ground Water Sampled: 2025-09-09 10:10						
<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-09-09	
<i>General Parameters</i>						
Turbidity	0.10	OG < 1	0.10	NTU	2025-09-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-10	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	HT3
<i>Total Metals</i>						
Manganese, total	0.0124	MAC = 0.12	0.00020	mg/L	2025-09-12	
94F0 S Pedersen Rd. (2511356-05) Matrix: Ground Water Sampled: 2025-09-09 13:00						
<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-09-09	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-09-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-10	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	
<i>Total Metals</i>						
Manganese, total	0.0703	MAC = 0.12	0.00020	mg/L	2025-09-12	
35D91 New Carson Pit (2511356-06) Matrix: Ground Water Sampled: 2025-09-09 11:50						
<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-09-09	
<i>General Parameters</i>						
Turbidity	0.15	OG < 1	0.10	NTU	2025-09-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	
Heterotrophic Plate Count	7	N/A	5	CFU/mL	2025-09-10	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	
<i>Total Metals</i>						
Manganese, total	0.0326	MAC = 0.12	0.00020	mg/L	2025-09-15	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 2511356
2025-09-17 09:37

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
179CA S Dennis Rd. (2511356-07) Matrix: Ground Water Sampled: 2025-09-09 13:40						
<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-09-09	
<i>General Parameters</i>						
Turbidity	0.26	OG < 1	0.10	NTU	2025-09-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-10	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-10	
<i>Total Metals</i>						
Manganese, total	0.161	MAC = 0.12	0.00020	mg/L	2025-09-12	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 2511356
2025-09-17 09:37

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
>2	Greater than the specified Result
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.

CARC

ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC# _____ PAGE / OF /

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____

EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
 MAIL HARDCOPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

MAIL HARDCOPY HOLD FOR P/U FAX
 Other* _____

DRINKING WATER OTHER WATER SOIL OTHER

CLIENT SAMPLE ID:	MATRIX:	SAMPLING:	COMMENTS:
		DATE DD-MMM-YY	TIME HH:MM
94E4 S Airport	3	09-Sep-25	10:35
94E5 S Mills Rd.	3	09-Sep-25	9:35
94E7 S Marsh Dr.	3	09	
94E8 S Graham Ave.	3	09-Sep-25	11:10
94E9 S West Fraser Rd	3	09-Sep-25	10:10
94F0 S Pederson Rd	3	09-Sep-25	13:00
35D91K NEW CARSON PTT	3	09-Sep-25	11:50
179CA S Dennis Rd	3	09-Sep-25	13:40

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
<i>B. Wilde</i>	09-Sep-25		
	14:30		

PROJECT:	WEEK 1 DISTRIBUTION	PROJECT INFO:	PO #:
SAMPLED BY:	<i>B. Wilde</i>	SHIPPING INSTRUCTIONS:	
		Ship Supplies (please specify below or in Other Instructions Section)	
		Return bottle order	

ANALYSES REQUESTED:	DATE:
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	
EPH (not PAH Corrected)	
VOC <input type="checkbox"/> VPH <input type="checkbox"/>	
L/HEPH (PAH corrected)	
PAH	
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	
METALS - WATER TOTAL	
METALS - WATER DISSOLVED	
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>	
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	
TSS <input type="checkbox"/> TDS <input type="checkbox"/>	
BOD <input type="checkbox"/> COD <input type="checkbox"/>	
FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>	
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	
SOIL VAPOUR	
ASBESTOS	
TURBIDITY	
TEMPERATURE	
Manganese	
HOLD	

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

OTHER INSTRUCTIONS:
 Return bottle order. NEW CARSON PITT - PART OF MAIN SYSTEM

PAYMENT:
 CHECK CREDIT DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): _____

Work Order # _____

CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - First Week

PROJECT INFO

WORK ORDER 25K0520

RECEIVED / TEMP 2025-11-05 13:07 / 6.5°C

REPORTED 2025-11-13 12:57

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25K0520
2025-11-13 12:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25K0520-01) Matrix: Drinking Water Sampled: 2025-11-04 11:25						
<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-11-04	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-11-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-11-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	
<i>Total Metals</i>						
Manganese, total	0.00203	MAC = 0.12	0.00020	mg/L	2025-11-12	
94E5 S Mills Rd. (25K0520-02) Matrix: Drinking Water Sampled: 2025-11-04 09:40						
<i>Field Parameters</i>						
Temperature, field	11.0	AO ≤ 15		°C	2025-11-04	
<i>General Parameters</i>						
Turbidity	0.12	OG < 1	0.10	NTU	2025-11-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-11-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	HT3
<i>Total Metals</i>						
Manganese, total	0.00225	MAC = 0.12	0.00020	mg/L	2025-11-08	
94E8 S Graham Ave. (25K0520-03) Matrix: Drinking Water Sampled: 2025-11-04 10:20						
<i>Field Parameters</i>						
Temperature, field	10.0	AO ≤ 15		°C	2025-11-04	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-11-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	
Heterotrophic Plate Count	6	N/A	5	CFU/mL	2025-11-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	
<i>Total Metals</i>						
Manganese, total	0.0162	MAC = 0.12	0.00020	mg/L	2025-11-08	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25K0520
2025-11-13 12:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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94E9 S West Fraser Rd. (25K0520-04) | Matrix: Drinking Water | Sampled: 2025-11-04 11:00

Field Parameters

Temperature, field	10.0	AO ≤ 15		°C	2025-11-04	
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General Parameters

Turbidity	< 0.10	OG < 1	0.10	NTU	2025-11-06	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-11-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	

Total Metals

Manganese, total	0.00107	MAC = 0.12	0.00020	mg/L	2025-11-08	
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94F0 S Pedersen Rd. (25K0520-05) | Matrix: Drinking Water | Sampled: 2025-11-04 12:20

Field Parameters

Temperature, field	12.0	AO ≤ 15		°C	2025-11-04	
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General Parameters

Turbidity	0.14	OG < 1	0.10	NTU	2025-11-06	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-11-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	

Total Metals

Manganese, total	0.0156	MAC = 0.12	0.00020	mg/L	2025-11-08	
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35D91k New Carson Pit (25K0520-06) | Matrix: Drinking Water | Sampled: 2025-11-04 13:50

General Parameters

Turbidity	0.18	OG < 1	0.10	NTU	2025-11-06	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	
Heterotrophic Plate Count	5	N/A	5	CFU/mL	2025-11-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-05	

Total Metals

Manganese, total	0.0106	MAC = 0.12	0.00020	mg/L	2025-11-08	
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179CA S Dennis Rd. (25K0520-07) | Matrix: Drinking Water | Sampled: 2025-11-04 13:20

Field Parameters



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25K0520
2025-11-13 12:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
179CA S Dennis Rd. (25K0520-07) Matrix: Drinking Water Sampled: 2025-11-04 13:20, Continued						
<i>Field Parameters, Continued</i>						
Temperature, field	11.0	AO ≤ 15		°C	2025-11-04	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1		0.10 NTU	2025-11-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-05	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-11-05	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-05	
<i>Total Metals</i>						
Manganese, total	0.151	MAC = 0.12		0.00020 mg/L	2025-11-08	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - First Week

WORK ORDER 25K0520
REPORTED 2025-11-13 12:57

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO:
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearn@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX

INVOICE TO: SAME AS REPORT TO
 COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: _____
 MAIL HARD COPY HOLD FOR P/U

TURNAROUND Routine: (4-7 Days)
 Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply
TIME REQUESTED: _____

RELINQUISHED BY: B. Wille
 DATE: 4-Nov-25
 TIME: 15:30
RECEIVED BY: _____
 DATE: _____
 TIME: _____

ANALYSES REQUESTED:

BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	EPH (not PAH Corrected) <input type="checkbox"/>	VOC <input type="checkbox"/> VPH <input type="checkbox"/>	L/HEPH (PAH corrected) <input type="checkbox"/>	PAH <input type="checkbox"/>	PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	METALS - WATER TOTAL <input type="checkbox"/>	METALS - WATER DISSOLVED <input type="checkbox"/>	METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>	pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	TSS <input type="checkbox"/> TDS <input type="checkbox"/>	BOD <input type="checkbox"/> COD <input type="checkbox"/>	FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>	TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	SOIL VAPOUR <input type="checkbox"/>	ASBESTOS <input type="checkbox"/>	TURBIDITY <input type="checkbox"/>	TEMPERATURE <input type="checkbox"/>	Manganese <input type="checkbox"/>	HOLD <input type="checkbox"/>
--	--	---	---	------------------------------	--	--	---	---	--	--	---	---	--	---	---	--------------------------------------	-----------------------------------	------------------------------------	--------------------------------------	------------------------------------	-------------------------------

CLIENT SAMPLE ID:	MATRIX:		SAMPLING:		COMMENTS:
	DRINKING WATER	OTHER WATER	DATE	TIME	
94E4 S Airport	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4-Nov-25	11:25	3 CONTAINERS OTHER <input type="checkbox"/> SOIL <input type="checkbox"/>
94E5 S Mills Rd.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4-Nov-25	9:40	3 CONTAINERS OTHER <input type="checkbox"/> SOIL <input type="checkbox"/>
94E7 S-Marsh-Dt.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4-Nov-25		3 CONTAINERS OTHER <input type="checkbox"/> SOIL <input type="checkbox"/>
94E8 S Graham Ave.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4-Nov-25	10:20	3 CONTAINERS OTHER <input type="checkbox"/> SOIL <input type="checkbox"/>
94E9 S West Fraser Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4-Nov-25	11:00	3 CONTAINERS OTHER <input type="checkbox"/> SOIL <input type="checkbox"/>
94F0 S Pederson Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4-Nov-25	12:20	3 CONTAINERS OTHER <input type="checkbox"/> SOIL <input type="checkbox"/>
35D91k NEW CARSON PIT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4-Nov-25	13:50	3 CONTAINERS OTHER <input type="checkbox"/> SOIL <input type="checkbox"/>
179CA S Dennis Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4-Nov-25	13:20	3 CONTAINERS OTHER <input type="checkbox"/> SOIL <input type="checkbox"/>

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (surcharges will Apply): _____

OTHER INSTRUCTIONS:
 Return bottle order: NEW CARSON PITT - PART OF MAIN SYSTEM

PAYMENT:
 CHEQUE
 CREDIT
 DEBIT
 CASH
 INVOICE

SAMPLE RECEIPT TEMP (°C): _____

Work Order # _____
 CUSTODY SEAL INTACT? Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - First Week

PROJECT INFO

WORK ORDER 25L0714

RECEIVED / TEMP REPORTED 2025-12-04 12:30 / 10.8°C
2025-12-09 09:46

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25L0714
2025-12-09 09:46

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E4 S Airport (25L0714-01) Matrix: Drinking Water Sampled: 2025-12-03 09:55						
<i>Field Parameters</i>						
Temperature, field	10.0	AO ≤ 15		°C	2025-12-03	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-12-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-12-04	HT3
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	
<i>Total Metals</i>						
Manganese, total	0.00362	MAC = 0.12	0.00020	mg/L	2025-12-06	
94E5 S Mills Rd. (25L0714-02) Matrix: Drinking Water Sampled: 2025-12-03 11:00						
<i>Field Parameters</i>						
Temperature, field	10.1	AO ≤ 15		°C	2025-12-03	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-12-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-12-04	HT3
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	
<i>Total Metals</i>						
Manganese, total	0.00205	MAC = 0.12	0.00020	mg/L	2025-12-06	
94E8 S Graham Ave. (25L0714-03) Matrix: Drinking Water Sampled: 2025-12-03 11:45						
<i>Field Parameters</i>						
Temperature, field	9.8	AO ≤ 15		°C	2025-12-03	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-12-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-12-04	HT3
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	
<i>Total Metals</i>						
Manganese, total	0.0275	MAC = 0.12	0.00020	mg/L	2025-12-06	

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - First Week

WORK ORDER REPORTED 25L0714
2025-12-09 09:46

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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94E9 S West Fraser Rd. (25L0714-04) | Matrix: Drinking Water | Sampled: 2025-12-03 10:45

Field Parameters

Temperature, field	10.0	AO ≤ 15		°C	2025-12-03	
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General Parameters

Turbidity	< 0.10	OG < 1	0.10	NTU	2025-12-06	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	
Heterotrophic Plate Count	18	N/A	5	CFU/mL	2025-12-04	HT3
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	

Total Metals

Manganese, total	0.00094	MAC = 0.12	0.00020	mg/L	2025-12-06	
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94F0 S Pederson Rd. (25L0714-05) | Matrix: Drinking Water | Sampled: 2025-12-03 14:20

Field Parameters

Temperature, field	10.1	AO ≤ 15		°C	2025-12-03	
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General Parameters

Turbidity	0.16	OG < 1	0.10	NTU	2025-12-06	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-12-04	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	

Total Metals

Manganese, total	0.0564	MAC = 0.12	0.00020	mg/L	2025-12-06	
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35D91k New Carson Pit (25L0714-06) | Matrix: Drinking Water | Sampled: 2025-12-03 13:20

Field Parameters

Temperature, field	10.0	AO ≤ 15		°C	2025-12-03	
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General Parameters

Turbidity	0.22	OG < 1	0.10	NTU	2025-12-06	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-12-04	HT3
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-04	

Total Metals

Manganese, total	0.00656	MAC = 0.12	0.00020	mg/L	2025-12-06	
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TEST RESULTS

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - First Week

WORK ORDER 25L0714
REPORTED 2025-12-09 09:46

Sample Qualifiers:

HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - First Week

WORK ORDER 25L0714
REPORTED 2025-12-09 09:46

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD COC# _____ PAGE / OF /
 RECEIVED BY: _____ DATE: 03-12-25
 RECEIVED BY: _____ DATE: 3-30
 RECEIVED BY: _____ DATE: _____
 RECEIVED BY: _____ DATE: _____

REPORT TO:
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearie@quesnel.ca
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INVOICE TO: SAME AS REPORT TO
 COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____
 EMAIL PDF
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: _____
 MAIL HARD COPY HOLD FOR P/U

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply
 CLIENT SAMPLE ID:
 94E4 S Airport
 94E5 S Mills Rd.
 Out of Service
 94E8 S Graham Ave.
 94E9 S West Fraser Rd
 94F0 S Pederson Rd
 35D91K NEW CARSON PIT
 Out of Service

PROJECT: WEEK 1 DISTRIBUTION
SAMPLED BY: Shaun M.
SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section) Return Cooler(s)
 Return bottle order

CLIENT SAMPLE ID	MATRIX:			SAMPLING:		COMMENTS:
	DRINKING WATER	OTHER WATER	SOIL	DATE	TIME	
94E4 S Airport	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OTHER	03-12-25	9:55	3 CONTAINERS PRESERVED
94E5 S Mills Rd.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OTHER	03-12-25	11:00	3 CONTAINERS PRESERVED
Out of Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OTHER	03-12-25	11:45	3 CONTAINERS PRESERVED
94E8 S Graham Ave.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OTHER	03-12-25	10:45	3 CONTAINERS PRESERVED
94E9 S West Fraser Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OTHER	03-12-25	2:20	3 CONTAINERS PRESERVED
94F0 S Pederson Rd	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OTHER	03-12-25	1:20	3 CONTAINERS PRESERVED
35D91K NEW CARSON PIT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OTHER			3 CONTAINERS PRESERVED
Out of Service	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OTHER			3 CONTAINERS PRESERVED

ANALYSES REQUESTED:

ANALYSES REQUESTED	94E4	94E5	94E8	94E9	94F0	35D91K	Out of Service
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
EPH (not PAH Corrected) <input type="checkbox"/> VOC <input type="checkbox"/> VPH <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
L/HEPH (PAH corrected) <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PAH <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
METALS - WATER TOTAL <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
METALS - WATER DISSOLVED <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TSS <input type="checkbox"/> TDS <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BOD <input type="checkbox"/> COD <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TOTAL COLIFORMS <input type="checkbox"/> E. coli <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SOIL VAPOUR <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ASBESTOS <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TURBIDITY <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
TEMPERATURE <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Manganese <input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply)

OTHER INSTRUCTIONS:
 Return bottle order. NEW CARSON PITT - PART OF MAIN SYSTEM

PAYMENT:
 CHEQUE CREDIT DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - Third Week
PROJECT INFO

WORK ORDER 25A1396

RECEIVED / TEMP 2025-01-15 12:30 / 2.2°C
REPORTED 2025-01-22 14:54

COC NUMBER No Number

Introduction:

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Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25A1396
2025-01-22 14:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94E6 - S-Carradice Rd. (25A1396-01) Matrix: Water Sampled: 2025-01-14 09:30						
<i>Field Parameters</i>						
Temperature, field	7.1	AO ≤ 15		°C	2025-01-14	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-15	HT3
Heterotrophic Plate Count	7	N/A		5 CFU/mL	2025-01-15	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-15	HT3
<i>Total Metals</i>						
Manganese, total	0.166	MAC = 0.12		0.00020 mg/L	2025-01-17	

WT# 94F1 - S-Dixon St. (25A1396-02) | Matrix: Water | Sampled: 2025-01-14 11:30

<i>Field Parameters</i>						
Temperature, field	7.0	AO ≤ 15		°C	2025-01-14	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-15	
Heterotrophic Plate Count	7	N/A		5 CFU/mL	2025-01-15	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-15	
<i>Total Metals</i>						
Manganese, total	0.00302	MAC = 0.12		0.00020 mg/L	2025-01-17	

WT# 94F2 - S-Hospital (25A1396-03) | Matrix: Water | Sampled: 2025-01-14 10:00

<i>Field Parameters</i>						
Temperature, field	7.2	AO ≤ 15		°C	2025-01-14	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-15	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-01-15	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-15	
<i>Total Metals</i>						
Manganese, total	0.0134	MAC = 0.12		0.00020 mg/L	2025-01-17	

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25A1396
2025-01-22 14:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94F7 - S-Chew Rd. (25A1396-07) Matrix: Water Sampled: 2025-01-14 13:10						
<i>Field Parameters</i>						
Temperature, field	7.0	AO ≤ 15		°C	2025-01-14	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-01-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-15	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-15	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-15	
<i>Total Metals</i>						
Manganese, total	0.160	MAC = 0.12	0.00020	mg/L	2025-01-17	

WT# 21D9B - Bulk Water Site 1 (25A1396-08) | Matrix: Water | Sampled: 2025-01-14 13:30

<i>Field Parameters</i>						
Temperature, field	6.9	AO ≤ 15		°C	2025-01-14	
<i>General Parameters</i>						
Turbidity	0.13	OG < 1	0.10	NTU	2025-01-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-15	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-15	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-15	
<i>Total Metals</i>						
Manganese, total	0.0353	MAC = 0.12	0.00020	mg/L	2025-01-17	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25A1396
2025-01-22 14:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94F3 - S-Nason St. (25A1396-04) Matrix: Water Sampled: 2025-01-14 10:40						
<i>Field Parameters</i>						
Temperature, field	7.0	AO ≤ 15		°C	2025-01-14	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-15	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-15	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-15	
<i>Total Metals</i>						
Manganese, total	0.0679	MAC = 0.12	0.00020	mg/L	2025-01-17	
WT# 94F4 - S-N Star Dragon Hill (25A1396-05) Matrix: Water Sampled: 2025-01-14 14:00						
<i>Field Parameters</i>						
Temperature, field	6.9	AO ≤ 15		°C	2025-01-14	
<i>General Parameters</i>						
Turbidity	0.27	OG < 1	0.10	NTU	2025-01-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-15	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-15	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-15	
<i>Total Metals</i>						
Manganese, total	1.17	MAC = 0.12	0.00020	mg/L	2025-01-17	
WT# 94F6 - S-N Star South Hill (25A1396-06) Matrix: Water Sampled: 2025-01-14 14:10						
<i>Field Parameters</i>						
Temperature, field	7.1	AO ≤ 15		°C	2025-01-14	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-01-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-01-15	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-01-15	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-01-15	
<i>Total Metals</i>						
Manganese, total	0.144	MAC = 0.12	0.00020	mg/L	2025-01-17	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25A1396
REPORTED 2025-01-22 14:54

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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

CHAIN OF CUSTODY RECORD COC#

110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CARCO ANALYTICAL SERVICES

RELINQUISHED BY: Shawn n. DATE: 14-01-25 RECEIVED BY: DATE: _____
 TIME: 3:30 DATE: _____ TIME: _____
 PROJECT INFO: PROJECT: _____ PO #: _____
 WEEK 3 DISTRIBUTION

INVOICE TO: SAME AS REPORT TO
 COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____
 EMAIL PDF jlw@quesnel.ca
 EMAIL 1: _____
 EMAIL 2: _____
 MAIL HARD COPY HOLD FOR P/U

PROJECT: _____ PO #: _____
 SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order.

REPORT TO: _____
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF jlw@quesnel.ca
 EMAIL 1: jlw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearie@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX
 TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

ANALYSES REQUESTED:

CLIENT SAMPLE ID:	DATE	TIME	DRINKING WATER	OTHER WATER	SOIL	OTHER CONTAINERS	SAMPLING:	COMMENTS:
	DD-MMM-YY	HH:MM						
94E6 S Carradice Rd.	14-01-25	9:30	<input checked="" type="checkbox"/>			3	DATE DD-MMM-YY TIME HH:MM	
94F1 S Dixon St.	14-01-25	11:30	<input checked="" type="checkbox"/>			3		
94F2 S Hospital	14-01-25	10:00	<input checked="" type="checkbox"/>			3		
94F3 S Nason St.	14-01-25	10:40	<input checked="" type="checkbox"/>			3		
94F4 S N. Star Dragon Hill	14-01-25	2:10	<input checked="" type="checkbox"/>			3		
94F6 S N. Star South Hill	14-01-25	1:10	<input checked="" type="checkbox"/>			3		
94F7 S Chew Rd.	14-01-25	1:30	<input checked="" type="checkbox"/>			3		
21D9B Bulk Water Site 1			<input checked="" type="checkbox"/>					

PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	METALS - WATER TOTAL	METALS - WATER DISSOLVED	METALS - SOIL (SALM) <input type="checkbox"/> Inc. PH <input type="checkbox"/>	PH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	TSS <input type="checkbox"/> TDS <input type="checkbox"/>	BOD <input type="checkbox"/> COD <input type="checkbox"/>	FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>	TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	SOIL VAPOUR	ASBESTOS	TURBIDITY	TEMPERATURE	MANGANESE	HOLD
														7.1		
														7.0		
														7.0		
														7.0		
														6.9		
														7.1		
														7.0		
														6.9		

BTX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	EPH (not PAH Corrected) <input type="checkbox"/>	VOC <input type="checkbox"/> VPH <input type="checkbox"/>	L/HEPH (PAH corrected) <input type="checkbox"/>	PAH	METALS - WATER DISSOLVED	METALS - SOIL (SALM) <input type="checkbox"/> Inc. PH <input type="checkbox"/>	PH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	TSS <input type="checkbox"/> TDS <input type="checkbox"/>	BOD <input type="checkbox"/> COD <input type="checkbox"/>	FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>	TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	SOIL VAPOUR	ASBESTOS	TURBIDITY	TEMPERATURE	MANGANESE	HOLD	

PAYMENT: CHECK CREDIT DEBIT CASH INVOICE
 SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N MA

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCMC ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____
 OTHER INSTRUCTIONS:
 Return bottle order.

CERTIFICATE OF ANALYSIS

Retested
Caradice, Dixon N. Star Dragon Hill

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - Third Week
PROJECT INFO

WORK ORDER 25B0384

RECEIVED / TEMP 2025-02-05 12:45 / - 1.8°C
REPORTED 2025-02-12 14:09

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25B0384
2025-02-12 14:09

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94E6 - S-Carradice Rd. (25B0384-01) Matrix: Water Sampled: 2025-02-04 09:30						
<i>Field Parameters</i>						
Temperature, field	7.9	AO ≤ 15		°C	2025-02-04	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-02-05	
<i>Microbiological Parameters</i>						
Coliforms, Total	3	MAC = 0	1	CFU/100 mL	2025-02-05	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-05	
<i>Total Metals</i>						
Manganese, total	0.158	MAC = 0.12	0.00020	mg/L	2025-02-06	
WT# 94F1 - S-Dixon St. (25B0384-02) Matrix: Water Sampled: 2025-02-04 10:50						
<i>Field Parameters</i>						
Temperature, field	6.9	AO ≤ 15		°C	2025-02-04	
<i>General Parameters</i>						
Turbidity	0.32	OG < 1	0.10	NTU	2025-02-05	
<i>Microbiological Parameters</i>						
Coliforms, Total	1	MAC = 0	1	CFU/100 mL	2025-02-05	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-05	
<i>Total Metals</i>						
Manganese, total	0.00116	MAC = 0.12	0.00020	mg/L	2025-02-07	
WT# 94F2 - S-Hospital (25B0384-03) Matrix: Water Sampled: 2025-02-04 10:00						
<i>Field Parameters</i>						
Temperature, field	7.6	AO ≤ 15		°C	2025-02-04	
<i>General Parameters</i>						
Turbidity	0.19	OG < 1	0.10	NTU	2025-02-05	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-02-05	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-05	
<i>Total Metals</i>						
Manganese, total	0.0765	MAC = 0.12	0.00020	mg/L	2025-02-07	

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25B0384
2025-02-12 14:09

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
WT# 94F3 - S-Nason St. (25B0384-04) Matrix: Water Sampled: 2025-02-04 11:30					
<i>Field Parameters</i>					
Temperature, field	7.1	AO ≤ 15	°C	2025-02-04	
<i>General Parameters</i>					
Turbidity	< 0.10	OG < 1	0.10 NTU	2025-02-05	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-02-05	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-02-05	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-02-05	
<i>Total Metals</i>					
Manganese, total	0.0266	MAC = 0.12	0.00020 mg/L	2025-02-06	
WT# 94F4 - S-N Star Dragon Hill (25B0384-05) Matrix: Water Sampled: 2025-02-04 13:30					
<i>Field Parameters</i>					
Temperature, field	6.9	AO ≤ 15	°C	2025-02-04	
<i>General Parameters</i>					
Turbidity	0.11	OG < 1	0.10 NTU	2025-02-05	
<i>Microbiological Parameters</i>					
Coliforms, Total	1	MAC = 0	1 CFU/100 mL	2025-02-05	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-02-05	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-02-05	
<i>Total Metals</i>					
Manganese, total	0.103	MAC = 0.12	0.00020 mg/L	2025-02-07	
WT# 94F6 - S-N Star South Hill (25B0384-06) Matrix: Water Sampled: 2025-02-04 13:40					
<i>Field Parameters</i>					
Temperature, field	7.4	AO ≤ 15	°C	2025-02-04	
<i>General Parameters</i>					
Turbidity	0.14	OG < 1	0.10 NTU	2025-02-05	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-02-05	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-02-05	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-02-05	
<i>Total Metals</i>					
Manganese, total	0.144	MAC = 0.12	0.00020 mg/L	2025-02-06	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25B0384
2025-02-12 14:09

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94F7 - S-Chew Rd. (25B0384-07) Matrix: Water Sampled: 2025-02-04 12:10						
<i>Field Parameters</i>						
Temperature, field	7.4	AO ≤ 15		°C	2025-02-04	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-02-05	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-02-05	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-02-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-05	
<i>Total Metals</i>						
Manganese, total	0.150	MAC = 0.12	0.00020	mg/L	2025-02-06	

WT# 21D9B - Bulk Water Site 1 (25B0384-08) | Matrix: Water | Sampled: 2025-02-04 14:00

<i>Field Parameters</i>						
Temperature, field	7.2	AO ≤ 15		°C	2025-02-04	
<i>General Parameters</i>						
Turbidity	0.16	OG < 1	0.10	NTU	2025-02-05	
<i>Microbiological Parameters</i>						
Coliforms, Total	10	MAC = 0	1	CFU/100 mL	2025-02-05	
Heterotrophic Plate Count	10	N/A	5	CFU/mL	2025-02-05	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-05	
<i>Total Metals</i>						
Manganese, total	0.0447	MAC = 0.12	0.00020	mg/L	2025-02-07	

Sample Qualifiers:

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

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25B0384
REPORTED 2025-02-12 14:09

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD CO#

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF: EDD
 EMAIL 1: jaw@quesnel.ca
 EMAIL 2: vdest@quesnel.ca keanf@quesnel.ca
 MAIL HARDCOPY HOLD FOR P/U FAX
 TURNAROUND Routine: (4-7 Days) Other*
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm, Surcharge May Apply

INVOICE TO: COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____
 EMAIL PDF:
 EMAIL 1: jaw@quesnel.ca
 EMAIL 2:
 MAIL HARDCOPY HOLD FOR P/U

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____
 OTHER INSTRUCTIONS: Return bottle order.

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCOME ALBERTA TIER 1 OTHER: _____

RELINQUISHED BY: Shawn M.
 RELINQUISHED BY: _____
 PROJECT: _____
 WEEK 3 DISTRIBUTION
 SAMPLED BY: Shawn Monaghan
 SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order.

CLIENT SAMPLE ID:	MATRIX:	SAMPLING:	COMMENTS:	BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	EPH (not PAH Corrected)	VOC <input type="checkbox"/> VPH <input type="checkbox"/>	L/HEPH (PAH corrected)	PAH	PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	METALS - WATER TOTAL	METALS - WATER DISSOLVED	METALS - SOIL (SALM) <input type="checkbox"/> Inc. pH <input type="checkbox"/>	pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	TSS <input type="checkbox"/> TDS <input type="checkbox"/>	BOD <input type="checkbox"/> COD <input type="checkbox"/>	FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>	TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	SOIL VAPOUR	ASBESTOS	TURBIDITY	TEMPERATURE	MANGANESE	HOLD	
94E6 S Carradice Rd.	DRINKING WATER	3 04-02-25 9:30																								
94F1 S Dixon St.	OTHER WATER	3 04-02-25 10:50																								
94F2 S Hospital	SOIL	3 04-02-25 10:00																								
94F3 S Nason St.	OTHER	3 04-02-25 11:50																								
94F4 S N. Star Dragon Hill		3 04-02-25 1:30																								
94F6 S N. Star South Hill		3 04-02-24 1:40																								
94F7 S Chew Rd.		3 04-02-25 12:10																								
21D9B Bulk Water Site 1		3 04-02-25 2-																								

PAYMENT: _____
 CREDIT
 DEBIT
 CASH
 INVOICE
 SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

Retest
Results
WD 25B0384

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - Third Week
PROJECT INFO

WORK ORDER 25B1004

RECEIVED / TEMP 2025-02-11 12:30 / - 0.5°C
REPORTED 2025-02-13 10:05
COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

*By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>*

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25B1004
2025-02-13 10:05

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 - S-Carradice Rd. (25B1004-01) Matrix: Water Sampled: 2025-02-10 13:30						
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-02-11	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-11	
94F1 - S-Dixon (25B1004-02) Matrix: Water Sampled: 2025-02-10 14:30						
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-02-11	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-11	
94F4 - S-N Star Dragon Hill (25B1004-03) Matrix: Water Sampled: 2025-02-10 14:00						
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-02-11	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-11	
21D9B - Bulk Water Site 1 (25B1004-04) Matrix: Water Sampled: 2025-02-10 14:10						
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-02-11	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-02-11	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25B1004
REPORTED 2025-02-13 10:05

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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CHAIN OF CUSTODY RECORD COC # _____ PAGE 1 OF 1
 CARO BC COC, Rev 2015-09
 RELINQUISHED BY: Shawn M RECEIVED BY: _____ DATE: 10-02-25 TIME: _____
 PROJECT: _____ PROJECT INFO: _____
 WEEK 3 Distribution (RESAMPLE)

REPORT TO: INVOICE TO: SAME AS REPORT TO
COMPANY: _____
ADDRESS: _____
CONTACT: Accounts Payable - Joe Law
TEL/FAX: _____
DELIVERY METHOD: EMAIL MAIL OTHER*
DATA FORMAT: EXCEL WATERTRAX ESdat
 EMAIL 1: jlaw@quesnel.ca EMAIL 2: _____
 EMAIL 2: kearie@quesnel.ca EMAIL 3: _____
 EMAIL 3: vest@quesnel.ca PO #: _____

TURNAROUND TIME REQUESTED: Routine: (5-7 Days) Rush: 1 Day* 2 Day* 3 Day*
 Other* _____
 *Contact Lab To Confirm. Surcharge May Apply

REGULATORY APPLICATION: Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AB TIER 1 CCME OTHER*
 AL PL RL CL IL AW IW LW

** NEW ** If you would like to sign up for ClientConnect and/or EnviroChain, CARO's online service offerings, check here:

CLIENT SAMPLE ID:	MATRIX:		DATE	TIME	SAMPLING:	COMMENTS:
	DRINKING WATER	OTHER				
94E6 S Carradice Rd.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10-02-25	1:30	1	CHLORINATED FILTERED PRESERVED (e.g. Flow/volume media ID/notes)
94F15 Dixon St	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10-02-25	2:30	1	
94F4 S N-Star Dragon Hill	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10-02-25	2:00	1	
21D9B Bulk Water Site 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10-02-25	2:10	1	

ANALYSES REQUESTED:

ANALYSES REQUESTED:	ASBESTOS	REGS ON REPORT?
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> PHC F1 <input type="checkbox"/>		
VOC <input type="checkbox"/> VPH <input type="checkbox"/>		
EPH <input type="checkbox"/> PHC F2-F4 <input type="checkbox"/>		
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>		
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>		
PESTICIDES <input type="checkbox"/> ACID HERBICIDES <input type="checkbox"/>		
METALS - WATER TOTAL <input type="checkbox"/>		
METALS - WATER DISSOLVED <input type="checkbox"/>		
METALS - SOIL (SALM) <input type="checkbox"/> inc pH <input type="checkbox"/>		
PH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>		
TSS <input type="checkbox"/> VSS <input type="checkbox"/> TDS <input type="checkbox"/>		
BOD <input type="checkbox"/> COD <input type="checkbox"/>		
TOG <input type="checkbox"/> MOG <input type="checkbox"/>		
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>		
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>		

SHIPPING INSTRUCTIONS: Return Cooler(s)
 Supplies Needed: _____
SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____
*** OTHER INSTRUCTIONS:** _____
 (RESAMPLE)

PAYMENT: CHEQUE CREDIT DEBIT CASH INVOICE
SAMPLE RECEIPT CONDITION: COOLER 1 (°C): _____ ICE: Y N
 COOLER 2 (°C): _____ ICE: Y N
 COOLER 3 (°C): _____ ICE: Y N
 CUSTODY SEALS INTACT: NA Y N

Retested
Nason St.

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - Third Week

PROJECT INFO

WORK ORDER 25C1397

RECEIVED / TEMP 2025-03-12 13:01 / 5.7°C

REPORTED 2025-03-19 12:12

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25C1397
2025-03-19 12:12

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 - S-Carradice Rd. (25C1397-01) Matrix: Water Sampled: 2025-03-11 09:30						
<i>Field Parameters</i>						
Temperature, field	8.3	AO ≤ 15		°C	2025-03-11	
<i>General Parameters</i>						
Turbidity	0.21	OG < 1	0.10	NTU	2025-03-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-12	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
<i>Total Metals</i>						
Manganese, total	0.105	MAC = 0.12	0.00020	mg/L	2025-03-14	
94F1 S Dixon St. (25C1397-02) Matrix: Water Sampled: 2025-03-11 09:50						
<i>Field Parameters</i>						
Temperature, field	7.1	AO ≤ 15		°C	2025-03-11	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-03-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-12	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
<i>Total Metals</i>						
Manganese, total	0.00075	MAC = 0.12	0.00020	mg/L	2025-03-14	
94F2 S Hospital (25C1397-03) Matrix: Water Sampled: 2025-03-11 11:10						
<i>Field Parameters</i>						
Temperature, field	6.9	AO ≤ 15		°C	2025-03-11	
<i>General Parameters</i>						
Turbidity	0.17	OG < 1	0.10	NTU	2025-03-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-12	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
<i>Total Metals</i>						
Manganese, total	0.0353	MAC = 0.12	0.00020	mg/L	2025-03-14	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25C1397
2025-03-19 12:12

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F3 S Nason St. (25C1397-04) Matrix: Water Sampled: 2025-03-11 11:35						
<i>Field Parameters</i>						
Temperature, field	6.0	AO ≤ 15		°C	2025-03-11	
<i>General Parameters</i>						
Turbidity	0.26	OG < 1	0.10	NTU	2025-03-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	1	MAC = 0	1	CFU/100 mL	2025-03-12	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-12	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
<i>Total Metals</i>						
Manganese, total	0.0283	MAC = 0.12	0.00020	mg/L	2025-03-14	
94F4 S N. Star Dragon Hill (25C1397-05) Matrix: Water Sampled: 2025-03-11 10:30						
<i>Field Parameters</i>						
Temperature, field	8.7	AO ≤ 15		°C	2025-03-11	
<i>General Parameters</i>						
Turbidity	0.15	OG < 1	0.10	NTU	2025-03-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-12	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
<i>Total Metals</i>						
Manganese, total	0.0235	MAC = 0.12	0.00020	mg/L	2025-03-14	
94F6 S N. Star South Hill (25C1397-06) Matrix: Water Sampled: 2025-03-11 10:40						
<i>Field Parameters</i>						
Temperature, field	14.1	AO ≤ 15		°C	2025-03-11	
<i>General Parameters</i>						
Turbidity	0.40	OG < 1	0.10	NTU	2025-03-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-12	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
<i>Total Metals</i>						
Manganese, total	0.149	MAC = 0.12	0.00020	mg/L	2025-03-14	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25C1397
2025-03-19 12:12

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25C1397-07) Matrix: Water Sampled: 2025-03-11 13:15						
<i>Field Parameters</i>						
Temperature, field	7.5	AO ≤ 15		°C	2025-03-11	
<i>General Parameters</i>						
Turbidity	0.29	OG < 1	0.10	NTU	2025-03-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-12	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
<i>Total Metals</i>						
Manganese, total	0.150	MAC = 0.12	0.00020	mg/L	2025-03-14	

21D9B Bulk Water Site 1 (25C1397-08) | Matrix: Water | Sampled: 2025-03-11 13:50

<i>Field Parameters</i>						
Temperature, field	7.4	AO ≤ 15		°C	2025-03-11	
<i>General Parameters</i>						
Turbidity	0.29	OG < 1	0.10	NTU	2025-03-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-03-12	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-03-12	
<i>Total Metals</i>						
Manganese, total	0.0846	MAC = 0.12	0.00020	mg/L	2025-03-14	

Sample Qualifiers:

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

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25C1397
2025-03-19 12:12

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC# _____ PAGE (OF) 1
 CARO BC COC, Rev.08/12

RELINQUISHED BY: <i>Cole Frank</i>	DATE: <i>11 Mar 25</i>	RECEIVED BY:	DATE:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
PROJECT: WEEK 3 DISTRIBUTION	PROJECT INFO:	PO #:	

SHIPPING INSTRUCTIONS: Return Coolers)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order.

ANALYSES REQUESTED:

BTEX <input type="checkbox"/>	VPH <input type="checkbox"/>	MTBE <input type="checkbox"/>		
EPH (not PAH Corrected)				
VOC <input type="checkbox"/>	VPH <input type="checkbox"/>			
L/HEPH (PAH corrected)				
PAH				
PHENOLS Chlorinated <input type="checkbox"/>	Non-Chlor. <input type="checkbox"/>			
PCB <input type="checkbox"/>	GLYCOLS <input type="checkbox"/>	HAA <input type="checkbox"/>		
METALS - WATER TOTAL				
METALS - WATER DISSOLVED				
METALS - SOIL (SALM) <input type="checkbox"/>	Inc. pH <input type="checkbox"/>			
pH <input type="checkbox"/>	EC <input type="checkbox"/>	ALK <input type="checkbox"/>		
TSS <input type="checkbox"/>	TDS <input type="checkbox"/>			
BOD <input type="checkbox"/>	COD <input type="checkbox"/>			
FECAL COLIFORMS <input type="checkbox"/>	HPC <input checked="" type="checkbox"/>			
TOTAL COLIFORMS <input checked="" type="checkbox"/>	E. coli <input checked="" type="checkbox"/>			
PESTICIDES <input type="checkbox"/>	HERBICIDES <input type="checkbox"/>			
SOIL VAPOUR				
ASBESTOS				
TURBIDITY				
TEMPERATURE				
MANGANESE				
HOLD				

REPORT TO:
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
 MAIL HARDCOPY HOLD FOR P/U FAX
TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To confirm. Surcharge May Apply
INVOICE TO: SAME AS REPORT TO
 COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____
 EMAIL PDF
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: _____
 MAIL HARDCOPY HOLD FOR P/U

CLIENT SAMPLE ID:	DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	DATE DD-MMM-YY	TIME HH:MM	FILTERED	PRESERVED	COMMENTS: <small>(E.g. flow/volume media ID/notes)</small>
94E6 S Carradice Rd.	<input checked="" type="checkbox"/>				1	11 Mar 25	9:30			
94F1 S Dixon St.	<input checked="" type="checkbox"/>				3	11 Mar 25	9:50			
94F2 S Hospital	<input checked="" type="checkbox"/>				3	11 Mar 25	11:10			
94F3 S Nason St.	<input checked="" type="checkbox"/>				3	11 Mar 25	11:25			
94F4 S N. Star Dragon Hill	<input checked="" type="checkbox"/>				1	11 Mar 25	10:30			
94F6 S N. Star South Hill	<input checked="" type="checkbox"/>				3	11 Mar 25	10:40			
94F7 S Chew Rd.	<input checked="" type="checkbox"/>				3	11 Mar 25	13:15			
21D9B Bulk Water Site 1	<input checked="" type="checkbox"/>				3	11 Mar 25	13:50			

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

OTHER INSTRUCTIONS:
 Return bottle order.

PAYMENT:
 CHECK
 CREDIT
 DEBIT
 CASH
 INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N M

Retest Results
Nason w02501397

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - Third Week
PROJECT INFO

WORK ORDER 25C2936

RECEIVED / TEMP 2025-03-25 14:40 / 8.1°C
REPORTED 2025-03-28 15:27

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

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<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25C2936
2025-03-28 15:27

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F3 S Nason St. (25C2936-01) Matrix: Water Sampled: 2025-03-25 13:05						
<i>Field Parameters</i>						
Temperature, field	6.1	AO ≤ 15		°C	2025-03-25	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-26	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-26	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25C2936
2025-03-28 15:27

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

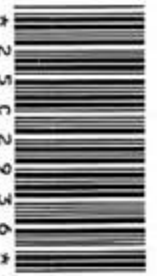
RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
*C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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CHAIN OF CUSTODY RECORD

COC# _____ PAGE 1 OF 1
 CANO BC COC, Rev 08/11

REQUISITIONED BY: *Bob Frank* DATE: *29 Mar 25* RECEIVED BY: *SKW* DATE: *31st*
 RELINQUISHED BY: _____ DATE: *1436* RECEIVED BY: *Other* DATE: *14.4*

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 1350 Sword Ave
 Quesnel, V2J 7H2
 CONTACT: Joe Law
 TEL/FAX: 250-992-6330 250-992-0072

INVOICE TO: COMPANY: _____ SAME AS REPORT TO
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____
 EMAIL PDF
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: kshadoff@quesnel.ca

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

ANALYSES REQUESTED:
 SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section)
 Return Cooler(s)
 Return bottle order

CLIENT SAMPLE ID:	MATRIX:		# CONTAINERS	DATE	TIME	SAMPLING:		COMMENTS:
	DRINKING WATER	OTHER WATER				SOIL	OTHER	
94F35 Nasson st	<input checked="" type="checkbox"/>			124 Mar 25	1305	Filtered	Preserved	(i.e. flow/volume needs identified)

BTEX <input type="checkbox"/>	VPH <input type="checkbox"/>	MTBE <input type="checkbox"/>
EPH (not PAH Corrected)		
VOC <input type="checkbox"/>	VPH <input type="checkbox"/>	
L/HEPH (PAH corrected)		
PAH		
PHENOLS Chlorinated <input type="checkbox"/>		Non-Chlor. <input type="checkbox"/>
PCB <input type="checkbox"/>	GLYCOLS <input type="checkbox"/>	HAA <input type="checkbox"/>
METALS - WATER TOTAL		
METALS - WATER DISSOLVED		
METALS - SOIL (SALM) <input type="checkbox"/>		inc. pH <input type="checkbox"/>
pH <input type="checkbox"/>	EC <input type="checkbox"/>	ALK <input type="checkbox"/>
TSS <input type="checkbox"/>	TDS <input type="checkbox"/>	
BOD <input type="checkbox"/>	COD <input type="checkbox"/>	
FECAL COLIFORMS <input checked="" type="checkbox"/>	HPC <input checked="" type="checkbox"/>	E. coli <input checked="" type="checkbox"/>
TOTAL COLIFORMS <input checked="" type="checkbox"/>	HERBICIDES <input type="checkbox"/>	PESTICIDES <input type="checkbox"/>
SOIL VAPOUR		
ASBESTOS		
TURBIDITY		
TEMPERATURE		6.1
HOLD		

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

OTHER INSTRUCTIONS:
 Return bottle order.

