



DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period: January 1st to December 31st, 2025 (year)

Water System Village of Cumberland

Water System Owner Village of Cumberland

Primary Contact Name (Operator or Manager) Gavin Murgatroyd

Phone Number (Operator or Manager) 250-792-1593

E-mail (Operator or Manager) gmurgatroyd@cumberland.ca

DESCRIBE YOUR WATER SUPPLY SYSTEM

What is the Source(s) of Raw Water?

Deep Well Shallow Well Surface Water Other

If other, specify details:

Does the Drinking Water System have Primary Disinfection? Yes No

Chlorination Ultraviolet Light Ozone Other

If other, specify details:

Does the Drinking Water System have Secondary Disinfection? Yes No

Chlorination Other

If other, specify details:

Does the Drinking Water System have Filtration? Yes No

Check all boxes that apply

Cartridge Filter(s) Carbon Filter Sand Filtration Reverse Osmosis Other

If other, specify details:

PUBLIC REPORTING

Emergency Response & Contingency Plan (ERCP)

Is your ERCP up to Date? Yes No

How do you Inform the System Users of the ERCP?

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)

Drinking Water System Annual Report

How do you Inform the System Users of the Annual Report?

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)



COMPLIANCE WITH OPERATING PERMIT

List the conditions of your Operating Permit (Contact the DWO for a copy if needed):

See attached.

Are you in compliance with your Operating Permit?

 Yes

 No

BACTERIOLOGICAL TESTING AND DRINKING WATER PROTECTION REGULATION WATER QUALITY STANDARDS

How many bacteriological samples were collected during this reporting period?

150

What is the minimum required sampling frequency for this system? (#samples/month)

4/month

Additional sampling details:

Was the minimum required sampling frequency achieved?

 Yes

 No

Comments:

Bacteriological summary attached to this report?

 Yes

 No

If no, how do the users of the system view the results?

WATER QUALITY STANDARDS FOR POTABLE WATER

<i>Parameter:</i>	<i>Standard:</i>	<i>Did this system meet standard?</i>	
Escherichia coli (for all samples)	No detectable <i>Escherichia coli</i> per 100ml	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if only 1 sample collected in a 30 day period)	No detectable total coliform bacteria per 100ml	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if more than 1 sample collected in a 30 day period)	No more than 10% of samples contain total coliform bacteria, and No sample has more than 10 total coliform bacteria per 100ml	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

If the system did not meet any of above Drinking Water Protection Regulation standards, record the results in the table below; attach additional sheets if necessary.

Date	TC/100ml	E.coli/100ml	Reason	Corrective Action

CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD

Was any chemical sampling conducted during reporting period? Yes No

If no, when were the last chemical samples conducted for this system? (date) Don't know

If yes, attach a list of the chemical results Attached.

If any water samples did not meet the Guidelines for Canadian Drinking Water Quality, record the results in the table below; attach additional sheets if necessary.

Next scheduled full chemical test (date) 2026

Parameter	Result	Corrective Action / Treatment / Comments
pH	6.62	Site #5 - 3607 Small Road (near end of a dead end line past Visitor Centre)

ADDITIONAL TESTING

Does the system have analyzers for continuous monitoring? Yes No

If yes, check all boxes that apply:

Chlorine Turbidity Other (details)

Are the results available on request?

If any additional testing or sampling was conducted, record results in the table below; attach additional sheets if necessary.

Additional Testing & Reason for Sampling	Corrective Action Taken
THM and Total Organic Carbon as per permit	None required / measured average meets GCDWQ

WATER QUALITY COMPLAINTS

Were there any water quality complaints in this reporting period? (e.g. taste, odour, colour etc.) Yes No

If yes, complete the table below; attach additional sheets if necessary.

Date	Water Quality Complaint	Corrective Action / Treatment
See attached	See attached	See attached



OPERATIONAL PROBLEMS

Were there any operational problems during this reporting period? (e.g. insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity etc.). Yes No

If yes, complete the table below; attach additional sheets if necessary. **See attached**

Incident Date	Type of Operational Problem	Corrective Action Taken
See attached	See attached	See attached

MAJOR UPGRADES/REPAIRS & EXPENSES

Were there any major upgrades/repairs or any major costs incurred during this reporting period? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Major Upgrades/Expenses	Details
Improvements required by DWO	
Additions/changes to system	
Purchase or install new equipment	
Equipment repair or replacement	Fire hydrant replacement at 2607 Maryport Ave.
Annual maintenance of system	Watermain flushing program - completed Spring 2024 / Hydrant maintenance program completed
Specialist report	
Other	

FUTURE IMPROVEMENTS

Are there any plans for future improvements? Yes No

If yes, complete the table below; attach additional sheets if necessary.

Future Upgrades or Improvements	Estimated Date of Completion
Water main upgrades as part of road re-build on Penrith btw First and Third St.	2026
Watermain upgrade on Ulverston Ave. btw Mill St. and 5th St.	2026

Click here to enter a date. May 5, 2026 DATE COMPLETED:	Gavin Murgatroyd COMPLETED BY:
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Excellent health and care, for everyone,
everywhere, every time.



December 1, 2020

Village of Cumberland
2673 Dunsmuir Avenue
Cumberland, BC V0R 1S0

Dear Village of Cumberland:

Re: Notice of Proposed Changes to Terms and Conditions of Operating Permit No. 1414314 Village of Cumberland Water Supply

The Drinking Water Protection Act requires Drinking Water Officers (DWO) to exercise discretion in their oversight of drinking water systems. Specific requirements may be made of a water supplier to ensure that the system is operated in a manner that protects the health of water users. Permit Terms and Conditions can often help to clarify the expectations and responsibilities associated with being a water supplier.

Section 8(4) of the *Drinking Water Protection Act* (DWPA) states:

The drinking water officer or an issuing official may change the terms and conditions of an operating permit if the officer or issuing official considers this advisable, but must first consult with the water supplier respecting the proposed changes and must consider any comments of the water supplier in response.

As an issuing official, I propose to attach the following Terms and Conditions to your operating permit:

See Appendix A

Please respond in writing within **30 days** of receiving this notice if you wish to comment on the proposed changes to your permit. Your comments will be considered before a final decision is made.