PAYMENT:
 CHECK DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): *B.L.C.*
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - Third Week
PROJECT INFO

WORK ORDER 25D1333

RECEIVED / TEMP 2025-04-09 12:30 / 11.2°C
REPORTED 2025-04-15 12:08

COC NUMBER No Number

Introduction:

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<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25D1333
2025-04-15 12:08

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 - S-Carradice Rd. (25D1333-01) Matrix: Water Sampled: 2025-04-08 09:20						
<i>Field Parameters</i>						
Temperature, field	6.0	AO ≤ 15		°C	2025-04-08	
<i>General Parameters</i>						
Turbidity	0.13	OG < 1	0.10	NTU	2025-04-12	HT1
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-09	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-09	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-09	HT3
<i>Total Metals</i>						
Manganese, total	0.0746	MAC = 0.12	0.00020	mg/L	2025-04-12	
94F1 S Dixon St. (25D1333-02) Matrix: Water Sampled: 2025-04-08 10:30						
<i>Field Parameters</i>						
Temperature, field	6.7	AO ≤ 15		°C	2025-04-08	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-04-12	HT1
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-09	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-09	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-09	
<i>Total Metals</i>						
Manganese, total	0.00103	MAC = 0.12	0.00020	mg/L	2025-04-12	
94F2 S Hospital (25D1333-03) Matrix: Water Sampled: 2025-04-08 09:50						
<i>Field Parameters</i>						
Temperature, field	7.0	AO ≤ 15		°C	2025-04-08	
<i>General Parameters</i>						
Turbidity	0.13	OG < 1	0.10	NTU	2025-04-12	HT1
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-09	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-04-09	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-09	
<i>Total Metals</i>						
Manganese, total	0.0369	MAC = 0.12	0.00020	mg/L	2025-04-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25D1333
2025-04-15 12:08

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94F3 S Nason St. (25D1333-04) Matrix: Water Sampled: 2025-04-08 11:40					
<i>Field Parameters</i>					
Temperature, field	7.2	AO ≤ 15	°C	2025-04-08	
<i>General Parameters</i>					
Turbidity	< 0.10	OG < 1	0.10 NTU	2025-04-12	HT1
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-04-09	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-04-09	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-04-09	
<i>Total Metals</i>					
Manganese, total	0.0753	MAC = 0.12	0.00020 mg/L	2025-04-12	
94F4 S N. Star Dragon Hill (25D1333-05) Matrix: Water Sampled: 2025-04-08 11:00					
<i>Field Parameters</i>					
Temperature, field	8.8	AO ≤ 15	°C	2025-04-08	
<i>General Parameters</i>					
Turbidity	0.10	OG < 1	0.10 NTU	2025-04-12	HT1
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-04-09	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-04-09	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-04-09	
<i>Total Metals</i>					
Manganese, total	0.0153	MAC = 0.12	0.00020 mg/L	2025-04-12	
94F6 S N. Star South Hill (25D1333-06) Matrix: Water Sampled: 2025-04-08 11:10					
<i>Field Parameters</i>					
Temperature, field	9.2	AO ≤ 15	°C	2025-04-08	
<i>General Parameters</i>					
Turbidity	< 0.10	OG < 1	0.10 NTU	2025-04-12	HT1
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-04-09	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-04-09	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-04-09	
<i>Total Metals</i>					
Manganese, total	0.142	MAC = 0.12	0.00020 mg/L	2025-04-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25D1333
2025-04-15 12:08

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25D1333-07) Matrix: Water Sampled: 2025-04-08 13:55						
<i>Field Parameters</i>						
Temperature, field	7.2	AO ≤ 15		°C	2025-04-08	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-04-12	HT1
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-09	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-04-09	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-09	
<i>Total Metals</i>						
Manganese, total	0.154	MAC = 0.12		0.00020 mg/L	2025-04-12	

21D9B Bulk Water Site 1 (25D1333-08) | Matrix: Water | Sampled: 2025-04-08 14:20

<i>Field Parameters</i>						
Temperature, field	7.3	AO ≤ 15		°C	2025-04-08	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-04-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-09	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-04-09	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-09	
<i>Total Metals</i>						
Manganese, total	0.0368	MAC = 0.12		0.00020 mg/L	2025-04-12	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25D1333
2025-04-15 12:08

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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



ANALYTICAL SERVICES

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Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO: COMPANY: City of Quesnel ADDRESS: 410 Kinchant St. Quesnel, BC V2J 7J5 CONTACT: Joe Law TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: ADDRESS: CONTACT: Accounts Payable - Joe Law TEL/FAX: EMAIL PDF: jlaw@quesnel.ca EMAIL 1: vbest@quesnel.ca EMAIL 2: kearte@quesnel.ca MAIL HARDCOPY: HOLD FOR P/U FAX

TURNAROUND ROUTINE: (4-7 Days) FAX OTHER: MAIL HARDCOPY: HOLD FOR P/U FAX

TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contract Lab To Confirm. Surcharge May Apply

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines BC Drinking Water Protection Act / Reg. CCME AL RL CL EL AW

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified): 60 Days 90 Days Longer Date (Surcharges will Apply): OTHER INSTRUCTIONS: Return bottle order.

CHAIN OF CUSTODY RECORD COC# PAGE 1 OF 1

REINQUISHED BY: DATE: 8 Apr 25 TIME: 15:30 RECEIVED BY: RECEIVED BY: DATE: TIME: PROJECT INFO: PO #: SHIPPING INSTRUCTIONS: Return Cooler(s) Ship Supplies (please specify below or in Other Instructions Section) Return bottle order.

ANALYSES REQUESTED: BTEX VPH MTBE EPH (not PAH Corrected) VOC VPH L/HEPH (PAH corrected) PAH PHENOLS Chlorinated Non-Chlor. PCB GLYCOLS HAA METALS - WATER TOTAL METALS - WATER DISSOLVED METALS - SOIL (SALM) inc. pH pH EC ALK TSS TDS BOD COD FECAL COLIFORMS HPC TOTAL COLIFORMS E.coli PESTICIDES HERBICIDES SOIL VAPOUR ASBESTOS TURBIDITY TEMPERATURE Manganese HOLD

Table with columns: CLIENT SAMPLE ID, DRINKING WATER, OTHER WATER, SOIL, OTHER, # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS, ANALYSES REQUESTED, and HOLD. Rows include samples 94E6, 94F1, 94F2, 94F3, 94F4, 94F6, 94F7, and 21D9B.

Resampled

Carradice, S. Star Dragon Hill
Bulk Water Site 1

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - Third Week

PROJECT INFO

WORK ORDER 25E1136

RECEIVED / TEMP 2025-05-08 12:30 / 9.3°C

REPORTED 2025-05-14 13:02

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: <https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 | #108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25E1136
2025-05-14 13:02

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 S Carradice Rd. (25E1136-01) Matrix: Drinking Water Sampled: 2025-05-07 09:20						
<i>Field Parameters</i>						
Temperature, field	8.0	AO ≤ 15		°C	2025-05-07	
<i>General Parameters</i>						
Turbidity	0.17	OG < 1	0.10	NTU	2025-05-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	4	MAC = 0	1	CFU/100 mL	2025-05-08	
Heterotrophic Plate Count	34	N/A	5	CFU/mL	2025-05-08	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-08	
<i>Total Metals</i>						
Manganese, total	0.0247	MAC = 0.12	0.00020	mg/L	2025-05-12	
94F1 S Dixon St. (25E1136-02) Matrix: Drinking Water Sampled: 2025-05-07 11:20						
<i>Field Parameters</i>						
Temperature, field	7.4	AO ≤ 15		°C	2025-05-07	
<i>General Parameters</i>						
Turbidity	0.13	OG < 1	0.10	NTU	2025-05-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-08	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-05-08	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-08	
<i>Total Metals</i>						
Manganese, total	0.00210	MAC = 0.12	0.00020	mg/L	2025-05-12	
94F2 S Hospital (25E1136-03) Matrix: Drinking Water Sampled: 2025-05-07 10:30						
<i>Field Parameters</i>						
Temperature, field	8.0	AO ≤ 15		°C	2025-05-07	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-05-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-08	
Background Colonies	>200	N/A	200	CFU/100 mL	2025-05-08	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-05-08	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-08	
<i>Total Metals</i>						
Manganese, total	0.0608	MAC = 0.12	0.00020	mg/L	2025-05-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25E1136
2025-05-14 13:02

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F3 S Nason St. (25E1136-04) Matrix: Drinking Water Sampled: 2025-05-07 11:50						
<i>Field Parameters</i>						
Temperature, field	8.0	AO ≤ 15		°C	2025-05-07	
<i>General Parameters</i>						
Turbidity	0.14	OG < 1	0.10	NTU	2025-05-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-08	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-05-08	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-08	
<i>Total Metals</i>						
Manganese, total	0.0876	MAC = 0.12		0.00020 mg/L	2025-05-12	
94F4 S N Star Dragon Hill (25E1136-05) Matrix: Drinking Water Sampled: 2025-05-07 10:05						
<i>Field Parameters</i>						
Temperature, field	9.5	AO ≤ 15		°C	2025-05-07	
<i>General Parameters</i>						
Turbidity	0.16	OG < 1	0.10	NTU	2025-05-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	3	MAC = 0		1 CFU/100 mL	2025-05-08	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-05-08	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-08	
<i>Total Metals</i>						
Manganese, total	0.0392	MAC = 0.12		0.00020 mg/L	2025-05-12	
94F6 S N Star South Hill (25E1136-06) Matrix: Drinking Water Sampled: 2025-05-07 10:10						
<i>Field Parameters</i>						
Temperature, field	9.3	AO ≤ 15		°C	2025-05-07	
<i>General Parameters</i>						
Turbidity	0.12	OG < 1	0.10	NTU	2025-05-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-08	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-05-08	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-08	
<i>Total Metals</i>						
Manganese, total	0.151	MAC = 0.12		0.00020 mg/L	2025-05-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25E1136
2025-05-14 13:02

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25E1136-07) Matrix: Drinking Water Sampled: 2025-05-07 13:05						
<i>Field Parameters</i>						
Temperature, field	7.8	AO ≤ 15		°C	2025-05-07	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-05-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-08	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-05-08	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-08	
<i>Total Metals</i>						
Manganese, total	0.155	MAC = 0.12	0.00020	mg/L	2025-05-12	

21D9B Bulk Water Site 1 (25E1136-08) | Matrix: Drinking Water | Sampled: 2025-05-07 09:45

<i>Field Parameters</i>						
Temperature, field	8.6	AO ≤ 15		°C	2025-05-07	
<i>General Parameters</i>						
Turbidity	0.90	OG < 1	0.10	NTU	2025-05-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	4	MAC = 0	1	CFU/100 mL	2025-05-08	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-05-08	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-08	
<i>Total Metals</i>						
Manganese, total	0.862	MAC = 0.12	0.00020	mg/L	2025-05-12	

Sample Qualifiers:

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

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25E1136
REPORTED 2025-05-14 13:02

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
>2	Greater than the specified Result
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Tel: (604) 279-1499 Fax: (604) 279-1599
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Tel: (780) 489-9100 Fax: (780) 489-9700

CARCO BC COC, Rev 08/12

CHAIN OF CUSTODY RECORD

COC # [] PAGE / OF /

REPORT TO: COMPANY: City of Quesnel

ADDRESS: 410 Kinchant St. Quesnel, BC V2J 7J5

CONTACT: Joe Law

TEL/FAX: 250 992-6330 250 992-5392

EMAIL PDF: EDD [] jlaw@quesnel.ca

EMAIL 1: vbest@quesnel.ca

EMAIL 2: kearle@quesnel.ca

MAIL HARDCOPY: [] HOLD FOR P/U [] FAX []

TURNAROUND ROUTINE: (4-7 Days) [] Other*

TIME REQUESTED: Rush: 1 Day* [] 2 Day* [] 3 Day* [] *Contact Lab To Confirm. Surcharge May Apply

INVOICE TO: SAME AS REPORT TO []

COMPANY: ADDRESS:

CONTACT: Accounts Payable - Joe Law

TEL/FAX: EMAIL PDF: []

EMAIL 1: jlaw@quesnel.ca

EMAIL 2: MAIL HARDCOPY: [] HOLD FOR P/U []

RELINQUISHED BY: B. Wilde DATE: 07 May 25 RECEIVED BY: DATE: 14:00

PROJECT: WEEK 3 DISTRIBUTION SAMPLED BY: B. Wilde

SHIPPING INSTRUCTIONS: Return Cooler(s) [] Ship Supplies: (please specify below or in Other Instructions Section) [] Return bottle order.

ANALYSES REQUESTED:

Table with columns for analytes (BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS, pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, E. coli, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TURBIDITY, TEMPERATURE, Manganese) and checkboxes for requested tests.

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines [] BC Drinking Water Protection Act / Reg. [] BC CSR [] AL [] RL [] CL [] IL [] AW [] CCME [] ALBERTA TIER 1 [] OTHER:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified): 60 Days [] 90 Days [] Longer Date (Surcharges will Apply): OTHER INSTRUCTIONS: Return bottle order.

PAYMENT: CHECK [] CREDIT [] DEBIT [] CASH [] INVOICE [] SAMPLE RECEIPT TEMP (°C): Work Order # [] CUSTODY SEAL INTACT Y [] N [] NA []

Resample
Results From
WORK ORDER 25E1136

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - Third Week
PROJECT INFO

WORK ORDER 25E2756

RECEIVED / TEMP 2025-05-21 13:37 / 11.6°C

REPORTED 2025-05-28 14:06

COC NUMBER No Number

Introduction:

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Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25E2756
2025-05-28 14:06

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 - S-Carradice Rd. (25E2756-01) Matrix: Drinking Water Sampled: 2025-05-20 10:40						
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	0.15	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.0475	MAC = 0.12	0.00020	mg/L	2025-05-28	
94F4 S N Star Dragon Hill (25E2756-02) Matrix: Drinking Water Sampled: 2025-05-20 10:00						
<i>Field Parameters</i>						
Temperature, field	8.5	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	0.10	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.0221	MAC = 0.12	0.00020	mg/L	2025-05-27	RS1
21D9B - Bulk Water Site 1 (25E2756-03) Matrix: Drinking Water Sampled: 2025-05-20 11:20						
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-05-20	
<i>General Parameters</i>						
Turbidity	0.41	OG < 1	0.10	NTU	2025-05-23	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-05-21	
<i>Total Metals</i>						
Manganese, total	0.266	MAC = 0.12	0.00020	mg/L	2025-05-27	RS1

Sample Qualifiers:

RS1 The Reporting Limits for this sample have been raised due to high analyte concentration.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25E2756
REPORTED 2025-05-28 14:06

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO: COMPANY: City of Quesnel ADDRESS: 410 Kinchant St. Quesnel, BC V2J 7J5 CONTACT: Joe Law TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: ADDRESS: CONTACT: Accounts Payable - Joe Law TEL/FAX: EMAIL 1: jlaw@quesnel.ca EMAIL 2: vbest@quesnel.ca MAIL HARDCOPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days) RUSH: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

Table with columns: CLIENT SAMPLE ID, DRINKING WATER, OTHER WATER, SOIL, OTHER, # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS. Includes sample 94E6 S Carradice Rd. and 21D9B Bulk Water Site 1.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: B. Wilde DATE: 11-16-25 RECEIVED BY: DATE: 11-16-25

PROJECT: WEEK 3 DISTRIBUTION SAMPLED BY: B. Wilde SHIPPING INSTRUCTIONS: Return Cooler(s) Return bottle order.

Main analytical data table with columns: ANALYSES REQUESTED (BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS, pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, TOTAL COLIFORMS, E. coli, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TURBIDITY, TEMPERATURE, Manganese, HOLD) and rows for samples 94E6 and 21D9B.

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines BC Drinking Water Protection Act / Reg. BC CSR AL RL CL IL AW CCM ALBERTA TIER 1 OTHER

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified): 60 Days 90 Days Longer Date (Surcharges will Apply): OTHER INSTRUCTIONS: Return bottle order. PAYMENT: CHECK CREDIT DEBIT CASH INVOICE SAMPLE RECEIPT TEMP (C): Work Order # CUSTOMER SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - Third Week

PROJECT INFO

WORK ORDER 25F0563

RECEIVED / TEMP 2025-06-04 15:00 / 14.5°C

REPORTED 2025-06-11 10:36

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25F0563
2025-06-11 10:36

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 S Carradice Rd. (25F0563-01) Matrix: Drinking Water Sampled: 2025-06-03 09:50						
<i>Field Parameters</i>						
Temperature, field	10.4	AO ≤ 15		°C	2025-06-03	
<i>General Parameters</i>						
Turbidity	0.36	OG < 1	0.10	NTU	2025-06-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-04	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	HT3
<i>Total Metals</i>						
Manganese, total	0.275	MAC = 0.12	0.00020	mg/L	2025-06-09	
94F1 S Dixon St. (25F0563-02) Matrix: Drinking Water Sampled: 2025-06-03 10:40						
<i>Field Parameters</i>						
Temperature, field	10.6	AO ≤ 15		°C	2025-06-03	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-06-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-04	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
<i>Total Metals</i>						
Manganese, total	0.00025	MAC = 0.12	0.00020	mg/L	2025-06-10	
94F2 S Hospital (25F0563-03) Matrix: Drinking Water Sampled: 2025-06-03 10:10						
<i>Field Parameters</i>						
Temperature, field	10.9	AO ≤ 15		°C	2025-06-03	
<i>General Parameters</i>						
Turbidity	0.15	OG < 1	0.10	NTU	2025-06-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-04	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	HT3
<i>Total Metals</i>						
Manganese, total	0.0362	MAC = 0.12	0.00020	mg/L	2025-06-09	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25F0563
2025-06-11 10:36

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F3 S Nason St. (25F0563-04) Matrix: Drinking Water Sampled: 2025-06-03 11:30						
<i>Field Parameters</i>						
Temperature, field	10.3	AO ≤ 15		°C	2025-06-03	
<i>General Parameters</i>						
Turbidity	0.53	OG < 1	0.10	NTU	2025-06-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-04	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
<i>Total Metals</i>						
Manganese, total	0.0875	MAC = 0.12	0.00020	mg/L	2025-06-10	
94F4 S N Star Dragon Hill (25F0563-05) Matrix: Drinking Water Sampled: 2025-06-03 13:30						
<i>Field Parameters</i>						
Temperature, field	10.1	AO ≤ 15		°C	2025-06-03	
<i>General Parameters</i>						
Turbidity	0.17	OG < 1	0.10	NTU	2025-06-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-04	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
<i>Total Metals</i>						
Manganese, total	0.0680	MAC = 0.12	0.00020	mg/L	2025-06-09	
94F6 S N. Star South Hill (25F0563-06) Matrix: Water Sampled: 2025-06-03 13:30						
<i>Field Parameters</i>						
Temperature, field	10.2	AO ≤ 15		°C	2025-06-03	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-06-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-04	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
<i>Total Metals</i>						
Manganese, total	0.147	MAC = 0.12	0.00020	mg/L	2025-06-09	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25F0563
2025-06-11 10:36

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25F0563-07) Matrix: Drinking Water Sampled: 2025-06-03 12:00						
<i>Field Parameters</i>						
Temperature, field	10.4	AO ≤ 15		°C	2025-06-03	
<i>General Parameters</i>						
Turbidity	0.53	OG < 1	0.10	NTU	2025-06-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-06-04	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
<i>Total Metals</i>						
Manganese, total	0.154	MAC = 0.12	0.00020	mg/L	2025-06-10	

21D9B Bulk Water Site 1 (25F0563-08) | Matrix: Drinking Water | Sampled: 2025-06-03 14:30

<i>Field Parameters</i>						
Temperature, field	9.8	AO ≤ 15		°C	2025-06-03	
<i>General Parameters</i>						
Turbidity	0.34	OG < 1	0.10	NTU	2025-06-06	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
Heterotrophic Plate Count	26	N/A	5	CFU/mL	2025-06-04	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-06-04	
<i>Total Metals</i>						
Manganese, total	0.0559	MAC = 0.12	0.00020	mg/L	2025-06-09	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25F0563
REPORTED 2025-06-11 10:36

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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CARCO BC COC, Rev 08/12

CHAIN OF CUSTODY RECORD COC # [] PAGE 1 OF 1

REPORT TO: COMPANY: City of Quesnel ADDRESS: 410 Kinchant St. Quesnel, BC V2J 7J5 CONTACT: Joe Law TEL/FAX: 250 992-6330 250 992-5392

RELINQUISHED BY: Shaun Monaghan DATE: 03-06-25 RECEIVED BY: [] DATE: []
RECEIVED BY: [] DATE: []
RECEIVED BY: [] DATE: []

INVOICE TO: COMPANY: ADDRESS: CONTACT: Accounts Payable - Joe Law TEL/FAX: EMAIL PDF: jlaw@quesnel.ca EMAIL 1: jlaw@quesnel.ca EMAIL 2: MAIL HARDCOPY: HOLD FOR P/U

PROJECT: WEEK 3 DISTRIBUTION SAMPLED BY: Shaun M. SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section) Return bottle order. ANALYSES REQUESTED:

TURNAROUND Routine: (4-7 Days) [X] Other* TIME REQUESTED: Rush: 1 Day* [] 2 Day* [] 3 Day* [] *Contact Lab To Confirm, Surcharge May Apply

DATE: 03-06-25 TIME: 3:30 PM RECEIVED BY: [] DATE: []

Table with columns: CLIENT SAMPLE ID, DRINKING WATER, OTHER WATER, SOIL, OTHER, # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS.

Table with columns: BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS - WATER TOTAL, METALS - WATER DISSOLVED, METALS - SOIL (SALM), pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, TOTAL COLIFORMS, E. coli, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TURBIDITY, TEMPERATURE, Manganese, HOLD.

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines BC Drinking Water Protection Act / Reg. BC CSR AL RL CL IL AW CCME ALBERTA TIER 1 SAMPLE RETENTION INSTRUCTIONS: (Discarded 30 days after Report unless otherwise specified): 60 Days 90 Days Longer Date (surcharges will apply): OTHER INSTRUCTIONS: Return bottle order. PAYMENT: CHECK CREDIT DEBIT CASH INVOICE WORK ORDER # CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - Third Week
PROJECT INFO

WORK ORDER 25G0393

RECEIVED / TEMP 2025-07-03 13:23 / 15.3°C

REPORTED 2025-07-10 11:26

COC NUMBER No Number

Introduction:

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Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25G0393
2025-07-10 11:26

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 S Carradice Rd. (25G0393-01) Matrix: Drinking Water Sampled: 2025-07-02 09:45						
<i>Field Parameters</i>						
Temperature, field	9.8	AO ≤ 15		°C	2025-07-02	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-07-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	HT3
<i>Total Metals</i>						
Manganese, total	0.0978	MAC = 0.12	0.00020	mg/L	2025-07-06	
94F1 S Dixon St. (25G0393-02) Matrix: Drinking Water Sampled: 2025-07-02 11:00						
<i>Field Parameters</i>						
Temperature, field	10.2	AO ≤ 15		°C	2025-07-02	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-07-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
<i>Total Metals</i>						
Manganese, total	0.00031	MAC = 0.12	0.00020	mg/L	2025-07-06	
94F2 S Hospital (25G0393-03) Matrix: Drinking Water Sampled: 2025-07-02 11:40						
<i>Field Parameters</i>						
Temperature, field	10.4	AO ≤ 15		°C	2025-07-02	
<i>General Parameters</i>						
Turbidity	0.19	OG < 1	0.10	NTU	2025-07-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
Heterotrophic Plate Count	150	N/A	5	CFU/mL	2025-07-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
<i>Total Metals</i>						
Manganese, total	0.150	MAC = 0.12	0.00020	mg/L	2025-07-06	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25G0393
2025-07-10 11:26

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F3 S Nason St. (25G0393-04) Matrix: Drinking Water Sampled: 2025-07-02 13:20						
<i>Field Parameters</i>						
Temperature, field	11.6	AO ≤ 15		°C	2025-07-02	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-07-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
<i>Total Metals</i>						
Manganese, total	0.111	MAC = 0.12	0.00020	mg/L	2025-07-06	
94F4 S N. Star Dragon Hill (25G0393-05) Matrix: Water Sampled: 2025-07-02 10:30						
<i>Field Parameters</i>						
Temperature, field	9.5	AO ≤ 15		°C	2025-07-02	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-07-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
<i>Total Metals</i>						
Manganese, total	0.130	MAC = 0.12	0.00020	mg/L	2025-07-06	
94F6 S N. Star South Hill (25G0393-06) Matrix: Water Sampled: 2025-07-02 10:35						
<i>Field Parameters</i>						
Temperature, field	9.8	AO ≤ 15		°C	2025-07-02	
<i>General Parameters</i>						
Turbidity	0.10	OG < 1	0.10	NTU	2025-07-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
<i>Total Metals</i>						
Manganese, total	0.151	MAC = 0.12	0.00020	mg/L	2025-07-06	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25G0393
2025-07-10 11:26

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25G0393-07) Matrix: Drinking Water Sampled: 2025-07-02 14:30						
<i>Field Parameters</i>						
Temperature, field	11.1	AO ≤ 15		°C	2025-07-02	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-07-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
<i>Total Metals</i>						
Manganese, total	0.158	MAC = 0.12	0.00020	mg/L	2025-07-06	

21D9B Bulk Water Site 1 (25G0393-08) | Matrix: Drinking Water | Sampled: 2025-07-02 13:50

<i>Field Parameters</i>						
Temperature, field	10.8	AO ≤ 15		°C	2025-07-02	
<i>General Parameters</i>						
Turbidity	0.24	OG < 1	0.10	NTU	2025-07-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-03	
<i>Total Metals</i>						
Manganese, total	0.0932	MAC = 0.12	0.00020	mg/L	2025-07-06	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25G0393
REPORTED 2025-07-10 11:26

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC #

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5

CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF: EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearlie@quesnel.ca

MAIL HARDCOPY: HOLD FOR P/U FAX
 TURNAROUND: Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

INVOICE TO: COMPANY: SAME AS REPORT TO
 ADDRESS:
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX:
 EMAIL PDF:
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca

MAIL HARDCOPY: HOLD FOR P/U
 TURNAROUND: Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
94E6 S Carradice Rd.	<input checked="" type="checkbox"/>				3	02-07-25	9:45			
94F1 S Dixon St.	<input checked="" type="checkbox"/>				3	02-07-25	11:00			
94F2 S Hospital	<input checked="" type="checkbox"/>				3	02-07-25	11:40			
94F3 S Nason St.	<input checked="" type="checkbox"/>				3	02-07-25	1:20			
94F4 S N. Star Dragon Hill	<input checked="" type="checkbox"/>				3	02-07-24	10:50			
94F6 S N. Star South Hill	<input checked="" type="checkbox"/>				3	02-07-25	10:35			
94F7 S Chew Rd.	<input checked="" type="checkbox"/>				3	02-07-25	2:30			
21D9B Bulk Water Site 1	<input checked="" type="checkbox"/>				3	02-07-25	1:50			

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCM ALBERTA TIER 1 OTHER:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply):
 OTHER INSTRUCTIONS: Return bottle order.

RELINQUISHED BY: <i>Shirley M.</i>	DATE: 02-07-25	RECEIVED BY:	DATE:
RELINQUISHED BY:	TIME: 3:30	RECEIVED BY:	TIME:
PROJECT: WEEK 3 DISTRIBUTION	PROJECT INFO:	PO #:	

PROJECT: WEEK 3 DISTRIBUTION
 SAMPLED BY: *Shirley M.*
 SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order:

ANALYSES REQUESTED:	DATE	TIME	DATE	TIME
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>				
EPH (not PAH Corrected)				
VOC <input type="checkbox"/> VPH <input type="checkbox"/>				
L/HEPH (PAH corrected)				
PAH				
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>				
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>				
METALS - WATER TOTAL				
METALS - WATER DISSOLVED				
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>				
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>				
TSS <input type="checkbox"/> TDS <input type="checkbox"/>				
BOD <input type="checkbox"/> COD <input type="checkbox"/>				
FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>				
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>				
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>				
SOIL VAPOUR				
ASBESTOS				
TURBIDITY				
TEMPERATURE				
Manganese				
HOLD				

PAYMENT: CHECK CREDIT DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C):
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO	Quesnel, City of 1350 Sword Ave Quesnel, BC V2J 7H2	WORK ORDER	25G4504
ATTENTION	Joe Law	RECEIVED / TEMP	2025-07-31 13:40 / 23.0°C
PO NUMBER		REPORTED	2025-08-07 14:19
PROJECT	Bi-Weekly - Third Week	COC NUMBER	No Number
PROJECT INFO			

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25G4504
2025-08-07 14:19

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 S Carradice Rd. (25G4504-01) Matrix: Drinking Water Sampled: 2025-07-30 09:45						
<i>Field Parameters</i>						
Temperature, field	11.0	AO ≤ 15		°C	2025-07-30	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-08-01	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-31	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
<i>Total Metals</i>						
Manganese, total	0.154	MAC = 0.12	0.00020	mg/L	2025-08-07	
94F1 S Dixon St. (25G4504-02) Matrix: Drinking Water Sampled: 2025-07-30 10:45						
<i>Field Parameters</i>						
Temperature, field	13.6	AO ≤ 15		°C	2025-07-30	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-08-01	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-31	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
<i>Total Metals</i>						
Manganese, total	0.00063	MAC = 0.12	0.00020	mg/L	2025-08-05	
94F2 S Hospital (25G4504-03) Matrix: Drinking Water Sampled: 2025-07-30 10:10						
<i>Field Parameters</i>						
Temperature, field	12.6	AO ≤ 15		°C	2025-07-30	
<i>General Parameters</i>						
Turbidity	0.20	OG < 1	0.10	NTU	2025-08-01	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
Heterotrophic Plate Count	14	N/A	5	CFU/mL	2025-07-31	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
<i>Total Metals</i>						
Manganese, total	0.151	MAC = 0.12	0.00020	mg/L	2025-08-06	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25G4504
2025-08-07 14:19

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F3 S Nason St. (25G4504-04) Matrix: Drinking Water Sampled: 2025-07-30 11:15						
<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-07-30	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-08-01	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-31	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
<i>Total Metals</i>						
Manganese, total	0.108	MAC = 0.12	0.00020	mg/L	2025-08-07	
94F4 S N. Star Dragon Hill (25G4504-05) Matrix: Drinking Water Sampled: 2025-07-30 11:35						
<i>Field Parameters</i>						
Temperature, field	10.0	AO ≤ 15		°C	2025-07-30	
<i>General Parameters</i>						
Turbidity	0.16	OG < 1	0.10	NTU	2025-08-01	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-31	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
<i>Total Metals</i>						
Manganese, total	0.212	MAC = 0.12	0.00020	mg/L	2025-08-06	
94F6 S N. Star South Hill (25G4504-06) Matrix: Drinking Water Sampled: 2025-07-30 11:40						
<i>Field Parameters</i>						
Temperature, field	11.0	AO ≤ 15		°C	2025-07-30	
<i>General Parameters</i>						
Turbidity	0.12	OG < 1	0.10	NTU	2025-08-01	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-31	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
<i>Total Metals</i>						
Manganese, total	0.154	MAC = 0.12	0.00020	mg/L	2025-08-07	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25G4504
2025-08-07 14:19

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25G4504-07) Matrix: Drinking Water Sampled: 2025-07-30 13:30						
<i>Field Parameters</i>						
Temperature, field	11.0	AO ≤ 15		°C	2025-07-30	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-08-01	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-31	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
<i>Total Metals</i>						
Manganese, total	0.155	MAC = 0.12	0.00020	mg/L	2025-08-06	

21D9B - Bulk Water Site 1 (25G4504-08) | Matrix: Drinking Water | Sampled: 2025-07-30 12:55

<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-07-30	
<i>General Parameters</i>						
Turbidity	0.16	OG < 1	0.10	NTU	2025-08-01	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-07-31	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-31	
<i>Total Metals</i>						
Manganese, total	0.0236	MAC = 0.12	0.00020	mg/L	2025-08-06	

Sample Qualifiers:

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



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25G4504
2025-08-07 14:19

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
Tel: (604) 279-1499 Fax: (604) 279-1599
102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

COC#

REPORT TO:

COMPANY: City of Quesnel
ADDRESS: 410 Kinchant St.
Quesnel, BC V2J 7J5

CONTACT: Joe Law

TEL/FAX: 250 992-6330 250 992-5392

EMAIL PDF: EDD
EMAIL 1: jaw@quesnel.ca
EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca

MAIL HARDCOPY: HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days)
TIME REQUESTED: Rush: 1 Day 2 Day 3 Day

INVOICE TO:

COMPANY:
ADDRESS:

CONTACT: Accounts Payable - Joe Law

TEL/FAX:

EMAIL PDF:
EMAIL 1: jaw@quesnel.ca
EMAIL 2:

MAIL HARDCOPY: HOLD FOR P/U

Other*
*Contact Lab To Confirm. Surcharge May Apply

Table with columns: CLIENT SAMPLE ID, DRINKING WATER, OTHER WATER, SOIL, OTHER, # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: R. Wylek

DATE: 30-July-25

RECEIVED BY:

DATE:

RELINQUISHED BY:

DATE: 14:30

RECEIVED BY:

DATE:

PROJECT:

PROJECT INFO:

PO #:

WEEK 3 DISTRIBUTION

SAMPLED BY: R. Wylek

SHIPPING INSTRUCTIONS:

Return Cooler(s) Ship Supplies (please specify below or in Other Instructions Section) Return bottle order.

ANALYSES REQUESTED:

Table with columns: BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS - WATER TOTAL, METALS - WATER DISSOLVED, METALS - SOIL (SALM), pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, TOTAL COLIFORMS, E. coli, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TURBIDITY, TEMPERATURE, Manganese, HOLD.

APPLICABLE REGULATORY LIMITS:
Canadian Drinking Water Quality Guidelines
BC Drinking Water Protection Act / Reg.
CCME ALBERTA TIER 1

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
60 Days 90 Days Longer Date (Surcharges will Apply):
OTHER INSTRUCTIONS: Return bottle order.

PAYMENT:
CHECK
CREDIT
DEBIT
CASH
INVOICE
SAMPLE RECEIPT TEMP (°C):
Work Order #
CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - Third Week

PROJECT INFO

WORK ORDER 25H3788

RECEIVED / TEMP 2025-08-27 13:07 / 16.7°C

REPORTED 2025-09-04 09:37

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25H3788
2025-09-04 09:37

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 S Carradice Rd. (25H3788-01) Matrix: Drinking Water Sampled: 2025-08-26 09:40						
<i>Field Parameters</i>						
Temperature, field	11.1	AO ≤ 15		°C	2025-08-26	
<i>General Parameters</i>						
Turbidity	0.12	OG < 1	0.10	NTU	2025-08-28	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-08-27	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-08-27	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-27	HT3
<i>Total Metals</i>						
Manganese, total	0.110	MAC = 0.12	0.00020	mg/L	2025-09-02	
94F1 S Dixon St. (25H3788-02) Matrix: Drinking Water Sampled: 2025-08-26 11:00						
<i>Field Parameters</i>						
Temperature, field	11.6	AO ≤ 15		°C	2025-08-26	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-08-28	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-08-27	
Heterotrophic Plate Count	27	N/A	5	CFU/mL	2025-08-27	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-27	
<i>Total Metals</i>						
Manganese, total	0.00040	MAC = 0.12	0.00020	mg/L	2025-09-02	
94F2 S Hospital (25H3788-03) Matrix: Drinking Water Sampled: 2025-08-26 10:30						
<i>Field Parameters</i>						
Temperature, field	11.8	AO ≤ 15		°C	2025-08-26	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-08-28	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-08-27	
Heterotrophic Plate Count	330	N/A	5	CFU/mL	2025-08-27	HT1, MIC15
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-27	
<i>Total Metals</i>						
Manganese, total	0.0251	MAC = 0.12	0.00020	mg/L	2025-09-01	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25H3788
2025-09-04 09:37

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94F3 S Nason St. (25H3788-04) Matrix: Drinking Water Sampled: 2025-08-26 11:40					
<i>Field Parameters</i>					
Temperature, field	11.4	AO ≤ 15	°C	2025-08-26	
<i>General Parameters</i>					
Turbidity	0.10	OG < 1	0.10 NTU	2025-08-28	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-08-27	
Background Colonies	>200	N/A	200 CFU/100 mL	2025-08-27	
Heterotrophic Plate Count	7	N/A	5 CFU/mL	2025-08-27	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-08-27	
<i>Total Metals</i>					
Manganese, total	0.121	MAC = 0.12	0.00020 mg/L	2025-09-02	
94F4 S N. Star Dragon Hill (25H3788-05) Matrix: Drinking Water Sampled: 2025-08-26 13:20					
<i>Field Parameters</i>					
Temperature, field	12.3	AO ≤ 15	°C	2025-08-26	
<i>General Parameters</i>					
Turbidity	< 0.10	OG < 1	0.10 NTU	2025-08-28	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-08-27	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-08-27	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-08-27	
<i>Total Metals</i>					
Manganese, total	0.141	MAC = 0.12	0.00020 mg/L	2025-09-01	
94F6 S N. Star South Hill (25H3788-06) Matrix: Drinking Water Sampled: 2025-08-26 13:40					
<i>Field Parameters</i>					
Temperature, field	12.4	AO ≤ 15	°C	2025-08-26	
<i>General Parameters</i>					
Turbidity	0.27	OG < 1	0.10 NTU	2025-08-28	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-08-27	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-08-27	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-08-27	
<i>Total Metals</i>					
Manganese, total	0.155	MAC = 0.12	0.00020 mg/L	2025-09-01	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25H3788
2025-09-04 09:37

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25H3788-07) Matrix: Drinking Water Sampled: 2025-08-26 14:30						
<i>Field Parameters</i>						
Temperature, field	12.1	AO ≤ 15		°C	2025-08-26	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-08-28	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-08-27	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-08-27	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-27	
<i>Total Metals</i>						
Manganese, total	0.159	MAC = 0.12	0.00020	mg/L	2025-09-01	

21D9B Bulk Water Site 1 (25H3788-08) | Matrix: Drinking Water | Sampled: 2025-08-26 12:00

<i>Field Parameters</i>						
Temperature, field	10.6	AO ≤ 15		°C	2025-08-26	
<i>General Parameters</i>						
Turbidity	0.27	OG < 1	0.10	NTU	2025-08-28	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-08-27	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-08-27	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-08-27	
<i>Total Metals</i>						
Manganese, total	0.0724	MAC = 0.12	0.00020	mg/L	2025-09-01	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.
- MIC15 The final result is estimated due to a high bacterial count.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25H3788
REPORTED 2025-09-04 09:37

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
>2	Greater than the specified Result
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



ANALYTICAL SERVICES

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Tel: (604) 279-1499 Fax: (604) 279-1599
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Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC#

PAGE 1 OF 1

RELINQUISHED BY: Shaun Monaghan
RECEIVED BY:
DATE: 26-08-25
TIME: 5:30
PROJECT INFO: WEEK 3 DISTRIBUTION
PO #:
SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section)

REPORT TO:
COMPANY: City of Quesnel
ADDRESS: 410 Kinchant St.
Quesnel, BC V2J 7J5
CONTACT: Joe Law
TEL/FAX: 250 992-6330 250 992-5392
EMAIL PDF: [checked] EDD
EMAIL 1: jlaw@quesnel.ca
EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
MAIL HARD COPY: [checked] HOLD FOR P/U [checked] FAX [checked]

TURNAROUND Routine: (4-7 Days) [checked]
TIME REQUESTED: Rush: 1 Day* [checked] 2 Day* [checked] 3 Day* [checked]
Other*
*Contact Lab To Confirm. Surcharge May Apply

Table with columns: CLIENT SAMPLE ID, MATRIX, DATE, TIME, COMMENTS, ANALYSES REQUESTED (BTEX, VOC, PAH, PHENOLS, PCB, METALS, etc.)

APPLICABLE REGULATORY LIMITS:
Canadian Drinking Water Quality Guidelines
BC Drinking Water Protection Act / Reg.
CCME ALBERTA TIER 1
SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
PAYMENT: CHEQUE [checked] CREDIT [checked] DEBIT [checked] CASH [checked] INVOICE [checked]

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - Third Week

PROJECT INFO

WORK ORDER 25I3657

RECEIVED / TEMP 2025-09-25 14:20 / 14.6°C

REPORTED 2025-10-03 11:54

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25I3657
2025-10-03 11:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 S Carradice Rd. (25I3657-01) Matrix: Drinking Water Sampled: 2025-09-24 10:00						
<i>Field Parameters</i>						
Temperature, field	11.1	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	HT3
<i>Total Metals</i>						
Manganese, total	0.0393	MAC = 0.12	0.00020	mg/L	2025-10-02	
94F1 S Dixon St. (25I3657-02) Matrix: Drinking Water Sampled: 2025-09-24 13:00						
<i>Field Parameters</i>						
Temperature, field	13.8	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	6	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.00024	MAC = 0.12	0.00020	mg/L	2025-10-02	
94F2 S Hospital (25I3657-03) Matrix: Drinking Water Sampled: 2025-09-24 10:45						
<i>Field Parameters</i>						
Temperature, field	13.1	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Background Colonies	>200	N/A	200	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	19	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.0554	MAC = 0.12	0.00020	mg/L	2025-10-02	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 2513657
2025-10-03 11:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F3 S Nason St. (2513657-04) Matrix: Drinking Water Sampled: 2025-09-24 13:30						
<i>Field Parameters</i>						
Temperature, field	10.7	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	0.13	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.138	MAC = 0.12	0.00020	mg/L	2025-10-02	
94F4 S N. Star Dragon Hill (2513657-05) Matrix: Water Sampled: 2025-09-24 14:45						
<i>Field Parameters</i>						
Temperature, field	10.3	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	0.17	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.137	MAC = 0.12	0.00020	mg/L	2025-10-02	
94F6 S N. Star South Hill (2513657-06) Matrix: Drinking Water Sampled: 2025-09-24 14:13						
<i>Field Parameters</i>						
Temperature, field	10.1	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.153	MAC = 0.12	0.00020	mg/L	2025-10-02	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25I3657
2025-10-03 11:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25I3657-07) Matrix: Drinking Water Sampled: 2025-09-24 13:45						
<i>Field Parameters</i>						
Temperature, field	11.6	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	0.21	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.161	MAC = 0.12	0.00020	mg/L	2025-10-02	

21D9B Bulk Water Site 1 (25I3657-08) | Matrix: Drinking Water | Sampled: 2025-09-24 11:30

<i>Field Parameters</i>						
Temperature, field	10.9	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	0.17	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.0448	MAC = 0.12	0.00020	mg/L	2025-10-02	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25I3657
REPORTED 2025-10-03 11:54

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
>2	Greater than the specified Result
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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Tel: (604) 279-1499 Fax: (604) 279-1599
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Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO: COMPANY: City of Quesnel ADDRESS: 410 Kinchant St. Quesnel, BC V2J 7J5 CONTACT: Joe Law TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: ADDRESS: CONTACT: Accounts Payable - Joe Law TEL/FAX: EMAIL PDF: jlaw@quesnel.ca EMAIL 1: vbest@quesnel.ca EMAIL 2: kearlee@quesnel.ca MAIL HARDCOPY: HOLD FOR P/U FAX: MAIL HARDCOPY: HOLD FOR P/U FAX: Other*

TURNAROUND Routine: (4-7 Days) 2 Day* 3 Day* TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

Table with columns: CLIENT SAMPLE ID, DRINKING WATER, OTHER WATER, SOIL, OTHER, # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS. Rows include sample IDs like 94E6 S Carradice Rd., 94F1 S Dixon St., 94F2 S Hospital, 94F3 S Nason St., 94F4 S N. Star Dragon Hill, 94F6 S N. Star South Hill, 94F7 S Chew Rd., 21D9B Bulk Water Site 1.

Table with columns: ANALYSES REQUESTED (BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS, pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, TOTAL COLIFORMS, E. coli, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TURBIDITY, TEMPERATURE, Manganese, HOLD) and checkboxes for various tests.

CHAIN OF CUSTODY RECORD COC# [] PAGE | OF |
REINQUISHED BY: [Signature] DATE: 15/03/09 RECEIVED BY: [] DATE: []
RELINQUISHED BY: [Signature] DATE: 15/03/09 RECEIVED BY: [] DATE: []
PROJECT: WEEK 3 DISTRIBUTION PROJECT INFO: PO #: []
SAMPLED BY: [Signature] SHIPPING INSTRUCTIONS: Return Cooler(s) Return bottle order.
Return Cooler(s) Return bottle order.

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines BC Drinking Water Protection Act / Reg. BC CSR AL RL CL IL AW CCME ALBERTA TIER 1 OTHER:
SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified): 60 Days 90 Days Longer Date (Surcharges will Apply):
PAYMENT: CHECK CREDIT DEBIT CASH INVOICE
SAMPLE RECEIPT TEMP (°C): Work Order # CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - Third Week

PROJECT INFO

WORK ORDER 25J4083

RECEIVED / TEMP 2025-10-29 13:35 / 9.8°C

REPORTED 2025-11-08 12:17

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: <https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 | #108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25J4083
2025-11-08 12:17

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 S Carradice Rd. (25J4083-01) Matrix: Drinking Water Sampled: 2025-10-28 09:25						
<i>Field Parameters</i>						
Temperature, field	9.7	AO ≤ 15		°C	2025-10-28	
<i>General Parameters</i>						
Turbidity	0.26	OG < 1	0.10	NTU	2025-10-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-10-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	HT3
<i>Total Metals</i>						
Manganese, total	0.0285	MAC = 0.12	0.00020	mg/L	2025-11-01	
94F1 S Dixon St. (25J4083-02) Matrix: Drinking Water Sampled: 2025-10-28 11:50						
<i>Field Parameters</i>						
Temperature, field	9.9	AO ≤ 15		°C	2025-10-28	
<i>General Parameters</i>						
Turbidity	0.36	OG < 1	0.10	NTU	2025-10-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-10-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
<i>Total Metals</i>						
Manganese, total	0.00156	MAC = 0.12	0.00020	mg/L	2025-11-01	
94F2 S Hospital (25J4083-03) Matrix: Drinking Water Sampled: 2025-10-28 09:55						
<i>Field Parameters</i>						
Temperature, field	11.1	AO ≤ 15		°C	2025-10-28	
<i>General Parameters</i>						
Turbidity	0.36	OG < 1	0.10	NTU	2025-10-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
Heterotrophic Plate Count	7	N/A	5	CFU/mL	2025-10-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
<i>Total Metals</i>						
Manganese, total	0.0447	MAC = 0.12	0.00020	mg/L	2025-11-01	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25J4083
2025-11-08 12:17

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F3 S Nason St. (25J4083-04) Matrix: Drinking Water Sampled: 2025-10-28 14:30						
<i>Field Parameters</i>						
Temperature, field	10.4	AO ≤ 15		°C	2025-10-28	
<i>General Parameters</i>						
Turbidity	0.17	OG < 1	0.10	NTU	2025-10-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
Heterotrophic Plate Count	5	N/A	5	CFU/mL	2025-10-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
<i>Total Metals</i>						
Manganese, total	0.0383	MAC = 0.12	0.00020	mg/L	2025-11-01	
94F4 S N. Star Dragon Hill (25J4083-05) Matrix: Water Sampled: 2025-10-28 14:05						
<i>Field Parameters</i>						
Temperature, field	10.1	AO ≤ 15		°C	2025-10-28	
<i>General Parameters</i>						
Turbidity	0.16	OG < 1	0.10	NTU	2025-10-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-10-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
<i>Total Metals</i>						
Manganese, total	0.0894	MAC = 0.12	0.00020	mg/L	2025-11-01	
94F6 S N. Star South Hill (25J4083-06) Matrix: Drinking Water Sampled: 2025-10-28 14:00						
<i>Field Parameters</i>						
Temperature, field	12.2	AO ≤ 15		°C	2025-10-28	
<i>General Parameters</i>						
Turbidity	0.16	OG < 1	0.10	NTU	2025-10-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-10-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
<i>Total Metals</i>						
Manganese, total	0.149	MAC = 0.12	0.00020	mg/L	2025-11-01	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25J4083
2025-11-08 12:17

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25J4083-07) Matrix: Drinking Water Sampled: 2025-10-28 13:30						
<i>Field Parameters</i>						
Temperature, field	9.2	AO ≤ 15		°C	2025-10-28	
<i>General Parameters</i>						
Turbidity	0.32	OG < 1	0.10	NTU	2025-10-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-10-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
<i>Total Metals</i>						
Manganese, total	0.154	MAC = 0.12	0.00020	mg/L	2025-11-01	

21D9B Bulk Water Site 1 (25J4083-08) | Matrix: Drinking Water | Sampled: 2025-10-28 13:00

<i>Field Parameters</i>						
Temperature, field	11.1	AO ≤ 15		°C	2025-10-28	
<i>General Parameters</i>						
Turbidity	0.37	OG < 1	0.10	NTU	2025-10-30	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-10-29	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-10-29	
<i>Total Metals</i>						
Manganese, total	0.0498	MAC = 0.12	0.00020	mg/L	2025-11-01	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25J4083
REPORTED 2025-11-08 12:17

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
Tel: (604) 279-1499 Fax: (604) 279-1599
102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO: COMPANY: City of Quesnel ADDRESS: 410 Kinchant St. Quesnel, BC V2J 7J5 CONTACT: Joe Law TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: ADDRESS: CONTACT: Accounts Payable - Joe Law TEL/FAX: EMAIL PDF EDD EMAIL 1: jlaw@quesnel.ca EMAIL 2: vbest@quesnel.ca kearhe@quesnel.ca MAIL HARDCOPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days) Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID: 94E6 S Carradice Rd. 94F1 S Dixon St. 94F2 S Hospital 94F3 S Nason St. 94F4 S N. Star Dragon Hill 94F6 S N. Star South Hill 94F7 S Chew Rd. 21D9B Bulk Water Site 1

MATRIX: DRINKING WATER OTHER WATER SOIL OTHER # CONTAINERS DATE DD-MMM-YY TIME HH:MM FILTERED PRESERVED COMMENTS: (i.e. flow/volume media (l/notes))

PROJECT: RELINQUISHED BY: PROJECT INFO: DATE: RECEIVED BY: DATE: TIME: RECEIVED BY: DATE: TIME: PROJECT INFO: PO #:

WEEK 3 DISTRIBUTION SAMPLED BY: SHIPPING INSTRUCTIONS: Return Coolers Ship Supplies (please specify below or in Other Instructions Section) Return bottle order.

ANALYSES REQUESTED: BTEX VPH MTBE EPH (not PAH Corrected) VOC VPH L/HEPH (PAH corrected) PAH PHENOLS Chlorinated Non-Chlor. PCB GLYCOLS HAA METALS - WATER TOTAL METALS - WATER DISSOLVED METALS - SOIL (SALM) Inc. pH pH EC ALK TSS TDS BOD COD FECAL COLIFORMS HPC TOTAL COLIFORMS E. coli PESTICIDES HERBICIDES SOIL VAPOUR ASBESTOS TURBIDITY TEMPERATURE Manganese

PAYMENT: CHECK CREDIT DEBIT CASH INVOICE

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified): 60 Days 90 Days Longer Date (Surcharges will Apply):

OTHER INSTRUCTIONS: Return bottle order.

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines BC Drinking Water Protection Act / Reg. BC CSR CCME ALBERTA TIER 1 AW OTHER

Table with columns for CLIENT SAMPLE ID, MATRIX, DATE, TIME, FILTERED, PRESERVED, COMMENTS, and various chemical analysis results (BTEX, VOC, PAH, METALS, etc.).



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Bi-Weekly - Third Week
PROJECT INFO

WORK ORDER 25K2232

RECEIVED / TEMP 2025-11-19 12:45 / 9.5°C
REPORTED 2025-11-26 11:01
COC NUMBER No Number

Introduction:

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*Retesting
Bulk water*

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<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25K2232
2025-11-26 11:01

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 S Carradice Rd. (25K2232-01) Matrix: Drinking Water Sampled: 2025-11-18 09:00						
<i>Field Parameters</i>						
Temperature, field	9.5	AO ≤ 15		°C	2025-11-18	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-11-20	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	HT3
Heterotrophic Plate Count	27	N/A	5	CFU/mL	2025-11-19	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	HT3
<i>Total Metals</i>						
Manganese, total	0.113	MAC = 0.12	0.00020	mg/L	2025-11-24	
94F1 S Dixon St. (25K2232-02) Matrix: Drinking Water Sampled: 2025-11-18 10:30						
<i>Field Parameters</i>						
Temperature, field	9.2	AO ≤ 15		°C	2025-11-18	
<i>General Parameters</i>						
Turbidity	0.22	OG < 1	0.10	NTU	2025-11-20	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	
Heterotrophic Plate Count	11	N/A	5	CFU/mL	2025-11-19	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	
<i>Total Metals</i>						
Manganese, total	0.00027	MAC = 0.12	0.00020	mg/L	2025-11-24	
94F2 S Hospital (25K2232-03) Matrix: Drinking Water Sampled: 2025-11-18 09:30						
<i>Field Parameters</i>						
Temperature, field	9.4	AO ≤ 15		°C	2025-11-18	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-11-20	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	HT3
Heterotrophic Plate Count	95	N/A	5	CFU/mL	2025-11-19	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	HT3
<i>Total Metals</i>						
Manganese, total	0.0778	MAC = 0.12	0.00020	mg/L	2025-11-22	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25K2232
2025-11-26 11:01

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F3 S Nason St. (25K2232-04) Matrix: Drinking Water Sampled: 2025-11-18 11:10						
<i>Field Parameters</i>						
Temperature, field	9.4	AO ≤ 15		°C	2025-11-18	
<i>General Parameters</i>						
Turbidity	0.15	OG < 1	0.10	NTU	2025-11-20	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-11-19	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	
<i>Total Metals</i>						
Manganese, total	0.0970	MAC = 0.12	0.00020	mg/L	2025-11-24	
94F4 S N.Star Dragon Hill (25K2232-05) Matrix: Drinking Water Sampled: 2025-11-18 11:40						
<i>Field Parameters</i>						
Temperature, field	9.6	AO ≤ 15		°C	2025-11-18	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-11-20	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-11-19	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	
<i>Total Metals</i>						
Manganese, total	0.0241	MAC = 0.12	0.00020	mg/L	2025-11-22	
94F6 S N.Star South Hill (25K2232-06) Matrix: Drinking Water Sampled: 2025-11-18 11:50						
<i>Field Parameters</i>						
Temperature, field	9.7	AO ≤ 15		°C	2025-11-18	
<i>General Parameters</i>						
Turbidity	0.17	OG < 1	0.10	NTU	2025-11-20	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-11-19	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-11-19	
<i>Total Metals</i>						
Manganese, total	0.145	MAC = 0.12	0.00020	mg/L	2025-11-24	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25K2232
2025-11-26 11:01

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25K2232-07) Matrix: Drinking Water Sampled: 2025-11-18 13:35						
<i>Field Parameters</i>						
Temperature, field	9.7	AO ≤ 15		°C	2025-11-18	
<i>General Parameters</i>						
Turbidity	0.11	OG < 1	0.10	NTU	2025-11-20	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-19	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-11-19	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-19	
<i>Total Metals</i>						
Manganese, total	0.151	MAC = 0.12		0.00020 mg/L	2025-11-24	

21D9B Bulk Water Site 1 (25K2232-08) | Matrix: Drinking Water | Sampled: 2025-11-18 14:20

<i>Field Parameters</i>						
Temperature, field	9.8	AO ≤ 15		°C	2025-11-18	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-11-20	
<i>Microbiological Parameters</i>						
Coliforms, Total	1	MAC = 0		1 CFU/100 mL	2025-11-19	
Heterotrophic Plate Count	< 5	N/A		5 CFU/mL	2025-11-19	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-19	
<i>Total Metals</i>						
Manganese, total	0.0161	MAC = 0.12		0.00020 mg/L	2025-11-24	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25K2232
2025-11-26 11:01

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
Tel: (604) 279-1499 Fax: (604) 279-1599
102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO:
COMPANY: City of Quesnel
ADDRESS: 410 Kinchant St.
Quesnel, BC V2J 7J5
CONTACT: Joe Law
TEL/FAX: 250 992-6330 250 992-5392
EMAIL PDF [x] EDD []
EMAIL 1: jlaw@quesnel.ca
EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
MAIL HARD COPY [] HOLD FOR P/U [] FAX []

RELINQUISHED BY: Sharon M
DATE: 18-11-25
TIME: 3:30
RECEIVED BY:
DATE:
TIME:
PROJECT INFO:
WEEK 3 DISTRIBUTION
PO #:
SHIPPING INSTRUCTIONS:
Ship Supplies (please specify below or in Other Instructions Section) []
Return Cooler(s) []
Return bottle order. []

TURNAROUND Routine: (4-7 Days) [x]
TIME REQUESTED: Rush: 1 Day* [] 2 Day* [] 3 Day* []
Other* [] *Contact Lab To Confirm. Surcharge May Apply

Table with columns: CLIENT SAMPLE ID, MATRIX, DRINKING WATER, OTHER WATER, SOIL, OTHER CONTAINERS, DATE, TIME, SAMPLING, COMMENTS, PRESERVED, FILTERED, (i.e. flow/volume media ID/note)

Table with columns: ANALYSES REQUESTED: BTEX, VOC, L/HEPH, PAH, PHENOLS, METALS, TSS, BOD, Fecal Coliforms, HPC, Total Coliforms, Asbestos, Turbidity, Temperature, Manganese, HOLD

APPLICABLE REGULATORY LIMITS:
Canadian Drinking Water Quality Guidelines []
BC Drinking Water Protection Act / Reg. [x]
CCME ALBERTA TIER 1 []
OTHER: []

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
60 Days [] 90 Days [] Longer Date (Surcharges will Apply):
PAYMENT: CHEQUE [] CREDIT [] DEBIT [] CASH [] INVOICE [x]

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - Third Week

PROJECT INFO

WORK ORDER 25L0436

RECEIVED / TEMP 2025-12-03 12:55 / 4.6°C

REPORTED 2025-12-09 09:54

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Resample Results
from WD 25L0436

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25L0436
2025-12-09 09:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
21D9B Bulk Water Site 1 (25L0436-01) Matrix: Drinking Water Sampled: 2025-12-02 14:30						
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-03	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-12-03	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-03	

Sample Qualifiers:

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

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Bi-Weekly - Third Week

WORK ORDER 25L0436
REPORTED 2025-12-09 09:54

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Bi-Weekly - Third Week

PROJECT INFO

WORK ORDER 2513657

RECEIVED / TEMP 2025-09-25 14:20 / 14.6°C

REPORTED 2025-10-03 11:54

COC NUMBER No Number

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 2513657
2025-10-03 11:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E6 S Carradice Rd. (2513657-01) Matrix: Drinking Water Sampled: 2025-09-24 10:00						
<i>Field Parameters</i>						
Temperature, field	11.1	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	0.18	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	HT3
<i>Total Metals</i>						
Manganese, total	0.0393	MAC = 0.12	0.00020	mg/L	2025-10-02	
94F1 S Dixon St. (2513657-02) Matrix: Drinking Water Sampled: 2025-09-24 13:00						
<i>Field Parameters</i>						
Temperature, field	13.8	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	6	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.00024	MAC = 0.12	0.00020	mg/L	2025-10-02	
94F2 S Hospital (2513657-03) Matrix: Drinking Water Sampled: 2025-09-24 10:45						
<i>Field Parameters</i>						
Temperature, field	13.1	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Background Colonies	>200	N/A	200	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	19	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.0554	MAC = 0.12	0.00020	mg/L	2025-10-02	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25I3657
2025-10-03 11:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F3 S Nason St. (25I3657-04) Matrix: Drinking Water Sampled: 2025-09-24 13:30						
<i>Field Parameters</i>						
Temperature, field	10.7	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	0.13	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.138	MAC = 0.12	0.00020	mg/L	2025-10-02	
94F4 S N. Star Dragon Hill (25I3657-05) Matrix: Water Sampled: 2025-09-24 14:45						
<i>Field Parameters</i>						
Temperature, field	10.3	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	0.17	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.137	MAC = 0.12	0.00020	mg/L	2025-10-02	
94F6 S N. Star South Hill (25I3657-06) Matrix: Drinking Water Sampled: 2025-09-24 14:13						
<i>Field Parameters</i>						
Temperature, field	10.1	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.153	MAC = 0.12	0.00020	mg/L	2025-10-02	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Bi-Weekly - Third Week

WORK ORDER REPORTED 25I3657
2025-10-03 11:54

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94F7 S Chew Rd. (25I3657-07) Matrix: Drinking Water Sampled: 2025-09-24 13:45						
<i>Field Parameters</i>						
Temperature, field	11.6	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	0.21	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.161	MAC = 0.12	0.00020	mg/L	2025-10-02	

21D9B Bulk Water Site 1 (25I3657-08) | Matrix: Drinking Water | Sampled: 2025-09-24 11:30

<i>Field Parameters</i>						
Temperature, field	10.9	AO ≤ 15		°C	2025-09-24	
<i>General Parameters</i>						
Turbidity	0.17	OG < 1	0.10	NTU	2025-09-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
Heterotrophic Plate Count	5	N/A	5	CFU/mL	2025-09-25	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	
<i>Total Metals</i>						
Manganese, total	0.0448	MAC = 0.12	0.00020	mg/L	2025-10-02	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
BI-Weekly - Third Week

WORK ORDER REPORTED 2513657
2025-10-03 11:54

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

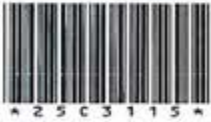
RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
>2	Greater than the specified Result
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

CARO BC COC, Rev 08/12

CHAIN OF CUSTODY RECORD COC# PAGE 1 OF 1

Page 5 of 5

REPORT TO:
COMPANY: City of Quesnel
ADDRESS: 410 Kinchant St.
 Quesnel, V2J 7J5
CONTACT: Joe Law
TEL/FAX: 250 992-6330 250 992-5392
EMAIL PDF EDD
EMAIL 1: jlaw@quesnel.ca
EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
MAIL HARDCOPY HOLD FOR P/U FAX

INVOICE TO: SAME AS REPORT TO
COMPANY:
ADDRESS:
CONTACT: Accounts Payable - Joe Law
TEL/FAX:
EMAIL PDF
EMAIL 1: jlaw@quesnel.ca
EMAIL 2:
MAIL HARDCOPY HOLD FOR P/U

RELINQUISHED BY: Cole Frank
DATE: 25 Mar 25
TIME: 1530
RECEIVED BY: Ace
DATE: 25 Mar 25
TIME: 13:20
PROJECT: WEEK 1 DISTRIBUTION
PO #:
SHIPPING INSTRUCTIONS: Return Cooler(s)
Ship Supplies (please specify below or in Other Instructions Section)
Return bottle order

TURNAROUND Routine: (4-7 Days) Other*
TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

ANALYSES REQUESTED:

CLIENT SAMPLE ID:	MATRIX:			SAMPLING:		COMMENTS: <small>(i.e. flow/volume media directed)</small>	BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	EPH (not PAH corrected) <input type="checkbox"/>	VOC <input type="checkbox"/> VPH <input type="checkbox"/>	L/NEPH (PAH corrected) <input type="checkbox"/>	PAH <input type="checkbox"/>	PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	METALS - WATER TOTAL	METALS - WATER DISSOLVED	METALS - SOIL (SALM) <input type="checkbox"/> Inc. pH <input type="checkbox"/>	pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	TSS <input type="checkbox"/> TDS <input type="checkbox"/>	BOD <input type="checkbox"/> COD <input type="checkbox"/>	FECAL COLIFORMS <input type="checkbox"/> HPC <input checked="" type="checkbox"/>	TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	SOIL VAPOUR	ASBESTOS	TURBIDITY	TEMPERATURE Manganese	HOLD		
	DRINKING WATER	OTHER WATER	SOIL	OTHER	DATE DD-MMM-YY																							TIME HHMM	FILTERED
94E4 S Airport	<input checked="" type="checkbox"/>			3	25 Mar 25	925																							
94E5 S Mills Rd.	<input checked="" type="checkbox"/>			3	25 Mar 25	1000																				4.1			
94E7 S Marsh Dr.	<input checked="" type="checkbox"/>			3	25 Mar 25	1040																				4.6			
94E8 S Graham Ave.	<input checked="" type="checkbox"/>			3	25 Mar 25	1140																				7.4			
94E9 S West Fraser Rd	<input checked="" type="checkbox"/>			3	25 Mar 25	1105																				4.9			
94F0 S Pederson Rd	<input checked="" type="checkbox"/>			3	25 Mar 25	0350																				3.9			
35D91k NEW CARSON PIT	<input checked="" type="checkbox"/>			3	25 Mar 25	1310																				6			
179CA S Dennis Rd	<input checked="" type="checkbox"/>			3	25 Mar 25	1420																				4.6			
																										6.7			

APPLICABLE REGULATORY LIMITS:
Canadian Drinking Water Quality Guidelines
BC Drinking Water Protection Act / Reg.
BC CSR AL RL CL IL AW
COME ALBERTA TIER 1
OTHER:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
60 Days 90 Days Longer Date (Surcharges will Apply):
OTHER INSTRUCTIONS:
Return bottle order. NEW CARSON PITT - PART OF MAIN SYSTEM

PAYMENT:
CHEQUE
CREDIT
DEBIT
CASH
INVOICE
SAMPLE RECEIPT TEMP (°C): 7.8
Work Order #
CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Monthly Wells

PROJECT INFO

WORK ORDER 25A2115

RECEIVED / TEMP REPORTED 2025-01-22 13:42 / 0.3°C
2025-01-29 14:02

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25A2115 2025-01-29 14:02

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94D1 - Well 3 Rolph at Roddis (25A2115-01) Matrix: Water Sampled: 2025-01-21 10:35						
<i>Field Parameters</i>						
Temperature, field	8.2	AO ≤ 15		°C	2025-01-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	
<i>Total Metals</i>						
Manganese, total	0.517	MAC = 0.12		0.00020 mg/L	2025-01-24	
WT# 94DC - Well 6 Rolph at Robertson (25A2115-02) Matrix: Water Sampled: 2025-01-21 10:00						
<i>Field Parameters</i>						
Temperature, field	8.0	AO ≤ 15		°C	2025-01-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	
<i>Total Metals</i>						
Manganese, total	0.289	MAC = 0.12		0.00020 mg/L	2025-01-24	
WT# 94E0 - Well 7 N. Fraser Drive (25A2115-03) Matrix: Water Sampled: 2025-01-21 11:20						
<i>Field Parameters</i>						
Temperature, field	8.4	AO ≤ 15		°C	2025-01-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	
<i>Total Metals</i>						
Manganese, total	0.0173	MAC = 0.12		0.00020 mg/L	2025-01-24	
WT# 94E1 - Well 8 Hilborn Road (25A2115-04) Matrix: Water Sampled: 2025-01-21 13:30						
<i>Field Parameters</i>						
Temperature, field	8.1	AO ≤ 15		°C	2025-01-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	
<i>Total Metals</i>						
Manganese, total	0.269	MAC = 0.12		0.00020 mg/L	2025-01-24	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25A2115 2025-01-29 14:02

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94DF - Well 9 Carson Sub (25A2115-05) Matrix: Water Sampled: 2025-01-21 09:20						
<i>Field Parameters</i>						
Temperature, field	8.1	AO ≤ 15		°C	2025-01-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	HT3
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	HT3
<i>Total Metals</i>						
Manganese, total	0.147	MAC = 0.12		0.00020 mg/L	2025-01-24	

WT# 28000 - Well 10 Hilborn Road (25A2115-06) | Matrix: Water | Sampled: 2025-01-21 14:00

<i>Field Parameters</i>						
Temperature, field	8.2	AO ≤ 15		°C	2025-01-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-22	
<i>Total Metals</i>						
Manganese, total	0.558	MAC = 0.12		0.00020 mg/L	2025-01-24	

Sample Qualifiers:
 HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Monthly Wells

WORK ORDER 25A2115
REPORTED 2025-01-29 14:02

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700



REPORT TO:
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5107
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearie@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX

INVOICE TO: SAME AS REPORT TO
 COMPANY: MONTHLY WELLS
 ADDRESS: ACCOUNTS PAYABLE - JOE LAW
 CONTACT: ACCOUNTS PAYABLE - JOE LAW
 TEL/FAX: _____
 EMAIL PDF
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: _____
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TURNAROUND Routine: (4-7 Days)
 Rush: 1 Day* 2 Day* 3 Day*
 *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:	DATE	TIME	COMMENTS:
94D1 Well 3 Rolph at Roddis	DRINKING WATER	21-01-25	10:35	
94DC Well 6 Rolph at Robertson	OTHER WATER	21-01-25	10:00	
94E0 Well 7 N. Fraser Drive	OTHER WATER	21-01-25	11:20	
94E1 Well 8 Hilborn Road	OTHER WATER	21-01-25	1:30	
94DF Well 9 Carson Sub	OTHER WATER	21-01-25	9:00	
28000 Well 10 Hilborn Road	OTHER WATER	21-01-25	7:00	

CHAIN OF CUSTODY RECORD COC# _____ PAGE 1 OF 1

RELINQUISHED BY: Shawn M DATE: 21-01-25 RECEIVED BY: _____ DATE: _____
 TIME: 3:30 TIME: _____

RELINQUISHED BY: _____ DATE: _____ RECEIVED BY: _____ DATE: _____
 TIME: _____ TIME: _____

PROJECT: MONTHLY WELLS PO #: _____

SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order.

ANALYSES REQUESTED:

ANALYSES REQUESTED:	STATUS	RESULTS
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	<input checked="" type="checkbox"/>	
EPH (not PAH Corrected) <input type="checkbox"/> VPH <input type="checkbox"/>	<input checked="" type="checkbox"/>	
L/HEPH (PAH corrected) <input type="checkbox"/> VPH <input type="checkbox"/>	<input checked="" type="checkbox"/>	
PAH <input type="checkbox"/>	<input checked="" type="checkbox"/>	
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	<input checked="" type="checkbox"/>	
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	<input checked="" type="checkbox"/>	
METALS - WATER TOTAL <input type="checkbox"/>	<input checked="" type="checkbox"/>	
METALS - WATER DISSOLVED <input type="checkbox"/>	<input checked="" type="checkbox"/>	
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>	<input checked="" type="checkbox"/>	
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>	<input checked="" type="checkbox"/>	
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>	<input checked="" type="checkbox"/>	
TOTAL COLIFORMS <input type="checkbox"/> E. coli <input type="checkbox"/>	<input checked="" type="checkbox"/>	
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	<input checked="" type="checkbox"/>	
SOIL VAPOUR <input type="checkbox"/>	<input checked="" type="checkbox"/>	
ASBESTOS <input type="checkbox"/>	<input checked="" type="checkbox"/>	
TEMPERATURE <input type="checkbox"/>	<input checked="" type="checkbox"/>	8.2
MANGANESE <input type="checkbox"/>	<input checked="" type="checkbox"/>	8.0
	<input checked="" type="checkbox"/>	8.4
	<input checked="" type="checkbox"/>	8.1
	<input checked="" type="checkbox"/>	8.1
	<input checked="" type="checkbox"/>	8.2

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

OTHER INSTRUCTIONS:
 Return bottle order

DATE	TIME	COMMENTS:
21-01-25	10:35	
21-01-25	10:00	
21-01-25	11:20	
21-01-25	1:30	
21-01-25	9:00	
21-01-25	7:00	

PAYMENT:
 CHEQUE
 CREDIT
 DEBIT
 CASH
 INVOICE

Work Order # _____

CUSTOMER SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Monthly Wells

PROJECT INFO

WORK ORDER 25B1852

RECEIVED / TEMP 2025-02-19 12:24 / 5.4°C

REPORTED 2025-02-25 13:21

COC NUMBER No Number

Introduction:

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Big Picture Sidekicks



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Authorized By:

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25B1852 2025-02-25 13:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94D1 - Well 3 Rolph at Roddis (25B1852-01) Matrix: Water Sampled: 2025-02-18 13:10						
<i>Field Parameters</i>						
Temperature, field	8.8	AO ≤ 15		°C	2025-02-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
<i>Total Metals</i>						
Manganese, total	0.511	MAC = 0.12		0.00020 mg/L	2025-02-24	
WT# 94DC - Well 6 Rolph at Robertson (25B1852-02) Matrix: Water Sampled: 2025-02-18 13:35						
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-02-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
<i>Total Metals</i>						
Manganese, total	0.222	MAC = 0.12		0.00020 mg/L	2025-02-24	
WT# 94E0 - Well 7 N. Fraser Drive (25B1852-03) Matrix: Water Sampled: 2025-02-18 11:20						
<i>Field Parameters</i>						
Temperature, field	8.6	AO ≤ 15		°C	2025-02-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
<i>Total Metals</i>						
Manganese, total	0.0165	MAC = 0.12		0.00020 mg/L	2025-02-24	
WT# 94E1 - Well 8 Hilborn Road (25B1852-04) Matrix: Water Sampled: 2025-02-18 10:40						
<i>Field Parameters</i>						
Temperature, field	8.9	AO ≤ 15		°C	2025-02-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
<i>Total Metals</i>						
Manganese, total	0.253	MAC = 0.12		0.00020 mg/L	2025-02-24	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Wells

WORK ORDER REPORTED 25B1852
2025-02-25 13:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94DF - Well 9 Carson Sub (25B1852-05) Matrix: Water Sampled: 2025-02-18 09:30						
<i>Field Parameters</i>						
Temperature, field	8.8	AO ≤ 15		°C	2025-02-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
<i>Total Metals</i>						
Manganese, total	0.141	MAC = 0.12		0.00020 mg/L	2025-02-24	
WT# 28000 - Well 10 Hilborn Road (25B1852-06) Matrix: Water Sampled: 2025-02-18 10:15						
<i>Field Parameters</i>						
Temperature, field	9.2	AO ≤ 15		°C	2025-02-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-19	
<i>Total Metals</i>						
Manganese, total	0.573	MAC = 0.12		0.00020 mg/L	2025-02-24	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25B1852 2025-02-25 13:21

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

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MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Wells
PROJECT INFO

WORK ORDER 25C2285

RECEIVED / TEMP 2025-03-19 13:43 / 5.1°C
REPORTED 2025-03-24 14:35

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 | #108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25C2285 2025-03-24 14:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94D1 - Well 3 Rolph at Roddis (25C2285-01) Matrix: Water Sampled: 2025-03-18 10:45						
<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-03-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
<i>Total Metals</i>						
Manganese, total	0.568	MAC = 0.12		0.00020 mg/L	2025-03-22	
WT# 94DC - Well 6 Rolph at Robertson (25C2285-02) Matrix: Water Sampled: 2025-03-18 11:15						
<i>Field Parameters</i>						
Temperature, field	10.8	AO ≤ 15		°C	2025-03-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
<i>Total Metals</i>						
Manganese, total	0.275	MAC = 0.12		0.00020 mg/L	2025-03-22	
WT# 94E0 - Well 7 N. Fraser Drive (25C2285-03) Matrix: Water Sampled: 2025-03-18 13:15						
<i>Field Parameters</i>						
Temperature, field	9.6	AO ≤ 15		°C	2025-03-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
<i>Total Metals</i>						
Manganese, total	0.0164	MAC = 0.12		0.00020 mg/L	2025-03-22	
WT# 94E1 - Well 8 Hilborn Road (25C2285-04) Matrix: Water Sampled: 2025-03-18 09:10						
<i>Field Parameters</i>						
Temperature, field	8.7	AO ≤ 15		°C	2025-03-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
<i>Total Metals</i>						
Manganese, total	0.281	MAC = 0.12		0.00020 mg/L	2025-03-22	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Wells

WORK ORDER REPORTED 25C2285
2025-03-24 14:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94DF - Well 9 Carson Sub (25C2285-05) Matrix: Water Sampled: 2025-03-18 09:45						
<i>Field Parameters</i>						
Temperature, field	9.1	AO ≤ 15		°C	2025-03-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
<i>Total Metals</i>						
Manganese, total	0.145	MAC = 0.12		0.00020 mg/L	2025-03-22	

WT# 28000 - Well 10 Hilborn Road (25C2285-06) | Matrix: Water | Sampled: 2025-03-18 14:00

<i>Field Parameters</i>						
Temperature, field	10.0	AO ≤ 15		°C	2025-03-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-19	
<i>Total Metals</i>						
Manganese, total	0.566	MAC = 0.12		0.00020 mg/L	2025-03-22	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25C2285 2025-03-24 14:35

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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ANALYTICAL SERVICES

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Tel: (604) 279-1499 Fax: (604) 279-1599
102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO:

COMPANY: City of Quesnel
ADDRESS: 410 Kinchant St
Quesnel, BC V2J 7J5

CONTACT: Joe Law
TEL/FAX: 250 992-6330 250 992-5107

EMAIL PDF EDD
EMAIL 1: jlaw@quesnel.ca
EMAIL 2: vbest@quesnel.ca kearte@quesnel.ca

MAIL HARD COPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days) Other*
TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

INVOICE TO: SAME AS REPORT TO

COMPANY:
ADDRESS:

CONTACT: Accounts Payable - Joe Law
TEL/FAX:

EMAIL PDF
EMAIL 1: jlaw@quesnel.ca
EMAIL 2:

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Other*
*Contact Lab To Confirm. Surcharge May Apply

CHAIN OF CUSTODY RECORD

COC #

PAGE 1 OF 2

CARCO BC COC, Rev 08/12

REQUISITION BY: [Signature] DATE: 18 Mar 25 RECEIVED BY: DATE:
RELINQUISHED BY: DATE: 15 30 RECEIVED BY: DATE:

PROJECT: MONTHLY WELLS PROJECT INFO: PO #:

SAMPLED BY: [Signature] SHIPPING INSTRUCTIONS: Return Cooler(s)
MONTHLY WELLS Ship Supplies (please specify below or in Other Instructions Section)
Return bottle order.

ANALYSES REQUESTED:

Table with columns: CLIENT SAMPLE ID, DRINKING WATER, OTHER WATER, SOIL, OTHER, # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS, BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS - WATER TOTAL, METALS - WATER DISSOLVED, METALS - SOIL (SALM), inc. pH, pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, TOTAL COLIFORMS, E. coli, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TEMPERATURE, MANGANESE, HOLD.

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines, BC Drinking Water Protection Act / Reg., BC CSR, CCME, ALBERTA TIER 1, SAMPLE RETENTION INSTRUCTIONS, OTHER INSTRUCTIONS, PAYMENT: CHEQUE, CREDIT, DEBIT, CASH, INVOICE, SAMPLE RECEIPT TEMP, CUSTODY SEAL INTACT.

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Wells
PROJECT INFO

WORK ORDER 25D2209

RECEIVED / TEMP 2025-04-16 13:21 / 8.5°C

REPORTED 2025-04-25 11:47

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Wells

WORK ORDER REPORTED 25D2209
2025-04-25 11:47

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94D1 Well 3 Rolph at Roddis (25D2209-01) Matrix: Drinking Water Sampled: 2025-04-15 10:50						
<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-04-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-16	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-16	
<i>Total Metals</i>						
Manganese, total	0.573	MAC = 0.12		0.00020 mg/L	2025-04-18	
94DC Well 6 Rolph at Robertson (25D2209-02) Matrix: Drinking Water Sampled: 2025-04-15 11:40						
<i>Field Parameters</i>						
Temperature, field	10.6	AO ≤ 15		°C	2025-04-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-16	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-16	
<i>Total Metals</i>						
Manganese, total	0.254	MAC = 0.12		0.00020 mg/L	2025-04-18	
94E0 Well 7 N. Fraser Drive (25D2209-03) Matrix: Drinking Water Sampled: 2025-04-15 13:15						
<i>Field Parameters</i>						
Temperature, field	9.5	AO ≤ 15		°C	2025-04-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-16	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-16	
<i>Total Metals</i>						
Manganese, total	0.0144	MAC = 0.12		0.00020 mg/L	2025-04-18	
94E1 Well 8 Hilborn Road (25D2209-04) Matrix: Drinking Water Sampled: 2025-04-15 09:15						
<i>Field Parameters</i>						
Temperature, field	9.6	AO ≤ 15		°C	2025-04-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-16	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-16	
<i>Total Metals</i>						
Manganese, total	0.248	MAC = 0.12		0.00020 mg/L	2025-04-24	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25D2209 2025-04-25 11:47

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94DF Well 9 Carson Sub (25D2209-05) Matrix: Drinking Water Sampled: 2025-04-15 13:50						
<i>Field Parameters</i>						
Temperature, field	9.1	AO ≤ 15		°C	2025-04-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-16	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-16	
<i>Total Metals</i>						
Manganese, total	0.143	MAC = 0.12	0.00020	mg/L	2025-04-18	
28000 Well 10 Hilborn Road (25D2209-06) Matrix: Drinking Water Sampled: 2025-04-15 09:40						
<i>Field Parameters</i>						
Temperature, field	10.0	AO ≤ 15		°C	2025-04-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-16	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-16	
<i>Total Metals</i>						
Manganese, total	0.589	MAC = 0.12	0.00020	mg/L	2025-04-18	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Wells

WORK ORDER REPORTED 25D2209
2025-04-25 11:47

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
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TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
94D1 Well 3 Rolph at Roddis	<input checked="" type="checkbox"/>				2	15 Apr 25	1050			
94DC Well 6 Rolph at Robertson	<input checked="" type="checkbox"/>				2	15 Apr 25	1140			
94E0 Well 7 N. Fraser Drive	<input checked="" type="checkbox"/>				2	15 Apr 25	1315			
94E1 Well 8 Hillborn Road	<input checked="" type="checkbox"/>				2	15 Apr 25	915			
94DF Well 9 Carson Sub	<input checked="" type="checkbox"/>				2	15 Apr 25	1350			
28000 Well 10 Hillborn Road	<input checked="" type="checkbox"/>				2	15 Apr 25	940			

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____
 OTHER INSTRUCTIONS: _____
 Return bottle order

MATRIX:	SAMPLING:	COMMENTS:	ANALYSES REQUESTED:
			BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/> EPH (not PAH Corrected) VOC <input type="checkbox"/> VPH <input type="checkbox"/> L/HEPH (PAH corrected) PAH PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/> PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/> METALS - WATER TOTAL METALS - WATER DISSOLVED METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/> pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/> BOD <input type="checkbox"/> COD <input type="checkbox"/> FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/> TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/> PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/> SOIL VAPOUR ASBESTOS TEMPERATURE MANGANESE

CHAIN OF CUSTODY RECORD COC # _____ PAGE 1 OF 1

RELINQUISHED BY: *Joe Frank* DATE: 15 Apr 25 TIME: 1330
 RECEIVED BY: _____ DATE: _____ TIME: _____

PROJECT: MONTHLY WELLS
 PROJECT INFO: _____ PO #: _____

SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order.