Be advised that, short of judicial review, this is your only opportunity to influence the outcome of this process. Changes to the terms and conditions of an operating permit are not subject to reconsideration or review under Section 39.1 of the Drinking Water Protection Act.

Please contact the undersigned for further information.

Yours truly,

Ella Derby B.Sc, B.Tech, CPHI (C)
Environmental Health Officer
Island Health Authority
ella.derby@viha.ca

APPENDIX A

WATER SYSTEM OPERATING TERMS AND CONDITIONS FOR

VILLAGE OF CUMBERLAND WATER SUPPLY SYSTEM

2673 Dunsmuir Avenue

Cumberland, BC, V0R 1S0

The permit holder is advised of the following Terms and Conditions are in addition to other legislated responsibilities and obligations such as:

- The *Drinking Water Protection Act*, [SBC 2001] Chapter 9
- The *Drinking Water Protection Regulation* (B.C. Reg. 200/2003 O.C. 508/2003)

The specific terms and conditions of this operating permit are listed below:

Water Disinfection Facility (Henderson & Allen Lake)

The water supply system owner is authorized to operate the *disinfection facility* with a design flow rate of 112 L/s, and consisting of strainers, three Spektron 900e low pressure UV reactors (one dedicated reactor per source with a third reactor capable of treating either source to provide system redundancy), brine storage tank, an on-site sodium hypochlorite generator, liquid 0.8% sodium hypochlorite storage tanks, dosing pumps, injection ports, flow meters, pH, temperature and free chlorine analyzers, turbidity monitors, spill containment, hydrogen gas monitors and alarms, 2,500m³ steel bolted reservoir, back-up generator and other related appurtenances to serve existing and future development in the Village of Cumberland.

Water Supply Facility (Well #36245)

The water supply system owner is authorized to operate the *water supply facility* with a design flow rate of 15 L/s, and consisting of chlorine injection to provide secondary disinfection in the distribution system to serve existing and future development in the Village of Cumberland.

1. Performance Standards

The finished water leaving the water disinfection and supply facilities (surface water or well water) shall:

- Meet, or be lower than, the health related concentration limits for substances listed in the most recent version of the Health Canada's *Guidelines for Canadian Drinking Water Quality*;
- Contain no detectable *Escherichia coli* bacteria/100 mL; and

- Contain no detectible total coliform bacteria / 100 mL
- The maximum concentration of *free* chlorine leaving the facility shall not exceed 4.0 mg/L
- Comply with the maximum acceptable concentrations of disinfection by-products: Trihalomethanes (THMs) and Haloacetic acids (HAAs) are not to exceed .100 mg/l and 0.08 mg/l, respectively. This is based on a locational running annual average of a minimum of quarterly samples.

The performance standards for each specific source are as follows:

a) Henderson Lake and Allen Lake

The Water System Owner shall inspect the authorized waterworks regularly and maintain them in good working order to ensure the production and delivery of potable water.

The disinfection facility shall be operated in a manner to achieve the following:

- a minimum of 4-log reduction (99.99% inactivation) of viruses;
- a minimum of 3.0-log reduction (99.9% removal) in *Giardia Lamblia* cysts;
- a minimum of 3.0-log reduction (99.9 % removal) of *Cryptosporidium* oocysts
- a minimum of 2 forms of disinfection applied (UV and chlorination)
- a turbidity less than 1 NTU

b) Well #36245

The Water System Owner shall inspect the authorized waterworks regularly and maintain them in good working order to ensure the production and delivery of potable water.

The water supply facility shall be operated in a manner to achieve the following:

- a turbidity less than 1 NTU

2. Water Quality Monitoring

a. Henderson Lake and Allen Lake

i. Turbidity Monitoring

- The water supply system owner shall provide and maintain suitable sampling facilities and monitor the turbidity in both the raw water *sources* and finished treated water leaving the disinfection facility on a continuous basis.

ii. Contact Time

- The water supply system owner shall ensure the CT value is monitored on a daily basis where CT is the product of C and T, where C represents the *free* chlorine residual disinfectant concentration in mg/L and T represents the *contact time* in minutes.
- Once per day, at a maximum hourly flow, the water supply system owner shall monitor the temperature of the disinfected water, the residual disinfectant

concentration, C, and the pH at the sampling point. The sampling point should be located before the first customer. In addition, at the peak hourly flow, the water supply system owner shall determine the contact time, T, based on the time of travel that the water takes to reach the first customer within the pipelines and retention in the reservoir.

- Virus reduction will be based upon the CT tables listed in the document, “Guidelines for Canadian Drinking Water Quality; Guideline Technical Document – Enteric Viruses”, Water, Air and Climate Change Bureau. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario, (April 2019).

iii. UV Dose

- The water supply system owner shall determine the minimum dose for the ultraviolet disinfection units on a daily basis measured in mJ/cm².
- Protozoan reduction will be based upon the dose tables listed in the document “Guidelines for Canadian Drinking Water Quality; Guideline Technical Document – Enteric Protozoa: Giardia and Cryptosporidium”, Water, Air and Climate Change Bureau. Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario, (Catalogue No H129-23/2013E-PDF), 2012

b. Well #36245

i. Turbidity monitoring

- The water supply system owner shall provide and maintain suitable sampling facilities and monitor the turbidity in the well water leaving the disinfection facility on a continuous basis.

3. Bacteriological and Chemical Monitoring

The water supply system owner shall adhere to a sampling and monitoring program for chemical, physical, protozoan and bacterial monitoring parameters, sampling frequencies and sampling locations for the water disinfection facilities as approved by the Drinking Water Officer. The water quality data shall be suitably tabulated and submitted to the Drinking Water Officer on a regular basis as specified by the Drinking Water Officer.

4. Filtration Exemption (Surface Water Sources)

The water supply system owner shall adhere to a sampling and monitoring program as a condition of the filtration exemption, as set out in the *Drinking Water Treatment Objectives for Surface Water in British Columbia (most recent version)*. The program may contain chemical, physical, protozoan and bacterial monitoring parameters at sampling frequencies and sampling locations, watershed surveillance, and a watershed protection plan as approved by the Drinking Water Officer. The operator must provide annual written updates to the Drinking Water Officer (DWO) that outlines on-going review and update of the watershed protection plan, and compliance with the filtration deferral criteria.

5. Distribution System Maintenance, Disinfection By-Product Monitoring and Residual Monitoring

The water supply system owner shall provide a minimum of 0.2 mg/L of residual disinfectant measured as *free* chlorine, for the water at all points within the distribution system. This may be higher or lower as approved by the Drinking Water Officer.

The maximum residual disinfectant concentration, measured as *free* chlorine shall not exceed 4.0 mg/L anywhere in the distribution system. This does not apply in situations where water mains or reservoirs, or other appurtenances are being super-chlorinated during their installation, repair, or routine maintenance.

If the minimum level of chlorine is not detected during routine residual analysis in the distribution system, the water supplier is to refer to the Emergency Response Plan (ERP) for direction.

Disinfection by-products, trihalomethanes (THM), and haloacetic acids (HAA), are to be measured on a quarterly basis at locations within the distribution system as approved by the local Drinking Water Officer. The measured average of these results must comply with the MAC as outlined in the Guidelines for Canadian Drinking Water Quality (GCDWQ). If a MAC is exceeded, a written plan to decrease the formation of the DBPs or decrease the presence of precursors in the source water must be submitted for review by the DWO within 30 days of the exceedance. Monitoring sites are to be as outlined in an approved Sampling Program and include sites within the distribution system where potential disinfection by-product formation is at its highest.

6. Reporting

Prepare a monthly report outlining facilities operations as set by the DWO. Submit the monthly report for the previous month by the 15th day of the following month to the DWO.

7. Operating Training

The water supply system shall be operated and maintained by or under the supervision of persons certified within and according to the classification (treatment and distribution) of the water system by the Environmental Operators Certification Program (EOCP).

Date Collected	Drinking Water System	Site Name	Total Coliform	Total E. Coli
1/6/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	36.4	LT1
2/12/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	4.1	LT1
3/11/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	29.2	LT1
4/8/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	26.2	LT1
5/13/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	410.6	LT1
6/9/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	435.2	LT1
7/8/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	72.7	2.0
8/19/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	127.4	LT1
9/15/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	325.5	LT1
				3.0
				CORRECTED
				ON 10/Oct
			57.6 CORRECTED ON	AT 1412:
			10/Oct AT 1412:	PREVIOUSLY
			PREVIOUSLY	REPORTED
			REPORTED AS: Less	AS: Less
10/8/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	than 1	than 1
11/18/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	LT1	LT1
12/8/2025	Village of Cumberland Water Supply	ALLEN LAKE RAW Monthly	67.7	LT1
1/6/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
2/18/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	QRWRT	QRWRT
2/24/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	QRWRT	QRWRT
3/12/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
4/8/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
5/21/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
6/9/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
7/15/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
8/19/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
9/15/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
10/8/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
11/18/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
12/9/2025	Village of Cumberland Water Supply	SITE 1 2040 DERWENT Monthly	LT1	LT1
1/8/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
2/18/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	QRWRT	QRWRT
2/24/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	QRWRT	QRWRT
3/12/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
4/8/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
5/21/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
6/11/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
7/15/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
8/26/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
9/16/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
10/8/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
11/18/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
12/9/2025	Village of Cumberland Water Supply	Site 10 Nikkei Place	LT1	LT1
1/8/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1
2/24/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	QRWRT	QRWRT
3/12/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1
4/8/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1
5/27/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1
6/10/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1
7/21/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1
8/26/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1
9/17/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1
10/27/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1

11/19/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1
12/9/2025	Village of Cumberland Water Supply	Site 11 Bevan Road	LT1	LT1
1/8/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
2/18/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	QRWRT	QRWRT
2/24/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	QRWRT	QRWRT
3/12/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
4/8/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
5/27/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
6/10/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
7/15/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
8/26/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
9/17/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
10/27/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
11/18/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
12/9/2025	Village of Cumberland Water Supply	Site No. 3 6th St and Keswick Ave	LT1	LT1
1/6/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	178.9	LT1
2/12/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	47.1	LT1
3/11/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	88.9	LT1
4/8/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	60.5	LT1
5/13/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	70.3	1.0
6/9/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	1203.3	LT1
7/8/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	290.9	16.0
8/19/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	866.4	7.3
9/17/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	1553.1	5.2
				16.0
				CORRECTED
				ON 10/Oct
			613.1 CORRECTED ON	AT 1412:
			10/Oct AT 1412:	PREVIOUSLY
			PREVIOUSLY	REPORTED
			REPORTED AS: Less	AS: Less
10/8/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	than 1	than 1
11/18/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	290.9	LT1
12/8/2025	Village of Cumberland Water Supply	Village of Cumberland, HENDERSON LAKE RAW Monthly	185.0	LT1
1/7/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
2/18/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	QRWRT	QRWRT
2/24/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	QRWRT	QRWRT
3/12/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
4/9/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
5/21/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
6/10/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
7/15/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
8/26/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
9/17/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
10/27/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
11/19/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
12/9/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 2 3328 SECOND ST Monthly	LT1	LT1
1/6/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 4 3190 ROYSTON RD Monthly	LT1	LT1
2/12/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 4 3190 ROYSTON RD Monthly	LT1	LT1
3/11/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 4 3190 ROYSTON RD Monthly	LT1	LT1
4/8/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 4 3190 ROYSTON RD Monthly	LT1	LT1
5/13/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 4 3190 ROYSTON RD Monthly	LT1	LT1
6/9/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 4 3190 ROYSTON RD Monthly	LT1	LT1
7/8/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 4 3190 ROYSTON RD Monthly	LT1	LT1
8/19/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 4 3190 ROYSTON RD Monthly	LT1	LT1

3/11/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	LT1	LT1
4/2/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	L1	L1
4/8/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	LT1	LT1
5/13/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	LT1	LT1
6/9/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	LT1	LT1
7/8/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	LT1	LT1
8/19/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	LT1	LT1
9/16/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	LT1	LT1
10/8/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	LT1	LT1
11/18/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	LT1	LT1
12/8/2025	Village of Cumberland Water Supply	Village of Cumberland, SITE 8 SOURCE WELL 36425 Monthly	LT1	LT1