ANALYSES REQUESTED:

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Monthly Wells

PROJECT INFO

WORK ORDER 25E1945

RECEIVED / TEMP 2025-05-14 13:20 / 9.8°C

REPORTED 2025-05-22 10:28

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25E1945 2025-05-22 10:28

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94D1 Well 3 Rolph at Roddis (25E1945-01) Matrix: Drinking Water Sampled: 2025-05-13 11:25						
<i>Field Parameters</i>						
Temperature, field	10.0	AO ≤ 15		°C	2025-05-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	
<i>Total Metals</i>						
Manganese, total	0.560	MAC = 0.12		0.00020 mg/L	2025-05-21	
94DC Well 6 Rolph at Robertson (25E1945-02) Matrix: Drinking Water Sampled: 2025-05-13 11:50						
<i>Field Parameters</i>						
Temperature, field	8.1	AO ≤ 15		°C	2025-05-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	
<i>Total Metals</i>						
Manganese, total	0.231	MAC = 0.12		0.00020 mg/L	2025-05-22	
94E0 Well 7 N. Fraser Drive (25E1945-03) Matrix: Drinking Water Sampled: 2025-05-13 09:10						
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-05-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	HT3
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	HT3
<i>Total Metals</i>						
Manganese, total	0.0144	MAC = 0.12		0.00020 mg/L	2025-05-21	
94E1 Well 8 Hilborn Road (25E1945-04) Matrix: Drinking Water Sampled: 2025-05-13 10:35						
<i>Field Parameters</i>						
Temperature, field	8.9	AO ≤ 15		°C	2025-05-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	
<i>Total Metals</i>						
Manganese, total	0.260	MAC = 0.12		0.00020 mg/L	2025-05-21	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25E1945 2025-05-22 10:28

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94DF Well 9 Carson Sub (25E1945-05) Matrix: Drinking Water Sampled: 2025-05-13 09:35						
<i>Field Parameters</i>						
Temperature, field	9.5	AO ≤ 15		°C	2025-05-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	
<i>Total Metals</i>						
Manganese, total	0.145	MAC = 0.12		0.00020 mg/L	2025-05-21	

28000 Well 10 Hilborn Road (25E1945-06) | Matrix: Drinking Water | Sampled: 2025-05-13 10:10

<i>Field Parameters</i>						
Temperature, field	9.6	AO ≤ 15		°C	2025-05-13	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-14	
<i>Total Metals</i>						
Manganese, total	0.612	MAC = 0.12		0.00020 mg/L	2025-05-21	

Sample Qualifiers:

HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25E1945 2025-05-22 10:28

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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ANALYTICAL SERVICES

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CHAIN OF CUSTODY RECORD

COC # _____ PAGE 1 OF 1

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5

INVOICE TO: COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law

TEL/FAX: 250 992-6330 250 992-5107
 EMAIL PDF EDD
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 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca

MAIL HARDCOPY HOLD FOR P/U FAX
 MAIL HARDCOPY HOLD FOR P/U
 TURNAROUND Routine: (4-7 Days) Other*
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
94D1 Well 3 Rolph at Roddis	<input checked="" type="checkbox"/>					213-May-25	11:25			
94DC Well 6 Rolph at ^{Dahotson}	<input checked="" type="checkbox"/>					213-May-25	11:50			
94E0 Well 7 N. Fraser Drive	<input checked="" type="checkbox"/>					213-May-25	9:10			
94E1 Well 8 Hilborn Road	<input checked="" type="checkbox"/>					213-May-25	10:35			
94DF Well 9 Carson Sub	<input checked="" type="checkbox"/>					213-May-25	9:35			
28000 Well 10 Hilborn Road	<input checked="" type="checkbox"/>					213-May-25	10:10			

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____
OTHER INSTRUCTIONS:
 Return bottle order

PAYMENT:
 CHECK CREDIT DEBIT CASH INVOICE
SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:	PROJECT INFO:	PO #:
B. Wible	25-May-13	13:30				PROJECT: MONTHLY WELLS SAMPLED BY: B. Wible	

ANALYSES REQUESTED:	DATE:	TIME:
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>		
EPH (not PAH Corrected)		
VOC <input type="checkbox"/> VPH <input type="checkbox"/>		
L/HEPH (PAH corrected)		
PAH		
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>		
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>		
METALS - WATER TOTAL		
METALS - WATER DISSOLVED		
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>		
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>		
TSS <input type="checkbox"/> TDS <input type="checkbox"/>		
BOD <input type="checkbox"/> COD <input type="checkbox"/>		
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>		
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>		
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>		
SOIL VAPOUR		
ASBESTOS		
TEMPERATURE		
MANGANESE		
HOLD		

SHIPPING INSTRUCTIONS:
 Ship Supplies (please specify below or in Other Instructions Section)
 Return Cooler(s)
 Return bottle order: _____

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Wells
PROJECT INFO

WORK ORDER 25F2392

RECEIVED / TEMP 2025-06-17 13:47 / 16.8°C

REPORTED 2025-06-19 11:15

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT	Quesnel, City of Monthly Wells	WORK ORDER REPORTED	25F2392 2025-06-19 11:15
----------------------------	-----------------------------------	----------------------------	-----------------------------

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
---------	--------	-----------	----	-------	----------	-----------

WT# 94D1 - Well 3 Rolph at Roddis (25F2392-01) | Matrix: Drinking Water | Sampled: 2025-06-16 10:40

Field Parameters

Temperature, field	9.0	AO ≤ 15		°C	2025-06-16	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	

WT# 94DC - Well 6 Rolph at Robertson (25F2392-02) | Matrix: Drinking Water | Sampled: 2025-06-16 11:20

Field Parameters

Temperature, field	9.7	AO ≤ 15		°C	2025-06-16	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	

WT# 94E0 - Well 7 N. Fraser Drive (25F2392-03) | Matrix: Drinking Water | Sampled: 2025-06-16 09:40

Field Parameters

Temperature, field	8.9	AO ≤ 15		°C	2025-06-16	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	

WT# 94E1 - Well 8 Hilborn Road (25F2392-04) | Matrix: Drinking Water | Sampled: 2025-06-16 13:30

Field Parameters

Temperature, field	9.4	AO ≤ 15		°C	2025-06-16	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	

WT# 94DF - Well 9 Carson Sub (25F2392-05) | Matrix: Drinking Water | Sampled: 2025-06-16 14:30

Field Parameters

Temperature, field	9.1	AO ≤ 15		°C	2025-06-16	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25F2392 2025-06-19 11:15

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 28000 - Well 10 Hilborn Road (25F2392-06) Matrix: Drinking Water Sampled: 2025-06-16 14:00						
<i>Field Parameters</i>						
Temperature, field	9.5	AO ≤ 15		°C	2025-06-16	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-17	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25F2392
2025-06-19 11:15

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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



ANALYTICAL SERVICES

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 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5

INVOICE TO: COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law

TEL/FAX: 250 992-6330 250 992-5107
 CONTACT: Accounts Payable - Joe Law

EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: dfrank@quesnel.ca kearle@quesnel.ca

MAIL HARDCOPY HOLD FOR P/U FAX
 MAIL HARDCOPY HOLD FOR P/U

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:			DATE	TIME	FILTERED	PRESERVED	COMMENTS:
	DRINKING WATER	OTHER WATER	SOIL					
94D1 Well 3 Rolph at Roddis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10-06-25	10:20	<input type="checkbox"/>	<input type="checkbox"/>	
94DC Well 6 Rolph/Robertson	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10-06-25	9:45	<input type="checkbox"/>	<input type="checkbox"/>	
94E0 Well 7 N. Fraser Drive	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10-06-25	11:10	<input type="checkbox"/>	<input type="checkbox"/>	
94E1 Well 8 Hilborn Road	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10-06-25	1:10	<input type="checkbox"/>	<input type="checkbox"/>	
94DF Well 9 Carson Sub	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10-06-25	11:55	<input type="checkbox"/>	<input type="checkbox"/>	
28000 Well 10 Hilborn Road	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10-06-25	2:00	<input type="checkbox"/>	<input type="checkbox"/>	

CHAIN OF CUSTODY RECORD		COC #	PAGE 1 OF 1
RELINQUISHED BY: <i>Shawn M.</i>	DATE: <i>10-06-25</i>	RECEIVED BY:	DATE:
RELINQUISHED BY: <i>Shawn M.</i>	DATE: <i>10-06-25</i>	RECEIVED BY: <i>[Signature]</i>	DATE:
PROJECT: QUARTERLY WELLS	PROJECT INFO:	PO #:	DATE:
SAMPLED BY: <i>Shawn Monaghan</i>	SHIPPING INSTRUCTIONS: Return Cooler(s) <input checked="" type="checkbox"/> Ship Supplies (please specify below or in Other Instructions Section) <input type="checkbox"/>	RETURN COOLER(S): <input checked="" type="checkbox"/>	DATE:
ANALYSES REQUESTED:			DATE:
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>			DATE:
EPH (not PAH Corrected)			DATE:
VOC <input type="checkbox"/> VPH <input type="checkbox"/>			DATE:
L/HEPH (PAH corrected)			DATE:
PAH			DATE:
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>			DATE:
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>			DATE:
METALS - WATER TOTAL			DATE:
METALS - WATER DISSOLVED			DATE:
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>			DATE:
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>			DATE:
TSS <input type="checkbox"/> TDS <input type="checkbox"/>			DATE:
BOD <input type="checkbox"/> COD <input type="checkbox"/>			DATE:
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>			DATE:
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>			DATE:
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>			DATE:
SOIL VAPOUR			DATE:
ASBESTOS			DATE:
TEMPERATURE			DATE:
CHLORIDE			DATE:
NI/NITRATE/NITRITE			DATE:
HOLD			DATE:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

PAYMENT: CHEQUE CREDIT CASH INVOICE
 SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

OTHER: _____



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Wells
PROJECT INFO

WORK ORDER 25H0562

RECEIVED / TEMP 2025-08-06 12:30 / 15.8°C
REPORTED 2025-08-12 13:30
COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



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By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager



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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25H0562 2025-08-12 13:30

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94D1 Well 3 Rolph at Roddis (25H0562-01) Matrix: Drinking Water Sampled: 2025-08-05 09:50					
<i>Field Parameters</i>					
Temperature, field	11.7	AO ≤ 15	°C	2025-08-05	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-08-06	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-08-06	
<i>Total Metals</i>					
Manganese, total	0.611	MAC = 0.12	0.00020 mg/L	2025-08-08	
94DC Well 6 Rolph at Robertson (25H0562-02) Matrix: Drinking Water Sampled: 2025-08-05 10:00					
<i>Field Parameters</i>					
Temperature, field	11.4	AO ≤ 15	°C	2025-08-05	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-08-06	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-08-06	
<i>Total Metals</i>					
Manganese, total	0.221	MAC = 0.12	0.00020 mg/L	2025-08-08	
94E0 Well 7 N. Fraser Drive (25H0562-03) Matrix: Drinking Water Sampled: 2025-08-05 13:30					
<i>Field Parameters</i>					
Temperature, field	11.9	AO ≤ 15	°C	2025-08-05	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-08-06	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-08-06	
<i>Total Metals</i>					
Manganese, total	0.0136	MAC = 0.12	0.00020 mg/L	2025-08-08	
94E1 Well 8 Hilborn Road (25H0562-04) Matrix: Drinking Water Sampled: 2025-08-05 11:20					
<i>Field Parameters</i>					
Temperature, field	11.2	AO ≤ 15	°C	2025-08-05	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-08-06	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-08-06	
<i>Total Metals</i>					
Manganese, total	0.250	MAC = 0.12	0.00020 mg/L	2025-08-08	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Wells

WORK ORDER REPORTED 25H0562
2025-08-12 13:30

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94DF Well 9 Carson Sub (25H0562-05) Matrix: Drinking Water Sampled: 2025-08-05 14:10						
<i>Field Parameters</i>						
Temperature, field	11.9	AO ≤ 15		°C	2025-08-05	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-06	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-06	
<i>Total Metals</i>						
Manganese, total	0.161	MAC = 0.12		0.00020 mg/L	2025-08-08	
28000 Well 10 Hilborn Road (25H0562-06) Matrix: Drinking Water Sampled: 2025-08-05 10:40						
<i>Field Parameters</i>						
Temperature, field	11.5	AO ≤ 15		°C	2025-08-05	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-06	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-06	
<i>Total Metals</i>						
Manganese, total	0.594	MAC = 0.12		0.00020 mg/L	2025-08-08	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Wells

WORK ORDER REPORTED 25H0562
2025-08-12 13:30

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC#

PAGE 1 OF 1

REPORT TO:

COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5

INVOICE TO:

COMPANY:
 ADDRESS:
 CONTACT: Accounts Payable - Joe Law

CONTACT: Joe Law

TEL/FAX: 250 992-6330 250 992-5107

TEL/FAX:

EMAIL PDF EDD

EMAIL PDF

EMAIL 1: jlaw@quesnel.ca

EMAIL 1: jlaw@quesnel.ca

EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca

EMAIL 2: vbest@quesnel.ca

MAIL HARDCOPY HOLD FOR P/U FAX

MAIL HARDCOPY HOLD FOR P/U

TURNAROUND TIME REQUESTED: Routine: (4-7 Days) Other*
 Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm, Surcharge May Apply

CLIENT SAMPLE ID:

CLIENT SAMPLE ID:	MATRIX:	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
94D1 Well 3 Rolph at Roddis	DRINKING WATER	05-08-29	9:56			
94DC Well 6 Rolph at Robertson	OTHER WATER	05-08-29	10:00			
94E0 Well 7 N. Fraser Drive	SOIL	05-08-29	1:30			
94E1 Well 8 Hilborn Road	OTHER	05-08-29	11:00			
94DF Well 9 Carson Sub		05-08-29	7:10			
28000 Well 10 Hilborn Road		05-08-29	10:40			

RELINQUISHED BY:	DATE: 05-08-29	RECEIVED BY:	DATE:
Shawn W	TIME: 5:30		TIME:
RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
	TIME:		TIME:

PROJECT:	MONTHLY WELLS	PO #:
SAMPLED BY:	Shawn Monaghan	
SHIPING INSTRUCTIONS:	Return Cooler(s) <input checked="" type="checkbox"/>	
Ship Supplies (please specify below or in Other Instructions Section)	<input type="checkbox"/>	
Return bottle order.		

ANALYSES REQUESTED:

BTEX <input type="checkbox"/>	VPH <input type="checkbox"/>	MTBE <input type="checkbox"/>
EPH (not PAH Corrected)		
VOC <input type="checkbox"/>	VPH <input type="checkbox"/>	
L/HEPH (PAH corrected)		
PAH		
PHENOLS Chlorinated <input type="checkbox"/>	Non-Chlor. <input type="checkbox"/>	
PCB <input type="checkbox"/>	GLYCOLS <input type="checkbox"/>	HAA <input type="checkbox"/>
METALS - WATER TOTAL		
METALS - WATER DISSOLVED		
METALS - SOIL (SALM) <input type="checkbox"/>	inc. pH <input type="checkbox"/>	
pH <input type="checkbox"/>	EC <input type="checkbox"/>	ALK <input type="checkbox"/>
TSS <input type="checkbox"/>	TDS <input type="checkbox"/>	
BOD <input type="checkbox"/>	COD <input type="checkbox"/>	
FECAL COLIFORMS <input type="checkbox"/>	HPC <input type="checkbox"/>	
TOTAL COLIFORMS <input checked="" type="checkbox"/>	E. coli <input checked="" type="checkbox"/>	
PESTICIDES <input type="checkbox"/>	HERBICIDES <input type="checkbox"/>	
SOIL VAPOUR		
ASBESTOS		
TEMPERATURE		
MANGANESE		

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply):
OTHER INSTRUCTIONS:
 Return bottle order

PAYMENT:
 CHEQUE
 CREDIT
 DEBIT
 CASH
 INVOICE

SAMPLE RECEIPT TEMP (°C):
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

DATE	TIME	TEMPERATURE	MANGANESE	HOLD
05-08-29	9:56	11.7		
05-08-29	10:00	11.4		
05-08-29	1:30	11.8		
05-08-29	11:00	11.2		
05-08-29	7:10	11.9		
05-08-29	10:40	11.5		



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Wells
PROJECT INFO

WORK ORDER 25I3660

RECEIVED / TEMP 2025-09-25 14:20 / 14.6°C
REPORTED 2025-09-26 15:52
COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Wells

WORK ORDER REPORTED 2513660
2025-09-26 15:52

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E1 Well 8 Hilborn Road (2513660-01) Matrix: Drinking Water Sampled: 2025-09-24 10:15						
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	HT3
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-25	HT3

Sample Qualifiers:

HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 2513660 2025-09-26 15:52

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CARCO
 ANALYTICAL SERVICES

CHAIN OF CUSTODY RECORD COC# _____ PAGE 1 OF 1

RELINQUISHED BY: B. Legere DATE: 24 Sep 15 RECEIVED BY: _____ DATE: _____
 TIME: 15:30 TIME: _____
 RELINQUISHED BY: _____ DATE: _____ RECEIVED BY: _____ DATE: _____
 TIME: _____ TIME: _____
 PROJECT: Well 8 Piping PO #: _____
 SHIPPING INSTRUCTIONS: Return Cooler(s) Ship Supplies (please specify below or in Other Instructions Section) Return bottle order.

REPORT TO: INVOICE TO: SAME AS REPORT TO
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: 250 992-6330 250 992-5107
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
 MAIL HARDCOPY HOLD FOR P/U FAX
 MAIL HARDCOPY HOLD FOR P/U FAX
 TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	DATE	TIME	SAMPLING:	COMMENTS:									
					DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	DATE	TIME	PREPARED	(i.e. flow/volume media ID/notes)
9	24 Sep 15	10:15											
Well 8 Hilborn Road Distribution Piping Sampled													

ANALYSES REQUESTED:

<input type="checkbox"/> BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE	<input type="checkbox"/> EPH (not PAH Corrected)	<input type="checkbox"/> VOC <input type="checkbox"/> VPH	<input type="checkbox"/> L/HEPH (PAH corrected)	<input type="checkbox"/> PAH	<input type="checkbox"/> PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor.	<input type="checkbox"/> PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	<input type="checkbox"/> METALS - WATER DISSOLVED	<input type="checkbox"/> METALS - SOIL (SALM) <input type="checkbox"/> inc. pH	<input type="checkbox"/> pH <input type="checkbox"/> EC <input type="checkbox"/> ALK	<input type="checkbox"/> TSS <input type="checkbox"/> TDS	<input type="checkbox"/> BOD <input type="checkbox"/> COD	<input type="checkbox"/> FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>	<input checked="" type="checkbox"/> TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli	<input type="checkbox"/> PESTICIDES <input type="checkbox"/> HERBICIDES	<input type="checkbox"/> SOIL VAPOR	<input type="checkbox"/> ASBESTOS	<input type="checkbox"/> TEMPERATURE	<input type="checkbox"/> MANGANESE	<input type="checkbox"/> HOLD
--	--	---	---	------------------------------	--	---	---	--	--	---	---	--	---	---	-------------------------------------	-----------------------------------	--------------------------------------	------------------------------------	-------------------------------

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BCCSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

OTHER INSTRUCTIONS:
 Return bottle order Do not upload to WaterTrax

PAYMENT:
 CHEQUE CREDIT DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Wells
PROJECT INFO

WORK ORDER 25J3036

RECEIVED / TEMP 2025-10-22 14:30 / 11.0°C
REPORTED 2025-10-28 17:57
COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25J3036 2025-10-28 17:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94D1 Well 3 Rolph at Roddis (25J3036-01) Matrix: Drinking Water Sampled: 2025-10-21 11:20						
<i>Field Parameters</i>						
Temperature, field	11.3	AO ≤ 15		°C	2025-10-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
<i>Total Metals</i>						
Manganese, total	0.551	MAC = 0.12		0.00020 mg/L	2025-10-24	
94DC Well 6 Rolph at Robertson (25J3036-02) Matrix: Drinking Water Sampled: 2025-10-21 10:40						
<i>Field Parameters</i>						
Temperature, field	10.7	AO ≤ 15		°C	2025-10-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
<i>Total Metals</i>						
Manganese, total	0.216	MAC = 0.12		0.00020 mg/L	2025-10-26	
94E0 Well 7 N. Fraser Drive (25J3036-03) Matrix: Drinking Water Sampled: 2025-10-21 09:55						
<i>Field Parameters</i>						
Temperature, field	9.1	AO ≤ 15		°C	2025-10-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
<i>Total Metals</i>						
Manganese, total	0.0149	MAC = 0.12		0.00020 mg/L	2025-10-26	
94E1 Well 8 Hilborn Road (25J3036-04) Matrix: Drinking Water Sampled: 2025-10-21 13:30						
<i>Field Parameters</i>						
Temperature, field	9.4	AO ≤ 15		°C	2025-10-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
<i>Total Metals</i>						
Manganese, total	0.221	MAC = 0.12		0.00020 mg/L	2025-10-26	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Wells

WORK ORDER REPORTED 25J3036
2025-10-28 17:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94DF Well 9 Carson Sub (25J3036-05) Matrix: Drinking Water Sampled: 2025-10-21 11:50						
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-10-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
<i>Total Metals</i>						
Manganese, total	0.148	MAC = 0.12		0.00020 mg/L	2025-10-26	
28000 Well 10 Hilborn Road (25J3036-06) Matrix: Drinking Water Sampled: 2025-10-21 14:10						
<i>Field Parameters</i>						
Temperature, field	9.4	AO ≤ 15		°C	2025-10-21	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-22	
<i>Total Metals</i>						
Manganese, total	0.584	MAC = 0.12		0.00020 mg/L	2025-10-26	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25J3036 2025-10-28 17:57

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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REPORT TO:
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5107
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearie@quesnel.ca
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INVOICE TO: SAME AS REPORT TO
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: 250-992-6330 992-5107
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 EMAIL 1: jlaw@quesnel.ca
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TURNAROUND Routine: (4-7 Days)
 Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:		SAMPLING:		COMMENTS: <small>(i.e. flow/volume media ID/notes)</small>
	DRINKING WATER	OTHER WATER	DATE	TIME	
94D1 Well 3 Rolph at Roddis	<input checked="" type="checkbox"/>		21-oct-25	11:20	3 21-oct-25 11:20 PRESERVED
94DC Well 6 Rolph at Robertson	<input checked="" type="checkbox"/>		21-oct-25	10:40	3 21-oct-25 10:40
94E0 Well 7 N. Fraser Drive	<input checked="" type="checkbox"/>		21-oct-25	09:55	3 21-oct-25 09:55
94E1 Well 8 Hilborn Road	<input checked="" type="checkbox"/>		21-oct-25	13:30	3 21-oct-25 13:30
94DF Well 9 Carson Sub	<input checked="" type="checkbox"/>		21-oct-25	11:50	3 21-oct-25 11:50
28000 Well 10 Hilborn Road	<input checked="" type="checkbox"/>		21-oct-25	14:10	3 21-oct-25 14:10

CHAIN OF CUSTODY RECORD COC# _____ PAGE | OF |

RELINQUISHED BY: D. Tennant
 RECEIVED BY: DATE: 21/10/25
 TIME: 14:30

RELINQUISHED BY: D. Tennant
 RECEIVED BY: DATE: _____
 TIME: _____

PROJECT INFO: MONTHLY WELLS PO #:
 SAMPLED BY: D. Tennant

SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order.

ANALYSES REQUESTED:

ANALYSES REQUESTED:	DATE	TIME	DATE	TIME
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>				
EPH (not PAH Corrected) <input type="checkbox"/> VPH <input type="checkbox"/>				
L/HEPH (PAH corrected) <input type="checkbox"/>				
PAH <input type="checkbox"/>				
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>				
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>				
METALS - WATER TOTAL <input type="checkbox"/>				
METALS - WATER DISSOLVED <input type="checkbox"/>				
METALS - SOIL (SALM) <input type="checkbox"/> Inc. PH <input type="checkbox"/>				
PH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>				
TSS <input type="checkbox"/> TDS <input type="checkbox"/>				
BOD <input type="checkbox"/> COD <input type="checkbox"/>				
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>				
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>				
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>				
SOIL VAPOUR <input type="checkbox"/>				
ASBESTOS <input type="checkbox"/>				
TEMPERATURE <input type="checkbox"/>				
MANGANESE <input type="checkbox"/>				

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1

OTHER INSTRUCTIONS:
 Return bottle order

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

PAYMENT:
 CHECK CREDIT DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT? Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Monthly Wells

PROJECT INFO

WORK ORDER 25K3046

RECEIVED / TEMP 2025-11-26 12:43 / 7.4°C

REPORTED 2025-12-01 15:44

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Wells

WORK ORDER REPORTED 25K3046
2025-12-01 15:44

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94D1 Well 3 Rolph at Roddis (25K3046-01) Matrix: Drinking Water Sampled: 2025-11-25 13:05						
<i>Field Parameters</i>						
Temperature, field	8.0	AO ≤ 15		°C	2025-11-25	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
<i>Total Metals</i>						
Manganese, total	0.574	MAC = 0.12		0.00020 mg/L	2025-11-27	
94DC Well 6 Rolph at Robertson (25K3046-02) Matrix: Drinking Water Sampled: 2025-11-25 11:40						
<i>Field Parameters</i>						
Temperature, field	10.0	AO ≤ 15		°C	2025-11-25	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
<i>Total Metals</i>						
Manganese, total	0.224	MAC = 0.12		0.00020 mg/L	2025-11-28	
94E0 Well 7 N. Fraser Drive (25K3046-03) Matrix: Drinking Water Sampled: 2025-11-25 09:30						
<i>Field Parameters</i>						
Temperature, field	8.0	AO ≤ 15		°C	2025-11-25	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
<i>Total Metals</i>						
Manganese, total	0.0148	MAC = 0.12		0.00020 mg/L	2025-11-27	
94E1 Well 8 Hilborn Road (25K3046-04) Matrix: Drinking Water Sampled: 2025-11-25 11:20						
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-11-25	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
<i>Total Metals</i>						
Manganese, total	0.240	MAC = 0.12		0.00020 mg/L	2025-11-28	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25K3046 2025-12-01 15:44

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94DF Well 9 Carson Sub (25K3046-05) Matrix: Drinking Water Sampled: 2025-11-25 10:00						
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-11-25	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
<i>Total Metals</i>						
Manganese, total	0.147	MAC = 0.12		0.00020 mg/L	2025-11-27	
28000 Well 10 Hilborn Road (25K3046-06) Matrix: Drinking Water Sampled: 2025-11-25 10:50						
<i>Field Parameters</i>						
Temperature, field	8.0	AO ≤ 15		°C	2025-11-25	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-26	
<i>Total Metals</i>						
Manganese, total	0.567	MAC = 0.12		0.00020 mg/L	2025-11-28	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Monthly Wells

WORK ORDER 25K3046
REPORTED 2025-12-01 15:44

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



ANALYTICAL SERVICES

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102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC #

PAGE / OF

CARCO BC COC, Rev 08/12

REPORT TO:

COMPANY: City of Quesnel
ADDRESS: 410 Kinchant St
Quesnel, BC V2J 7J5

INVOICE TO:

COMPANY:
ADDRESS:

SAME AS REPORT TO

CONTACT: Joe Law

CONTACT: Accounts Payable - Joe Law

TEL/FAX: 250 992-6330 250 992-5107

TEL/FAX:

EMAIL PDF EDD
EMAIL 1: jlaw@quesnel.ca

EMAIL PDF
EMAIL 1: jlaw@quesnel.ca

EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca

EMAIL 2:

MAIL HARDCOPY HOLD FOR P/U FAX

MAIL HARDCOPY HOLD FOR P/U

TURNAROUND ROUTINE: (4-7 Days)
TIME REQUESTED: Rush: 1 Day 2 Day 3 Day *Contract Lab To Confirm. Surcharge May Apply

Table with columns: CLIENT SAMPLE ID, DRINKING WATER, OTHER WATER, SOIL, OTHER, # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS.

Table with columns: BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS - WATER TOTAL, METALS - WATER DISSOLVED, METALS - SOIL (SALM), pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, TOTAL COLIFORMS, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TEMPERATURE, MANGANESE, HOLD.

CHAIN OF CUSTODY RECORD form fields including RELINQUISHED BY, PROJECT, MONTHLY WELLS, SAMPLED BY, SHIPPING INSTRUCTIONS, ANALYSES REQUESTED, RECEIVED BY, DATE, TIME, RECEIVED BY, DATE, TIME, PROJECT INFO, PO #, RETURN COOLER(S).

APPLICABLE REGULATORY LIMITS:
Canadian Drinking Water Quality Guidelines
BC Drinking Water Protection Act / Reg.
CCME ALBERTA TIER 1

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
60 Days 90 Days Longer Date (Surcharges will Apply)
OTHER INSTRUCTIONS: Return bottle order

PAYMENT: CHEQUE CREDIT DEBIT CASH INVOICE
SAMPLE RECEIPT TEMP (°C):
Work Order #
CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Monthly Wells

PROJECT INFO

WORK ORDER 25L3110

RECEIVED / TEMP 2025-12-30 13:06 / 2.9°C

REPORTED 2026-01-02 10:31

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

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By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Wells

WORK ORDER REPORTED 25L3110 2026-01-02 10:31

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E0 Well 7 N. Fraser Drive (25L3110-01) Matrix: Drinking Water Sampled: 2025-12-29 11:00						
<i>Field Parameters</i>						
Temperature, field	9.8	AO ≤ 15		°C	2025-12-29	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-30	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-30	
<i>Total Metals</i>						
Manganese, total	0.0146	MAC = 0.12	0.00020	mg/L	2026-01-02	
94E1 Well 8 Hilborn Road (25L3110-02) Matrix: Drinking Water Sampled: 2025-12-29 13:30						
<i>Field Parameters</i>						
Temperature, field	8.9	AO ≤ 15		°C	2025-12-29	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-30	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-30	
<i>Total Metals</i>						
Manganese, total	0.239	MAC = 0.12	0.00020	mg/L	2026-01-02	
94DF Well 9 Carson Sub (25L3110-03) Matrix: Drinking Water Sampled: 2025-12-29 11:30						
<i>Field Parameters</i>						
Temperature, field	9.1	AO ≤ 15		°C	2025-12-29	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-30	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-30	
<i>Total Metals</i>						
Manganese, total	0.147	MAC = 0.12	0.00020	mg/L	2026-01-02	
28000 Well 10 Hilborn Road (25L3110-04) Matrix: Drinking Water Sampled: 2025-12-29 14:20						
<i>Field Parameters</i>						
Temperature, field	8.7	AO ≤ 15		°C	2025-12-29	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-30	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-30	
<i>Total Metals</i>						
Manganese, total	0.535	MAC = 0.12	0.00020	mg/L	2026-01-02	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Monthly Wells

WORK ORDER 25L3110
REPORTED 2026-01-02 10:31

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
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AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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CHAIN OF CUSTODY RECORD

COC #

PAGE / OF /

CARCO BC COC, Rev 08/12

REPORT TO: COMPANY: City of Quesnel ADDRESS: 410 Kinchant St Quesnel, BC V2J 7J5

INVOICE TO: COMPANY: ADDRESS: CONTACT: Accounts Payable - Joe Law TEL/FAX: 250 992-6330 250 992-5107

CONTACT: Joe Law TEL/FAX: 250 992-6330 250 992-5107

EMAIL PDF: EDD [] [x] EMAIL 1: jlaw@quesnel.ca EMAIL 2: vbost@quesnel.ca kearlie@quesnel.ca

MAIL HARDCOPY: [] [x] HOLD FOR P/U [] [x] FAX [] [x] MAIL HARDCOPY [] [x] HOLD FOR P/U [] [x]

TURNAROUND ROUTINE: (4-7 Days) [x] [] 1 Day* [] 2 Day* [] 3 Day* [] *Contact Lab To Confirm. Surcharge May Apply

Table with columns: MATRIX (DRINKING WATER, OTHER WATER, SOIL, OTHER), # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS.

Main data table with columns: CLIENT SAMPLE ID, DATE, TIME, FILTERED, PRESERVED, COMMENTS. Includes handwritten entries for 'No Sample' and 'DO Sample'.

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines [x] BC Drinking Water Protection Act / Reg. [x] CCME [] ALBERTA TIER 1 []

RELINQUISHED BY: Shaun M. DATE: RECEIVED BY: DATE: PROJECT: MONTHLY WELLS PROJECT INFO: PO #:

SAMPLED BY: Shaun M. SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section) [x] Return Cooler(s) [x] Return bottle order.

Table with columns: ANALYSES REQUESTED (BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS, pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, TOTAL COLIFORMS, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TEMPERATURE, MANGANESE, HOLD).

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified): 60 Days [] 90 Days [] Longer Date (Surcharges will Apply): OTHER INSTRUCTIONS: Return bottle order. PAYMENT: CHECK [] CREDIT [] DEBIT [] CASH [] INVOICE [x] SAMPLE RECEIPT TEMP (°C): Work Order # CUSTODY SEAL INTACT [] [x] [] [] [] []

Vcjl



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Reservoirs
PROJECT INFO

WORK ORDER 25A0586

RECEIVED / TEMP 2025-01-08 12:30 / 4.5°C
REPORTED 2025-01-15 14:57
COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25A0586 2025-01-15 14:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (25A0586-01) Matrix: Water Sampled: 2025-01-07 09:30						
<i>Field Parameters</i>						
Temperature, field	6.3	AO ≤ 15		°C	2025-01-07	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
<i>Total Metals</i>						
Manganese, total	0.167	MAC = 0.12		0.00020 mg/L	2025-01-09	
WT# 94F9 R-2 Pinecrest (25A0586-02) Matrix: Water Sampled: 2025-01-07 10:00						
<i>Field Parameters</i>						
Temperature, field	7.2	AO ≤ 15		°C	2025-01-07	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
<i>Total Metals</i>						
Manganese, total	0.448	MAC = 0.12		0.00020 mg/L	2025-01-09	
WT# 94FA R-3 Sugar Loaf (25A0586-03) Matrix: Water Sampled: 2025-01-07 11:30						
<i>Field Parameters</i>						
Temperature, field	7.1	AO ≤ 15		°C	2025-01-07	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
<i>Total Metals</i>						
Manganese, total	0.00580	MAC = 0.12		0.00020 mg/L	2025-01-09	
WT# 94EB R-4 Abbott Dr 1 (25A0586-04) Matrix: Water Sampled: 2025-01-07 10:30						
<i>Field Parameters</i>						
Temperature, field	6.6	AO ≤ 15		°C	2025-01-07	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
<i>Total Metals</i>						
Manganese, total	0.0513	MAC = 0.12		0.00020 mg/L	2025-01-09	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25A0586
2025-01-15 14:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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WT# 94EC R-4 Abbott Dr 2 (25A0586-05) | Matrix: Water | Sampled: 2025-01-07 10:45

Field Parameters

Temperature, field	6.8	AO ≤ 15		°C	2025-01-07	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	

Total Metals

Manganese, total	0.100	MAC = 0.12	0.00020	mg/L	2025-01-09	
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WT# 94FC R-5 Dragon Hill (25A0586-06) | Matrix: Water | Sampled: 2025-01-07 13:20

Field Parameters

Temperature, field	7.1	AO ≤ 15		°C	2025-01-07	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	

Total Metals

Manganese, total	0.0436	MAC = 0.12	0.00020	mg/L	2025-01-09	
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WT# 94FF R-6 New Tatchell Reserv (25A0586-07) | Matrix: Water | Sampled: 2025-01-07 14:00

Field Parameters

Temperature, field	6.9	AO ≤ 15		°C	2025-01-07	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-01-08	

Total Metals

Manganese, total	0.00269	MAC = 0.12	0.00020	mg/L	2025-01-09	
------------------	---------	------------	---------	------	------------	--



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25A0586
2025-01-15 14:57

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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



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 Tel: (250) 765-9646 Fax: (250) 765-3893
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CHAIN OF CUSTODY RECORD

COC# [] PAGE 1 OF 1

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: []
 ADDRESS: []
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: []

EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca
 MAIL HARDCOPY HOLD FOR P/U FAX
 TURNAROUND Routine: (4-7 Days) Other*
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:			DATE	TIME	FILTERED	PRESERVED	COMMENTS:
	DRINKING WATER	OTHER WATER	SOIL					
94EA R-1 Shadow Heights	<input checked="" type="checkbox"/>			07-01-25	9:30			
94F9 R-2 Pinecrest	<input checked="" type="checkbox"/>			07-01-25	10:00			
94FA R-3 Sugarloaf	<input checked="" type="checkbox"/>			07-01-25	11:30			
94EB R-4 Abbott Dr #1	<input checked="" type="checkbox"/>			07-01-25	10:30			
94EC R-4 Abbott Dr #2	<input checked="" type="checkbox"/>			07-01-25	10:45			
94FC R-5 Dragon Hill	<input checked="" type="checkbox"/>			07-01-25	13:20			
94FF R-6 New Tatchell Reserv	<input checked="" type="checkbox"/>			07-01-25	12:00			

MATRIX:	SAMPLING:	COMMENTS:	ANALYSES REQUESTED:	RESERVED:	TEMPERATURE	DATE:
			BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>		63	
			EPH (not PAH Corrected)		72	
			VOC <input type="checkbox"/> VPH <input type="checkbox"/>		71	
			L/HEPH (PAH corrected)		68	
			PAH		66	
			PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>		71	
			PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>		69	
			METALS - WATER TOTAL			
			METALS - WATER DISSOLVED			
			METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>			
			pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>			
			TSS <input type="checkbox"/> TDS <input type="checkbox"/>			
			BOD <input type="checkbox"/> COD <input type="checkbox"/>			
			FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>			
			TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>			
			PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>			
			SOIL VAPOUR			
			ASBESTOS			
			TEMPERATURE			
			MANGANESE			
			HOLD			

RELINQUISHED BY: Shaun M.
 RECEIVED BY: []
 DATE: 07-01-25
 TIME: 5:30
 PROJECT INFO: []
 SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section)
 Return Cooler(s)
 Return bottle order

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: []

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): []

OTHER INSTRUCTIONS:
 Return bottle order

PAYMENT:
 CHECK DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): Work Order # [] CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Monthly Reservoirs

PROJECT INFO

WORK ORDER 25B1188

RECEIVED / TEMP REPORTED 2025-02-12 12:30 / - 0.1°C
2025-02-14 15:30

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25B1188 2025-02-14 15:30

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (25B1188-01) Matrix: Water Sampled: 2025-02-11 09:30						
<i>Field Parameters</i>						
Temperature, field	4.7	AO ≤ 15		°C	2025-02-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
<i>Total Metals</i>						
Manganese, total	0.172	MAC = 0.12		0.00020 mg/L	2025-02-13	
WT# 94F9 R-2 Pinecrest (25B1188-02) Matrix: Water Sampled: 2025-02-11 10:00						
<i>Field Parameters</i>						
Temperature, field	7.8	AO ≤ 15		°C	2025-02-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
<i>Total Metals</i>						
Manganese, total	0.467	MAC = 0.12		0.00020 mg/L	2025-02-14	
WT# 94FA R-3 Sugarloaf (25B1188-03) Matrix: Water Sampled: 2025-02-11 11:45						
<i>Field Parameters</i>						
Temperature, field	5.7	AO ≤ 15		°C	2025-02-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
<i>Total Metals</i>						
Manganese, total	0.00530	MAC = 0.12		0.00020 mg/L	2025-02-14	
WT# 94EB R-4 Abbott Dr #1 (25B1188-04) Matrix: Water Sampled: 2025-02-11 10:35						
<i>Field Parameters</i>						
Temperature, field	4.9	AO ≤ 15		°C	2025-02-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
<i>Total Metals</i>						
Manganese, total	0.00308	MAC = 0.12		0.00020 mg/L	2025-02-14	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25B1188 2025-02-14 15:30

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25B1188-05) Matrix: Water Sampled: 2025-02-11 10:45						
<i>Field Parameters</i>						
Temperature, field	5.1	AO ≤ 15		°C	2025-02-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
<i>Total Metals</i>						
Manganese, total	0.00258	MAC = 0.12	0.00020	mg/L	2025-02-14	
WT# 94FC R-5 Dragon Hill (25B1188-06) Matrix: Water Sampled: 2025-02-11 14:25						
<i>Field Parameters</i>						
Temperature, field	6.4	AO ≤ 15		°C	2025-02-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
<i>Total Metals</i>						
Manganese, total	0.0262	MAC = 0.12	0.00020	mg/L	2025-02-13	
WT# 94FF R-6 New Tatchell Reserv (25B1188-07) Matrix: Water Sampled: 2025-02-11 13:20						
<i>Field Parameters</i>						
Temperature, field	6.1	AO ≤ 15		°C	2025-02-11	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-02-12	
<i>Total Metals</i>						
Manganese, total	0.00204	MAC = 0.12	0.00020	mg/L	2025-02-14	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25B1188
2025-02-14 15:30

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____

EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
 MAIL HARDCOPY HOLD FOR P/U FAX
 MAIL HARDCOPY HOLD FOR P/U

TURNAROUND Routine: (4-7 Days) Other*
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:			SAMPLING:		COMMENTS:
	DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	
94EA R-1 Shadow Heights	<input checked="" type="checkbox"/>				2	11-02-25 09:50
94F9 R-2 Pinecrest	<input checked="" type="checkbox"/>				2	11-02-25 10-
94FA R-3 Sugarloaf	<input checked="" type="checkbox"/>				2	11-02-25 11:45
94EB R-4 Abbott Dr #1	<input checked="" type="checkbox"/>				2	11-02-25 10:35
94EC R-4 Abbott Dr #2	<input checked="" type="checkbox"/>				2	11-02-25 10:45
94FC R-5 Dragon Hill	<input checked="" type="checkbox"/>				2	11-02-25 2:25
94FF R-6 New Tatchell Reserv	<input checked="" type="checkbox"/>				2	11-02-25 1:20

RELINQUISHED BY: *Shawn M. Doren*
 DATE: 11-02-25
 TIME: 3:30
 RECEIVED BY: _____
 DATE: _____
 TIME: _____

PROJECT: _____
 RESERVOIRS: _____
 SAMPLED BY: *Shawn M.*
 SHIPPING INSTRUCTIONS: _____
 Ship Supplies (please specify below or in Other Instructions Section)
 Return Cooler(s)
 Return bottle order

ANALYSES REQUESTED:

BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	METALS - WATER TOTAL	TEMPERATURE	
EPH (not PAH Corrected)	PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	METALS - WATER DISSOLVED	ASBESTOS	
VOC <input type="checkbox"/> VPH <input type="checkbox"/>	METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>	METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>	MANGANESE	
L/HEPH (PAH corrected)	pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>		
PAH	TSS <input type="checkbox"/> TDS <input type="checkbox"/>	TSS <input type="checkbox"/> TDS <input type="checkbox"/>		
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	BOD <input type="checkbox"/> COD <input type="checkbox"/>	BOD <input type="checkbox"/> COD <input type="checkbox"/>		
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>	FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>		
METALS - WATER TOTAL	TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>		
METALS - WATER DISSOLVED	PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>		
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>	SOIL VAPOUR	SOIL VAPOUR		
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	ASBESTOS	ASBESTOS		
TSS <input type="checkbox"/> TDS <input type="checkbox"/>				
BOD <input type="checkbox"/> COD <input type="checkbox"/>				
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>				
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>				
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>				
SOIL VAPOUR				
ASBESTOS				
TEMPERATURE				
MANGANESE				

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

OTHER INSTRUCTIONS:
 Return bottle order

PAYMENT:
 CHECK
 CREDIT
 CASH
 INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Monthly Reservoirs

PROJECT INFO

WORK ORDER 25C0504

RECEIVED / TEMP REPORTED 2025-03-05 12:45 / 6.8°C
2025-03-11 12:33

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25C0504
2025-03-11 12:33

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (25C0504-01) Matrix: Water Sampled: 2025-03-04 09:20						
<i>Field Parameters</i>						
Temperature, field	9.4	AO ≤ 15		°C	2025-03-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
<i>Total Metals</i>						
Manganese, total	0.0692	MAC = 0.12		0.00020 mg/L	2025-03-07	
WT# 94F9 R-2 Pinecrest (25C0504-02) Matrix: Water Sampled: 2025-03-04 09:40						
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-03-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
<i>Total Metals</i>						
Manganese, total	0.399	MAC = 0.12		0.00020 mg/L	2025-03-07	
WT# 94FA R-3 Sugarloaf (25C0504-03) Matrix: Water Sampled: 2025-03-04 10:35						
<i>Field Parameters</i>						
Temperature, field	8.8	AO ≤ 15		°C	2025-03-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
<i>Total Metals</i>						
Manganese, total	0.00387	MAC = 0.12		0.00020 mg/L	2025-03-07	
WT# 94EB R-4 Abbott Dr #1 (25C0504-04) Matrix: Water Sampled: 2025-03-04 13:05						
<i>Field Parameters</i>						
Temperature, field	6.6	AO ≤ 15		°C	2025-03-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
<i>Total Metals</i>						
Manganese, total	0.00293	MAC = 0.12		0.00020 mg/L	2025-03-07	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25C0504
2025-03-11 12:33

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25C0504-05) Matrix: Water Sampled: 2025-03-04 12:55						
<i>Field Parameters</i>						
Temperature, field	6.4	AO ≤ 15		°C	2025-03-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
<i>Total Metals</i>						
Manganese, total	0.00344	MAC = 0.12		0.00020 mg/L	2025-03-07	
WT# 94FC R-5 Dragon Hill (25C0504-06) Matrix: Water Sampled: 2025-03-04 11:40						
<i>Field Parameters</i>						
Temperature, field	7.4	AO ≤ 15		°C	2025-03-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
<i>Total Metals</i>						
Manganese, total	0.0304	MAC = 0.12		0.00020 mg/L	2025-03-07	
WT# 94FF R-6 New Tatchell Reserv (25C0504-07) Matrix: Water Sampled: 2025-03-04 11:10						
<i>Field Parameters</i>						
Temperature, field	5.5	AO ≤ 15		°C	2025-03-04	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-03-05	
<i>Total Metals</i>						
Manganese, total	0.00114	MAC = 0.12		0.00020 mg/L	2025-03-07	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25C0504
2025-03-11 12:33

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CARCO
 ANALYTICAL SERVICES

RELINQUISHED BY: Cole Frank
DATE: 04-Mar-25
TIME: 1400
RECEIVED BY:
DATE:
TIME:

PROJECT: RESERVOIRS
PO #:

SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order

REPORT TO: SAME AS REPORT TO

COMPANY: City of Quesnel
ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5
CONTACT: Joe Law
TEL/FAX: 250 992-6330 250 992-5392
EMAIL PDF: EDO
EMAIL 1: jlaw@quesnel.ca
EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
MAIL HARD COPY: HOLD FOR P/U FAX

TURNAROUND: Routine: (4-7 Days)
 Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

ANALYSES REQUESTED:

ANALYSES REQUESTED	RESULTS
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	
EPH (not PAH Corrected) <input type="checkbox"/>	
VOC <input type="checkbox"/> VPH <input type="checkbox"/>	
L/HEPH (PAH corrected) <input type="checkbox"/>	
PAH <input type="checkbox"/>	
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	
METALS - WATER TOTAL <input type="checkbox"/>	
METALS - WATER DISSOLVED <input type="checkbox"/>	
METALS - SOIL (SALM) <input type="checkbox"/> Inc. PH <input type="checkbox"/>	
PH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	
TSS <input type="checkbox"/> TDS <input type="checkbox"/>	
BOD <input type="checkbox"/> COD <input type="checkbox"/>	
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>	
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	
SOIL VAPOUR <input type="checkbox"/>	
ASBESTOS <input type="checkbox"/>	
TEMPERATURE <input type="checkbox"/>	9.4 ✓
MANGANESE <input type="checkbox"/>	9 ✓
	8.8 ✓
	6.6 ✓
	6.4 ✓
	7.4 ✓
	5.5 ✓

CLIENT SAMPLE ID:	MATRIX:		SAMPLING:		COMMENTS:
	DRINKING WATER	OTHER WATER	DATE	TIME	
94EA R-1 Shadow Heights	<input checked="" type="checkbox"/>		04-Mar-25	920	
94F9 R-2 Pinecrest	<input checked="" type="checkbox"/>		04-Mar-25	940	
94FA R-3 Sugarloaf	<input checked="" type="checkbox"/>		04-Mar-25	1035	
94EB R-4 Abbott Dr #1	<input checked="" type="checkbox"/>		04-Mar-25	1305	
94EC R-4 Abbott Dr #2	<input checked="" type="checkbox"/>		04-Mar-25	1255	
94FC R-5 Dragon Hill	<input checked="" type="checkbox"/>		04-Mar-25	1140	
94FF R-6 New Tatchell Reserv	<input checked="" type="checkbox"/>		04-Mar-25	1110	

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply):

OTHER INSTRUCTIONS:
 Return bottle order

PAYMENT:
 CHEQUE
 CREDIT
 DEBIT
 CASH
 INVOICE

SAMPLE RECEIPT TEMP (°C):

Work Order #

CUSTOMY SEAL INTACT Y N



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Monthly Reservoirs

PROJECT INFO

WORK ORDER 25D0505

RECEIVED / TEMP 2025-04-03 14:21 / 6.6°C

REPORTED 2025-04-10 11:33

COC NUMBER No Number

Introduction:

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Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25D0505 2025-04-10 11:33