Your P.O. #: 2023-01
 Your Project #: ANNUAL DRINKING WATER
 Site Location: ALLEN LAKE
 Your C.O.C. #: 1 OF 1

Attention: Public Works
 VILLAGE OF CUMBERLAND
 PO BOX 340
 CUMBERLAND, BC
 CANADA V0R 1S0

Report Date: 2025/07/29
 Report #: R3690576
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564421

Received: 2025/07/22, 13:30

Sample Matrix: Drinking Water
 # Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity @25C (pp, total), CO ₃ ,HCO ₃ ,OH (1)	1	N/A	2025/07/25	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry (1)	1	N/A	2025/07/23	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO ₄ -E m
Color (True) by Automated Analyzer (1)	1	N/A	2025/07/23	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C (1)	1	N/A	2025/07/25	BBY6SOP-00026	SM 24 2510 B m
Fluoride (1)	1	N/A	2025/07/26	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO ₃) (1, 2)	1	N/A	2025/07/25	BBY WI-00033	Auto Calc
Mercury (Total) by CV (1)	1	2025/07/25	2025/07/28	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total) (1)	1	N/A	2025/07/25	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total) (1)	1	N/A	2025/07/25	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N) (1)	1	N/A	2025/07/25	BBY6SOP-00010	SM 24 4500-NO ₃ - H m
Nitrite (N) Regular Level Water (1)	1	N/A	2025/07/25	BBY6SOP-00010	SM 24 4500-NO ₂ - m
Nitrogen - Nitrate (as N) (1)	1	N/A	2025/07/26	BBY WI-00033	Auto Calc
pH @25°C (1, 3)	1	N/A	2025/07/25	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue) (1)	1	2025/07/28	2025/07/29	BBY6SOP-00033	SM 24 2540 C m
Total Coliform & E.Coli by MF-Chromocult (1)	1	N/A	2025/07/23	BBY4SOP-00143	Merck KGaA Version 1
Turbidity (1)	1	N/A	2025/07/23	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.



Your P.O. #: 2023-01
Your Project #: ANNUAL DRINKING WATER
Site Location: ALLEN LAKE
Your C.O.C. #: 1 OF 1

Attention: Public Works
VILLAGE OF CUMBERLAND
PO BOX 340
CUMBERLAND, BC
CANADA V0R 1S0

Report Date: 2025/07/29
Report #: R3690576
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564421
Received: 2025/07/22, 13:30

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Bureau Veritas Vancouver, 4606 Canada Way , Burnaby, BC, V5G 1K5
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key



Bureau Veritas
29 Jul 2025 12:55:51

Please direct all questions regarding this Certificate of Analysis to:
Aldean Alicando, Customer Solutions Representative
Email: Aldean.ALICANDO@bureauveritas.com
Phone# (604)734-7276 Ext:7062605

=====
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For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rob Gilbert, BBY General Manager responsible for British Columbia Environmental laboratory operations.



BUREAU VERITAS

Bureau Veritas Job #: C564421
 Report Date: 2025/07/29

VILLAGE OF CUMBERLAND
 Client Project #: ANNUAL DRINKING WATER
 Site Location: ALLEN LAKE
 Your P.O. #: 2023-01

DRINKING WATER PACKAGE (NON-REGULATED)

Bureau Veritas ID					DPM004	
Sampling Date					2025/07/22 11:10	
COC Number					1 OF 1	
	UNITS	MAC	AO	OG	ALLEN LAKE	RDL
ANIONS						
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050
Calculated Parameters						
Total Hardness (CaCO3)	mg/L	-	-	-	12.1	0.50
Nitrate (N)	mg/L	10	-	-	<0.020	0.020
Misc. Inorganics						
Conductivity	uS/cm	-	-	-	34	2.0
pH	pH	-	-	7.0:10.5	6.96	N/A
Total Dissolved Solids	mg/L	-	500	-	16	10
Anions						
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0
Alkalinity (Total as CaCO3)	mg/L	-	-	-	14	1.0
Bicarbonate (HCO3)	mg/L	-	-	-	16	1.0
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0
Chloride (Cl)	mg/L	-	250	-	<1.0	1.0
Sulphate (SO4)	mg/L	-	500	-	<1.0	1.0
MISCELLANEOUS						
True Colour	Col. Unit	-	15	-	6.1	2.0
Nutrients						
Nitrate plus Nitrite (N)	mg/L	-	-	-	<0.020	0.020
Physical Properties						
Turbidity	NTU	see remark	see remark	see remark	0.70	0.10
Elements						
Total Mercury (Hg)	ug/L	1	-	-	<0.0019	0.0019
Total Metals by ICPMS						
Total Aluminum (Al)	ug/L	2900	-	100	<3.0	3.0
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50
Total Arsenic (As)	ug/L	10	-	-	<0.10	0.10
Total Barium (Ba)	ug/L	2000	-	-	<1.0	1.0
Total Boron (B)	ug/L	5000	-	-	<50	50
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
N/A = Not Applicable						



BUREAU
VERITAS

Bureau Veritas Job #: C564421
Report Date: 2025/07/29

VILLAGE OF CUMBERLAND
Client Project #: ANNUAL DRINKING WATER
Site Location: ALLEN LAKE
Your P.O. #: 2023-01

DRINKING WATER PACKAGE (NON-REGULATED)

Bureau Veritas ID					DPM004	
Sampling Date					2025/07/22 11:10	
COC Number					1 OF 1	
	UNITS	MAC	AO	OG	ALLEN LAKE	RDL
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.010
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20
Total Copper (Cu)	ug/L	2000	1000	-	3.33	0.20
Total Iron (Fe)	ug/L	-	100	-	190	5.0
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.20
Total Manganese (Mn)	ug/L	120	20	-	36.9	1.0
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	1.0
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10
Total Silicon (Si)	ug/L	-	-	-	2450	100
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020
Total Strontium (Sr)	ug/L	7000	-	-	7.9	1.0
Total Uranium (U)	ug/L	20	-	-	<0.10	0.10
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	5.0
Total Calcium (Ca)	mg/L	-	-	-	3.26	0.050
Total Magnesium (Mg)	mg/L	-	-	-	0.965	0.050
Total Potassium (K)	mg/L	-	-	-	0.065	0.050
Total Sodium (Na)	mg/L	-	200	-	1.12	0.050
Total Sulphur (S)	mg/L	-	-	-	<3.0	3.0
Microbiological Param.						
Total Coliforms	CFU/100mL	0	-	-	120	N/A
E. coli	CFU/100mL	0	-	-	0	N/A
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
N/A = Not Applicable						



BUREAU
VERITAS

Bureau Veritas Job #: C564421

Report Date: 2025/07/29

VILLAGE OF CUMBERLAND

Client Project #: ANNUAL DRINKING WATER

Site Location: ALLEN LAKE

Your P.O. #: 2023-01

GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, August 2024.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:

1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.

Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C564421
Report Date: 2025/07/29

VILLAGE OF CUMBERLAND
Client Project #: ANNUAL DRINKING WATER
Site Location: ALLEN LAKE
Your P.O. #: 2023-01

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

Bureau Veritas Certified by David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

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Your P.O. #: 2023-01
 Your Project #: ANNUAL DRINKING WATER
 Site Location: HENDERSON LAKE
 Your C.O.C. #: 1 OF 1

Attention: Public Works

VILLAGE OF CUMBERLAND
 PO BOX 340
 CUMBERLAND, BC
 CANADA V0R 1S0

Report Date: 2025/07/29
 Report #: R3690601
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564420

Received: 2025/07/22, 13:30

Sample Matrix: Drinking Water
 # Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	1	N/A	2025/07/25	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry (1)	1	N/A	2025/07/23	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer (1)	1	N/A	2025/07/23	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C (1)	1	N/A	2025/07/25	BBY6SOP-00026	SM 24 2510 B m
Fluoride (1)	1	N/A	2025/07/26	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1, 2)	1	N/A	2025/07/25	BBY WI-00033	Auto Calc
Mercury (Total) by CV (1)	1	2025/07/25	2025/07/28	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total) (1)	1	N/A	2025/07/25	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total) (1)	1	N/A	2025/07/25	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N) (1)	1	N/A	2025/07/25	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water (1)	1	N/A	2025/07/25	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N) (1)	1	N/A	2025/07/26	BBY WI-00033	Auto Calc
pH @25°C (1, 3)	1	N/A	2025/07/25	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue) (1)	1	2025/07/28	2025/07/29	BBY6SOP-00033	SM 24 2540 C m
Total Coliform & E.Coli by MF-Chromocult (1)	1	N/A	2025/07/23	BBY4SOP-00143	Merck KGaA Version 1
Turbidity (1)	1	N/A	2025/07/23	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

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Your P.O. #: 2023-01
Your Project #: ANNUAL DRINKING WATER
Site Location: HENDERSON LAKE
Your C.O.C. #: 1 OF 1

Attention: Public Works

VILLAGE OF CUMBERLAND
PO BOX 340
CUMBERLAND, BC
CANADA V0R 1S0

Report Date: 2025/07/29

Report #: R3690601

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564420

Received: 2025/07/22, 13:30

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Vancouver, 4606 Canada Way, Burnaby, BC, V5G 1K5

(2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

(3) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key



**AUTHORIZED REPORT
RAPPORT AUTORISÉ**

Bureau Veritas
29 Jul 2025 13:14:56

Please direct all questions regarding this Certificate of Analysis to:

Aldean Alicando, Customer Solutions Representative

Email: Aldean.ALICANDO@bureauveritas.com

Phone# (604)734-7276 Ext:7062605

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BUREAU VERITAS

Bureau Veritas Job #: C564420
 Report Date: 2025/07/29

VILLAGE OF CUMBERLAND
 Client Project #: ANNUAL DRINKING WATER
 Site Location: HENDERSON LAKE
 Your P.O. #: 2023-01

DRINKING WATER PACKAGE (NON-REGULATED)

Bureau Veritas ID					DPM003	
Sampling Date					2025/07/22 10:50	
COC Number					1 OF 1	
	UNITS	MAC	AO	OG	HENDERSON LAKE	RDL
ANIONS						
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050
Calculated Parameters						
Total Hardness (CaCO3)	mg/L	-	-	-	12.8	0.50
Nitrate (N)	mg/L	10	-	-	0.034	0.020
Misc. Inorganics						
Conductivity	uS/cm	-	-	-	33	2.0
pH	pH	-	-	7.0:10.5	7.05	N/A
Total Dissolved Solids	mg/L	-	500	-	32	10
Anions						
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0
Alkalinity (Total as CaCO3)	mg/L	-	-	-	14	1.0
Bicarbonate (HCO3)	mg/L	-	-	-	17	1.0
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0
Chloride (Cl)	mg/L	-	250	-	<1.0	1.0
Sulphate (SO4)	mg/L	-	500	-	<1.0	1.0
MISCELLANEOUS						
True Colour	Col. Unit	-	15	-	5.9	2.0
Nutrients						
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.034	0.020
Physical Properties						
Turbidity	NTU	see remark	see remark	see remark	0.47	0.10
Elements						
Total Mercury (Hg)	ug/L	1	-	-	<0.0019	0.0019
Total Metals by ICPMS						
Total Aluminum (Al)	ug/L	2900	-	100	12.5	3.0
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50
Total Arsenic (As)	ug/L	10	-	-	<0.10	0.10
Total Barium (Ba)	ug/L	2000	-	-	<1.0	1.0
Total Boron (B)	ug/L	5000	-	-	<50	50
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
N/A = Not Applicable						



BUREAU
VERITAS

Bureau Veritas Job #: C564420
Report Date: 2025/07/29

VILLAGE OF CUMBERLAND
Client Project #: ANNUAL DRINKING WATER
Site Location: HENDERSON LAKE
Your P.O. #: 2023-01

DRINKING WATER PACKAGE (NON-REGULATED)