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (25D0505-01) Matrix: Water Sampled: 2025-04-02 09:20						
<i>Field Parameters</i>						
Temperature, field	8.0	AO ≤ 15		°C	2025-04-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
<i>Total Metals</i>						
Manganese, total	0.0928	MAC = 0.12	0.00020	mg/L	2025-04-08	
WT# 94F9 R-2 Pinecrest (25D0505-02) Matrix: Water Sampled: 2025-04-02 09:50						
<i>Field Parameters</i>						
Temperature, field	8.9	AO ≤ 15		°C	2025-04-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
<i>Total Metals</i>						
Manganese, total	0.422	MAC = 0.12	0.00020	mg/L	2025-04-08	
WT# 94FA R-3 Sugarloaf (25D0505-03) Matrix: Water Sampled: 2025-04-02 13:35						
<i>Field Parameters</i>						
Temperature, field	9.1	AO ≤ 15		°C	2025-04-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
<i>Total Metals</i>						
Manganese, total	0.00580	MAC = 0.12	0.00020	mg/L	2025-04-08	
WT# 94EB R-4 Abbott Dr #1 (25D0505-04) Matrix: Water Sampled: 2025-04-02 13:10						
<i>Field Parameters</i>						
Temperature, field	6.9	AO ≤ 15		°C	2025-04-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
<i>Total Metals</i>						
Manganese, total	0.00658	MAC = 0.12	0.00020	mg/L	2025-04-08	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25D0505
2025-04-10 11:33

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25D0505-05) Matrix: Water Sampled: 2025-04-02 13:15						
<i>Field Parameters</i>						
Temperature, field	6.6	AO ≤ 15		°C	2025-04-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
<i>Total Metals</i>						
Manganese, total	0.00583	MAC = 0.12	0.00020	mg/L	2025-04-09	
WT# 94FC R-5 Dragon Hill (25D0505-06) Matrix: Water Sampled: 2025-04-02 10:45						
<i>Field Parameters</i>						
Temperature, field	7.3	AO ≤ 15		°C	2025-04-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
<i>Total Metals</i>						
Manganese, total	0.0720	MAC = 0.12	0.00020	mg/L	2025-04-08	
WT# 94FF R-6 New Tatchell Reserv (25D0505-07) Matrix: Water Sampled: 2025-04-02 11:25						
<i>Field Parameters</i>						
Temperature, field	5.7	AO ≤ 15		°C	2025-04-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-03	
<i>Total Metals</i>						
Manganese, total	0.00151	MAC = 0.12	0.00020	mg/L	2025-04-08	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25D0505
2025-04-10 11:33

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

CO#

DATE: 2-Apr-25 RECEIVED BY: B. Wilde

DATE: 15:00 RECEIVED BY: B. Wilde

REPORT TO:

COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5

CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca

MAIL HARDCOPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day*

INVOICE TO: SAME AS REPORT TO

COMPANY: _____
 ADDRESS: _____

CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____

EMAIL PDF
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: _____

MAIL HARDCOPY HOLD FOR P/U

Other*
 *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:	DATE	TIME	OTHER	COMMENTS:
94EA R-1 Shadow Heights	DRINKING WATER	2-4pr-25	9:20		
94F9 R-2 Pinecrest	OTHER WATER	2-4pr-25	9:50		
94FA R-3 Sugarloaf	SOIL	2-4pr-25	13:45		
94EB R-4 Abbott Dr #1	OTHER	2-4pr-25	13:10		
94EC R-4 Abbott Dr #2	# CONTAINERS	2-4pr-25	13:15		
94FC R-5 Dragon Hill	DATE	2-4pr-25	10:45		
94FF R-6 New Tatchell Reserv	TIME	2-4pr-25	11:25		

DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	2-4pr-25	9:20			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	2-4pr-25	9:50			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	2-4pr-25	13:45			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	2-4pr-25	13:10			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	2-4pr-25	13:15			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	2-4pr-25	10:45			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2	2-4pr-25	11:25			

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
B. Wilde	2-Apr-25	15:00	B. Wilde		

PROJECT:	RESERVOIRS	SAMPLED BY:	SHIPPING INSTRUCTIONS:
		B. Wilde	Ship Supplies (please specify below or in Other Instructions Section) <input type="checkbox"/> Return bottle order <input type="checkbox"/>

ANALYSES REQUESTED:	DATE:	TIME:
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>		
EPH (not PAH Corrected)		
VOC <input type="checkbox"/> VPH <input type="checkbox"/>		
L/HEPH (PAH corrected)		
PAH		
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>		
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>		
METALS - WATER TOTAL		
METALS - WATER DISSOLVED		
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>		
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>		
TSS <input type="checkbox"/> TDS <input type="checkbox"/>		
BOD <input type="checkbox"/> COD <input type="checkbox"/>		
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>		
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>		
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>		
SOIL VAPOUR		
ASBESTOS		
TEMPERATURE		
MANGANESE		
HOLD		

60 Days 90 Days Longer Date (Surcharges will Apply)

OTHER INSTRUCTIONS: Return bottle order

PAYMENT: CREDIT DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Monthly Reservoirs

PROJECT INFO

WORK ORDER 25D3961

RECEIVED / TEMP 2025-04-30 13:12 / 7.3°C

REPORTED 2025-05-06 12:14

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25D3961
2025-05-06 12:14

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (25D3961-01) Matrix: Water Sampled: 2025-04-29 13:30						
<i>Field Parameters</i>						
Temperature, field	9.2	AO ≤ 15		°C	2025-04-29	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
<i>Total Metals</i>						
Manganese, total	0.0935	MAC = 0.12		0.00020 mg/L	2025-05-01	
WT# 94F9 R-2 Pinecrest (25D3961-02) Matrix: Water Sampled: 2025-04-29 09:55						
<i>Field Parameters</i>						
Temperature, field	8.4	AO ≤ 15		°C	2025-04-29	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
<i>Total Metals</i>						
Manganese, total	0.439	MAC = 0.12		0.00020 mg/L	2025-05-01	
WT# 94FA R-3 Sugarloaf (25D3961-03) Matrix: Water Sampled: 2025-04-29 10:30						
<i>Field Parameters</i>						
Temperature, field	8.2	AO ≤ 15		°C	2025-04-29	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
<i>Total Metals</i>						
Manganese, total	0.00594	MAC = 0.12		0.00020 mg/L	2025-05-01	
WT# 94EB R-4 Abbott Dr #1 (25D3961-04) Matrix: Water Sampled: 2025-04-29 11:00						
<i>Field Parameters</i>						
Temperature, field	8.4	AO ≤ 15		°C	2025-04-29	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
<i>Total Metals</i>						
Manganese, total	0.0824	MAC = 0.12		0.00020 mg/L	2025-05-01	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25D3961
2025-05-06 12:14

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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WT# 94EC R-4 Abbott Dr #2 (25D3961-05) | Matrix: Water | Sampled: 2025-04-29 11:30

Field Parameters

Temperature, field	8.5	AO ≤ 15		°C	2025-04-29	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	

Total Metals

Manganese, total	1.64	MAC = 0.12	0.00020	mg/L	2025-05-01	
------------------	------	------------	---------	------	------------	--

WT# 94FC R-5 Dragon Hill (25D3961-06) | Matrix: Water | Sampled: 2025-04-29 14:00

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	

Total Metals

Manganese, total	0.0631	MAC = 0.12	0.00020	mg/L	2025-05-01	
------------------	--------	------------	---------	------	------------	--

WT# 94FF R-6 New Tatchell Reserv (25D3961-07) | Matrix: Water | Sampled: 2025-04-29 12:50

Field Parameters

Temperature, field	7.5	AO ≤ 15		°C	2025-04-29	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-04-30	

Total Metals

Manganese, total	0.00240	MAC = 0.12	0.00020	mg/L	2025-05-01	
------------------	---------	------------	---------	------	------------	--



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25D3961
2025-05-06 12:14

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COCH# [] PAGE 1 OF 1

REPORT TO: [] INVOICE TO: [] SAME AS REPORT TO []

COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5

CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

EMAIL PDF [] EDD []
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca keanle@quesnel.ca

MAIL HARDCOPY [] HOLD FOR P/U [] FAX []
 MAIL HARDCOPY [] HOLD FOR P/U []

TURNAROUND Routine: (4-7 Days) [] Other* []
 TIME REQUESTED: Rush: 1 Day* [] 2 Day* [] 3 Day* [] *Contact Lab To Confirm, Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:	# CONTAINERS	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
94EA R-1 Shadow Heights	DRINKING WATER	2	29-04-25	1:30 PM			
94F9 R-2 Pinecrest	OTHER WATER	2	29.04.25	9:55			
94FA R-3 Sugarloaf	SOIL	2	29.04.25	10:50			
94EB R-4 Abbott Dr #1	OTHER	2	29.04.25	11:00			
94EC R-4 Abbott Dr #2		2	29.04.25	11:30			
94FC R-5 Dragon Hill		2	29.04.25	1406			
94FF R-6 New Tatchell Reserv		2	29.04.25	1756			

DATE	TIME	RECEIVED BY:	DATE	TIME	RECEIVED BY:
29.04.25	1530	W. Frank			

RELINQUISHED BY: [Signature]
 DATE: 29.04.25
 TIME: 1530
 RECEIVED BY: [Signature]
 DATE: []
 TIME: []

PROJECT: RESERVOIRS
 SHIPPED BY: Sean Han
 SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section) []
 Return Cooler(s) []
 Return bottle order []

ANALYSES REQUESTED:

BTEX [] VPH [] MTBE []	EPH (not PAH Corrected)	VOC [] VPH []	L/HEPH (PAH corrected)	PAH	PHENOLS Chlorinated [] Non-Chlor. []	PCB [] GLYCOLS [] HAA []	METALS - WATER TOTAL	METALS - WATER DISSOLVED	METALS - SOIL (SALM) [] inc. pH []	pH [] EC [] ALK []	TSS [] TDS []	BOD [] COD []	FECAL COLIFORMS [] HPC []	TOTAL COLIFORMS [] E. coli []	PESTICIDES [] HERBICIDES []	SOIL VAPOUR	ASBESTOS	TEMPERATURE	MANGANESE	HOLD
---------------------------	-------------------------	-----------------	------------------------	-----	--	-----------------------------	----------------------	--------------------------	--------------------------------------	-----------------------	-----------------	-----------------	-----------------------------	---------------------------------	-------------------------------	-------------	----------	-------------	-----------	------

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines []
 BC Drinking Water Protection Act / Reg. []
 BC CSR [] AL [] RL [] CL [] IL [] AW []
 CCME [] ALBERTA TIER 1 []
 OTHER: []

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days [] 90 Days [] Longer Date (surcharges will apply): []
 OTHER INSTRUCTIONS: Return bottle order []

PAYMENT:
 CHECK [] CREDIT [] DEBIT [] CASH [] INVOICE []
 SAMPLE RECEIPT TEMP (°C): []
 Work Order # []
 CUSTODY SEAL INTACT [] Y [] N [] NA []

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Reservoirs
PROJECT INFO

WORK ORDER 25E3803

RECEIVED / TEMP 2025-05-28 13:21 / 12.1°C

REPORTED 2025-06-03 12:26

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25E3803 2025-06-03 12:26

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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WT# 94EA R-1 Shadow Heights (25E3803-01) | Matrix: Drinking Water | Sampled: 2025-05-27 09:45

Field Parameters

Temperature, field	9.4	AO ≤ 15		°C	2025-05-27	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	

Total Metals

Manganese, total	0.158	MAC = 0.12		0.00020 mg/L	2025-06-02	
------------------	-------	------------	--	--------------	------------	--

WT# 94F9 - R-2 Pinecrest (25E3803-02) | Matrix: Drinking Water | Sampled: 2025-05-27 10:30

Field Parameters

Temperature, field	9.2	AO ≤ 15		°C	2025-05-27	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	

Total Metals

Manganese, total	0.433	MAC = 0.12		0.00020 mg/L	2025-06-02	
------------------	-------	------------	--	--------------	------------	--

WT# 94FA R-3 SugarLoaf (25E3803-03) | Matrix: Drinking Water | Sampled: 2025-05-27 13:30

Field Parameters

Temperature, field	9.5	AO ≤ 15		°C	2025-05-27	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	

Total Metals

Manganese, total	0.00290	MAC = 0.12		0.00020 mg/L	2025-06-02	
------------------	---------	------------	--	--------------	------------	--

WT# 94EB R-4 Abbott Dr #1 (25E3803-04) | Matrix: Drinking Water | Sampled: 2025-05-27 11:20

Field Parameters

Temperature, field	9.1	AO ≤ 15		°C	2025-05-27	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	

Total Metals

Manganese, total	0.00150	MAC = 0.12		0.00020 mg/L	2025-06-02	
------------------	---------	------------	--	--------------	------------	--



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25E3803
2025-06-03 12:26

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25E3803-05) Matrix: Drinking Water Sampled: 2025-05-27 11:30						
<i>Field Parameters</i>						
Temperature, field	9.2	AO ≤ 15		°C	2025-05-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	
<i>Total Metals</i>						
Manganese, total	0.00109	MAC = 0.12	0.00020	mg/L	2025-06-02	
WT# 94FC R-5 Dragon Hill (25E3803-06) Matrix: Drinking Water Sampled: 2025-05-27 13:00						
<i>Field Parameters</i>						
Temperature, field	9.3	AO ≤ 15		°C	2025-05-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	
<i>Total Metals</i>						
Manganese, total	0.0300	MAC = 0.12	0.00020	mg/L	2025-06-02	
WT# 94FF R-6 New Tatchell Reserv (25E3803-07) Matrix: Drinking Water Sampled: 2025-05-27 14:30						
<i>Field Parameters</i>						
Temperature, field	9.4	AO ≤ 15		°C	2025-05-27	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-05-28	
<i>Total Metals</i>						
Manganese, total	0.00513	MAC = 0.12	0.00020	mg/L	2025-06-02	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25E3803
2025-06-03 12:26

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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



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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC#

PAGE 1 OF 1

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: SAME AS REPORT TO
 ADDRESS: CONTACT: Accounts Payable - Joe Law
 TEL/FAX: EMAIL PDF
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearlee@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply
 MATRIX: DRINKING WATER OTHER WATER SOIL OTHER
 # CONTAINERS DATE DD-MMM-YY TIME HH:MM FILTERED PRESERVED COMMENTS: (ie. flow/volume media ID/notes)

CLIENT SAMPLE ID:	MATRIX:	# CONTAINERS	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
94EA R-1 Shadow Heights	<input checked="" type="checkbox"/>	2	27-05-25	9:45			
94F9 R-2 Pinecrest	<input checked="" type="checkbox"/>	2	27-05-25	10:30			
94FA R-3 Sugarloaf	<input checked="" type="checkbox"/>	2	27-05-25	1:30			
94EB R-4 Abbott Dr #1	<input checked="" type="checkbox"/>	2	27-05-25	11:30			
94EC R-4 Abbott Dr #2	<input checked="" type="checkbox"/>	2	27-05-25	11:30			
94FC R-5 Dragon Hill	<input checked="" type="checkbox"/>	2	27-05-25	1:00			
94FF R-6 New Tatchell Reserv	<input checked="" type="checkbox"/>	2	27-05-25	2:30			

RELINQUISHED BY: Shaun M.
 DATE: 27-05-25
 TIME: 5:37
 RECEIVED BY: [Signature]
 DATE: []
 TIME: []

PROJECT: RESERVOIRS
 SAMPLED BY: Shaun M.
 SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order

ANALYSES REQUESTED:	DATE	TIME	DATE	TIME
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>				
EPH (not PAH Corrected)				
VOC <input type="checkbox"/> VPH <input type="checkbox"/>				
L/HEPH (PAH corrected)				
PAH				
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>				
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>				
METALS - WATER TOTAL				
METALS - WATER DISSOLVED				
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>				
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>				
TSS <input type="checkbox"/> TDS <input type="checkbox"/>				
BOD <input type="checkbox"/> COD <input type="checkbox"/>				
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>				
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>				
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>				
SOIL VAPOUR				
ASBESTOS				
TEMPERATURE				
MANGANESE				
HOLD				

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply):

OTHER INSTRUCTIONS:
 Return bottle order

PAYMENT:
 CHECK CREDIT
 DEBIT CASH
 INVOICE

SAMPLE RECEIPT TEMP (°C):
 Work Order # _____
 CUSTODY SEAL INTACT

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Reservoirs
PROJECT INFO

WORK ORDER 25F3594

RECEIVED / TEMP 2025-06-25 12:40 / 11.9°C

REPORTED 2025-07-02 10:35

COC NUMBER No Number

Introduction:

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Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

*Retested
Abbott #2*

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25F3594 2025-07-02 10:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (25F3594-01) Matrix: Drinking Water Sampled: 2025-06-24 09:45						F2, F3
<i>Field Parameters</i>						
Temperature, field	11.6	AO ≤ 15		°C	2025-06-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
<i>Total Metals</i>						
Manganese, total	0.0128	MAC = 0.12		0.00020 mg/L	2025-06-27	
WT# 94F9 R-2 Pinecrest (25F3594-02) Matrix: Water Sampled: 2025-06-24 10:30						F2, F3
<i>Field Parameters</i>						
Temperature, field	10.0	AO ≤ 15		°C	2025-06-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
<i>Total Metals</i>						
Manganese, total	0.328	MAC = 0.12		0.00020 mg/L	2025-06-27	
WT# 94FA R-3 Sugarloaf (25F3594-03) Matrix: Drinking Water Sampled: 2025-06-24 13:00						F2, F3
<i>Field Parameters</i>						
Temperature, field	10.7	AO ≤ 15		°C	2025-06-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
<i>Total Metals</i>						
Manganese, total	0.00295	MAC = 0.12		0.00020 mg/L	2025-06-27	
WT# 94EB R-4 Abbott Dr #1 (25F3594-04) Matrix: Drinking Water Sampled: 2025-06-24 11:00						F2, F3
<i>Field Parameters</i>						
Temperature, field	11.4	AO ≤ 15		°C	2025-06-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
<i>Total Metals</i>						
Manganese, total	0.00052	MAC = 0.12		0.00020 mg/L	2025-06-27	

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25F3594 2025-07-02 10:35

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25F3594-05) Matrix: Drinking Water Sampled: 2025-06-24 11:40						F2, F3
<i>Field Parameters</i>						
Temperature, field	11.2	AO ≤ 15		°C	2025-06-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	1	MAC = 0		1 CFU/100 mL	2025-06-25	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
<i>Total Metals</i>						
Manganese, total	0.355	MAC = 0.12	0.00020	mg/L	2025-06-27	
WT# 94FC R-5 Dragon Hill (25F3594-06) Matrix: Drinking Water Sampled: 2025-06-24 14:20						F2, F3
<i>Field Parameters</i>						
Temperature, field	10.8	AO ≤ 15		°C	2025-06-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
<i>Total Metals</i>						
Manganese, total	0.0389	MAC = 0.12	0.00020	mg/L	2025-06-27	
WT# 94FF R-6 New Tatchell Reserv (25F3594-07) Matrix: Drinking Water Sampled: 2025-06-24 13:45						F2, F3
<i>Field Parameters</i>						
Temperature, field	10.6	AO ≤ 15		°C	2025-06-24	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-06-25	
<i>Total Metals</i>						
Manganese, total	0.00282	MAC = 0.12	0.00020	mg/L	2025-06-28	

Sample Qualifiers:

- F2 The sample was not field-preserved with HNO₃ and was therefore preserved in the laboratory and held for at least 16 hours prior to analysis for total metals.
- F3 Results may be biased low due to sub-sampling from general container.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25F3594
2025-07-02 10:35

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.

Sent to be retested
Abbott #2



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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC #

PAGE 1 OF 1

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF: EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbost@quesnel.ca kearle@quesnel.ca
 MAIL HARDCOPY: HOLD FOR P/U FAX
 TURNAROUND: Routine: (4-7 Days) Other*
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

INVOICE TO: COMPANY: ADDRESS: CONTACT: Accounts Payable - Joe Law
 TEL/FAX: EMAIL PDF:
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: MAIL HARDCOPY: HOLD FOR P/U

RELINQUISHED BY: Shawn W
 RECEIVED BY: DATE: 24-06-25 TIME: 5:30
 RECEIVED BY: DATE: TIME:
 PROJECT INFO: PROJECT: RESERVOIRS: PO #:
 SHIPMENT INSTRUCTIONS: SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order

ANALYSES REQUESTED:
 BTEX VPH MTBE
 EPH (not PAH Corrected)
 VOC VPH
 L/HEPH (PAH corrected)
 PAH
 PHENOLS Chlorinated Non-Chlor.
 PCB GLYCOLS HAA
 METALS - WATER TOTAL
 METALS - WATER DISSOLVED
 METALS - SOIL (SALM) inc. pH
 pH EC ALK
 TSS TDS
 BOD COD
 FECAL COLIFORMS HPC
 TOTAL COLIFORMS E. coli
 PESTICIDES HERBICIDES
 SOIL VAPOUR
 ASBESTOS
 TEMPERATURE
 MANGANESE
 HOLD

CLIENT SAMPLE ID:	MATRIX:	# CONTAINERS	DATE DD-MMM-YY	TIME HH:MM	FILTERED	PRESERVED	COMMENTS:	ANALYSES REQUESTED:	
								BTEX	EPH (not PAH Corrected)
94EA R-1 Shadow Heights	DRINKING WATER	2	24-06-25	9:45				<input type="checkbox"/>	<input type="checkbox"/>
94F9 R-2 Pinecrest	OTHER WATER	2	24-06-25	10:50				<input type="checkbox"/>	<input type="checkbox"/>
94FA R-3 Sugarloaf	SOIL	2	24-06-25	1:00				<input type="checkbox"/>	<input type="checkbox"/>
94EB R-4 Abbott Dr #1	OTHER	2	24-06-25	11:00				<input type="checkbox"/>	<input type="checkbox"/>
94EC R-4 Abbott Dr #2		2	24-06-25	11:40				<input type="checkbox"/>	<input type="checkbox"/>
94FC R-5 Dragon Hill		2	24-06-25	7:30				<input type="checkbox"/>	<input type="checkbox"/>
94FF R-6 New Tatchell Reserv		2	24-06-25	14:5				<input type="checkbox"/>	<input type="checkbox"/>

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply):
 OTHER INSTRUCTIONS: Return bottle order

PAYMENT:
 CHECK CREDIT DEBIT CASH INVOICE
 SAMPLE RECEIPT TEMP (°C):
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Reservoirs
PROJECT INFO

WORK ORDER 25G0386

RECEIVED / TEMP 2025-07-03 13:23 / 15.3°C

REPORTED 2025-07-07 10:49

COC NUMBER No Number

Introduction:

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Big Picture Sidekicks



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Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Resample
results from WQ 25F3594
About #2

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25G0386
2025-07-07 10:49

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25G0386-01) Matrix: Drinking Water Sampled: 2025-07-02 13:00						
<i>Field Parameters</i>						
Temperature, field	11.4	AO ≤ 15		°C	2025-07-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-07-03	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-07-03	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Monthly Reservoirs

WORK ORDER 25G0386
REPORTED 2025-07-07 10:49

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Reservoirs
PROJECT INFO

WORK ORDER 25G3364

RECEIVED / TEMP 2025-07-23 13:32 / 14.9°C

REPORTED 2025-07-28 16:23

COC NUMBER No Number

Introduction:

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Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25G3364 2025-07-28 16:23

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (25G3364-01) Matrix: Drinking Water Sampled: 2025-07-22 09:45						F2, F3
<i>Field Parameters</i>						
Temperature, field	11.2	AO ≤ 15		°C	2025-07-22	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-07-23	HT3
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-07-23	HT3
<i>Total Metals</i>						
Manganese, total	0.102	MAC = 0.12		0.00020 mg/L	2025-07-25	
WT# 94F9 R-2 Pinecrest (25G3364-02) Matrix: Water Sampled: 2025-07-22 10:00						F2, F3
<i>Field Parameters</i>						
Temperature, field	9.2	AO ≤ 15		°C	2025-07-22	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-07-23	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-07-23	
<i>Total Metals</i>						
Manganese, total	0.427	MAC = 0.12		0.00020 mg/L	2025-07-25	
WT# 94FA R-3 Sugarloaf (25G3364-03) Matrix: Drinking Water Sampled: 2025-07-22 11:20						F2, F3
<i>Field Parameters</i>						
Temperature, field	11.2	AO ≤ 15		°C	2025-07-22	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-07-23	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-07-23	
<i>Total Metals</i>						
Manganese, total	0.00676	MAC = 0.12		0.00020 mg/L	2025-07-25	
WT# 94EB R-4 Abbott Dr #1 (25G3364-04) Matrix: Drinking Water Sampled: 2025-07-22 10:30						F2, F3
<i>Field Parameters</i>						
Temperature, field	13.0	AO ≤ 15		°C	2025-07-22	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-07-23	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-07-23	
<i>Total Metals</i>						
Manganese, total	0.00547	MAC = 0.12		0.00020 mg/L	2025-07-25	



TEST RESULTS

REPORTED TO PROJECT	Quesnel, City of Monthly Reservoirs	WORK ORDER REPORTED	25G3364 2025-07-28 16:23
----------------------------	--	----------------------------	-----------------------------

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25G3364-05) Matrix: Drinking Water Sampled: 2025-07-22 10:40					F2, F3
<i>Field Parameters</i>					
Temperature, field	13.2	AO ≤ 15	°C	2025-07-22	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-07-23	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-07-23	
<i>Total Metals</i>					
Manganese, total	0.00069	MAC = 0.12	0.00020 mg/L	2025-07-25	
WT# 94FC R-5 Dragon Hill (25G3364-06) Matrix: Drinking Water Sampled: 2025-07-22 14:10					F2, F3
<i>Field Parameters</i>					
Temperature, field	12.4	AO ≤ 15	°C	2025-07-22	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-07-23	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-07-23	
<i>Total Metals</i>					
Manganese, total	0.0306	MAC = 0.12	0.00020 mg/L	2025-07-25	
WT# 94FF R-6 New Tatchell Reserv (25G3364-07) Matrix: Drinking Water Sampled: 2025-07-22 13:00					F2, F3
<i>Field Parameters</i>					
Temperature, field	12.5	AO ≤ 15	°C	2025-07-22	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-07-23	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-07-23	
<i>Total Metals</i>					
Manganese, total	0.00551	MAC = 0.12	0.00020 mg/L	2025-07-25	

Sample Qualifiers:

- F2 The sample was not field-preserved with HNO3 and was therefore preserved in the laboratory and held for at least 16 hours prior to analysis for total metals.
- F3 Results may be biased low due to sub-sampling from general container.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25G3364
2025-07-28 16:23

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

CO# [] PAGE 1 OF 1

CARO BC COC, Rev 08/12

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: []
 ADDRESS: []
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: []

EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX
 TURNAROUND Routine: (4-7 Days) Other*
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm, Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:	DATE	TIME	FILTERED	PRESERVED	COMMENTS:
94EA R-1 Shadow Heights	DRINKING WATER	22.07.25	9:45			
94F9 R-2 Pinecrest	OTHER WATER	22.07.25	10:00			
94FA R-3 Sugarloaf	SOIL	22.07.25	11:30			
94EB R-4 Abbott Dr #1	OTHER	22.07.25	10:30			
94EC R-4 Abbott Dr #2	# CONTAINERS	22.07.25	10:40			
94FC R-5 Dragon Hill		22.07.25	12:10			
94FF R-6 New Tatchell Reserv		22.07.25	1:00			

RELINQUISHED BY: Shawn H
 RECEIVED BY: []
 DATE: 22-07-25
 TIME: 3:30
 PROJECT: RESERVOIRS
 SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section)
 Return Cooler(s)
 Return bottle order

ANALYSES REQUESTED:

BTEX <input type="checkbox"/>	VPH <input type="checkbox"/>	MTBE <input type="checkbox"/>
EPH (not PAH Corrected)		
VOC <input type="checkbox"/>	VPH <input type="checkbox"/>	
L/HEPH (PAH corrected)		
PAH		
PHENOLS Chlorinated <input type="checkbox"/>	Non-Chlor. <input type="checkbox"/>	
PCB <input type="checkbox"/>	GLYCOLS <input type="checkbox"/>	HAA <input type="checkbox"/>
METALS - WATER TOTAL		
METALS - WATER DISSOLVED		
METALS - SOIL (SALM) <input type="checkbox"/>	inc. pH <input type="checkbox"/>	
pH <input type="checkbox"/>	EC <input type="checkbox"/>	ALK <input type="checkbox"/>
TSS <input type="checkbox"/>	TDS <input type="checkbox"/>	
BOD <input type="checkbox"/>	COD <input type="checkbox"/>	
FECAL COLIFORMS <input type="checkbox"/>	HPC <input type="checkbox"/>	
TOTAL COLIFORMS <input checked="" type="checkbox"/>	E. coli <input checked="" type="checkbox"/>	
PESTICIDES <input type="checkbox"/>	HERBICIDES <input type="checkbox"/>	
SOIL VAPOUR		
ASBESTOS		
TEMPERATURE		
MANGANESE		
HOLD		

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (surcharges will apply): []
 OTHER INSTRUCTIONS: Return bottle order

PAYMENT: CHECK CREDIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): []
 Work Order # []
 CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Reservoirs
PROJECT INFO

WORK ORDER 25H2799

RECEIVED / TEMP 2025-08-20 13:40 / 11.8°C
REPORTED 2025-08-27 13:22

COC NUMBER No Number

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Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25H2799 2025-08-27 13:22

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (25H2799-01) Matrix: Water Sampled: 2025-08-19 13:50						
<i>Field Parameters</i>						
Temperature, field	13.1	AO ≤ 15		°C	2025-08-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
<i>Total Metals</i>						
Manganese, total	0.0827	MAC = 0.12		0.00020 mg/L	2025-08-23	
WT# 94F9 R-2 Pinecrest (25H2799-02) Matrix: Water Sampled: 2025-08-19 11:30						
<i>Field Parameters</i>						
Temperature, field	13.2	AO ≤ 15		°C	2025-08-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
<i>Total Metals</i>						
Manganese, total	0.375	MAC = 0.12		0.00020 mg/L	2025-08-23	
WT# 94FA R-3 Sugarloaf (25H2799-03) Matrix: Water Sampled: 2025-08-19 09:45						
<i>Field Parameters</i>						
Temperature, field	12.2	AO ≤ 15		°C	2025-08-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
<i>Total Metals</i>						
Manganese, total	0.00457	MAC = 0.12		0.00020 mg/L	2025-08-23	
WT# 94EB R-4 Abbott Dr #1 (25H2799-04) Matrix: Drinking Water Sampled: 2025-08-19 09:20						
<i>Field Parameters</i>						
Temperature, field	13.6	AO ≤ 15		°C	2025-08-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	HT3
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	HT3
<i>Total Metals</i>						
Manganese, total	0.00126	MAC = 0.12		0.00020 mg/L	2025-08-23	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25H2799 2025-08-27 13:22

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25H2799-05) Matrix: Drinking Water Sampled: 2025-08-19 09:25						
<i>Field Parameters</i>						
Temperature, field	12.7	AO ≤ 15		°C	2025-08-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	HT3
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	HT3
<i>Total Metals</i>						
Manganese, total	0.00259	MAC = 0.12	0.00020	mg/L	2025-08-25	

WT# 94FC R-5 Dragon Hill (25H2799-06) | Matrix: Water | Sampled: 2025-08-19 13:00

<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-08-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
<i>Total Metals</i>						
Manganese, total	0.0275	MAC = 0.12	0.00020	mg/L	2025-08-25	

WT# 94FF R-6 New Tatchell Reserv (25H2799-07) | Matrix: Drinking Water | Sampled: 2025-08-19 10:50

<i>Field Parameters</i>						
Temperature, field	12.0	AO ≤ 15		°C	2025-08-19	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-08-20	
<i>Total Metals</i>						
Manganese, total	0.00435	MAC = 0.12	0.00020	mg/L	2025-08-23	

Sample Qualifiers:

HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25H2799
2025-08-27 13:22

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

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<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
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CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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CHAIN OF CUSTODY RECORD

RELINQUISHED BY: Shawn M. RECEIVED BY: Shawn M.
 DATE: 19-08-24 TIME: 3:40
 PROJECT INFO: PO #:
 RESERVOIRS

RELINQUISHED BY: Shawn M. RECEIVED BY: Shawn M.
 DATE: 19-08-24 TIME: 3:40
 PROJECT INFO: PO #:
 RESERVOIRS

SHIPPING INSTRUCTIONS: Return Cooler(s) Return Coolers Section)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order

SHIPPING INSTRUCTIONS: Return Cooler(s) Return Coolers Section)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order

SAMPLED BY: Shawn M.
 ANALYSES REQUESTED:

SAMPLED BY: Shawn M.
 ANALYSES REQUESTED:

CLIENT SAMPLE ID:	DRINKING WATER	OTHER WATER	OTHER	# CONTAINERS	DATE	TIME	COMMENTS:	DRINKING WATER	OTHER WATER	OTHER	PH	TSS	BOD	FECAL COLIFORMS	TOTAL COLIFORMS	ASBESTOS	TEMPERATURE	MANGANESE	HOLD
94EA R-1 Shadow Heights	<input checked="" type="checkbox"/>			2	19-08-25	1:50		<input checked="" type="checkbox"/>			7.2	0.2	0.1	13.1	13.1		13.1		
94F9 R-2 Pinecrest	<input checked="" type="checkbox"/>			2	19-08-25	11:30		<input checked="" type="checkbox"/>			7.2	0.2	0.1	13.2	13.2		13.2		
94FA R-3 Sugarloaf	<input checked="" type="checkbox"/>			2	19-08-25	9:15		<input checked="" type="checkbox"/>			7.2	0.2	0.1	12.2	12.2		12.2		
94EB R-4 Abbott Dr #1	<input checked="" type="checkbox"/>			2	19-08-25	9:10		<input checked="" type="checkbox"/>			7.2	0.2	0.1	13.6	13.6		13.6		
94EC R-4 Abbott Dr #2	<input checked="" type="checkbox"/>			2	19-08-25	9:25		<input checked="" type="checkbox"/>			7.2	0.2	0.1	12.7	12.7		12.7		
94FC R-5 Dragon Hill	<input checked="" type="checkbox"/>			2	19-08-25	1:00		<input checked="" type="checkbox"/>			7.2	0.2	0.1	12.0	12.0		12.0		
94FF R-6 New Tatchell Reserv	<input checked="" type="checkbox"/>			2	19-08-25	10:50		<input checked="" type="checkbox"/>			7.2	0.2	0.1	12.1	12.1		12.1		

CLIENT SAMPLE ID:	DRINKING WATER	OTHER WATER	OTHER	# CONTAINERS	DATE	TIME	COMMENTS:	DRINKING WATER	OTHER WATER	OTHER	PH	TSS	BOD	FECAL COLIFORMS	TOTAL COLIFORMS	ASBESTOS	TEMPERATURE	MANGANESE	HOLD
94EA R-1 Shadow Heights	<input checked="" type="checkbox"/>			2	19-08-25	1:50		<input checked="" type="checkbox"/>			7.2	0.2	0.1	13.1	13.1		13.1		
94F9 R-2 Pinecrest	<input checked="" type="checkbox"/>			2	19-08-25	11:30		<input checked="" type="checkbox"/>			7.2	0.2	0.1	13.2	13.2		13.2		
94FA R-3 Sugarloaf	<input checked="" type="checkbox"/>			2	19-08-25	9:15		<input checked="" type="checkbox"/>			7.2	0.2	0.1	12.2	12.2		12.2		
94EB R-4 Abbott Dr #1	<input checked="" type="checkbox"/>			2	19-08-25	9:10		<input checked="" type="checkbox"/>			7.2	0.2	0.1	13.6	13.6		13.6		
94EC R-4 Abbott Dr #2	<input checked="" type="checkbox"/>			2	19-08-25	9:25		<input checked="" type="checkbox"/>			7.2	0.2	0.1	12.7	12.7		12.7		
94FC R-5 Dragon Hill	<input checked="" type="checkbox"/>			2	19-08-25	1:00		<input checked="" type="checkbox"/>			7.2	0.2	0.1	12.0	12.0		12.0		
94FF R-6 New Tatchell Reserv	<input checked="" type="checkbox"/>			2	19-08-25	10:50		<input checked="" type="checkbox"/>			7.2	0.2	0.1	12.1	12.1		12.1		

INVOICE TO: SAME AS REPORT TO
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: 250 992-6330 250 992-5392
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX

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 MAIL HARD COPY HOLD FOR P/U FAX

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1

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 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1

PAYMENT: CHEQUE CREDIT DEBIT CASH INVOICE
 SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

PAYMENT: CHEQUE CREDIT DEBIT CASH INVOICE
 SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Reservoirs
PROJECT INFO

WORK ORDER 2512212

RECEIVED / TEMP 2025-09-16 12:30 / 7.6°C
REPORTED 2025-09-23 11:51
COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

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<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 2512212 2025-09-23 11:51

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (2512212-01) Matrix: Water Sampled: 2025-09-15 09:25						
<i>Field Parameters</i>						
Temperature, field	10.1	AO ≤ 15		°C	2025-09-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-09-16	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-09-16	
<i>Total Metals</i>						
Manganese, total	0.117	MAC = 0.12	0.00020	mg/L	2025-09-20	
WT# 94F9 R-2 Pinecrest (2512212-02) Matrix: Water Sampled: 2025-09-15 10:00						
<i>Field Parameters</i>						
Temperature, field	10.4	AO ≤ 15		°C	2025-09-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-09-16	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-09-16	
<i>Total Metals</i>						
Manganese, total	0.516	MAC = 0.12	0.00020	mg/L	2025-09-19	
WT# 94FA R-3 Sugarloaf (2512212-03) Matrix: Water Sampled: 2025-09-15 11:30						
<i>Field Parameters</i>						
Temperature, field	10.7	AO ≤ 15		°C	2025-09-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-09-16	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-09-16	
<i>Total Metals</i>						
Manganese, total	0.00551	MAC = 0.12	0.00020	mg/L	2025-09-19	
WT# 94EB R-4 Abbott Dr #1 (2512212-04) Matrix: Drinking Water Sampled: 2025-09-15 10:45						
<i>Field Parameters</i>						
Temperature, field	10.4	AO ≤ 15		°C	2025-09-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-09-16	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-09-16	
<i>Total Metals</i>						
Manganese, total	0.00224	MAC = 0.12	0.00020	mg/L	2025-09-19	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25I2212
2025-09-23 11:51

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25I2212-05) Matrix: Drinking Water Sampled: 2025-09-15 10:55						
<i>Field Parameters</i>						
Temperature, field	10.6	AO ≤ 15		°C	2025-09-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-16	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-16	
<i>Total Metals</i>						
Manganese, total	0.00065	MAC = 0.12	0.00020	mg/L	2025-09-20	
WT# 94FC R-5 Dragon Hill (25I2212-06) Matrix: Water Sampled: 2025-09-15 13:15						
<i>Field Parameters</i>						
Temperature, field	10.5	AO ≤ 15		°C	2025-09-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-16	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-16	
<i>Total Metals</i>						
Manganese, total	0.0323	MAC = 0.12	0.00020	mg/L	2025-09-19	
WT# 94FF R-6 New Tatchell Reserv (25I2212-07) Matrix: Drinking Water Sampled: 2025-09-15 14:10						
<i>Field Parameters</i>						
Temperature, field	10.7	AO ≤ 15		°C	2025-09-15	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-16	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-16	
<i>Total Metals</i>						
Manganese, total	0.00488	MAC = 0.12	0.00020	mg/L	2025-09-19	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Monthly Reservoirs

WORK ORDER 25I2212
REPORTED 2025-09-23 11:51

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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 Tel: (604) 279-1499 Fax: (604) 279-1599
 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St.
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: []
 ADDRESS: []
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: []
 EMAIL PDF []
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: []
 MAIL HANDCOPY HOLD FOR P/U FAX

TURNAROUND ROUTINE: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply
 Other* []

CLIENT SAMPLE ID:	MATRIX:			DATE	TIME	FILTERED	PRESERVED	COMMENTS:
	DRINKING WATER	OTHER WATER	SOIL					
94EA R-1 Shadow Heights	<input checked="" type="checkbox"/>							
94F9 R-2 Pinecrest	<input checked="" type="checkbox"/>			15-09-25	10 -			
94FA R-3 Sugarloaf	<input checked="" type="checkbox"/>			15-09-25	11:30			
94EB R-4 Abbott Dr #1	<input checked="" type="checkbox"/>			15-09-25	10 45			
94EC R-4 Abbott Dr #2	<input checked="" type="checkbox"/>			15-09-25	10 55			
94FC R-5 Dragon Hill	<input checked="" type="checkbox"/>			15-09-25	1:15			
94FF R-6 New Tatchell Reserv	<input checked="" type="checkbox"/>			15-09-25	2:10			

RELINQUISHED BY:	DATE:	TIME:	RECEIVED BY:	DATE:	TIME:
Shawn K...	15-09-25	5:40			

PROJECT:	RESERVOIRS	PROJECT INFO:	PO #:

ANALYSES REQUESTED:	DATE:	TIME:
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>		
EPH (not PAH Corrected)		
VOC <input type="checkbox"/> VPH <input type="checkbox"/>		
L/HEPH (PAH corrected)		
PAH		
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>		
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>		
METALS - WATER TOTAL		
METALS - WATER DISSOLVED		
METALS - SOIL (SALM) <input type="checkbox"/> inc, pH <input type="checkbox"/>		
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>		
TSS <input type="checkbox"/> TDS <input type="checkbox"/>		
BOD <input type="checkbox"/> COD <input type="checkbox"/>		
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>		
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>		
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>		
SOIL VAPOUR		
ASBESTOS		
TEMPERATURE		
MANGANESE		
HOLD		

SHIPPING INSTRUCTIONS:	DATE:	TIME:
Return Coolers(s) <input checked="" type="checkbox"/>		
Ship Supplies (please specify below or in Other Instructions Section) <input type="checkbox"/>		
Return bottle order <input type="checkbox"/>		

PAYMENT:	SAMPLE RECEIPT TEMP (°C):
CHEQUE <input type="checkbox"/>	Work Order # []
CREDIT <input type="checkbox"/>	CUSTOMY SEAL INTACT Y <input type="checkbox"/> N <input type="checkbox"/> NA <input type="checkbox"/>
CASH <input type="checkbox"/>	
INVOICE <input checked="" type="checkbox"/>	

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL LL AW
 CCME ALBERTA TIER 1
 OTHER: []

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified): 60 Days 90 Days Longer Date (Surcharges will Apply): []

OTHER INSTRUCTIONS: Return bottle order



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Reservoirs
PROJECT INFO

WORK ORDER 25J2037

RECEIVED / TEMP 2025-10-15 13:45 / 5.2°C

REPORTED 2025-10-20 16:01

COC NUMBER No Number

Introduction:

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By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25J2037 2025-10-20 16:01

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
---------	--------	-----------	----	-------	----------	-----------

WT# 94EA R-1 Shadow Heights (25J2037-01) | Matrix: Drinking Water | Sampled: 2025-10-14 09:00

Field Parameters

Temperature, field	9.6	AO ≤ 15		°C	2025-10-14	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	HT3
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	HT3

Total Metals

Manganese, total	0.376	MAC = 0.12	0.00020	mg/L	2025-10-17	
------------------	-------	------------	---------	------	------------	--

WT# 94F9 R-2 Pinecrest (25J2037-02) | Matrix: Drinking Water | Sampled: 2025-10-14 10:00

Field Parameters

Temperature, field	9.5	AO ≤ 15		°C	2025-10-14	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	

Total Metals

Manganese, total	0.598	MAC = 0.12	0.00020	mg/L	2025-10-17	
------------------	-------	------------	---------	------	------------	--

WT# 94FA R-3 Sugarloaf (25J2037-03) | Matrix: Drinking Water | Sampled: 2025-10-14 11:20

Field Parameters

Temperature, field	9.1	AO ≤ 15		°C	2025-10-14	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	

Total Metals

Manganese, total	0.00513	MAC = 0.12	0.00020	mg/L	2025-10-17	
------------------	---------	------------	---------	------	------------	--

WT# 94EB R-4 Abbott Dr #1 (25J2037-04) | Matrix: Drinking Water | Sampled: 2025-10-14 10:30

Field Parameters

Temperature, field	9.4	AO ≤ 15		°C	2025-10-14	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	

Total Metals

Manganese, total	0.0163	MAC = 0.12	0.00020	mg/L	2025-10-17	
------------------	--------	------------	---------	------	------------	--



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25J2037 2025-10-20 16:01

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
---------	--------	-----------	----	-------	----------	-----------

WT# 94EC R-4 Abbott Dr #2 (25J2037-05) | Matrix: Drinking Water | Sampled: 2025-10-14 10:50

Field Parameters

Temperature, field	9.4	AO ≤ 15		°C	2025-10-14	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	

Total Metals

Manganese, total	0.00536	MAC = 0.12	0.00020	mg/L	2025-10-20	
------------------	---------	------------	---------	------	------------	--

WT# 94FC R-5 Dragon Hill (25J2037-06) | Matrix: Water | Sampled: 2025-10-14 14:10

Field Parameters

Temperature, field	9.4	AO ≤ 15		°C	2025-10-14	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	

Total Metals

Manganese, total	0.0426	MAC = 0.12	0.00020	mg/L	2025-10-17	
------------------	--------	------------	---------	------	------------	--

WT# 94FF R-6 New Tatchell Reserv (25J2037-07) | Matrix: Drinking Water | Sampled: 2025-10-14 13:30

Field Parameters

Temperature, field	9.2	AO ≤ 15		°C	2025-10-14	
--------------------	-----	---------	--	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-10-15	

Total Metals

Manganese, total	0.00310	MAC = 0.12	0.00020	mg/L	2025-10-17	
------------------	---------	------------	---------	------	------------	--

Sample Qualifiers:

HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25J2037
2025-10-20 16:01

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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ANALYTICAL SERVICES

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Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO: COMPANY: City of Quesnel
ADDRESS: 410 Kinchant St.
Quesnel, BC V2J 7J5
CONTACT: Joe Law
TEL/FAX: 250 992-6330 250 992-5392

INVOICE TO: COMPANY: City of Quesnel
ADDRESS: 410 Kinchant St.
Quesnel, BC V2J 7J5
CONTACT: Joe Law
TEL/FAX: 250 992-6330 250 992-5392

EMAIL PDF: EDD
EMAIL 1: jlaw@quesnel.ca
EMAIL 2: vbest@quesnel.ca
MAIL HARDCOPY: HOLD FOR P/U FAX

TURNAROUND: Routine: (4-7 Days)
TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm, Surcharge May Apply

CLIENT SAMPLE ID: 94EA R-1 Shadow Heights
94F9 R-2 Pinecrest
94FA R-3 Sugarloaf
94EB R-4 Abbott Dr #1
94EC R-4 Abbott Dr #2
94FC R-5 Dragon Hill
94FF R-6 New Tatchell Reserv

Table with columns: MATRIX (DRINKING WATER, OTHER WATER, SOIL, OTHER), # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS.