Bureau Veritas ID					DPM003	
Sampling Date					2025/07/22 10:50	
COC Number					1 OF 1	
	UNITS	MAC	AO	OG	HENDERSON LAKE	RDL
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.010
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20
Total Copper (Cu)	ug/L	2000	1000	-	1.95	0.20
Total Iron (Fe)	ug/L	-	100	-	144	5.0
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.20
Total Manganese (Mn)	ug/L	120	20	-	22.4	1.0
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	1.0
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10
Total Silicon (Si)	ug/L	-	-	-	1860	100
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020
Total Strontium (Sr)	ug/L	7000	-	-	8.1	1.0
Total Uranium (U)	ug/L	20	-	-	<0.10	0.10
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	5.0
Total Calcium (Ca)	mg/L	-	-	-	3.62	0.050
Total Magnesium (Mg)	mg/L	-	-	-	0.910	0.050
Total Potassium (K)	mg/L	-	-	-	<0.050	0.050
Total Sodium (Na)	mg/L	-	200	-	0.860	0.050
Total Sulphur (S)	mg/L	-	-	-	<3.0	3.0
Microbiological Param.						
Total Coliforms	CFU/100mL	0	-	-	120	N/A
E. coli	CFU/100mL	0	-	-	6.0	N/A
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
N/A = Not Applicable						



BUREAU
VERITAS

Bureau Veritas Job #: C564420

Report Date: 2025/07/29

VILLAGE OF CUMBERLAND

Client Project #: ANNUAL DRINKING WATER

Site Location: HENDERSON LAKE

Your P.O. #: 2023-01

GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, August 2024.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:

1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.

Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.



**BUREAU
VERITAS**

Bureau Veritas Job #: C564420
Report Date: 2025/07/29

VILLAGE OF CUMBERLAND
Client Project #: ANNUAL DRINKING WATER
Site Location: HENDERSON LAKE
Your P.O. #: 2023-01

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

Bureau Veritas Certified by David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

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Your P.O. #: 2023-01
 Your Project #: ANNUAL DRINKING WATER
 Site Location: SITE 8 WELL
 Your C.O.C. #: 1 OF 1

Attention: Public Works
 VILLAGE OF CUMBERLAND
 PO BOX 340
 CUMBERLAND, BC
 CANADA V0R 1S0

Report Date: 2025/07/29
 Report #: R3690598
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564423

Received: 2025/07/22, 13:30

Sample Matrix: Drinking Water
 # Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	1	N/A	2025/07/25	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry (1)	1	N/A	2025/07/23	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer (1)	1	N/A	2025/07/23	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C (1)	1	N/A	2025/07/25	BBY6SOP-00026	SM 24 2510 B m
Fluoride (1)	1	N/A	2025/07/26	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1, 2)	1	N/A	2025/07/25	BBY WI-00033	Auto Calc
Mercury (Total) by CV (1)	1	2025/07/25	2025/07/28	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total) (1)	1	N/A	2025/07/25	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total) (1)	1	N/A	2025/07/25	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N) (1)	1	N/A	2025/07/24	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water (1)	1	N/A	2025/07/24	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N) (1)	1	N/A	2025/07/24	BBY WI-00033	Auto Calc
pH @25°C (1, 3)	1	N/A	2025/07/25	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue) (1)	1	2025/07/28	2025/07/29	BBY6SOP-00033	SM 24 2540 C m
Total Coliform & E.Coli by MF-Chromocult (1)	1	N/A	2025/07/23	BBY4SOP-00143	Merck KGaA Version 1
Turbidity (1)	1	N/A	2025/07/23	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.



Your P.O. #: 2023-01
Your Project #: ANNUAL DRINKING WATER
Site Location: SITE 8 WELL
Your C.O.C. #: 1 OF 1

Attention: Public Works
VILLAGE OF CUMBERLAND
PO BOX 340
CUMBERLAND, BC
CANADA V0R 1S0

Report Date: 2025/07/29
Report #: R3690598
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564423
Received: 2025/07/22, 13:30

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

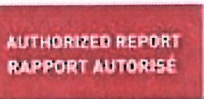
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested. This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

- (1) This test was performed by Bureau Veritas Vancouver, 4606 Canada Way, Burnaby, BC, V5G 1K5
- (2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
- (3) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key



Bureau Veritas
29 Jul 2025 13:14:14

Please direct all questions regarding this Certificate of Analysis to:
Aldean Alicando, Customer Solutions Representative
Email: Aldean.ALICANDO@bureauveritas.com
Phone# (604)734-7276 Ext:7062605

=====
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BUREAU VERITAS

Bureau Veritas Job #: C564423
Report Date: 2025/07/29

VILLAGE OF CUMBERLAND
Client Project #: ANNUAL DRINKING WATER
Site Location: SITE 8 WELL
Your P.O. #: 2023-01

DRINKING WATER PACKAGE (NON-REGULATED)

Bureau Veritas ID					DPM006	
Sampling Date					2025/07/22 11:45	
COC Number					1 OF 1	
	UNITS	MAC	AO	OG	SITE 8 WELL	RDL
ANIONS						
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050
Calculated Parameters						
Total Hardness (CaCO3)	mg/L	-	-	-	41.8	0.50
Nitrate (N)	mg/L	10	-	-	<0.020	0.020
Misc. Inorganics						
Conductivity	uS/cm	-	-	-	150	2.0
pH	pH	-	-	7.0:10.5	7.84	N/A
Total Dissolved Solids	mg/L	-	500	-	110	10
Anions						
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0
Alkalinity (Total as CaCO3)	mg/L	-	-	-	53	1.0
Bicarbonate (HCO3)	mg/L	-	-	-	65	1.0
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0
Chloride (Cl)	mg/L	-	250	-	9.8	1.0
Sulphate (SO4)	mg/L	-	500	-	3.7	1.0
MISCELLANEOUS						
True Colour	Col. Unit	-	15	-	<2.0	2.0
Nutrients						
Nitrate plus Nitrite (N)	mg/L	-	-	-	<0.020	0.020
Physical Properties						
Turbidity	NTU	see remark	see remark	see remark	<0.10	0.10
Elements						
Total Mercury (Hg)	ug/L	1	-	-	<0.0019	0.0019
Total Metals by ICPMS						
Total Aluminum (Al)	ug/L	2900	-	100	<3.0	3.0
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50
Total Arsenic (As)	ug/L	10	-	-	<0.10	0.10
Total Barium (Ba)	ug/L	2000	-	-	1.7	1.0
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
N/A = Not Applicable						



BUREAU
VERITAS

Bureau Veritas Job #: C564423
Report Date: 2025/07/29

VILLAGE OF CUMBERLAND
Client Project #: ANNUAL DRINKING WATER
Site Location: SITE 8 WELL
Your P.O. #: 2023-01

DRINKING WATER PACKAGE (NON-REGULATED)

Bureau Veritas ID					DPM006	
Sampling Date					2025/07/22 11:45	
COC Number					1 OF 1	
	UNITS	MAC	AO	OG	SITE 8 WELL	RDL
Total Boron (B)	ug/L	5000	-	-	162	50
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.010
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20
Total Copper (Cu)	ug/L	2000	1000	-	<0.20	0.20
Total Iron (Fe)	ug/L	-	100	-	<5.0	5.0
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.20
Total Manganese (Mn)	ug/L	120	20	-	1.4	1.0
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	1.0
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10
Total Silicon (Si)	ug/L	-	-	-	5740	100
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020
Total Strontium (Sr)	ug/L	7000	-	-	35.9	1.0
Total Uranium (U)	ug/L	20	-	-	<0.10	0.10
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	5.0
Total Calcium (Ca)	mg/L	-	-	-	11.7	0.050
Total Magnesium (Mg)	mg/L	-	-	-	3.05	0.050
Total Potassium (K)	mg/L	-	-	-	0.292	0.050
Total Sodium (Na)	mg/L	-	200	-	10.2	0.050
Total Sulphur (S)	mg/L	-	-	-	<3.0	3.0
Microbiological Param.						
Total Coliforms	CFU/100mL	0	-	-	0	N/A
E. coli	CFU/100mL	0	-	-	0	N/A
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
N/A = Not Applicable						



BUREAU
VERITAS

Bureau Veritas Job #: C564423

Report Date: 2025/07/29

VILLAGE OF CUMBERLAND

Client Project #: ANNUAL DRINKING WATER

Site Location: SITE 8 WELL

Your P.O. #: 2023-01

GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, August 2024.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:

1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.

Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C564423
Report Date: 2025/07/29

VILLAGE OF CUMBERLAND
Client Project #: ANNUAL DRINKING WATER
Site Location: SITE 8 WELL
Your P.O. #: 2023-01

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

Bureau Veritas Certified by David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

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Your P.O. #: 2023-01
 Your Project #: ANNUAL DRINKING WATER
 Site Location: SITE 5
 Your C.O.C. #: 1 OF 1

Attention: Public Works
 VILLAGE OF CUMBERLAND
 PO BOX 340
 CUMBERLAND, BC
 CANADA V0R 1S0

Report Date: 2025/07/30
 Report #: R3691225
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564594

Received: 2025/07/23, 13:30

Sample Matrix: Drinking Water
 # Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity @25C (pp, total), CO3,HCO3,OH (1)	1	N/A	2025/07/28	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry (1)	1	N/A	2025/07/30	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer (1)	1	N/A	2025/07/25	BBY6SOP-00057	SM 24 2120 C m
Coliforms & E.coli by Quantitray (MPN)	1	2025/07/23	2025/07/24	CTYSOP-00002	SM 23 9223
Conductivity @25C (1)	1	N/A	2025/07/28	BBY6SOP-00026	SM 24 2510 B m
Fluoride (1)	1	N/A	2025/07/30	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1, 2)	1	N/A	2025/07/30	BBY WI-00033	Auto Calc
Mercury (Total) by CV (1)	1	2025/07/28	2025/07/28	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total) (1)	1	N/A	2025/07/30	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total) (1)	1	N/A	2025/07/29	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N) (1)	1	N/A	2025/07/26	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water (1)	1	N/A	2025/07/26	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N) (1)	1	N/A	2025/07/29	BBY WI-00033	Auto Calc
pH @25°C (1, 3)	1	N/A	2025/07/28	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue) (1)	1	2025/07/28	2025/07/29	BBY6SOP-00033	SM 24 2540 C m
Turbidity (1)	1	N/A	2025/07/24	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

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Your P.O. #: 2023-01
Your Project #: ANNUAL DRINKING WATER
Site Location: SITE 5
Your C.O.C. #: 1 OF 1

Attention: Public Works
VILLAGE OF CUMBERLAND
PO BOX 340
CUMBERLAND, BC
CANADA V0R 1S0

Report Date: 2025/07/30
Report #: R3691225
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C564594

Received: 2025/07/23, 13:30

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Vancouver, 4606 Canada Way , Burnaby, BC, V5G 1K5

(2) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

(3) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key



**AUTHORIZED REPORT
RAPPORT AUTORISE**

Bureau Veritas
30 Jul 2025 15:30:07

Please direct all questions regarding this Certificate of Analysis to:

Aldean Alicando, Customer Solutions Representative

Email: Aldean.ALICANDO@bureauveritas.com

Phone# (604)734-7276 Ext:7062605

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validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rob Gilbert, BBY General Manager responsible for British Columbia Environmental laboratory operations.



BUREAU VERITAS

Bureau Veritas Job #: C564594

Report Date: 2025/07/30

VILLAGE OF CUMBERLAND

Client Project #: ANNUAL DRINKING WATER

Site Location: SITE 5

Your P.O. #: 2023-01

DRINKING WATER SCAN - COURTENAY (DRINKING WATER)

Bureau Veritas ID					DPN220	
Sampling Date					2025/07/23 10:35	
COC Number					1 OF 1	
	UNITS	MAC	AO	OG	SITE 5	RDL
ANIONS						
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050
Calculated Parameters						
Total Hardness (CaCO3)	mg/L	-	-	-	15.2	0.50
Nitrate (N)	mg/L	10	-	-	0.022	0.020
Misc. Inorganics						
Conductivity	uS/cm	-	-	-	66	2.0
pH	pH	-	-	7.0:10.5	6.62	N/A
Total Dissolved Solids	mg/L	-	500	-	40	10
Anions						
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0
Alkalinity (Total as CaCO3)	mg/L	-	-	-	16	1.0
Bicarbonate (HCO3)	mg/L	-	-	-	19	1.0
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0
Chloride (Cl)	mg/L	-	250	-	8.0	1.0
Sulphate (SO4)	mg/L	-	500	-	<1.0	1.0
MISCELLANEOUS						
True Colour	Col. Unit	-	15	-	3.3	2.0
Nutrients						
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.022	0.020
Physical Properties						
Turbidity	NTU	see remark	see remark	see remark	0.33	0.10
Elements						
Total Mercury (Hg)	ug/L	1	-	-	<0.0019	0.0019
Total Metals by ICPMS						
Total Aluminum (Al)	ug/L	2900	-	100	7.7	3.0
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50
Total Arsenic (As)	ug/L	10	-	-	<0.10	0.10
Total Barium (Ba)	ug/L	2000	-	-	<1.0	1.0
Total Beryllium (Be)	ug/L	-	-	-	<0.10	0.10
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
N/A = Not Applicable						