Table with columns: CLIENT SAMPLE ID, MATRIX, # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS.

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines
BC Drinking Water Protection Act/Reg.
BC CSR AL RL CL IL AW
CAME ALBERTA TIER 1

CHAIN OF CUSTODY RECORD COC# [] PAGE 1 OF 1
RELINQUISHED BY: Shaun M
DATE: 14-10-25
TIME: 2:00
RECEIVED BY: []
DATE: []
TIME: []

PROJECT: RESERVOIRS
SAMPLED BY: Shaun Honaghan
SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section)
Return Cooler(s)
Return bottle order

Table with columns: ANALYSES REQUESTED (BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS, pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, TOTAL COLIFORMS, E. coli, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TEMPERATURE, MANGANESE, HOLD).

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified): 60 Days 90 Days Longer Date (Surcharges will Apply):
OTHER INSTRUCTIONS: Return bottle order

DATE: 14.10.2025

SIGNATURE:

COMMENT / REPAIRS NEEDED:

W/A

*** NOTE:**
Extension ladder and two people needed to check roof hatches on Sugarloaf and Dragon Hill

- Gate Security
- Fence
- Underground Vault Hatch
- Roof Hatch & Vent
- Radio Equipment

SUGARLOAF

- Fence
- Altitude Valve Hatch
- Roof Hatch & Vents

PINECREST

- Gate Security
- Fence
- Underground Vault Hatch
- Roof Hatch & Vents

SHADOW HEIGHTS

- Gate
- Fence
- Roof Hatch & Vents
- Level Display Monitor
- Radio Equipment

SOUTH HILLS

- Gate Security
- Fence
- Underground Vault Hatch
- Roof Hatch & Vents

DRAGON HILL

- Ladder Lock
- Roof Hatch & Vents
- Fence

ABBOTT HEIGHTS

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Reservoirs
PROJECT INFO

WORK ORDER 25K1477

RECEIVED / TEMP 2025-11-13 13:00 / 7.4°C
REPORTED 2025-11-20 12:03

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25K1477
2025-11-20 12:03

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (25K1477-01) Matrix: Drinking Water Sampled: 2025-11-12 09:30						
<i>Field Parameters</i>						
Temperature, field	8.4	AO ≤ 15		°C	2025-11-12	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
<i>Total Metals</i>						
Manganese, total	0.0703	MAC = 0.12	0.00020	mg/L	2025-11-17	
WT# 94F9 R-2 Pinecrest (25K1477-02) Matrix: Drinking Water Sampled: 2025-11-12 10:00						
<i>Field Parameters</i>						
Temperature, field	8.6	AO ≤ 15		°C	2025-11-12	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
<i>Total Metals</i>						
Manganese, total	0.413	MAC = 0.12	0.00020	mg/L	2025-11-17	
WT# 94FA R-3 Sugar Loaf (25K1477-03) Matrix: Drinking Water Sampled: 2025-11-12 11:20						
<i>Field Parameters</i>						
Temperature, field	8.6	AO ≤ 15		°C	2025-11-12	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
<i>Total Metals</i>						
Manganese, total	0.00351	MAC = 0.12	0.00020	mg/L	2025-11-17	
WT# 94EB R-4 Abbott Dr #1 (25K1477-04) Matrix: Drinking Water Sampled: 2025-11-12 10:25						
<i>Field Parameters</i>						
Temperature, field	8.6	AO ≤ 15		°C	2025-11-12	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
<i>Total Metals</i>						
Manganese, total	0.00063	MAC = 0.12	0.00020	mg/L	2025-11-17	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25K1477
2025-11-20 12:03

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25K1477-05) Matrix: Drinking Water Sampled: 2025-11-12 10:35						
<i>Field Parameters</i>						
Temperature, field	8.7	AO ≤ 15		°C	2025-11-12	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
<i>Total Metals</i>						
Manganese, total	0.00088	MAC = 0.12	0.00020	mg/L	2025-11-17	
WT# 94FC R-5 Dragon Hill (25K1477-06) Matrix: Drinking Water Sampled: 2025-11-12 14:15						
<i>Field Parameters</i>						
Temperature, field	8.7	AO ≤ 15		°C	2025-11-12	
<i>Microbiological Parameters</i>						
Coliforms, Total	1	MAC = 0		1 CFU/100 mL	2025-11-13	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
<i>Total Metals</i>						
Manganese, total	0.0207	MAC = 0.12	0.00020	mg/L	2025-11-17	
WT# 94FF R-6 New Tatchell Reserv (25K1477-07) Matrix: Drinking Water Sampled: 2025-11-12 13:40						
<i>Field Parameters</i>						
Temperature, field	8.6	AO ≤ 15		°C	2025-11-12	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
Background Colonies	>200	N/A	200	CFU/100 mL	2025-11-13	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-13	
<i>Total Metals</i>						
Manganese, total	0.00443	MAC = 0.12	0.00020	mg/L	2025-11-17	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Monthly Reservoirs

WORK ORDER 25K1477
REPORTED 2025-11-20 12:03

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
>2	Greater than the specified Result
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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EMAIL 1: jlaw@quesnel.ca
EMAIL 2: vbest@quesnel.ca

MAIL HARDCOPY: HOLD FOR P/U
TURNAROUND: Routine: (4-7 Days)
TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day*
Other* *Contact Lab To Confirm. Surcharge May Apply

MAIL HARDCOPY: HOLD FOR P/U
EMAIL PDF:
EMAIL 1: jlaw@quesnel.ca
EMAIL 2: vbest@quesnel.ca

MAIL HARDCOPY: HOLD FOR P/U

MAIL HARDCOPY: HOLD FOR P/U

Table with columns: CLIENT SAMPLE ID, DRINKING WATER, OTHER WATER, SOIL, OTHER, # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS.

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines
BC Drinking Water Protection Act / Reg.
BC CSR AL RL CL IL AW
CCME ALBERTA TIER 1

CHAIN OF CUSTODY RECORD COC#
RELINQUISHED BY: Shaun M
DATE: 11-12-25
TIME: 3:30
RECEIVED BY:
DATE:
TIME:
PROJECT: RESERVOIRS
PROJECT INFO:
PO #:
SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section)
Return Cooler(s)
Return bottle order

ANALYSES REQUESTED:
BTEX VPH MTBE
EPH (not PAH Corrected)
VOC VPH
L/HEPH (PAH corrected)
PAH
PHENOLS Chlorinated Non-Chlor.
PCB GLYCOLS HAA
METALS - WATER TOTAL
METALS - WATER DISSOLVED
METALS - SOIL (SALM) inc. pH
pH EC ALK
TSS TDS
BOD COD
FECAL COLIFORMS HPC
TOTAL COLIFORMS E. coli
PESTICIDES HERBICIDES
SOIL VAPOUR
ASBESTOS
TEMPERATURE
MANGANESE

Main data table with columns for various chemical and physical parameters and their results.

PAYMENT: CHECK CREDIT DEBIT CASH INVOICE
SAMPLE RECEIPT TEMP (°C):
Work Order #
CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Monthly Reservoirs

PROJECT INFO

WORK ORDER 25K2236

RECEIVED / TEMP 2025-11-19 12:45 / 9.5°C

REPORTED 2025-11-25 14:36

COC NUMBER No Number

Introduction:

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Ahead of the Curve



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*Resample
WO 25K1477*

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25K2236
2025-11-25 14:36

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94FC R-5 Dragon Hill (25K2236-01) Matrix: Drinking Water Sampled: 2025-11-18 13:00						
<i>Field Parameters</i>						
Temperature, field	9.1	AO ≤ 15		°C	2025-11-18	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-11-19	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-11-19	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Monthly Reservoirs

WORK ORDER 25K2236
REPORTED 2025-11-25 14:36

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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 102-3677 Highway 97N, Kelowna, BC V1X 5C3
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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CARCO

ANALYTICAL SERVICES

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: Shawn - M. DATE: 18.11.25 RECEIVED BY: _____ DATE: _____
 TIME: 3:00 TIME: _____
 RELINQUISHED BY: _____ DATE: _____ RECEIVED BY: _____ DATE: _____
 TIME: _____ TIME: _____

PROJECT: RESERVOIRS PROJECT INFO: _____ PO #: _____
 SAMPLED BY: Shawn Monaghan SHIPPING INSTRUCTIONS: Return Cooler(s) Ship Supplies (please specify below or in Other Instructions Section) Return bottle order

ANALYSES REQUESTED:

BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	EPH (not PAH Corrected) <input type="checkbox"/>	VOC <input type="checkbox"/> VPH <input type="checkbox"/>	L/HEPH (PAH corrected) <input type="checkbox"/>	PAH <input type="checkbox"/>	PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	METALS - WATER TOTAL <input type="checkbox"/>	METALS - WATER DISSOLVED <input type="checkbox"/>	METALS - SOIL (SALM) <input type="checkbox"/> Inc. PH <input type="checkbox"/>	pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	TSS <input type="checkbox"/> TDS <input type="checkbox"/>	BOD <input type="checkbox"/> COD <input type="checkbox"/>	FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>	TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	SOIL VAPOR <input type="checkbox"/>	ASBESTOS <input type="checkbox"/>	TEMPERATURE <input type="checkbox"/>	MANGANESE <input type="checkbox"/>	HOLD <input type="checkbox"/>
--	--	---	---	------------------------------	--	--	---	---	--	--	---	---	---	---	---	-------------------------------------	-----------------------------------	--------------------------------------	------------------------------------	-------------------------------

INVOICE TO: _____ SAME AS REPORT TO

COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX: _____
 EMAIL PDF _____
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: _____
 MAIL HARD COPY HOLD FOR P/U

TURNAROUND Routine: (4-7 Days) Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	DATE	TIME	# CONTAINERS	MATRIX:		COMMENTS:
				DRINKING WATER	OTHER	
94FC R-5 Dragon Hill	18.11.25	1:00	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(i.e. flow/volume media ID/notes)
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	
				<input checked="" type="checkbox"/>	<input type="checkbox"/>	

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1

OTHER INSTRUCTIONS: Return bottle order

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply)

PAYMENT: CHEQUE CREDIT DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Monthly Reservoirs
PROJECT INFO

WORK ORDER 25L1427

RECEIVED / TEMP 2025-12-10 12:45 / 9.0°C

REPORTED 2025-12-17 12:55

COC NUMBER No Number

Introduction:

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Big Picture Sidekicks



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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Waybume Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25L1427 2025-12-17 12:55

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EA R-1 Shadow Heights (25L1427-01) Matrix: Drinking Water Sampled: 2025-12-09 09:25						
<i>Field Parameters</i>						
Temperature, field	7.0	AO ≤ 15		°C	2025-12-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
<i>Total Metals</i>						
Manganese, total	0.0622	MAC = 0.12		0.00020 mg/L	2025-12-15	
WT# 94F9 R-2 Pinecrest (25L1427-02) Matrix: Drinking Water Sampled: 2025-12-09 09:50						
<i>Field Parameters</i>						
Temperature, field	8.0	AO ≤ 15		°C	2025-12-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
<i>Total Metals</i>						
Manganese, total	0.348	MAC = 0.12		0.00020 mg/L	2025-12-16	
WT# 94FA R-3 Sugarloaf (25L1427-03) Matrix: Drinking Water Sampled: 2025-12-09 14:00						
<i>Field Parameters</i>						
Temperature, field	8.0	AO ≤ 15		°C	2025-12-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
<i>Total Metals</i>						
Manganese, total	0.00507	MAC = 0.12		0.00020 mg/L	2025-12-16	
WT# 94EB R-4 Abbott Dr #1 (25L1427-04) Matrix: Drinking Water Sampled: 2025-12-09 13:05						
<i>Field Parameters</i>						
Temperature, field	7.0	AO ≤ 15		°C	2025-12-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
<i>Total Metals</i>						
Manganese, total	0.00066	MAC = 0.12		0.00020 mg/L	2025-12-16	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Monthly Reservoirs

WORK ORDER REPORTED 25L1427 2025-12-17 12:55

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
WT# 94EC R-4 Abbott Dr #2 (25L1427-05) Matrix: Drinking Water Sampled: 2025-12-09 13:00						
<i>Field Parameters</i>						
Temperature, field	7.0	AO ≤ 15		°C	2025-12-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
<i>Total Metals</i>						
Manganese, total	0.00058	MAC = 0.12		0.00020 mg/L	2025-12-15	
WT# 94FC R-5 Dragon Hill (25L1427-06) Matrix: Drinking Water Sampled: 2025-12-09 11:30						
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-12-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
<i>Total Metals</i>						
Manganese, total	0.0159	MAC = 0.12		0.00020 mg/L	2025-12-15	
WT# 94FF R-6 New Tatchell Reserv (25L1427-07) Matrix: Drinking Water Sampled: 2025-12-09 10:50						
<i>Field Parameters</i>						
Temperature, field	7.0	AO ≤ 15		°C	2025-12-09	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-12-10	
<i>Total Metals</i>						
Manganese, total	0.0174	MAC = 0.12		0.00020 mg/L	2025-12-15	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Monthly Reservoirs

WORK ORDER REPORTED 25L1427
2025-12-17 12:55

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Quarterly Wells
PROJECT INFO

WORK ORDER 25D0354

RECEIVED / TEMP 2025-04-02 12:55 / 3.3°C
REPORTED 2025-04-14 10:57

COC NUMBER No Number

Introduction:

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Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Work Order Comments:

This is a revised report; please refer to Appendix 3 for details.

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Quarterly Wells

WORK ORDER REPORTED 25D0354 2025-04-14 10:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94D1 - Well 3 Rolph at Roddis (25D0354-01) Matrix: Water Sampled: 2025-04-01 11:10						
<i>Anions</i>						
Chloride	7.65	AO ≤ 250	0.10	mg/L	2025-04-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-04-03	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-04-03	
<i>Calculated Parameters</i>						
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L		N/A
<i>Field Parameters</i>						
Temperature, field	10.6	AO ≤ 15		°C	2025-04-01	
<i>Total Metals</i>						
Manganese, total	0.543	MAC = 0.12	0.00020	mg/L	2025-04-08	
94DC - Well 6 Rolph /Robertson (25D0354-02) Matrix: Water Sampled: 2025-04-01 13:00						
<i>Anions</i>						
Chloride	15.8	AO ≤ 250	0.10	mg/L	2025-04-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-04-03	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-04-03	
<i>Calculated Parameters</i>						
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L		N/A
<i>Field Parameters</i>						
Temperature, field	10.0	AO ≤ 15		°C	2025-04-01	
<i>Total Metals</i>						
Manganese, total	0.249	MAC = 0.12	0.00020	mg/L	2025-04-08	
94E0 - Well 7 N. Fraser Drive (25D0354-03) Matrix: Water Sampled: 2025-04-01 09:50						
<i>Anions</i>						
Chloride	6.66	AO ≤ 250	0.10	mg/L	2025-04-04	
Nitrate (as N)	0.036	MAC = 10	0.010	mg/L	2025-04-03	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-04-03	
<i>Calculated Parameters</i>						
Nitrate+Nitrite (as N)	0.0364	N/A	0.0100	mg/L		N/A
<i>Field Parameters</i>						
Temperature, field	9.3	AO ≤ 15		°C	2025-04-01	
<i>Total Metals</i>						
Manganese, total	0.0158	MAC = 0.12	0.00020	mg/L	2025-04-08	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Quarterly Wells

WORK ORDER REPORTED 25D0354
2025-04-14 10:57

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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94E1 - Well 8 Hilborn Road (25D0354-04) | Matrix: Water | Sampled: 2025-04-01 10:20

<i>Anions</i>						
Chloride	5.94	AO ≤ 250	0.10	mg/L	2025-04-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-04-03	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-04-03	
<i>Calculated Parameters</i>						
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-04-01	
<i>Total Metals</i>						
Manganese, total	0.278	MAC = 0.12	0.00020	mg/L	2025-04-08	

94DF - Well 9 Carson Sub (25D0354-05) | Matrix: Water | Sampled: 2025-04-01 11:45

<i>Anions</i>						
Chloride	1.49	AO ≤ 250	0.10	mg/L	2025-04-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-04-03	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-04-03	
<i>Calculated Parameters</i>						
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
<i>Field Parameters</i>						
Temperature, field	9.0	AO ≤ 15		°C	2025-04-01	
<i>Total Metals</i>						
Manganese, total	0.143	MAC = 0.12	0.00020	mg/L	2025-04-08	

28000 - Well 10 Hilborn Road (25D0354-06) | Matrix: Water | Sampled: 2025-04-01 10:45

<i>Anions</i>						
Chloride	15.4	AO ≤ 250	0.10	mg/L	2025-04-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-04-03	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-04-03	
<i>Calculated Parameters</i>						
Nitrate+Nitrite (as N)	< 0.0100	N/A	0.0100	mg/L	N/A	
<i>Field Parameters</i>						
Temperature, field	8.8	AO ≤ 15		°C	2025-04-01	
<i>Total Metals</i>						
Manganese, total	0.578	MAC = 0.12	0.00020	mg/L	2025-04-08	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT	Quesnel, City of Quarterly Wells	WORK ORDER REPORTED	25D0354 2025-04-14 10:57
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Analysis Description	Method Ref.	Technique	Accredited	Location
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

Guidelines Referenced in this Report:

Guidelines for Canadian Drinking Water Quality (Health Canada, September 2022)

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

General Comments:

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



APPENDIX 3: REVISION HISTORY

REPORTED TO PROJECT	Quesnel, City of Quarterly Wells	WORK ORDER REPORTED	25D0354 2025-04-14 10:57
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Sample ID	Changed	Change	Analysis	Analyte(s)
25D0354-	2025-04-14	Project	N/A	N/A



ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
Tel: (604) 279-1499 Fax: (604) 279-1599
102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC#

PAGE / OF /

CARO BC COC, Rev 08/12

REPORT TO:

COMPANY: City of Quesnel

ADDRESS: 410 Kinchant St

Quesnel BC V2J 7J5

CONTACT: Joe Law

TEL/FAX: 250 992-6330 250 992-5107

EMAIL PDF: EDD

EMAIL 1: jlaw@quesnel.ca

EMAIL 2: cfrank@quesnel.ca keath@quesnel.ca

MAIL HARDCOPY: HOLD FOR P/U FAX

TURNAROUND: Request: (4-7 Days) Rpt: 1 Day* 2 Day* 3 Day*

TIME REQUESTED: Rpt: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

INVOICE TO:

COMPANY:

ADDRESS:

CONTACT: Accounts Payable - Joe Law

TEL/FAX:

EMAIL PDF:

EMAIL 1: jlaw@quesnel.ca

EMAIL 2:

MAIL HARDCOPY: HOLD FOR P/U

SAME AS REPORT TO

RELINQUISHED BY: Bred Wilke
DATE: 1-Apr-25
TIME: 14:00
RECEIVED BY:

PROJECT: QUARTERLY WELLS
SHIPPING INSTRUCTIONS: Return Cooler(s)
Return Supplies (please specify below or in Other Instructions Section)
Return bottle order.

ANALYSES REQUESTED:

Table with columns: CLIENT SAMPLE ID, DRINKING WATER, OTHER WATER, SOIL, OTHER, # CONTAINERS, DATE, TIME, FILTERED, PRESERVED, COMMENTS.

Table with columns: BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS - WATER TOTAL, METALS - WATER DISSOLVED, METALS - SOIL (SALM), pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, TOTAL COLIFORMS, E. coli, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TEMPERATURE, CHLORIDE, Nitrate/Nitrite, Manganese (Total), HOLD.

APPLICABLE REGULATORY LIMITS: Canadian Drinking Water Quality Guidelines, BC Drinking Water Protection Act / Reg., BC CSR, CCME, ALBERTA TIER 1, OTHERS.

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified): 60 Days, 90 Days, Longer Date (Surcharges will Apply). OTHER INSTRUCTIONS: Return bottle order.

PAYMENT: CREDIT, DEBIT, CASH, INVOICE. SAMPLE RECEIPT TEMP (°C): Work Order #, CUSTODY SEAL INTACT.

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Quarterly Wells
PROJECT INFO

WORK ORDER 25F1885

RECEIVED / TEMP 2025-06-12 09:24 / 24.1°C

REPORTED 2025-06-16 13:10

COC NUMBER No Number

Introduction:

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Quarterly Wells

WORK ORDER REPORTED 25F1885 2025-06-16 13:10

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94D1 - Well 3 Rolph at Roddis (25F1885-01) Matrix: Water Sampled: 2025-06-10 10:20						
<i>Anions</i>						
Chloride	7.77	AO ≤ 250	0.10	mg/L	2025-06-13	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-06-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-06-13	
<i>Field Parameters</i>						
Temperature, field	10.6	AO ≤ 15		°C	2025-06-10	
94DC - Well 6 Rolph/Robertson (25F1885-02) Matrix: Water Sampled: 2025-06-10 09:45						
<i>Anions</i>						
Chloride	18.5	AO ≤ 250	0.10	mg/L	2025-06-13	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-06-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-06-13	
<i>Field Parameters</i>						
Temperature, field	10.6	AO ≤ 15		°C	2025-06-10	
94E0 - Well 7 N. Fraser Drive (25F1885-03) Matrix: Water Sampled: 2025-06-10 11:10						
<i>Anions</i>						
Chloride	7.03	AO ≤ 250	0.10	mg/L	2025-06-13	
Nitrate (as N)	0.064	MAC = 10	0.010	mg/L	2025-06-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-06-13	
<i>Field Parameters</i>						
Temperature, field	10.2	AO ≤ 15		°C	2025-06-10	
94E1 - Well 8 Hillborn Road (25F1885-04) Matrix: Water Sampled: 2025-06-10 13:10						
<i>Anions</i>						
Chloride	4.54	AO ≤ 250	0.10	mg/L	2025-06-13	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-06-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-06-13	
<i>Field Parameters</i>						
Temperature, field	10.5	AO ≤ 15		°C	2025-06-10	
94DF - Well 9 Carson sub (25F1885-05) Matrix: Water Sampled: 2025-06-10 11:55						
<i>Anions</i>						
Chloride	2.65	AO ≤ 250	0.10	mg/L	2025-06-13	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-06-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-06-13	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Quarterly Wells

WORK ORDER REPORTED 25F1885
2025-06-16 13:10

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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94DF - Well 9 Carson sub (25F1885-05) | Matrix: Water | Sampled: 2025-06-10 11:55, Continued

Field Parameters

Temperature, field	10.8	AO ≤ 15		°C	2025-06-10	
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28000 - Well 10 Hillborn Road (25F1885-06) | Matrix: Water | Sampled: 2025-06-10 14:00

Anions

Chloride	16.7	AO ≤ 250	0.10	mg/L	2025-06-13	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-06-13	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-06-13	

Field Parameters

Temperature, field	10.7	AO ≤ 15		°C	2025-06-10	
--------------------	------	---------	--	----	------------	--



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Quarterly Wells

WORK ORDER REPORTED 25F1885
2025-06-16 13:10

Analysis Description	Method Ref.	Technique	Accredited	Location
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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



ANALYTICAL SERVICES

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 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC # _____ PAGE 1 OF 1
 CARO BC COC, Rev 08/12

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5

INVOICE TO: COMPANY: _____
 ADDRESS: _____
 CONTACT: Accounts Payable - Joe Law

CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5107

EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: vbest@quesnel.ca kearle@quesnel.ca

MAIL HARDCOPY HOLD FOR P/U FAX
 MAIL HARDCOPY HOLD FOR P/U

TURNAROUND Routine: (4-7 Days)
 Rush: 1 Day* 2 Day* 3 Day*
 *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	SAMPLING:		FILTERED	PRESERVED	COMMENTS:
						DATE	TIME			
94D1 Well 3 Rolph at Roddis	<input checked="" type="checkbox"/>				1	16.06.25	10:40			
94DC Well 6 Rolph at Dhattron	<input checked="" type="checkbox"/>				1	16.06.25	11:20			
94E0 Well 7 N. Fraser Drive	<input checked="" type="checkbox"/>				1	16.06.25	9:40			
94E1 Well 8 Hilborn Road	<input checked="" type="checkbox"/>				1	16.06.25	1:30			
94DF Well 9 Carson Sub	<input checked="" type="checkbox"/>				1	16.06.25	2:30			
28000 Well 10 Hilborn Road	<input checked="" type="checkbox"/>				1	16.06.25	2:00			

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____
OTHER INSTRUCTIONS: Return bottle order

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:
Shawn M.	16.06.25		
	TIME: 3:30		

PROJECT:	MONTHLY WELLS	PO #:
SAMPLED BY:	Shawn M.	

RELINQUISHED BY:	DATE:	RECEIVED BY:	DATE:

DATE:	TIME:	DATE:	TIME:

PROJECT INFO:	SHIPPING INSTRUCTIONS:
	Return Cooler(s) <input checked="" type="checkbox"/> Ship Supplies (please specify below or in Other Instructions Section) <input type="checkbox"/> Return bottle order.

ANALYSES REQUESTED:
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>
EPH (not PAH Corrected)
VOC <input type="checkbox"/> VPH <input type="checkbox"/>
L/HEPH (PAH corrected)
PAH
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>
METALS - WATER TOTAL
METALS - WATER DISSOLVED
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>
TSS <input type="checkbox"/> TDS <input type="checkbox"/>
BOD <input type="checkbox"/> COD <input type="checkbox"/>
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>
SOIL VAPOUR
ASBESTOS
TEMPERATURE
MANGANESE
HOLD

PAYMENT:
 CHECK
 CREDIT
 CASH
 INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Quarterly Wells
PROJECT INFO

WORK ORDER 25I0273

RECEIVED / TEMP 2025-09-03 13:08 / 15.9°C

REPORTED 2025-09-05 11:47

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Quarterly Wells

WORK ORDER REPORTED 25I0273 2025-09-05 11:47

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94D1 - Well 3 Rolph at Roddis (25I0273-01) Matrix: Water Sampled: 2025-09-02 14:00						
<i>Anions</i>						
Chloride	6.98	AO ≤ 250	0.10	mg/L	2025-09-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-09-04	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-09-04	
<i>Field Parameters</i>						
Temperature, field	9.1	AO ≤ 15		°C	2025-09-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	
94DC - Well 6 Rolph/Robertson (25I0273-02) Matrix: Water Sampled: 2025-09-02 14:30						
<i>Anions</i>						
Chloride	15.5	AO ≤ 250	0.10	mg/L	2025-09-04	
Nitrate (as N)	0.131	MAC = 10	0.010	mg/L	2025-09-04	
Nitrite (as N)	0.010	MAC = 1	0.010	mg/L	2025-09-04	
<i>Field Parameters</i>						
Temperature, field	10.2	AO ≤ 15		°C	2025-09-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	
94E0 - Well 7 N. Fraser Drive (25I0273-03) Matrix: Water Sampled: 2025-09-02 10:30						
<i>Anions</i>						
Chloride	7.14	AO ≤ 250	0.10	mg/L	2025-09-04	
Nitrate (as N)	0.081	MAC = 10	0.010	mg/L	2025-09-04	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-09-04	
<i>Field Parameters</i>						
Temperature, field	8.9	AO ≤ 15		°C	2025-09-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	HT3
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	HT3
94E1 - Well 8 Hillborn Road (25I0273-04) Matrix: Water Sampled: 2025-09-02 09:45						
<i>Anions</i>						
Chloride	4.48	AO ≤ 250	0.10	mg/L	2025-09-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-09-04	

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Quarterly Wells

WORK ORDER REPORTED 25I0273 2025-09-05 11:47

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E1 - Well 8 Hillborn Road (25I0273-04) Matrix: Water Sampled: 2025-09-02 09:45, Continued						
<i>Anions, Continued</i>						
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-09-04	
<i>Field Parameters</i>						
Temperature, field	8.9	AO ≤ 15		°C	2025-09-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	HT3
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	HT3

94DF - Well 9 Carson sub (25I0273-05) | Matrix: Water | Sampled: 2025-09-02 11:30

<i>Anions</i>						
Chloride	2.81	AO ≤ 250	0.10	mg/L	2025-09-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-09-04	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-09-04	
<i>Field Parameters</i>						
Temperature, field	8.9	AO ≤ 15		°C	2025-09-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	

28000 - Well 10 Hillborn Road (25I0273-06) | Matrix: Water | Sampled: 2025-09-02 13:00

<i>Anions</i>						
Chloride	14.3	AO ≤ 250	0.10	mg/L	2025-09-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-09-04	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-09-04	
<i>Field Parameters</i>						
Temperature, field	10.0	AO ≤ 15		°C	2025-09-02	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-09-03	

Sample Qualifiers:

HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Quarterly Wells

WORK ORDER 2510273
REPORTED 2025-09-05 11:47

Analysis Description	Method Ref.	Technique	Accredited	Location
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



ANALYTICAL SERVICES

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 102-3677 Highway 97N, Kelowna, BC V1X 5C3
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 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

CHAIN OF CUSTODY RECORD

COC #

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5

INVOICE TO: COMPANY: SAME AS REPORT TO
 ADDRESS: CONTACT: Accounts Payable - Joe Law

TEL/FAX: 250 992-6330 250 992-5107
 CONTACT: Joe Law

EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: frank@quesnel.ca kearfe@quesnel.ca

MAIL HARDCOPY HOLD FOR P/U FAX
 MAIL HARDCOPY HOLD FOR P/U

TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:			# CONTAINERS	DATE DD-MMM-YY	TIME HH:MM	FILTERED	PRESERVED	COMMENTS: <small>(i.e. flow/volume media (litres))</small>
	DRINKING WATER	OTHER WATER	SOIL						
94D1 Well 3 Rolph at Roddis	<input checked="" type="checkbox"/>				2-Sep-15	14:00			
94DC Well 6 Rolph/Robertson	<input checked="" type="checkbox"/>				2-Sep-15	14:30			
94E0 Well 7 N. Fraser Drive	<input checked="" type="checkbox"/>				2-Sep-15	10:30			
94E1 Well 8 Hilborn Road	<input checked="" type="checkbox"/>				2-Sep-15	9:45			
94DF Well 9 Carson Sub	<input checked="" type="checkbox"/>				2-Sep-15	11:30			
28000 Well 10 Hilborn Road	<input checked="" type="checkbox"/>				2-Sep-15	13:00			

APPLICABLE REGULATORY LIMITS:	SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):	OTHER INSTRUCTIONS:
Canadian Drinking Water Quality Guidelines <input type="checkbox"/>	60 Days <input type="checkbox"/> 90 Days <input type="checkbox"/> Longer Date (Surcharges will Apply):	Return bottle order <input type="checkbox"/>
BC Drinking Water Protection Act / Reg. <input type="checkbox"/>		
CCME <input type="checkbox"/> AL <input type="checkbox"/> RL <input type="checkbox"/> CL <input type="checkbox"/> IL <input type="checkbox"/> AW <input type="checkbox"/>		
OTHER: ALBERTA TIER 1 <input type="checkbox"/>		

RELINQUISHED BY: *B. Lylin*
 RELINQUISHED BY: *B. Lylin*
 PROJECT: QUARTERLY WELLS
 SAMPLED BY: *B. Lylin*
 DATE: 2-Sep-15
 TIME: 15:30
 RECEIVED BY: _____
 DATE: _____
 TIME: _____
 PROJECT INFO: PO #:
 SHIPPING INSTRUCTIONS: Return Cooler(s)
 Ship Supplies (please specify below or in Other Instructions Section)
 Return bottle order.
 ANALYSES REQUESTED:

BTEX <input type="checkbox"/>	VPH <input type="checkbox"/>	MTBE <input type="checkbox"/>
EPH (not PAH Corrected)		
VOC <input type="checkbox"/>	VPH <input type="checkbox"/>	
L/HEPH (PAH corrected)		
PAH		
PHENOLS Chlorinated <input type="checkbox"/>	Non-Chlor. <input type="checkbox"/>	
PCB <input type="checkbox"/>	GLYCOLS <input type="checkbox"/>	HAA <input type="checkbox"/>
METALS - WATER TOTAL		
METALS - WATER DISSOLVED		
METALS - SOIL (SALM) <input type="checkbox"/>	inc. pH <input type="checkbox"/>	
pH <input type="checkbox"/>	EC <input type="checkbox"/>	ALK <input type="checkbox"/>
TSS <input type="checkbox"/>	TDS <input type="checkbox"/>	
BOD <input type="checkbox"/>	COD <input type="checkbox"/>	
FECAL COLIFORMS <input type="checkbox"/>	HPC <input type="checkbox"/>	
TOTAL COLIFORMS <input checked="" type="checkbox"/>	<i>E. coli</i> <input checked="" type="checkbox"/>	
PESTICIDES <input type="checkbox"/>	HERBICIDES <input type="checkbox"/>	
SOIL VAPOUR		
ASBESTOS		
TEMPERATURE		
CHLORIDE		
NI/NITRATE/NITRITE		
HOLD		

PAYMENT: CHEQUE CREDIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Quarterly Wells

PROJECT INFO

WORK ORDER 25J0375

RECEIVED / TEMP 2025-10-02 12:30 / 11.1°C

REPORTED 2025-10-08 12:13

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Quarterly Wells

WORK ORDER REPORTED 25J0375
2025-10-08 12:13

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94D1 - Well 3 Rolph at Roddis (25J0375-01) Matrix: Drinking Water Sampled: 2025-10-01 09:40					
<i>Anions</i>					
Chloride	8.05	AO ≤ 250	0.10 mg/L	2025-10-03	
Nitrate (as N)	< 0.010	MAC = 10	0.010 mg/L	2025-10-03	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2025-10-03	
<i>Field Parameters</i>					
Temperature, field	11.2	AO ≤ 15	°C	2025-10-01	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-10-02	HT3
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-10-02	HT3
<i>Total Metals</i>					
Manganese, total	0.637	MAC = 0.12	0.00020 mg/L	2025-10-08	
94DC - Well 6 Rolph /Robertson (25J0375-02) Matrix: Drinking Water Sampled: 2025-10-01 09:30					
<i>Anions</i>					
Chloride	15.5	AO ≤ 250	0.10 mg/L	2025-10-03	
Nitrate (as N)	< 0.010	MAC = 10	0.010 mg/L	2025-10-03	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2025-10-03	
<i>Field Parameters</i>					
Temperature, field	11.0	AO ≤ 15	°C	2025-10-01	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-10-02	HT3
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-10-02	HT3
<i>Total Metals</i>					
Manganese, total	0.223	MAC = 0.12	0.00020 mg/L	2025-10-08	
94E0 - Well 7 N. Fraser Drive (25J0375-03) Matrix: Water Sampled: 2025-10-01 10:30					
<i>Anions</i>					
Chloride	6.61	AO ≤ 250	0.10 mg/L	2025-10-03	
Nitrate (as N)	< 0.010	MAC = 10	0.010 mg/L	2025-10-03	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2025-10-03	
<i>Field Parameters</i>					
Temperature, field	10.7	AO ≤ 15	°C	2025-10-01	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-10-02	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-10-02	

TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Quarterly Wells

WORK ORDER REPORTED 25J0375
2025-10-08 12:13

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
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94E0 - Well 7 N. Fraser Drive (25J0375-03) | Matrix: Water | Sampled: 2025-10-01 10:30, Continued

Total Metals

Manganese, total	0.0147	MAC = 0.12	0.00020 mg/L	2025-10-08	
------------------	--------	------------	--------------	------------	--

94DF - Well 9 Carson sub (25J0375-04) | Matrix: Drinking Water | Sampled: 2025-10-01 11:20

Anions

Chloride	2.40	AO ≤ 250	0.10 mg/L	2025-10-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010 mg/L	2025-10-04	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2025-10-04	

Field Parameters

Temperature, field	10.6	AO ≤ 15	°C	2025-10-01	
--------------------	------	---------	----	------------	--

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-10-02	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-10-02	

Total Metals

Manganese, total	0.158	MAC = 0.12	0.00020 mg/L	2025-10-08	
------------------	-------	------------	--------------	------------	--

28000 - Well 10 Hilborn Road (25J0375-05) | Matrix: Drinking Water | Sampled: 2025-10-01 14:30

Anions

Chloride	16.9	AO ≤ 250	0.10 mg/L	2025-10-04	
Nitrate (as N)	< 0.010	MAC = 10	0.010 mg/L	2025-10-04	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2025-10-04	

Field Parameters

Temperature, field	10.8	AO ≤ 15	°C	2025-10-01	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-10-02	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-10-02	

Total Metals

Manganese, total	0.655	MAC = 0.12	0.00020 mg/L	2025-10-08	
------------------	-------	------------	--------------	------------	--

Sample Qualifiers:

HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Quarterly Wells

WORK ORDER REPORTED 25J0375
2025-10-08 12:13

Analysis Description	Method Ref.	Technique	Accredited	Location
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to samples received by CARO and analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety and must not be modified. CARO is not responsible for losses or damages resulting directly or indirectly from errors or omissions in the conduct of the testing. Any liability is limited to the cost of analysis. CARO will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request

Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



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 102-3677 Highway 97N, Kelowna, BC V1X 5C3
 Tel: (250) 765-9646 Fax: (250) 765-3893
 17225 109 Avenue NW, Edmonton, AB T5S 1H7
 Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO:
 COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5107
 EMAIL PDF EDD
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: cfrank@quesnel.ca kearle@quesnel.ca
 MAIL HARD COPY HOLD FOR P/U FAX

INVOICE TO: SAME AS REPORT TO
 COMPANY:
 ADDRESS:
 CONTACT: Accounts Payable - Joe Law
 TEL/FAX:
 EMAIL PDF
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2:
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TURNAROUND Routine: (4-7 Days)
 Rush: 1 Day* 2 Day* 3 Day* Other*
 *Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID:	MATRIX:			SAMPLING:		COMMENTS:
	DRINKING WATER	OTHER WATER	OTHER	DATE	TIME	
94D1 Well 3 Rolph at Roddis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	01-10-25	9:10	3 FILTERED (i.e. flow/volume media ID/notes)
94DC Well 6 Rolph/Robertson	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	01-10-25	9:30	3 FILTERED
94E0 Well 7 N. Fraser Drive	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	01-10-25	10:30	3 FILTERED
94DF Well 9 Carson Sub	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	01-10-25	11:10	3 FILTERED
28000 Well 10 Hilborn Road	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	01-10-25	7:30	3 FILTERED

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 BC CSR AL RL CL IL AW
 CCME ALBERTA TIER 1

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply):
OTHER INSTRUCTIONS:
 Return bottle order

CHAIN OF CUSTODY RECORD COC# _____ PAGE 1 OF 1

RELINQUISHED BY: Shaun M. DATE: 01-10-25 RECEIVED BY: _____ DATE: _____
 TIME: 3:30 TIME: _____
 RELINQUISHED BY: _____ DATE: _____ RECEIVED BY: _____ DATE: _____
 TIME: _____ TIME: _____

PROJECT: QUARTERLY WELLS PO #: _____
 SAMPLED BY: Shaun Monaghan
 SHIPPING INSTRUCTIONS: Return Cooler(s) Return bottle order.
 Ship Supplies (please specify below or in Other Instructions Section)

ANALYSES REQUESTED:

ANALYSES REQUESTED:	RESULTS
BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	
EPH (not PAH Corrected) <input type="checkbox"/>	
VOC <input type="checkbox"/> VPH <input type="checkbox"/>	
L/HEPH (PAH corrected) <input type="checkbox"/>	
PAH <input type="checkbox"/>	
PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/>	
PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	
METALS - WATER TOTAL <input type="checkbox"/>	
METALS - WATER DISSOLVED <input type="checkbox"/>	
METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/>	
pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	
TSS <input type="checkbox"/> TDS <input type="checkbox"/>	
BOD <input type="checkbox"/> COD <input type="checkbox"/>	
FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>	
TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/>	
PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	
SOIL VAPOUR <input type="checkbox"/>	
ASBESTOS <input type="checkbox"/>	
TEMPERATURE <input type="checkbox"/>	
CHLORIDE <input type="checkbox"/>	
NITRATE/NITRITE <input type="checkbox"/>	
HOLD <input type="checkbox"/>	

PAYMENT:
 ON ACCOUNT
 CREDIT
 DEBIT
 CASH
 INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Quarterly Wells
PROJECT INFO

WORK ORDER 25L2246

RECEIVED / TEMP 2025-12-17 12:55 / 9.3°C
REPORTED 2025-12-24 09:33

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



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

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Quarterly Wells

WORK ORDER REPORTED 25L2246 2025-12-24 09:33

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94D1- Well 3 Rolph at Roddis (25L2246-01) Matrix: Drinking Water Sampled: 2025-12-16 13:30						
<i>Anions</i>						
Chloride	7.61	AO ≤ 250	0.10	mg/L	2025-12-18	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-12-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-12-18	
<i>Field Parameters</i>						
Temperature, field	9.4	AO ≤ 15		°C	2025-12-16	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-17	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-17	
<i>Total Metals</i>						
Manganese, total	0.642	MAC = 0.12	0.00020	mg/L	2025-12-22	
94DC - Well 6 Rolph/Robertson (25L2246-02) Matrix: Drinking Water Sampled: 2025-12-16 14:30						
<i>Anions</i>						
Chloride	16.0	AO ≤ 250	0.10	mg/L	2025-12-18	
Nitrate (as N)	0.040	MAC = 10	0.010	mg/L	2025-12-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-12-18	
<i>Field Parameters</i>						
Temperature, field	9.5	AO ≤ 15		°C	2025-12-16	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-17	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-17	
<i>Total Metals</i>						
Manganese, total	0.239	MAC = 0.12	0.00020	mg/L	2025-12-22	
94E0 - Well 7 N. Fraser Drive (25L2246-03) Matrix: Drinking Water Sampled: 2025-12-16 11:40						
<i>Anions</i>						
Chloride	6.02	AO ≤ 250	0.10	mg/L	2025-12-18	
Nitrate (as N)	0.036	MAC = 10	0.010	mg/L	2025-12-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-12-18	
<i>Field Parameters</i>						
Temperature, field	4.2	AO ≤ 15		°C	2025-12-16	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-17	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-17	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Quarterly Wells

WORK ORDER REPORTED 25L2246 2025-12-24 09:33

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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94E0 - Well 7 N. Fraser Drive (25L2246-03) | Matrix: Drinking Water | Sampled: 2025-12-16 11:40, Continued

Total Metals

Manganese, total	0.0145	MAC = 0.12	0.00020	mg/L	2025-12-22	
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94E1 - Well 8 Hilborn Road (25L2246-04) | Matrix: Drinking Water | Sampled: 2025-12-16 10:25

Anions

Chloride	4.18	AO ≤ 250	0.10	mg/L	2025-12-18	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-12-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-12-18	

Field Parameters

Temperature, field	9.0	AO ≤ 15		°C	2025-12-16	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-17	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-17	

Total Metals

Manganese, total	0.234	MAC = 0.12	0.00020	mg/L	2025-12-23	
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94DF - Well 9 Carson Sub (25L2246-05) | Matrix: Drinking Water | Sampled: 2025-12-16 09:30

Anions

Chloride	1.38	AO ≤ 250	0.10	mg/L	2025-12-18	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-12-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-12-18	

Field Parameters

Temperature, field	8.7	AO ≤ 15		°C	2025-12-16	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-12-17	HT3
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-12-17	HT3

Total Metals

Manganese, total	0.141	MAC = 0.12	0.00020	mg/L	2025-12-22	
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28000 - Well 10 Hilborn Road (25L2246-06) | Matrix: Drinking Water | Sampled: 2025-12-16 10:45

Anions

Chloride	14.0	AO ≤ 250	0.10	mg/L	2025-12-18	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-12-18	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-12-18	

Field Parameters



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Quarterly Wells

WORK ORDER REPORTED 25L2246
2025-12-24 09:33

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
28000 - Well 10 Hilborn Road (25L2246-06) Matrix: Drinking Water Sampled: 2025-12-16 10:45, Continued						
<i>Field Parameters, Continued</i>						
Temperature, field	9.4	AO ≤ 15		°C	2025-12-16	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0		1 CFU/100 mL	2025-12-17	
E. coli	< 1	MAC = 0		1 CFU/100 mL	2025-12-17	
<i>Total Metals</i>						
Manganese, total	0.581	MAC = 0.12		0.00020 mg/L	2025-12-22	

Sample Qualifiers:

HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Quarterly Wells

WORK ORDER 25L2246
REPORTED 2025-12-24 09:33

Analysis Description	Method Ref.	Technique	Accredited	Location
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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ANALYTICAL SERVICES

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 Tel: (250) 765-9646 Fax: (250) 765-3893
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CHAIN OF CUSTODY RECORD

REPORT TO: COMPANY: City of Quesnel
 ADDRESS: 410 Kinchant St
 Quesnel, BC V2J 7J5
 CONTACT: Joe Law
 TEL/FAX: 250 992-6330 250 992-5107
 EMAIL PDF EDDI
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: cfrank@quesnel.ca kearfe@quesnel.ca
 MAIL HARDCOPY HOLD FOR P/U FAX
 TURNAROUND Routine: (4-7 Days)
 TIME REQUESTED: Rush: 1 Day 2 Day 3 Day *Contract Lab To Confirm, Surcharge May Apply

INVOICE TO: COMPANY: SAME AS REPORT TO
 ADDRESS: TEL/FAX: CONTACT: Accounts Payable - Joe Law
 EMAIL PDF
 EMAIL 1: jlaw@quesnel.ca
 EMAIL 2: MAIL HARDCOPY HOLD FOR P/U

RELINQUISHED BY: Shawn M. DATE: 16-12-25 RECEIVED BY: _____ DATE: _____
 RELINQUISHED BY: _____ DATE: 3:30 RECEIVED BY: _____ DATE: _____
 PROJECT: QUARTERLY WELLS PROJECT INFO: PO #: _____
 SAMPLED BY: Shawn Monaghan SHIPPING INSTRUCTIONS: Ship Supplies (please specify below or in Other Instructions Section)
 Return Cooler(s)
 Return bottle order.

CLIENT SAMPLE ID:	DRINKING WATER	OTHER WATER	SOIL	OTHER	# CONTAINERS	DATE DD-MMM-YY	TIME HH:MM	FILTERED	PRESERVED	COMMENTS: <small>(ie. flow/volume media ID/notes)</small>	ANALYSES REQUESTED:	
											BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	EPH (not PAH Corrected)
94D1 Well 3 Rolph at Roddis	<input checked="" type="checkbox"/>				4	16-12-25	1:30				VOC <input type="checkbox"/> VPH <input type="checkbox"/> L/HEPH (PAH corrected) PAH PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor. <input type="checkbox"/> PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/> METALS - WATER TOTAL METALS - WATER DISSOLVED METALS - SOIL (SALM) <input type="checkbox"/> inc. pH <input type="checkbox"/> pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/> BOD <input type="checkbox"/> COD <input type="checkbox"/> FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/> TOTAL COLIFORMS <input checked="" type="checkbox"/> E. coli <input checked="" type="checkbox"/> PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/> SOIL VAPOUR ASBESTOS TEMPERATURE CHLORIDE NitNITRATE/NITRITE <u>Manganese</u>	
94DC Well 6 Rolph/Robertson	<input checked="" type="checkbox"/>				4	16-12-25	2:50					
94E0 Well 7 N. Fraser Drive	<input checked="" type="checkbox"/>				4	16-12-25	11:40					
94E1 Well 8 Hilborn Road	<input checked="" type="checkbox"/>				4	16-12-25	10:25					
94DF Well 9 Carson Sub	<input checked="" type="checkbox"/>				4	16-12-25	9:30					
28000 Well 10 Hilborn Road	<input checked="" type="checkbox"/>				4	16-12-25	10:45					

APPLICABLE REGULATORY LIMITS:
 Canadian Drinking Water Quality Guidelines
 BC Drinking Water Protection Act / Reg.
 CCME AL RL CL IL AW
 ALBERTA TIER 1
 OTHER: _____

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
 60 Days 90 Days Longer Date (Surcharges will Apply): _____

OTHER INSTRUCTIONS: Return bottle order

PAYMENT: CHECK CREDIT DEBIT CASH INVOICE

SAMPLE RECEIPT TEMP (°C): _____
 Work Order # _____
 CUSTODY SEAL INTACT Y N NA

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Semi Annually Distribution System
PROJECT INFO

WORK ORDER 25E2185

RECEIVED / TEMP 2025-05-14 13:20 / 12.2°C

REPORTED 2025-05-22 10:15

COC NUMBER No Number

Introduction:

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Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Semi Annually Distribution System

WORK ORDER REPORTED 25E2185
2025-05-22 10:15

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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Mills Rd - 94E5 (25E2185-01) | Matrix: Water | Sampled: 2025-05-13 09:30

Total Metals

Copper, total	0.00416	MAC = 2	0.00040	mg/L	2025-05-22	
Iron, total	< 0.010	AO ≤ 0.1	0.010	mg/L	2025-05-22	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2025-05-22	
Manganese, total	0.00863	MAC = 0.12	0.00020	mg/L	2025-05-22	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2025-05-22	

Volatile Organic Compounds (VOC)

Vinyl chloride	< 1.0	MAC = 2	1.0	µg/L	2025-05-17	
Surrogate: Toluene-d8	70		70-130	%	2025-05-17	

Pederson - 94F0 (25E2185-02) | Matrix: Water | Sampled: 2025-05-13 10:00

Total Metals

Copper, total	< 0.00040	MAC = 2	0.00040	mg/L	2025-05-21	
Iron, total	< 0.010	AO ≤ 0.1	0.010	mg/L	2025-05-21	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2025-05-21	
Manganese, total	0.0789	MAC = 0.12	0.00020	mg/L	2025-05-21	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2025-05-21	

Volatile Organic Compounds (VOC)

Vinyl chloride	< 1.0	MAC = 2	1.0	µg/L	2025-05-17	
Surrogate: Toluene-d8	75		70-130	%	2025-05-17	

New Carson - 35D91 (25E2185-03) | Matrix: Water | Sampled: 2025-05-13 10:45

Total Metals

Copper, total	0.00121	MAC = 2	0.00040	mg/L	2025-05-21	
Iron, total	< 0.010	AO ≤ 0.1	0.010	mg/L	2025-05-21	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2025-05-21	
Manganese, total	0.0362	MAC = 0.12	0.00020	mg/L	2025-05-21	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2025-05-21	

Volatile Organic Compounds (VOC)

Vinyl chloride	< 1.0	MAC = 2	1.0	µg/L	2025-05-17	
Surrogate: Toluene-d8	71		70-130	%	2025-05-17	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Semi Annually Distribution System

WORK ORDER 25E2185
REPORTED 2025-05-22 10:15

Analysis Description	Method Ref.	Technique	Accredited	Location
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Volatile Organic Compounds in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
AO	Aesthetic Objective
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
µg/L	Micrograms per litre
EPA	United States Environmental Protection Agency Test Methods

Guidelines Referenced in this Report:

Guidelines for Canadian Drinking Water Quality (Health Canada, September 2022)

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

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed. The quality control (QC) data is available upon request.

Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

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



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Semi Annually Distribution System
PROJECT INFO

WORK ORDER 25J1257

RECEIVED / TEMP 2025-10-08 14:05 / 11.8°C

REPORTED 2025-10-16 12:23

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

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You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Semi Annually Distribution System

WORK ORDER REPORTED 25J1257
2025-10-16 12:23

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E5 S Mills Rd (25J1257-01) Matrix: Drinking Water Sampled: 2025-10-07 10:15						
<i>Calculated Parameters</i>						
Hardness, Total (as CaCO ₃)	189	None Required	0.500	mg/L	N/A	
<i>Field Parameters</i>						
Temperature, field	10.4	AO ≤ 15		°C	2025-10-07	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-10-08	HT3
Heterotrophic Plate Count	< 5	N/A	5	CFU/mL	2025-10-08	HT1
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-10-08	HT3
<i>Total Metals</i>						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2025-10-15	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2025-10-14	
Arsenic, total	0.00052	MAC = 0.01	0.00050	mg/L	2025-10-14	
Barium, total	0.0300	MAC = 2	0.0050	mg/L	2025-10-14	
Beryllium, total	< 0.00010	N/A	0.00010	mg/L	2025-10-14	
Bismuth, total	< 0.00010	N/A	0.00010	mg/L	2025-10-14	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2025-10-14	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2025-10-14	
Calcium, total	50.1	None Required	0.20	mg/L	2025-10-14	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2025-10-14	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2025-10-14	
Copper, total	0.00351	MAC = 2	0.00040	mg/L	2025-10-14	
Iron, total	0.013	AO ≤ 0.1	0.010	mg/L	2025-10-14	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2025-10-14	
Lithium, total	0.00125	N/A	0.00010	mg/L	2025-10-14	
Magnesium, total	15.6	None Required	0.010	mg/L	2025-10-14	
Manganese, total	0.00502	MAC = 0.12	0.00020	mg/L	2025-10-14	
Molybdenum, total	0.00134	N/A	0.00010	mg/L	2025-10-14	
Nickel, total	0.00048	N/A	0.00040	mg/L	2025-10-14	
Phosphorus, total	< 0.050	N/A	0.050	mg/L	2025-10-14	
Potassium, total	1.94	N/A	0.10	mg/L	2025-10-14	
Selenium, total	0.00164	MAC = 0.05	0.00050	mg/L	2025-10-14	
Silicon, total	6.2	N/A	1.0	mg/L	2025-10-14	
Silver, total	< 0.000050	None Required	0.000050	mg/L	2025-10-14	
Sodium, total	6.16	AO ≤ 200	0.10	mg/L	2025-10-14	
Strontium, total	0.208	MAC = 7	0.0010	mg/L	2025-10-14	
Sulfur, total	6.3	N/A	3.0	mg/L	2025-10-14	
Tellurium, total	< 0.00050	N/A	0.00050	mg/L	2025-10-14	
Thallium, total	< 0.000020	N/A	0.000020	mg/L	2025-10-14	
Thorium, total	< 0.00010	N/A	0.00010	mg/L	2025-10-14	
Tin, total	< 0.00020	N/A	0.00020	mg/L	2025-10-14	
Titanium, total	< 0.0050	N/A	0.0050	mg/L	2025-10-14	
Tungsten, total	< 0.0010	N/A	0.0010	mg/L	2025-10-14	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Semi Annually Distribution System

WORK ORDER REPORTED 25J1257
2025-10-16 12:23

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
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94E5 S Mills Rd (25J1257-01) | Matrix: Drinking Water | Sampled: 2025-10-07 10:15, Continued

Total Metals, Continued

Uranium, total	0.000802	MAC = 0.02	0.000020 mg/L	2025-10-14	
Vanadium, total	< 0.0050	N/A	0.0050 mg/L	2025-10-14	
Zinc, total	< 0.0040	AO ≤ 5	0.0040 mg/L	2025-10-14	
Zirconium, total	< 0.00010	N/A	0.00010 mg/L	2025-10-14	

94F0 S Pederson (25J1257-02) | Matrix: Drinking Water | Sampled: 2025-10-07 09:45

Calculated Parameters

Hardness, Total (as CaCO3)	121	None Required	0.500 mg/L	N/A	
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Field Parameters

Temperature, field	11.0	AO ≤ 15	°C	2025-10-07	
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Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-10-08	HT3
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-10-08	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-10-08	HT3

Total Metals

Aluminum, total	0.0146	OG < 0.1	0.0050 mg/L	2025-10-14	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2025-10-14	
Arsenic, total	0.00107	MAC = 0.01	0.00050 mg/L	2025-10-14	
Barium, total	0.0746	MAC = 2	0.0050 mg/L	2025-10-14	
Beryllium, total	< 0.00010	N/A	0.00010 mg/L	2025-10-14	
Bismuth, total	< 0.00010	N/A	0.00010 mg/L	2025-10-14	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2025-10-14	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010 mg/L	2025-10-14	
Calcium, total	34.5	None Required	0.20 mg/L	2025-10-14	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-10-14	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2025-10-14	
Copper, total	0.00105	MAC = 2	0.00040 mg/L	2025-10-14	
Iron, total	0.010	AO ≤ 0.1	0.010 mg/L	2025-10-14	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2025-10-14	
Lithium, total	0.00141	N/A	0.00010 mg/L	2025-10-14	
Magnesium, total	8.49	None Required	0.010 mg/L	2025-10-14	
Manganese, total	0.0935	MAC = 0.12	0.00020 mg/L	2025-10-14	
Molybdenum, total	0.00177	N/A	0.00010 mg/L	2025-10-14	
Nickel, total	< 0.00040	N/A	0.00040 mg/L	2025-10-14	
Phosphorus, total	< 0.050	N/A	0.050 mg/L	2025-10-14	
Potassium, total	0.93	N/A	0.10 mg/L	2025-10-14	
Selenium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-10-14	
Silicon, total	6.3	N/A	1.0 mg/L	2025-10-14	
Silver, total	< 0.000050	None Required	0.000050 mg/L	2025-10-14	
Sodium, total	4.36	AO ≤ 200	0.10 mg/L	2025-10-14	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Semi Annually Distribution System

WORK ORDER REPORTED 25J1257
2025-10-16 12:23

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94F0 S Pederson (25J1257-02) Matrix: Drinking Water Sampled: 2025-10-07 09:45, Continued					
<i>Total Metals, Continued</i>					
Strontium, total	0.196	MAC = 7	0.0010 mg/L	2025-10-14	
Sulfur, total	5.9	N/A	3.0 mg/L	2025-10-14	
Tellurium, total	< 0.00050	N/A	0.00050 mg/L	2025-10-14	
Thallium, total	< 0.000020	N/A	0.000020 mg/L	2025-10-14	
Thorium, total	< 0.00010	N/A	0.00010 mg/L	2025-10-14	
Tin, total	< 0.00020	N/A	0.00020 mg/L	2025-10-14	
Titanium, total	< 0.0050	N/A	0.0050 mg/L	2025-10-14	
Tungsten, total	< 0.0010	N/A	0.0010 mg/L	2025-10-14	
Uranium, total	0.000361	MAC = 0.02	0.000020 mg/L	2025-10-14	
Vanadium, total	< 0.0050	N/A	0.0050 mg/L	2025-10-14	
Zinc, total	< 0.0040	AO ≤ 5	0.0040 mg/L	2025-10-14	
Zirconium, total	< 0.00010	N/A	0.00010 mg/L	2025-10-14	

35D91k NEW CARON PIT (25J1257-03) | Matrix: Drinking Water | Sampled: 2025-10-07 12:00

<i>Calculated Parameters</i>					
Hardness, Total (as CaCO3)	138	None Required	0.500 mg/L	N/A	
<i>Field Parameters</i>					
Temperature, field	10.8	AO ≤ 15	°C	2025-10-07	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-10-08	
Heterotrophic Plate Count	< 5	N/A	5 CFU/mL	2025-10-08	HT1
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-10-08	
<i>Total Metals</i>					
Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2025-10-15	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2025-10-11	
Arsenic, total	0.00104	MAC = 0.01	0.00050 mg/L	2025-10-11	
Barium, total	0.0817	MAC = 2	0.0050 mg/L	2025-10-11	
Beryllium, total	< 0.00010	N/A	0.00010 mg/L	2025-10-11	
Bismuth, total	< 0.00010	N/A	0.00010 mg/L	2025-10-11	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2025-10-11	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010 mg/L	2025-10-11	
Calcium, total	39.6	None Required	0.20 mg/L	2025-10-11	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-10-11	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2025-10-11	
Copper, total	0.00188	MAC = 2	0.00040 mg/L	2025-10-11	
Iron, total	< 0.010	AO ≤ 0.1	0.010 mg/L	2025-10-11	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2025-10-11	
Lithium, total	0.00146	N/A	0.00010 mg/L	2025-10-11	
Magnesium, total	9.49	None Required	0.010 mg/L	2025-10-11	
Manganese, total	0.0182	MAC = 0.12	0.00020 mg/L	2025-10-11	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Semi Annually Distribution System

WORK ORDER REPORTED 25J1257
2025-10-16 12:23

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
35D91k NEW CARON PIT (25J1257-03) Matrix: Drinking Water Sampled: 2025-10-07 12:00, Continued					
<i>Total Metals, Continued</i>					
Molybdenum, total	0.00169	N/A	0.00010 mg/L	2025-10-11	
Nickel, total	0.00041	N/A	0.00040 mg/L	2025-10-11	
Phosphorus, total	0.050	N/A	0.050 mg/L	2025-10-11	
Potassium, total	1.08	N/A	0.10 mg/L	2025-10-11	
Selenium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-10-11	
Silicon, total	6.6	N/A	1.0 mg/L	2025-10-11	
Silver, total	< 0.000050	None Required	0.000050 mg/L	2025-10-11	
Sodium, total	5.33	AO ≤ 200	0.10 mg/L	2025-10-11	
Strontium, total	0.227	MAC = 7	0.0010 mg/L	2025-10-11	
Sulfur, total	8.0	N/A	3.0 mg/L	2025-10-11	
Tellurium, total	< 0.00050	N/A	0.00050 mg/L	2025-10-11	
Thallium, total	< 0.000020	N/A	0.000020 mg/L	2025-10-11	
Thorium, total	< 0.00010	N/A	0.00010 mg/L	2025-10-11	
Tin, total	< 0.00020	N/A	0.00020 mg/L	2025-10-11	
Titanium, total	< 0.0050	N/A	0.0050 mg/L	2025-10-11	
Tungsten, total	< 0.0010	N/A	0.0010 mg/L	2025-10-11	
Uranium, total	0.000574	MAC = 0.02	0.000020 mg/L	2025-10-11	
Vanadium, total	< 0.0050	N/A	0.0050 mg/L	2025-10-11	
Zinc, total	< 0.0040	AO ≤ 5	0.0040 mg/L	2025-10-11	
Zirconium, total	< 0.00010	N/A	0.00010 mg/L	2025-10-11	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of
Semi Annually Distribution System

WORK ORDER REPORTED 25J1257
2025-10-16 12:23

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Heterotrophic Plate Count in Water	SM 9215 D (2022)	Membrane Filtration / Membrane Filtration	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CFU/mL	Colony Forming Units per millilitre
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
OG	Operational Guideline (treated water)
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.



CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Annual
PROJECT INFO

WORK ORDER 25G1321

RECEIVED / TEMP 2025-07-09 13:35 / 15.0°C
REPORTED 2025-07-16 12:21
COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94D1 Well 3 Rolph at Roddis (25G1321-01) Matrix: Water Sampled: 2025-07-08 11:30						F1, F2, F3
Anions						
Chloride	7.38	AO ≤ 250	0.10	mg/L	2025-07-10	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2025-07-10	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-07-10	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-07-10	
Sulfate	17.0	AO ≤ 500	1.0	mg/L	2025-07-10	
Calculated Parameters						
Aggressiveness Index	12.6	N/A	-		2025-07-14	CT6
Hardness, Dissolved (as CaCO3)	205	N/A	0.500	mg/L	N/A	
Langelier Index	0.6	N/A	-5.0		2025-07-15	CT6
Dissolved Metals						
F1						
Aluminum, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Antimony, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Arsenic, dissolved	0.00147	N/A	0.00050	mg/L	2025-07-13	
Barium, dissolved	0.0585	N/A	0.0050	mg/L	2025-07-13	
Beryllium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Bismuth, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Boron, dissolved	< 0.0500	N/A	0.0500	mg/L	2025-07-13	
Cadmium, dissolved	0.000010	N/A	0.000010	mg/L	2025-07-13	
Calcium, dissolved	52.6	N/A	0.20	mg/L	2025-07-13	
Chromium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Cobalt, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Copper, dissolved	0.00328	N/A	0.00040	mg/L	2025-07-13	
Iron, dissolved	0.015	N/A	0.010	mg/L	2025-07-13	
Lead, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Lithium, dissolved	0.00109	N/A	0.00010	mg/L	2025-07-13	
Magnesium, dissolved	17.8	N/A	0.010	mg/L	2025-07-13	
Manganese, dissolved	0.554	N/A	0.00020	mg/L	2025-07-13	
Molybdenum, dissolved	0.00248	N/A	0.00010	mg/L	2025-07-13	
Nickel, dissolved	0.00089	N/A	0.00040	mg/L	2025-07-13	
Phosphorus, dissolved	< 0.050	N/A	0.050	mg/L	2025-07-13	
Potassium, dissolved	2.78	N/A	0.10	mg/L	2025-07-13	
Selenium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Silicon, dissolved	11.1	N/A	1.0	mg/L	2025-07-13	
Silver, dissolved	< 0.000050	N/A	0.000050	mg/L	2025-07-13	
Sodium, dissolved	8.54	N/A	0.10	mg/L	2025-07-13	
Strontium, dissolved	0.264	N/A	0.0010	mg/L	2025-07-13	
Sulfur, dissolved	5.4	N/A	3.0	mg/L	2025-07-13	
Tellurium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Thallium, dissolved	< 0.000020	N/A	0.000020	mg/L	2025-07-13	
Thorium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Tin, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Titanium, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94D1 Well 3 Rolph at Roddis (25G1321-01) Matrix: Water Sampled: 2025-07-08 11:30, Continued						F1, F2, F3
<i>Dissolved Metals, Continued</i>						F1
Tungsten, dissolved	< 0.0010	N/A	0.0010	mg/L	2025-07-13	
Uranium, dissolved	0.000537	N/A	0.000020	mg/L	2025-07-13	
Vanadium, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Zinc, dissolved	0.0043	N/A	0.0040	mg/L	2025-07-13	
Zirconium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
<i>General Parameters</i>						
Alkalinity, Total (as CaCO3)	192	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Bicarbonate (as CaCO3)	192	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0	mg/L	2025-07-12	
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2025-07-11	
Conductivity (EC)	440	N/A	2.0	µS/cm	2025-07-12	
pH	8.15	7.0-10.5	0.10	pH units	2025-07-12	HT2
Solids, Total Dissolved	275	AO ≤ 500	15	mg/L	2025-07-15	
Temperature, at pH	22.9	N/A		°C	2025-07-12	HT2
Turbidity	0.18	OG < 1	0.10	NTU	2025-07-10	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-09	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-09	
<i>Total Metals</i>						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2025-07-12	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2025-07-12	
Arsenic, total	0.00147	MAC = 0.01	0.00050	mg/L	2025-07-12	
Barium, total	0.0575	MAC = 2	0.0050	mg/L	2025-07-12	
Beryllium, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	
Bismuth, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2025-07-12	
Cadmium, total	0.000011	MAC = 0.007	0.000010	mg/L	2025-07-12	
Calcium, total	53.8	None Required	0.20	mg/L	2025-07-12	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2025-07-12	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	
Copper, total	0.00327	MAC = 2	0.00040	mg/L	2025-07-12	
Iron, total	0.066	AO ≤ 0.1	0.010	mg/L	2025-07-12	
Lead, total	0.00031	MAC = 0.005	0.00020	mg/L	2025-07-12	
Lithium, total	0.00105	N/A	0.00010	mg/L	2025-07-12	
Magnesium, total	17.9	None Required	0.010	mg/L	2025-07-12	
Manganese, total	0.550	MAC = 0.12	0.00020	mg/L	2025-07-12	
Molybdenum, total	0.00248	N/A	0.00010	mg/L	2025-07-12	
Nickel, total	0.00094	N/A	0.00040	mg/L	2025-07-12	
Phosphorus, total	< 0.050	N/A	0.050	mg/L	2025-07-12	



TEST RESULTS

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Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94D1 Well 3 Rolph at Roddis (25G1321-01) Matrix: Water Sampled: 2025-07-08 11:30, Continued					F1, F2, F3
<i>Total Metals, Continued</i>					
Potassium, total	2.75	N/A	0.10 mg/L	2025-07-12	
Selenium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-07-12	
Silicon, total	11.2	N/A	1.0 mg/L	2025-07-12	
Silver, total	< 0.000050	None Required	0.000050 mg/L	2025-07-12	
Sodium, total	8.37	AO ≤ 200	0.10 mg/L	2025-07-12	
Strontium, total	0.256	MAC = 7	0.0010 mg/L	2025-07-12	
Sulfur, total	6.0	N/A	3.0 mg/L	2025-07-12	
Tellurium, total	< 0.00050	N/A	0.00050 mg/L	2025-07-12	
Thallium, total	< 0.000020	N/A	0.000020 mg/L	2025-07-12	
Thorium, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Tin, total	< 0.00020	N/A	0.00020 mg/L	2025-07-12	
Titanium, total	< 0.0050	N/A	0.0050 mg/L	2025-07-12	
Tungsten, total	< 0.0010	N/A	0.0010 mg/L	2025-07-12	
Uranium, total	0.000527	MAC = 0.02	0.000020 mg/L	2025-07-12	
Vanadium, total	< 0.0050	N/A	0.0050 mg/L	2025-07-12	
Zinc, total	0.0054	AO ≤ 5	0.0040 mg/L	2025-07-12	
Zirconium, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	

Volatile Organic Compounds (VOC)

Benzene	< 0.5	MAC = 5	0.5 µg/L	2025-07-11	
Bromodichloromethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
Bromoform	< 1.0	N/A	1.0 µg/L	2025-07-11	
Carbon tetrachloride	< 0.5	MAC = 2	0.5 µg/L	2025-07-11	
Chlorobenzene	< 1.0	AO ≤ 30	1.0 µg/L	2025-07-11	
Chloroethane	< 2.0	N/A	2.0 µg/L	2025-07-11	
Chloroform	< 1.0	N/A	1.0 µg/L	2025-07-11	
Dibromochloromethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,2-Dibromoethane	< 0.3	N/A	0.3 µg/L	2025-07-11	
Dibromomethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,2-Dichlorobenzene	< 0.5	N/A	0.5 µg/L	2025-07-11	
1,3-Dichlorobenzene	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0 µg/L	2025-07-11	
1,1-Dichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0 µg/L	2025-07-11	
1,1-Dichloroethylene	< 1.0	N/A	1.0 µg/L	2025-07-11	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0 µg/L	2025-07-11	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0 µg/L	2025-07-11	
Dichloromethane	< 3.0	MAC = 50	3.0 µg/L	2025-07-11	
1,2-Dichloropropane	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0 µg/L	2025-07-11	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0 µg/L	2025-07-11	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0 µg/L	2025-07-11	
Styrene	< 1.0	N/A	1.0 µg/L	2025-07-11	



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Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94D1 Well 3 Rolph at Roddis (25G1321-01) Matrix: Water Sampled: 2025-07-08 11:30, Continued					F1, F2, F3

Volatile Organic Compounds (VOC), Continued

1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5 µg/L	2025-07-11	
Tetrachloroethylene	< 1.0	MAC = 10	1.0 µg/L	2025-07-11	
Toluene	< 1.0	MAC = 60	1.0 µg/L	2025-07-11	
1,1,1-Trichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,1,2-Trichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
Trichloroethylene	< 1.0	MAC = 5	1.0 µg/L	2025-07-11	
Trichlorofluoromethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
Vinyl chloride	< 1.0	MAC = 2	1.0 µg/L	2025-07-11	
Xylenes (total)	< 2.0	AO ≤ 20	2.0 µg/L	2025-07-11	
Surrogate: Toluene-d8	102		70-130 %	2025-07-11	
Surrogate: 4-Bromofluorobenzene	90		70-130 %	2025-07-11	
Surrogate: 1,4-Dichlorobenzene-d4	89		70-130 %	2025-07-11	

94DC Well 6 Rolph/Robertson (25G1321-02) | Matrix: Water | Sampled: 2025-07-08 10:45

F1, F2, F3

Anions

Chloride	15.9	AO ≤ 250	0.10 mg/L	2025-07-10	
Fluoride	< 0.10	MAC = 1.5	0.10 mg/L	2025-07-10	
Nitrate (as N)	< 0.010	MAC = 10	0.010 mg/L	2025-07-10	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2025-07-10	
Sulfate	26.0	AO ≤ 500	1.0 mg/L	2025-07-10	

Calculated Parameters

Aggressiveness Index	12.6	N/A	-	2025-07-14	CT6
Hardness, Dissolved (as CaCO3)	268	N/A	0.500 mg/L	N/A	
Langelier Index	0.7	N/A	-5.0	2025-07-15	CT6

Dissolved Metals

F1

Aluminum, dissolved	< 0.0050	N/A	0.0050 mg/L	2025-07-13	
Antimony, dissolved	< 0.00020	N/A	0.00020 mg/L	2025-07-13	
Arsenic, dissolved	0.00059	N/A	0.00050 mg/L	2025-07-13	
Barium, dissolved	0.0817	N/A	0.0050 mg/L	2025-07-13	
Beryllium, dissolved	< 0.00010	N/A	0.00010 mg/L	2025-07-13	
Bismuth, dissolved	< 0.00010	N/A	0.00010 mg/L	2025-07-13	
Boron, dissolved	< 0.0500	N/A	0.0500 mg/L	2025-07-13	
Cadmium, dissolved	0.000031	N/A	0.000010 mg/L	2025-07-13	
Calcium, dissolved	68.7	N/A	0.20 mg/L	2025-07-13	
Chromium, dissolved	< 0.00050	N/A	0.00050 mg/L	2025-07-13	
Cobalt, dissolved	0.00012	N/A	0.00010 mg/L	2025-07-13	
Copper, dissolved	0.00123	N/A	0.00040 mg/L	2025-07-13	
Iron, dissolved	< 0.010	N/A	0.010 mg/L	2025-07-13	
Lead, dissolved	< 0.00020	N/A	0.00020 mg/L	2025-07-13	
Lithium, dissolved	0.00183	N/A	0.00010 mg/L	2025-07-13	



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Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94DC Well 6 Rolph/Robertson (25G1321-02) Matrix: Water Sampled: 2025-07-08 10:45, Continued					F1, F2, F3
<i>Dissolved Metals, Continued</i>					F1
Magnesium, dissolved	23.4	N/A	0.010 mg/L	2025-07-13	
Manganese, dissolved	0.219	N/A	0.00020 mg/L	2025-07-13	
Molybdenum, dissolved	0.00180	N/A	0.00010 mg/L	2025-07-13	
Nickel, dissolved	0.00235	N/A	0.00040 mg/L	2025-07-13	
Phosphorus, dissolved	< 0.050	N/A	0.050 mg/L	2025-07-13	
Potassium, dissolved	3.68	N/A	0.10 mg/L	2025-07-13	
Selenium, dissolved	< 0.00050	N/A	0.00050 mg/L	2025-07-13	
Silicon, dissolved	10.6	N/A	1.0 mg/L	2025-07-13	
Silver, dissolved	< 0.000050	N/A	0.000050 mg/L	2025-07-13	
Sodium, dissolved	10.2	N/A	0.10 mg/L	2025-07-13	
Strontium, dissolved	0.335	N/A	0.0010 mg/L	2025-07-13	
Sulfur, dissolved	8.4	N/A	3.0 mg/L	2025-07-13	
Tellurium, dissolved	< 0.00050	N/A	0.00050 mg/L	2025-07-13	
Thallium, dissolved	< 0.000020	N/A	0.000020 mg/L	2025-07-13	
Thorium, dissolved	< 0.00010	N/A	0.00010 mg/L	2025-07-13	
Tin, dissolved	< 0.00020	N/A	0.00020 mg/L	2025-07-13	
Titanium, dissolved	< 0.0050	N/A	0.0050 mg/L	2025-07-13	
Tungsten, dissolved	< 0.0010	N/A	0.0010 mg/L	2025-07-13	
Uranium, dissolved	0.00106	N/A	0.000020 mg/L	2025-07-13	
Vanadium, dissolved	< 0.0050	N/A	0.0050 mg/L	2025-07-13	
Zinc, dissolved	< 0.0040	N/A	0.0040 mg/L	2025-07-13	
Zirconium, dissolved	< 0.00010	N/A	0.00010 mg/L	2025-07-13	
<i>General Parameters</i>					
Alkalinity, Total (as CaCO ₃)	238	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Bicarbonate (as CaCO ₃)	238	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2025-07-12	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2025-07-11	
Conductivity (EC)	574	N/A	2.0 µS/cm	2025-07-12	
pH	8.03	7.0-10.5	0.10 pH units	2025-07-12	HT2
Solids, Total Dissolved	329	AO ≤ 500	15 mg/L	2025-07-15	
Temperature, at pH	22.8	N/A	°C	2025-07-12	HT2
Turbidity	0.12	OG < 1	0.10 NTU	2025-07-10	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-07-09	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-07-09	
<i>Total Metals</i>					
Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2025-07-11	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2025-07-11	
Arsenic, total	0.00066	MAC = 0.01	0.00050 mg/L	2025-07-11	



TEST RESULTS

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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94DC Well 6 Rolph/Robertson (25G1321-02) Matrix: Water Sampled: 2025-07-08 10:45, Continued						F1, F2, F3

Total Metals, Continued

Barium, total	0.0781	MAC = 2	0.0050	mg/L	2025-07-11	
Beryllium, total	< 0.00010	N/A	0.00010	mg/L	2025-07-11	
Bismuth, total	< 0.00010	N/A	0.00010	mg/L	2025-07-11	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2025-07-11	
Cadmium, total	0.000030	MAC = 0.007	0.000010	mg/L	2025-07-11	
Calcium, total	73.2	None Required	0.20	mg/L	2025-07-11	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2025-07-11	
Cobalt, total	0.00013	N/A	0.00010	mg/L	2025-07-11	
Copper, total	0.00132	MAC = 2	0.00040	mg/L	2025-07-11	
Iron, total	0.051	AO ≤ 0.1	0.010	mg/L	2025-07-11	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2025-07-11	
Lithium, total	0.00180	N/A	0.00010	mg/L	2025-07-11	
Magnesium, total	24.2	None Required	0.010	mg/L	2025-07-11	
Manganese, total	0.216	MAC = 0.12	0.00020	mg/L	2025-07-11	
Molybdenum, total	0.00172	N/A	0.00010	mg/L	2025-07-11	
Nickel, total	0.00235	N/A	0.00040	mg/L	2025-07-11	
Phosphorus, total	< 0.050	N/A	0.050	mg/L	2025-07-12	
Potassium, total	3.67	N/A	0.10	mg/L	2025-07-11	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2025-07-11	
Silicon, total	10.7	N/A	1.0	mg/L	2025-07-11	
Silver, total	< 0.000050	None Required	0.000050	mg/L	2025-07-11	
Sodium, total	9.73	AO ≤ 200	0.10	mg/L	2025-07-11	
Strontium, total	0.330	MAC = 7	0.0010	mg/L	2025-07-11	
Sulfur, total	8.6	N/A	3.0	mg/L	2025-07-11	
Tellurium, total	< 0.00050	N/A	0.00050	mg/L	2025-07-11	
Thallium, total	< 0.000020	N/A	0.000020	mg/L	2025-07-11	
Thorium, total	< 0.00010	N/A	0.00010	mg/L	2025-07-11	
Tin, total	< 0.00020	N/A	0.00020	mg/L	2025-07-11	
Titanium, total	< 0.0050	N/A	0.0050	mg/L	2025-07-11	
Tungsten, total	< 0.0010	N/A	0.0010	mg/L	2025-07-11	
Uranium, total	0.00103	MAC = 0.02	0.000020	mg/L	2025-07-11	
Vanadium, total	< 0.0050	N/A	0.0050	mg/L	2025-07-11	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2025-07-11	
Zirconium, total	< 0.00010	N/A	0.00010	mg/L	2025-07-11	

Volatile Organic Compounds (VOC)

Benzene	< 0.5	MAC = 5	0.5	µg/L	2025-07-11	
Bromodichloromethane	< 1.0	N/A	1.0	µg/L	2025-07-11	
Bromoform	< 1.0	N/A	1.0	µg/L	2025-07-11	
Carbon tetrachloride	< 0.5	MAC = 2	0.5	µg/L	2025-07-11	
Chlorobenzene	< 1.0	AO ≤ 30	1.0	µg/L	2025-07-11	
Chloroethane	< 2.0	N/A	2.0	µg/L	2025-07-11	
Chloroform	< 1.0	N/A	1.0	µg/L	2025-07-11	



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94DC Well 6 Rolph/Robertson (25G1321-02) Matrix: Water Sampled: 2025-07-08 10:45, Continued					F1, F2, F3
<i>Volatile Organic Compounds (VOC), Continued</i>					
Dibromochloromethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,2-Dibromoethane	< 0.3	N/A	0.3 µg/L	2025-07-11	
Dibromomethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,2-Dichlorobenzene	< 0.5	N/A	0.5 µg/L	2025-07-11	
1,3-Dichlorobenzene	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0 µg/L	2025-07-11	
1,1-Dichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0 µg/L	2025-07-11	
1,1-Dichloroethylene	< 1.0	N/A	1.0 µg/L	2025-07-11	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0 µg/L	2025-07-11	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0 µg/L	2025-07-11	
Dichloromethane	< 3.0	MAC = 50	3.0 µg/L	2025-07-11	
1,2-Dichloropropane	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0 µg/L	2025-07-11	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0 µg/L	2025-07-11	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0 µg/L	2025-07-11	
Styrene	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,1,1,2-Tetrachloroethane	< 0.5	N/A	0.5 µg/L	2025-07-11	
Tetrachloroethylene	< 1.0	MAC = 10	1.0 µg/L	2025-07-11	
Toluene	< 1.0	MAC = 60	1.0 µg/L	2025-07-11	
1,1,1-Trichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
1,1,2-Trichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
Trichloroethylene	< 1.0	MAC = 5	1.0 µg/L	2025-07-11	
Trichlorofluoromethane	< 1.0	N/A	1.0 µg/L	2025-07-11	
Vinyl chloride	< 1.0	MAC = 2	1.0 µg/L	2025-07-11	
Xylenes (total)	< 2.0	AO ≤ 20	2.0 µg/L	2025-07-11	
Surrogate: Toluene-d8	112		70-130 %	2025-07-11	
Surrogate: 4-Bromofluorobenzene	90		70-130 %	2025-07-11	
Surrogate: 1,4-Dichlorobenzene-d4	102		70-130 %	2025-07-11	

94E0 Well 7 N. Fraser Drive (25G1321-03) | Matrix: Water | Sampled: 2025-07-08 10:00

F1, F2, F3

Anions

Chloride	8.13	AO ≤ 250	0.10 mg/L	2025-07-10	
Fluoride	< 0.10	MAC = 1.5	0.10 mg/L	2025-07-10	
Nitrate (as N)	0.081	MAC = 10	0.010 mg/L	2025-07-10	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2025-07-10	
Sulfate	20.5	AO ≤ 500	1.0 mg/L	2025-07-10	

Calculated Parameters

Aggressiveness Index	12.4	N/A	-	2025-07-14	CT6
Hardness, Dissolved (as CaCO3)	200	N/A	0.500 mg/L	N/A	
Langelier Index	0.4	N/A	-5.0	2025-07-15	CT6



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E0 Well 7 N. Fraser Drive (25G1321-03) Matrix: Water Sampled: 2025-07-08 10:00, Continued						F1, F2, F3
<i>Dissolved Metals</i>						F1
Aluminum, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Antimony, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Arsenic, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Barium, dissolved	0.0337	N/A	0.0050	mg/L	2025-07-13	
Beryllium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Bismuth, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Boron, dissolved	< 0.0500	N/A	0.0500	mg/L	2025-07-13	
Cadmium, dissolved	< 0.000010	N/A	0.000010	mg/L	2025-07-13	
Calcium, dissolved	54.2	N/A	0.20	mg/L	2025-07-13	
Chromium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Cobalt, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Copper, dissolved	0.0170	N/A	0.00040	mg/L	2025-07-14	RE2
Iron, dissolved	< 0.010	N/A	0.010	mg/L	2025-07-13	
Lead, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Lithium, dissolved	0.00146	N/A	0.00010	mg/L	2025-07-13	
Magnesium, dissolved	15.6	N/A	0.010	mg/L	2025-07-13	
Manganese, dissolved	0.0116	N/A	0.00020	mg/L	2025-07-13	
Molybdenum, dissolved	0.00127	N/A	0.00010	mg/L	2025-07-13	
Nickel, dissolved	0.00059	N/A	0.00040	mg/L	2025-07-13	
Phosphorus, dissolved	< 0.050	N/A	0.050	mg/L	2025-07-13	
Potassium, dissolved	1.96	N/A	0.10	mg/L	2025-07-13	
Selenium, dissolved	0.00289	N/A	0.00050	mg/L	2025-07-13	
Silicon, dissolved	6.5	N/A	1.0	mg/L	2025-07-13	
Silver, dissolved	< 0.000050	N/A	0.000050	mg/L	2025-07-13	
Sodium, dissolved	6.31	N/A	0.10	mg/L	2025-07-13	
Strontium, dissolved	0.232	N/A	0.0010	mg/L	2025-07-13	
Sulfur, dissolved	6.8	N/A	3.0	mg/L	2025-07-13	
Tellurium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Thallium, dissolved	< 0.000020	N/A	0.000020	mg/L	2025-07-13	
Thorium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Tin, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Titanium, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Tungsten, dissolved	< 0.0010	N/A	0.0010	mg/L	2025-07-13	
Uranium, dissolved	0.000962	N/A	0.000020	mg/L	2025-07-13	
Vanadium, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Zinc, dissolved	< 0.0040	N/A	0.0040	mg/L	2025-07-13	
Zirconium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
<i>General Parameters</i>						
Alkalinity, Total (as CaCO3)	179	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Bicarbonate (as CaCO3)	179	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0	mg/L	2025-07-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94E0 Well 7 N. Fraser Drive (25G1321-03) Matrix: Water Sampled: 2025-07-08 10:00, Continued					F1, F2, F3
<i>General Parameters, Continued</i>					
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2025-07-12	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2025-07-11	
Conductivity (EC)	426	N/A	2.0 µS/cm	2025-07-12	
pH	8.00	7.0-10.5	0.10 pH units	2025-07-12	HT2
Solids, Total Dissolved	249	AO ≤ 500	15 mg/L	2025-07-15	
Temperature, at pH	22.4	N/A	°C	2025-07-12	HT2
Turbidity	< 0.10	OG < 1	0.10 NTU	2025-07-10	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-07-09	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-07-09	
<i>Total Metals</i>					
Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2025-07-12	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2025-07-12	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050 mg/L	2025-07-12	
Barium, total	0.0325	MAC = 2	0.0050 mg/L	2025-07-12	
Beryllium, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Bismuth, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2025-07-12	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010 mg/L	2025-07-12	
Calcium, total	55.3	None Required	0.20 mg/L	2025-07-12	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-07-12	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Copper, total	0.00959	MAC = 2	0.00040 mg/L	2025-07-12	
Iron, total	< 0.010	AO ≤ 0.1	0.010 mg/L	2025-07-12	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2025-07-12	
Lithium, total	0.00140	N/A	0.00010 mg/L	2025-07-12	
Magnesium, total	15.7	None Required	0.010 mg/L	2025-07-12	
Manganese, total	0.0120	MAC = 0.12	0.00020 mg/L	2025-07-12	
Molybdenum, total	0.00122	N/A	0.00010 mg/L	2025-07-12	
Nickel, total	0.00061	N/A	0.00040 mg/L	2025-07-12	
Phosphorus, total	< 0.050	N/A	0.050 mg/L	2025-07-12	
Potassium, total	1.95	N/A	0.10 mg/L	2025-07-12	
Selenium, total	0.00278	MAC = 0.05	0.00050 mg/L	2025-07-12	
Silicon, total	6.5	N/A	1.0 mg/L	2025-07-12	
Silver, total	< 0.000050	None Required	0.000050 mg/L	2025-07-12	
Sodium, total	6.38	AO ≤ 200	0.10 mg/L	2025-07-12	
Strontium, total	0.223	MAC = 7	0.0010 mg/L	2025-07-12	
Sulfur, total	7.6	N/A	3.0 mg/L	2025-07-12	
Tellurium, total	< 0.00050	N/A	0.00050 mg/L	2025-07-12	
Thallium, total	< 0.000020	N/A	0.000020 mg/L	2025-07-12	
Thorium, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Tin, total	< 0.00020	N/A	0.00020 mg/L	2025-07-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E0 Well 7 N. Fraser Drive (25G1321-03) Matrix: Water Sampled: 2025-07-08 10:00, Continued						F1, F2, F3
<i>Total Metals, Continued</i>						
Titanium, total	< 0.0050	N/A	0.0050	mg/L	2025-07-12	
Tungsten, total	< 0.0010	N/A	0.0010	mg/L	2025-07-12	
Uranium, total	0.000938	MAC = 0.02	0.000020	mg/L	2025-07-12	
Vanadium, total	< 0.0050	N/A	0.0050	mg/L	2025-07-12	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2025-07-12	
Zirconium, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	
<i>Volatile Organic Compounds (VOC)</i>						
Benzene	< 0.5	MAC = 5	0.5	µg/L	2025-07-12	
Bromodichloromethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
Bromoform	< 1.0	N/A	1.0	µg/L	2025-07-12	
Carbon tetrachloride	< 0.5	MAC = 2	0.5	µg/L	2025-07-12	
Chlorobenzene	< 1.0	AO ≤ 30	1.0	µg/L	2025-07-12	
Chloroethane	< 2.0	N/A	2.0	µg/L	2025-07-12	
Chloroform	< 1.0	N/A	1.0	µg/L	2025-07-12	
Dibromochloromethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,2-Dibromoethane	< 0.3	N/A	0.3	µg/L	2025-07-12	
Dibromomethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,2-Dichlorobenzene	< 0.5	N/A	0.5	µg/L	2025-07-12	
1,3-Dichlorobenzene	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0	µg/L	2025-07-12	
1,1-Dichloroethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0	µg/L	2025-07-12	
1,1-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2025-07-12	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2025-07-12	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2025-07-12	
Dichloromethane	< 3.0	MAC = 50	3.0	µg/L	2025-07-12	
1,2-Dichloropropane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0	µg/L	2025-07-12	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0	µg/L	2025-07-12	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0	µg/L	2025-07-12	
Styrene	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5	µg/L	2025-07-12	
Tetrachloroethylene	< 1.0	MAC = 10	1.0	µg/L	2025-07-12	
Toluene	< 1.0	MAC = 60	1.0	µg/L	2025-07-12	
1,1,1-Trichloroethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,1,2-Trichloroethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
Trichloroethylene	< 1.0	MAC = 5	1.0	µg/L	2025-07-12	
Trichlorofluoromethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
Vinyl chloride	< 1.0	MAC = 2	1.0	µg/L	2025-07-12	
Xylenes (total)	< 2.0	AO ≤ 20	2.0	µg/L	2025-07-12	
Surrogate: Toluene-d8	98		70-130	%	2025-07-12	
Surrogate: 4-Bromofluorobenzene	85		70-130	%	2025-07-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E0 Well 7 N. Fraser Drive (25G1321-03) Matrix: Water Sampled: 2025-07-08 10:00, Continued						F1, F2, F3
<i>Volatile Organic Compounds (VOC), Continued</i>						
Surrogate: 1,4-Dichlorobenzene-d4	82		70-130	%	2025-07-12	
94E1 Well 8 Hillborn Road (25G1321-04) Matrix: Water Sampled: 2025-07-08 13:30						F1, F2, F3
<i>Anions</i>						
Chloride	5.00	AO ≤ 250	0.10	mg/L	2025-07-10	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2025-07-10	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-07-10	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-07-10	
Sulfate	41.3	AO ≤ 500	1.0	mg/L	2025-07-10	
<i>Calculated Parameters</i>						
Aggressiveness Index	12.5	N/A	-		2025-07-14	CT6
Hardness, Dissolved (as CaCO3)	190	N/A	0.500	mg/L	N/A	
Langelier Index	0.5	N/A	-5.0		2025-07-15	CT6
<i>Dissolved Metals</i>						
						F1
Aluminum, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Antimony, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Arsenic, dissolved	0.00117	N/A	0.00050	mg/L	2025-07-13	
Barium, dissolved	0.122	N/A	0.0050	mg/L	2025-07-13	
Beryllium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Bismuth, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Boron, dissolved	< 0.0500	N/A	0.0500	mg/L	2025-07-13	
Cadmium, dissolved	< 0.000010	N/A	0.000010	mg/L	2025-07-13	
Calcium, dissolved	56.1	N/A	0.20	mg/L	2025-07-13	
Chromium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Cobalt, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Copper, dissolved	< 0.00040	N/A	0.00040	mg/L	2025-07-13	
Iron, dissolved	< 0.010	N/A	0.010	mg/L	2025-07-13	
Lead, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Lithium, dissolved	0.00068	N/A	0.00010	mg/L	2025-07-13	
Magnesium, dissolved	12.0	N/A	0.010	mg/L	2025-07-13	
Manganese, dissolved	0.236	N/A	0.00020	mg/L	2025-07-13	
Molybdenum, dissolved	0.00159	N/A	0.00010	mg/L	2025-07-13	
Nickel, dissolved	0.00356	N/A	0.00040	mg/L	2025-07-13	
Phosphorus, dissolved	< 0.050	N/A	0.050	mg/L	2025-07-13	
Potassium, dissolved	1.42	N/A	0.10	mg/L	2025-07-13	
Selenium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Silicon, dissolved	6.6	N/A	1.0	mg/L	2025-07-13	
Silver, dissolved	< 0.000050	N/A	0.000050	mg/L	2025-07-13	
Sodium, dissolved	6.55	N/A	0.10	mg/L	2025-07-13	
Strontium, dissolved	0.358	N/A	0.0010	mg/L	2025-07-13	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E1 Well 8 Hillborn Road (25G1321-04) Matrix: Water Sampled: 2025-07-08 13:30, Continued						F1, F2, F3

Total Metals, Continued

Lithium, total	0.00067	N/A	0.00010	mg/L	2025-07-12	
Magnesium, total	12.2	None Required	0.010	mg/L	2025-07-12	
Manganese, total	0.244	MAC = 0.12	0.00020	mg/L	2025-07-12	
Molybdenum, total	0.00159	N/A	0.00010	mg/L	2025-07-12	
Nickel, total	0.00352	N/A	0.00040	mg/L	2025-07-12	
Phosphorus, total	< 0.050	N/A	0.050	mg/L	2025-07-12	
Potassium, total	1.41	N/A	0.10	mg/L	2025-07-12	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2025-07-12	
Silicon, total	6.5	N/A	1.0	mg/L	2025-07-12	
Silver, total	< 0.000050	None Required	0.000050	mg/L	2025-07-12	
Sodium, total	6.54	AO ≤ 200	0.10	mg/L	2025-07-12	
Strontium, total	0.347	MAC = 7	0.0010	mg/L	2025-07-12	
Sulfur, total	14.7	N/A	3.0	mg/L	2025-07-12	
Tellurium, total	< 0.00050	N/A	0.00050	mg/L	2025-07-12	
Thallium, total	< 0.000020	N/A	0.000020	mg/L	2025-07-12	
Thorium, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	
Tin, total	< 0.00020	N/A	0.00020	mg/L	2025-07-12	
Titanium, total	< 0.0050	N/A	0.0050	mg/L	2025-07-12	
Tungsten, total	< 0.0010	N/A	0.0010	mg/L	2025-07-12	
Uranium, total	0.00145	MAC = 0.02	0.000020	mg/L	2025-07-12	
Vanadium, total	< 0.0050	N/A	0.0050	mg/L	2025-07-12	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2025-07-12	
Zirconium, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	

Volatile Organic Compounds (VOC)

Benzene	< 0.5	MAC = 5	0.5	µg/L	2025-07-12	
Bromodichloromethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
Bromoform	< 1.0	N/A	1.0	µg/L	2025-07-12	
Carbon tetrachloride	< 0.5	MAC = 2	0.5	µg/L	2025-07-12	
Chlorobenzene	< 1.0	AO ≤ 30	1.0	µg/L	2025-07-12	
Chloroethane	< 2.0	N/A	2.0	µg/L	2025-07-12	
Chloroform	< 1.0	N/A	1.0	µg/L	2025-07-12	
Dibromochloromethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,2-Dibromoethane	< 0.3	N/A	0.3	µg/L	2025-07-12	
Dibromomethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,2-Dichlorobenzene	< 0.5	N/A	0.5	µg/L	2025-07-12	
1,3-Dichlorobenzene	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0	µg/L	2025-07-12	
1,1-Dichloroethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0	µg/L	2025-07-12	
1,1-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2025-07-12	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2025-07-12	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2025-07-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94E1 Well 8 Hillborn Road (25G1321-04) Matrix: Water Sampled: 2025-07-08 13:30, Continued					F1, F2, F3
<i>Dissolved Metals, Continued</i>					F1
Sulfur, dissolved	13.3	N/A	3.0 mg/L	2025-07-13	
Tellurium, dissolved	< 0.00050	N/A	0.00050 mg/L	2025-07-13	
Thallium, dissolved	< 0.000020	N/A	0.000020 mg/L	2025-07-13	
Thorium, dissolved	< 0.00010	N/A	0.00010 mg/L	2025-07-13	
Tin, dissolved	< 0.00020	N/A	0.00020 mg/L	2025-07-13	
Titanium, dissolved	< 0.0050	N/A	0.0050 mg/L	2025-07-13	
Tungsten, dissolved	< 0.0010	N/A	0.0010 mg/L	2025-07-13	
Uranium, dissolved	0.00151	N/A	0.000020 mg/L	2025-07-13	
Vanadium, dissolved	< 0.0050	N/A	0.0050 mg/L	2025-07-13	
Zinc, dissolved	< 0.0040	N/A	0.0040 mg/L	2025-07-13	
Zirconium, dissolved	< 0.00010	N/A	0.00010 mg/L	2025-07-13	
<i>General Parameters</i>					
Alkalinity, Total (as CaCO3)	156	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Bicarbonate (as CaCO3)	156	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0 mg/L	2025-07-12	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2025-07-11	
Conductivity (EC)	410	N/A	2.0 µS/cm	2025-07-12	
pH	8.14	7.0-10.5	0.10 pH units	2025-07-12	HT2
Solids, Total Dissolved	228	AO ≤ 500	15 mg/L	2025-07-15	
Temperature, at pH	22.6	N/A	°C	2025-07-12	HT2
Turbidity	< 0.10	OG < 1	0.10 NTU	2025-07-10	
<i>Microbiological Parameters</i>					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-07-09	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-07-09	
<i>Total Metals</i>					
Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2025-07-12	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2025-07-12	
Arsenic, total	0.00113	MAC = 0.01	0.00050 mg/L	2025-07-12	
Barium, total	0.116	MAC = 2	0.0050 mg/L	2025-07-12	
Beryllium, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Bismuth, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2025-07-12	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010 mg/L	2025-07-12	
Calcium, total	57.3	None Required	0.20 mg/L	2025-07-12	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-07-12	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Copper, total	< 0.00040	MAC = 2	0.00040 mg/L	2025-07-12	
Iron, total	< 0.010	AO ≤ 0.1	0.010 mg/L	2025-07-12	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2025-07-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
94E1 Well 8 Hillborn Road (25G1321-04) Matrix: Water Sampled: 2025-07-08 13:30, Continued					F1, F2, F3
<i>Volatile Organic Compounds (VOC), Continued</i>					
Dichloromethane	< 3.0	MAC = 50	3.0 µg/L	2025-07-12	
1,2-Dichloropropane	< 1.0	N/A	1.0 µg/L	2025-07-12	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0 µg/L	2025-07-12	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0 µg/L	2025-07-12	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0 µg/L	2025-07-12	
Styrene	< 1.0	N/A	1.0 µg/L	2025-07-12	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5 µg/L	2025-07-12	
Tetrachloroethylene	< 1.0	MAC = 10	1.0 µg/L	2025-07-12	
Toluene	< 1.0	MAC = 60	1.0 µg/L	2025-07-12	
1,1,1-Trichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-12	
1,1,2-Trichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-12	
Trichloroethylene	< 1.0	MAC = 5	1.0 µg/L	2025-07-12	
Trichlorofluoromethane	< 1.0	N/A	1.0 µg/L	2025-07-12	
Vinyl chloride	< 1.0	MAC = 2	1.0 µg/L	2025-07-12	
Xylenes (total)	< 2.0	AO ≤ 20	2.0 µg/L	2025-07-12	
Surrogate: Toluene-d8	98		70-130 %	2025-07-12	
Surrogate: 4-Bromofluorobenzene	85		70-130 %	2025-07-12	
Surrogate: 1,4-Dichlorobenzene-d4	83		70-130 %	2025-07-12	

94DF Well 9 Carson Sub (25G1321-05) | Matrix: Water | Sampled: 2025-07-08 14:20

F1, F2, F3

Anions

Chloride	2.87	AO ≤ 250	0.10 mg/L	2025-07-10	
Fluoride	< 0.10	MAC = 1.5	0.10 mg/L	2025-07-10	
Nitrate (as N)	< 0.010	MAC = 10	0.010 mg/L	2025-07-10	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2025-07-10	
Sulfate	18.9	AO ≤ 500	1.0 mg/L	2025-07-10	

Calculated Parameters

Aggressiveness Index	11.9	N/A	-	2025-07-14	CT6
Hardness, Dissolved (as CaCO3)	115	N/A	0.500 mg/L	N/A	
Langelier Index	-0.07	N/A	-5.0	2025-07-15	CT6

Dissolved Metals

Aluminum, dissolved	< 0.0050	N/A	0.0050 mg/L	2025-07-13	
Antimony, dissolved	< 0.00020	N/A	0.00020 mg/L	2025-07-13	
Arsenic, dissolved	0.00104	N/A	0.00050 mg/L	2025-07-13	
Barium, dissolved	0.0776	N/A	0.0050 mg/L	2025-07-13	
Beryllium, dissolved	< 0.00010	N/A	0.00010 mg/L	2025-07-13	
Bismuth, dissolved	< 0.00010	N/A	0.00010 mg/L	2025-07-13	
Boron, dissolved	< 0.0500	N/A	0.0500 mg/L	2025-07-13	
Cadmium, dissolved	< 0.000010	N/A	0.000010 mg/L	2025-07-13	
Calcium, dissolved	32.8	N/A	0.20 mg/L	2025-07-13	

F1



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94DF Well 9 Carson Sub (25G1321-05) Matrix: Water Sampled: 2025-07-08 14:20, Continued						F1, F2, F3
<i>Dissolved Metals, Continued</i>						F1
Chromium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Cobalt, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Copper, dissolved	< 0.00040	N/A	0.00040	mg/L	2025-07-13	
Iron, dissolved	< 0.010	N/A	0.010	mg/L	2025-07-13	
Lead, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Lithium, dissolved	0.00142	N/A	0.00010	mg/L	2025-07-13	
Magnesium, dissolved	7.93	N/A	0.010	mg/L	2025-07-13	
Manganese, dissolved	0.149	N/A	0.00020	mg/L	2025-07-13	
Molybdenum, dissolved	0.00178	N/A	0.00010	mg/L	2025-07-13	
Nickel, dissolved	< 0.00040	N/A	0.00040	mg/L	2025-07-13	
Phosphorus, dissolved	< 0.050	N/A	0.050	mg/L	2025-07-13	
Potassium, dissolved	0.92	N/A	0.10	mg/L	2025-07-13	
Selenium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Silicon, dissolved	6.4	N/A	1.0	mg/L	2025-07-13	
Silver, dissolved	< 0.000050	N/A	0.000050	mg/L	2025-07-13	
Sodium, dissolved	4.31	N/A	0.10	mg/L	2025-07-13	
Strontium, dissolved	0.201	N/A	0.0010	mg/L	2025-07-13	
Sulfur, dissolved	6.2	N/A	3.0	mg/L	2025-07-13	
Tellurium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Thallium, dissolved	< 0.000020	N/A	0.000020	mg/L	2025-07-13	
Thorium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Tin, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Titanium, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Tungsten, dissolved	< 0.0010	N/A	0.0010	mg/L	2025-07-13	
Uranium, dissolved	0.000376	N/A	0.000020	mg/L	2025-07-13	
Vanadium, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Zinc, dissolved	< 0.0040	N/A	0.0040	mg/L	2025-07-13	
Zirconium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
<i>General Parameters</i>						
Alkalinity, Total (as CaCO3)	101	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Bicarbonate (as CaCO3)	101	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0	mg/L	2025-07-12	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0	mg/L	2025-07-12	
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2025-07-11	
Conductivity (EC)	256	N/A	2.0	µS/cm	2025-07-12	
pH	7.95	7.0-10.5	0.10	pH units	2025-07-12	HT2
Solids, Total Dissolved	137	AO ≤ 500	15	mg/L	2025-07-15	
Temperature, at pH	22.6	N/A		°C	2025-07-12	HT2
Turbidity	< 0.10	OG < 1	0.10	NTU	2025-07-10	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-07-09	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94DF Well 9 Carson Sub (25G1321-05) Matrix: Water Sampled: 2025-07-08 14:20, Continued						F1, F2, F3

Microbiological Parameters, Continued

E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-07-09	
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Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2025-07-12	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2025-07-12	
Arsenic, total	0.00098	MAC = 0.01	0.00050	mg/L	2025-07-12	
Barium, total	0.0753	MAC = 2	0.0050	mg/L	2025-07-12	
Beryllium, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	
Bismuth, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2025-07-12	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2025-07-12	
Calcium, total	33.0	None Required	0.20	mg/L	2025-07-12	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2025-07-12	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	
Copper, total	< 0.00040	MAC = 2	0.00040	mg/L	2025-07-12	
Iron, total	< 0.010	AO ≤ 0.1	0.010	mg/L	2025-07-12	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2025-07-12	
Lithium, total	0.00138	N/A	0.00010	mg/L	2025-07-12	
Magnesium, total	7.78	None Required	0.010	mg/L	2025-07-12	
Manganese, total	0.148	MAC = 0.12	0.00020	mg/L	2025-07-12	
Molybdenum, total	0.00171	N/A	0.00010	mg/L	2025-07-12	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2025-07-12	
Phosphorus, total	0.059	N/A	0.050	mg/L	2025-07-12	
Potassium, total	0.90	N/A	0.10	mg/L	2025-07-12	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2025-07-12	
Silicon, total	6.3	N/A	1.0	mg/L	2025-07-12	
Silver, total	< 0.000050	None Required	0.000050	mg/L	2025-07-12	
Sodium, total	4.26	AO ≤ 200	0.10	mg/L	2025-07-12	
Strontium, total	0.195	MAC = 7	0.0010	mg/L	2025-07-12	
Sulfur, total	6.3	N/A	3.0	mg/L	2025-07-12	
Tellurium, total	< 0.00050	N/A	0.00050	mg/L	2025-07-12	
Thallium, total	< 0.000020	N/A	0.000020	mg/L	2025-07-12	
Thorium, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	
Tin, total	< 0.00020	N/A	0.00020	mg/L	2025-07-12	
Titanium, total	< 0.0050	N/A	0.0050	mg/L	2025-07-12	
Tungsten, total	< 0.0010	N/A	0.0010	mg/L	2025-07-12	
Uranium, total	0.000366	MAC = 0.02	0.000020	mg/L	2025-07-12	
Vanadium, total	< 0.0050	N/A	0.0050	mg/L	2025-07-12	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2025-07-12	
Zirconium, total	< 0.00010	N/A	0.00010	mg/L	2025-07-12	

Volatile Organic Compounds (VOC)

Benzene	< 0.5	MAC = 5	0.5	µg/L	2025-07-12	
Bromodichloromethane	< 1.0	N/A	1.0	µg/L	2025-07-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94DF Well 9 Carson Sub (25G1321-05) Matrix: Water Sampled: 2025-07-08 14:20, Continued						F1, F2, F3

Volatile Organic Compounds (VOC), Continued

Bromoform	< 1.0	N/A	1.0	µg/L	2025-07-12	
Carbon tetrachloride	< 0.5	MAC = 2	0.5	µg/L	2025-07-12	
Chlorobenzene	< 1.0	AO ≤ 30	1.0	µg/L	2025-07-12	
Chloroethane	< 2.0	N/A	2.0	µg/L	2025-07-12	
Chloroform	< 1.0	N/A	1.0	µg/L	2025-07-12	
Dibromochloromethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,2-Dibromoethane	< 0.3	N/A	0.3	µg/L	2025-07-12	
Dibromomethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,2-Dichlorobenzene	< 0.5	N/A	0.5	µg/L	2025-07-12	
1,3-Dichlorobenzene	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0	µg/L	2025-07-12	
1,1-Dichloroethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0	µg/L	2025-07-12	
1,1-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2025-07-12	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2025-07-12	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2025-07-12	
Dichloromethane	< 3.0	MAC = 50	3.0	µg/L	2025-07-12	
1,2-Dichloropropane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0	µg/L	2025-07-12	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0	µg/L	2025-07-12	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0	µg/L	2025-07-12	
Styrene	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5	µg/L	2025-07-12	
Tetrachloroethylene	< 1.0	MAC = 10	1.0	µg/L	2025-07-12	
Toluene	< 1.0	MAC = 60	1.0	µg/L	2025-07-12	
1,1,1-Trichloroethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
1,1,2-Trichloroethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
Trichloroethylene	< 1.0	MAC = 5	1.0	µg/L	2025-07-12	
Trichlorofluoromethane	< 1.0	N/A	1.0	µg/L	2025-07-12	
Vinyl chloride	< 1.0	MAC = 2	1.0	µg/L	2025-07-12	
Xylenes (total)	< 2.0	AO ≤ 20	2.0	µg/L	2025-07-12	
Surrogate: Toluene-d8	95		70-130	%	2025-07-12	
Surrogate: 4-Bromofluorobenzene	83		70-130	%	2025-07-12	
Surrogate: 1,4-Dichlorobenzene-d4	80		70-130	%	2025-07-12	

28000 Well 10 Hillborn Road (25G1321-06) | Matrix: Water | Sampled: 2025-07-08 14:06

F1, F2, F3

Anions

Chloride	16.5	AO ≤ 250	0.10	mg/L	2025-07-10	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2025-07-10	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2025-07-10	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2025-07-10	
Sulfate	105	AO ≤ 500	1.0	mg/L	2025-07-10	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
28000 Well 10 Hillborn Road (25G1321-06) Matrix: Water Sampled: 2025-07-08 14:06, Continued						F1, F2, F3
Calculated Parameters						
Aggressiveness Index	12.9	N/A	-		2025-07-14	CT6
Hardness, Dissolved (as CaCO3)	348	N/A	0.500	mg/L	N/A	
Langelier Index	0.9	N/A	-5.0		2025-07-15	CT6
Dissolved Metals						
						F1
Aluminum, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Antimony, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Arsenic, dissolved	0.00129	N/A	0.00050	mg/L	2025-07-13	
Barium, dissolved	0.247	N/A	0.0050	mg/L	2025-07-13	
Beryllium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Bismuth, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Boron, dissolved	< 0.0500	N/A	0.0500	mg/L	2025-07-13	
Cadmium, dissolved	0.000025	N/A	0.000010	mg/L	2025-07-13	
Calcium, dissolved	96.5	N/A	0.20	mg/L	2025-07-13	
Chromium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Cobalt, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Copper, dissolved	0.00362	N/A	0.00040	mg/L	2025-07-13	
Iron, dissolved	< 0.010	N/A	0.010	mg/L	2025-07-13	
Lead, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Lithium, dissolved	0.00115	N/A	0.00010	mg/L	2025-07-13	
Magnesium, dissolved	25.9	N/A	0.010	mg/L	2025-07-13	
Manganese, dissolved	0.591	N/A	0.00020	mg/L	2025-07-13	
Molybdenum, dissolved	0.00125	N/A	0.00010	mg/L	2025-07-13	
Nickel, dissolved	0.00561	N/A	0.00040	mg/L	2025-07-13	
Phosphorus, dissolved	< 0.050	N/A	0.050	mg/L	2025-07-13	
Potassium, dissolved	2.33	N/A	0.10	mg/L	2025-07-13	
Selenium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Silicon, dissolved	8.0	N/A	1.0	mg/L	2025-07-13	
Silver, dissolved	< 0.000050	N/A	0.000050	mg/L	2025-07-13	
Sodium, dissolved	21.0	N/A	0.10	mg/L	2025-07-13	
Strontium, dissolved	0.633	N/A	0.0010	mg/L	2025-07-13	
Sulfur, dissolved	32.4	N/A	3.0	mg/L	2025-07-13	
Tellurium, dissolved	< 0.00050	N/A	0.00050	mg/L	2025-07-13	
Thallium, dissolved	< 0.000020	N/A	0.000020	mg/L	2025-07-13	
Thorium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	
Tin, dissolved	< 0.00020	N/A	0.00020	mg/L	2025-07-13	
Titanium, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Tungsten, dissolved	< 0.0010	N/A	0.0010	mg/L	2025-07-13	
Uranium, dissolved	0.00332	N/A	0.000020	mg/L	2025-07-13	
Vanadium, dissolved	< 0.0050	N/A	0.0050	mg/L	2025-07-13	
Zinc, dissolved	0.0138	N/A	0.0040	mg/L	2025-07-13	
Zirconium, dissolved	< 0.00010	N/A	0.00010	mg/L	2025-07-13	

General Parameters



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
28000 Well 10 Hillborn Road (25G1321-06) Matrix: Water Sampled: 2025-07-08 14:06, Continued					F1, F2, F3

General Parameters, Continued

Alkalinity, Total (as CaCO ₃)	264	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Bicarbonate (as CaCO ₃)	264	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2025-07-12	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2025-07-12	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2025-07-11	
Conductivity (EC)	761	N/A	2.0 µS/cm	2025-07-12	
pH	8.11	7.0-10.5	0.10 pH units	2025-07-12	HT2
Solids, Total Dissolved	464	AO ≤ 500	15 mg/L	2025-07-15	
Temperature, at pH	22.8	N/A	°C	2025-07-12	HT2
Turbidity	0.18	OG < 1	0.10 NTU	2025-07-10	

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2025-07-09	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2025-07-09	

Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2025-07-12	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2025-07-12	
Arsenic, total	0.00127	MAC = 0.01	0.00050 mg/L	2025-07-12	
Barium, total	0.237	MAC = 2	0.0050 mg/L	2025-07-12	
Beryllium, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Bismuth, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2025-07-12	
Cadmium, total	0.000027	MAC = 0.007	0.000010 mg/L	2025-07-12	
Calcium, total	99.9	None Required	0.20 mg/L	2025-07-12	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-07-12	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Copper, total	0.00397	MAC = 2	0.00040 mg/L	2025-07-12	
Iron, total	0.028	AO ≤ 0.1	0.010 mg/L	2025-07-12	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2025-07-12	
Lithium, total	0.00116	N/A	0.00010 mg/L	2025-07-12	
Magnesium, total	26.5	None Required	0.010 mg/L	2025-07-12	
Manganese, total	0.590	MAC = 0.12	0.00020 mg/L	2025-07-12	
Molybdenum, total	0.00112	N/A	0.00010 mg/L	2025-07-12	
Nickel, total	0.00559	N/A	0.00040 mg/L	2025-07-12	
Phosphorus, total	0.062	N/A	0.050 mg/L	2025-07-12	
Potassium, total	2.34	N/A	0.10 mg/L	2025-07-12	
Selenium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-07-12	
Silicon, total	7.9	N/A	1.0 mg/L	2025-07-12	
Silver, total	< 0.000050	None Required	0.000050 mg/L	2025-07-12	
Sodium, total	21.2	AO ≤ 200	0.10 mg/L	2025-07-12	
Strontium, total	0.619	MAC = 7	0.0010 mg/L	2025-07-12	
Sulfur, total	34.5	N/A	3.0 mg/L	2025-07-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
28000 Well 10 Hillborn Road (25G1321-06) Matrix: Water Sampled: 2025-07-08 14:06, Continued					F1, F2, F3
<i>Total Metals, Continued</i>					
Tellurium, total	< 0.00050	N/A	0.00050 mg/L	2025-07-12	
Thallium, total	< 0.000020	N/A	0.000020 mg/L	2025-07-12	
Thorium, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
Tin, total	< 0.00020	N/A	0.00020 mg/L	2025-07-12	
Titanium, total	< 0.0050	N/A	0.0050 mg/L	2025-07-12	
Tungsten, total	< 0.0010	N/A	0.0010 mg/L	2025-07-12	
Uranium, total	0.00328	MAC = 0.02	0.000020 mg/L	2025-07-12	
Vanadium, total	< 0.0050	N/A	0.0050 mg/L	2025-07-12	
Zinc, total	0.0149	AO ≤ 5	0.0040 mg/L	2025-07-12	
Zirconium, total	< 0.00010	N/A	0.00010 mg/L	2025-07-12	
<i>Volatile Organic Compounds (VOC)</i>					
Benzene	< 0.5	MAC = 5	0.5 µg/L	2025-07-12	
Bromodichloromethane	< 1.0	N/A	1.0 µg/L	2025-07-12	
Bromoform	< 1.0	N/A	1.0 µg/L	2025-07-12	
Carbon tetrachloride	< 0.5	MAC = 2	0.5 µg/L	2025-07-12	
Chlorobenzene	< 1.0	AO ≤ 30	1.0 µg/L	2025-07-12	
Chloroethane	< 2.0	N/A	2.0 µg/L	2025-07-12	
Chloroform	< 1.0	N/A	1.0 µg/L	2025-07-12	
Dibromochloromethane	< 1.0	N/A	1.0 µg/L	2025-07-12	
1,2-Dibromoethane	< 0.3	N/A	0.3 µg/L	2025-07-12	
Dibromomethane	< 1.0	N/A	1.0 µg/L	2025-07-12	
1,2-Dichlorobenzene	< 0.5	N/A	0.5 µg/L	2025-07-12	
1,3-Dichlorobenzene	< 1.0	N/A	1.0 µg/L	2025-07-12	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0 µg/L	2025-07-12	
1,1-Dichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-12	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0 µg/L	2025-07-12	
1,1-Dichloroethylene	< 1.0	N/A	1.0 µg/L	2025-07-12	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0 µg/L	2025-07-12	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0 µg/L	2025-07-12	
Dichloromethane	< 3.0	MAC = 50	3.0 µg/L	2025-07-12	
1,2-Dichloropropane	< 1.0	N/A	1.0 µg/L	2025-07-12	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0 µg/L	2025-07-12	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0 µg/L	2025-07-12	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0 µg/L	2025-07-12	
Styrene	< 1.0	N/A	1.0 µg/L	2025-07-12	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5 µg/L	2025-07-12	
Tetrachloroethylene	< 1.0	MAC = 10	1.0 µg/L	2025-07-12	
Toluene	< 1.0	MAC = 60	1.0 µg/L	2025-07-12	
1,1,1-Trichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-12	
1,1,2-Trichloroethane	< 1.0	N/A	1.0 µg/L	2025-07-12	
Trichloroethylene	< 1.0	MAC = 5	1.0 µg/L	2025-07-12	
Trichlorofluoromethane	< 1.0	N/A	1.0 µg/L	2025-07-12	



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321
2025-07-16 12:21

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
28000 Well 10 Hillborn Road (25G1321-06) Matrix: Water Sampled: 2025-07-08 14:06, Continued					F1, F2, F3
<i>Volatile Organic Compounds (VOC), Continued</i>					
Vinyl chloride	< 1.0	MAC = 2	1.0 µg/L	2025-07-12	
Xylenes (total)	< 2.0	AO ≤ 20	2.0 µg/L	2025-07-12	
Surrogate: Toluene-d8	98		70-130 %	2025-07-12	
Surrogate: 4-Bromofluorobenzene	87		70-130 %	2025-07-12	
Surrogate: 1,4-Dichlorobenzene-d4	85		70-130 %	2025-07-12	

Sample Qualifiers:

- CT6 Results were based on lab temperature & lab pH.
- F1 The sample was not field-filtered and was therefore filtered through a 0.45 µm membrane in the laboratory prior to analysis.
- F2 The sample was not field-preserved with HNO3 and was therefore preserved in the laboratory and held for at least 16 hours prior to analysis for total metals.
- F3 Results may be biased low due to sub-sampling from general container.
- HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
- RE2 Result was confirmed by re-analysis prior to reporting.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of Annual

WORK ORDER REPORTED 25G1321 2025-07-16 12:21

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Colour, True in Water	SM 2120 C (2021)	Spectrophotometry (456 nm)	✓	Kelowna
Conductivity in Water	SM 2510 B (2021)	Conductivity Meter	✓	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
Hardness in Water	SM 2340 B (2021)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Langelier Index in Water	SM 2330 B (2021)	Calculation		N/A
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Solids, Total Dissolved in Water	Solids in Water, Filtered / SM 2540 C* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna
Volatile Organic Compounds in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
CU	Colour Units (referenced against a platinum cobalt standard)
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
NTU	Nephelometric Turbidity Units
OG	Operational Guideline (treated water)
pH units	pH < 7 = acidic, pH > 7 = basic
µg/L	Micrograms per litre
µS/cm	Microsiemens per centimetre
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Annual

WORK ORDER 25G1321
REPORTED 2025-07-16 12:21

General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Results in **red** indicate values above the regulatory limits where these have been included. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: hhannaoui@caro.ca

Regulatory limits are added to test reports on request and are as a convenience only. While CARO makes every effort to ensure accuracy of regulatory limits, CARO assumes no liability for the use of this information. It remains the client's responsibility to ensure that regulatory limits are correct for their circumstances.

CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER

PROJECT Standpipe Sani Loop

PROJECT INFO

WORK ORDER 25D0752

RECEIVED / TEMP 2025-04-04 13:47 / 5.0°C

REPORTED 2025-04-10 13:10

COC NUMBER No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT Quesnel, City of
Standpipe Sani Loop

WORK ORDER REPORTED 25D0752
2025-04-10 13:10

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Sani-Loop Yard Hydrant (25D0752-01) Matrix: Water Sampled: 2025-04-03 14:00						
<i>Field Parameters</i>						
Temperature, field	7.0	AO ≤ 15		°C	2025-04-03	
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-04-04	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-04-04	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Quesnel, City of Standpipe Sani Loop

WORK ORDER REPORTED 25D0752 2025-04-10 13:10

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
°C	Degrees Celcius
AO	Aesthetic Objective
CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

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CERTIFICATE OF ANALYSIS

REPORTED TO Quesnel, City of
1350 Sword Ave
Quesnel, BC V2J 7H2

ATTENTION Joe Law

PO NUMBER
PROJECT Special Project
PROJECT INFO

WORK ORDER 25J2315

RECEIVED / TEMP 2025-10-16 14:30 / 9.3°C
REPORTED 2025-10-17 17:04
COC NUMBER No Number

Introduction:

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Authorized By:

Hanane El Hannaoui
Junior Account Manager

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

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
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TEST RESULTS

REPORTED TO PROJECT Quesnel, City of Special Project

WORK ORDER REPORTED 25J2315
2025-10-17 17:04

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
94E1 Well 8 Hilborn Road (25J2315-01) Matrix: Drinking Water Sampled: 2025-10-15 14:00						
<i>Microbiological Parameters</i>						
Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2025-10-16	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2025-10-16	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Quesnel, City of
PROJECT Special Project

WORK ORDER 25J2315
REPORTED 2025-10-17 17:04

Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Total in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna
E. coli in Water	SM 9222* (2015)	Membrane Filtration / Chromocult Agar	✓	Kelowna

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

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CFU/100 mL	Colony Forming Units per 100 millilitres
MAC	Maximum Acceptable Concentration (health based)
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

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ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
Tel: (604) 279-1499 Fax: (604) 279-1599
102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

REPORT TO: COMPANY: City of Quesnel
ADDRESS: 1350 Sword Ave
Quesnel, V2J 7H2
CONTACT: Joe Law
TEL/FAX: 250-992-6330 250-992-0072
EMAIL PDF: EDD
EMAIL 1: jlaw@quesnel.ca
EMAIL 2: kshadoff@quesnel.ca
MAIL HARDCOPY: HOLD FOR P/U FAX

INVOICE TO: COMPANY:
ADDRESS:
CONTACT: Accounts Payable - Joe Law
TEL/FAX:
EMAIL PDF:
EMAIL 1: jlaw@quesnel.ca
EMAIL 2:
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TURNAROUND Routine: (4-7 Days)
TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day*
Other*
*Contact Lab To Confirm. Surcharge May Apply

CLIENT SAMPLE ID: 99ELN/11811.1hsnrd
DRINKING WATER
OTHER WATER
SOIL
OTHER
CONTAINERS 1
DATE DO-MMM-YY 15 Oct 25
TIME HH:MM 1405
FILTERED
PRESERVED
COMMENTS: (i.e. flow/volume media ID/notes)

Clear Form Print a Copy Save a Copy CARO Website CARO BC COC, Rev 08/12
CHAIN OF CUSTODY RECORD COC# PAGE OF

RELINQUISHED BY: [Signature]
DATE: 15 Oct 25
RECEIVED BY:
DATE:
TIME:
RECEIVED BY:
DATE:
TIME:

PROJECT:
PROJECT INFO:
PO #:
SHIPPING INSTRUCTIONS:
Return Cooler(s)
Ship Supplies (please specify below or in Other Instructions Section)
Return bottle order

ANALYSES REQUESTED:

Table with columns for chemical analysis: BTEX, VPH, MTBE, EPH, VOC, L/HEPH, PAH, PHENOLS, PCB, GLYCOLS, HAA, METALS - WATER TOTAL, METALS - WATER DISSOLVED, METALS - SOIL (SALM), pH, EC, ALK, TSS, TDS, BOD, COD, FECAL COLIFORMS, HPC, TOTAL COLIFORMS, E. coli, PESTICIDES, HERBICIDES, SOIL VAPOUR, ASBESTOS, TURBIDITY, TEMPERATURE, HOLD

APPLICABLE REGULATORY LIMITS:
Canadian Drinking Water Quality Guidelines
BC Drinking Water Protection Act / Reg.
BC CSR
CCME
ALBERTA TIER 1
Return bottle order.

60 Days 90 Days Longer Date (Surcharges will Apply):
OTHER INSTRUCTIONS:
PAYMENT:
CHECK
CREDIT
DEBIT
CASH
INVOICE
SAMPLE RECEIPT TEMP (°C):
Work Order #
CUSTODY SEAL INTACT Y N NA



ANALYTICAL SERVICES

110-4011 Viking Way, Richmond, BC V6V 2K9
Tel: (604) 279-1499 Fax: (604) 279-1599
102-3677 Highway 97N, Kelowna, BC V1X 5C3
Tel: (250) 765-9646 Fax: (250) 765-3893
17225 109 Avenue NW, Edmonton, AB T5S 1H7
Tel: (780) 489-9100 Fax: (780) 489-9700

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CHAIN OF CUSTODY RECORD COC# [] PAGE 1 OF 1

REPORT TO:
COMPANY: City of Quesnel
ADDRESS: 1350 Sword Ave
Quesnel, V2J 7H2
CONTACT: Joe Law
TEL/FAX: 250-992-6330 250-992-0072
EMAIL PDF EDD
EMAIL 1: jlaw@quesnel.ca
EMAIL 2: kshadoff@quesnel.ca
MAIL HARDCOPY HOLD FOR P/U FAX

INVOICE TO: SAME AS REPORT TO
COMPANY:
ADDRESS:
CONTACT: Accounts Payable - Joe Law
TEL/FAX:
EMAIL PDF
EMAIL 1: jlaw@quesnel.ca
EMAIL 2:
MAIL HARDCOPY HOLD FOR P/U

RELINQUISHED BY: Cole Frank DATE: 5 Oct 25 RECEIVED BY: DATE:
TIME: 1400 TIME: TIME:
RELINQUISHED BY: DATE: RECEIVED BY: DATE: 21 Oct 25
TIME: TIME: Ace [signature] TIME: 14:30
PROJECT: PROJECT INFO: PO #:
SAMPLED BY: Cole Frank SHIPPING INSTRUCTIONS: Return Cooler(s)
Ship Supplies (please specify below or in Other Instructions Section)
Return bottle order

TURNAROUND Routine: (4-7 Days) Other*
TIME REQUESTED: Rush: 1 Day* 2 Day* 3 Day* *Contact Lab To Confirm, Surcharge May Apply

ANALYSES REQUESTED:	
<input type="checkbox"/> BTEX <input type="checkbox"/> VPH <input type="checkbox"/> MTBE <input type="checkbox"/>	<input type="checkbox"/> HOLD
<input type="checkbox"/> EPH (not PAH Corrected)	
<input type="checkbox"/> VOC <input type="checkbox"/> VPH <input type="checkbox"/>	
<input type="checkbox"/> L/HEPH (PAH corrected)	
<input type="checkbox"/> PAH	
<input type="checkbox"/> PHENOLS Chlorinated <input type="checkbox"/> Non-Chlor.	
<input type="checkbox"/> PCB <input type="checkbox"/> GLYCOLS <input type="checkbox"/> HAA <input type="checkbox"/>	
<input type="checkbox"/> METALS - WATER TOTAL	
<input type="checkbox"/> METALS - WATER DISSOLVED	
<input type="checkbox"/> METALS - SOIL (SALM) <input type="checkbox"/> Inc. pH <input type="checkbox"/>	
<input type="checkbox"/> pH <input type="checkbox"/> EC <input type="checkbox"/> ALK <input type="checkbox"/>	
<input type="checkbox"/> TSS <input type="checkbox"/> TDS <input type="checkbox"/>	
<input type="checkbox"/> BOD <input type="checkbox"/> COD <input type="checkbox"/>	
<input type="checkbox"/> FECAL COLIFORMS <input type="checkbox"/> HPC <input type="checkbox"/>	
<input checked="" type="checkbox"/> TOTAL COLIFORMS <input checked="" type="checkbox"/> E col. <input checked="" type="checkbox"/>	
<input type="checkbox"/> PESTICIDES <input type="checkbox"/> HERBICIDES <input type="checkbox"/>	
<input type="checkbox"/> SOIL VAPOUR	
<input type="checkbox"/> ASBESTOS	
<input type="checkbox"/> TURBIDITY	
<input type="checkbox"/> TEMPERATURE	

CLIENT SAMPLE ID:	MATRIX:	SAMPLING:		FILTERED	PRESERVED	COMMENTS:
		DATE	TIME			
04E1W118Hilburn rd	DRINKING WATER OTHER WATER SOIL OTHER # CONTAINERS	15 Oct 25	1400			

APPLICABLE REGULATORY LIMITS:
Canadian Drinking Water Quality Guidelines
BC Drinking Water Protection Act / Reg.
BC CSR AL RL CL IL AW
CCME ALBERTA TIER 1
OTHER:

SAMPLE RETENTION INSTRUCTIONS (Discarded 30 days after Report unless otherwise specified):
60 Days 90 Days Longer Date (Surcharges will Apply):
OTHER INSTRUCTIONS:
Return bottle order.

PAYMENT:
CREDIT
DEBIT
CASH
INVOICE
SAMPLE RECEIPT TEMP (°C): 9.3
Work Order #
CUSTODY SEAL INTACT Y N NA



LOGIN NOTICE CONFIRMATION (Work Order 25J2315)

THIS IS NOT A REPORT

Need help reading your Login Notice? Check out this handy article:

<https://www.caro.ca/quick-guide-to-your-login-notice-how-to-review-your-sample-submission/>

Please verify that all of the information included in this Login Notice is correct. If there are any errors, omissions, or concerns, please contact us at 1-888-311-8846.

You can expect to receive the analytical report via email on or after the due date shown above.

Thank you for using CARO!