BUREAU
VERITAS

Bureau Veritas Job #: C564594
Report Date: 2025/07/30

VILLAGE OF CUMBERLAND
Client Project #: ANNUAL DRINKING WATER
Site Location: SITE 5
Your P.O. #: 2023-01

DRINKING WATER SCAN - COURTENAY (DRINKING WATER)

Bureau Veritas ID					DPN220	
Sampling Date					2025/07/23 10:35	
COC Number					1 OF 1	
	UNITS	MAC	AO	OG	SITE 5	RDL
Total Bismuth (Bi)	ug/L	-	-	-	<1.0	1.0
Total Boron (B)	ug/L	5000	-	-	<50	50
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.010
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20
Total Copper (Cu)	ug/L	2000	1000	-	8.54	0.20
Total Iron (Fe)	ug/L	-	100	-	142	5.0
Total Lead (Pb)	ug/L	5	-	-	0.20	0.20
Total Manganese (Mn)	ug/L	120	20	-	9.7	1.0
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	1.0
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10
Total Silicon (Si)	ug/L	-	-	-	2530	100
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020
Total Strontium (Sr)	ug/L	7000	-	-	10.5	1.0
Total Thallium (Tl)	ug/L	-	-	-	<0.010	0.010
Total Tin (Sn)	ug/L	-	-	-	<5.0	5.0
Total Titanium (Ti)	ug/L	-	-	-	<5.0	5.0
Total Uranium (U)	ug/L	20	-	-	<0.10	0.10
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	5.0
Total Zirconium (Zr)	ug/L	-	-	-	<0.10	0.10
Total Calcium (Ca)	mg/L	-	-	-	4.27	0.050
Total Magnesium (Mg)	mg/L	-	-	-	1.10	0.050
Total Potassium (K)	mg/L	-	-	-	0.080	0.050
Total Sodium (Na)	mg/L	-	200	-	6.69	0.050
Total Sulphur (S)	mg/L	-	-	-	<3.0	3.0
Microbiological Param.						
Total Coliforms (QT)	MPN/100mL	0	-	-	0	N/A
E. coli (QT)	MPN/100mL	0	-	-	0	N/A
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
N/A = Not Applicable						



Bureau Veritas Job #: C564594
Report Date: 2025/07/30

VILLAGE OF CUMBERLAND
Client Project #: ANNUAL DRINKING WATER
Site Location: SITE 5
Your P.O. #: 2023-01

GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, August 2024.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:

1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.

Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.



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VERITAS

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Mauro Oselin, P.Chem., QP, Scientific Specialist

Bureau Veritas Certified by David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

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2025 Water Quality Concerns | Village of Cumberland

Date	Location	Concern	Probable Cause	Actions/Recommendations
19/Feb/25	2596 Derwent Ave	High pressure that burst hose faucet followed by brown water.	Frozen service that thawed	Run cold water until clear.
25/Feb/25	2727 Dunsmuir Ave	Brownish water followed by greenish water.	Heavy rains/flooding/internal building issue.	Check with other unit holders and building manager first.
9/Apr/25	3399 Solport Ave	Yellow water	Fire Practice. DFC confirmed hydrant 115 Solport and 132 Lindale used.	Run cold water until clear.
9/Apr/25	2514 Kendal Ave	Brown water	Fire Practice. DFC confirmed hydrant 115 Solport and 132 Lindale used.	Run cold water until clear.
16/Apr/25	2803 Maryport Ave	Brown water	Annual flushing	Run cold water until clear.
2/Sep/25	Comox Lake Park	Sick after consuming tap water from Lake Park on August 27, 2025	Not due to water consumed.	Chlorine and water sampling reviewed for that day and it was fine.
19/Sep/25	Museum	Concerns water is making people feel sick		
21/Sep/25	2763 Dunsmuir Avenue	Brown water and sediment after water on/off for construction project	Sediment disruption in pipes do to construction.	Run cold water until clear
22/Oct/25	Maryport Ave and Seventh Street	Brown water	Most likely fire practice from previous evening.	Run cold water until clear

Watermain/Service Leak Report | 2025 | Village of Cumberland

Date	Street	Address	Pipe Size	Pipe Type	Leak Type	Probable Cause	Repair Details
22-Jan-25	First St	3303	12.7	Copper	Leak at old curb stop	Age	Cut out old curb stop and replaced with small section of copper
22-Jan-25	Maryport	2774	19	Steel	Hole in pipe	Corroded steel nipple (see photo)	Cut out old steel nipple and curb stop and replaced with Municipex
28-Jan-25	Eight St	3303	19	Copper	Hole in pipe	Hot soil? Poor quality copper? Electrolysis?	Replaced remaining section of copper to water meter setter
5-Jun-25	Dunsmuir Ave	2705	12.7	Copper	Hole in pipe	Age	Replaced 1/2" section with 3/4" municipex
31-Jul-25	Third St	2731 Derwent	100	Steel	Hole in pipe	Age	SS Repair clamp
2-Sep-25	Windermere	2753	100	Steel	Hole in pipe	Age	SS Repair clamp
5-Oct-25	Penrith	2719	100	Steel	Hole in pipe	Age	SS Repair clamp
27-Oct-25	Second St	3284 (Serviced from Penrith)	12.7	Copper	Hole in pipe	Age	Replaced 1/2" section with new 1/2" copper
1-Dec-25	Primrose	3385	19	Copper	Hole in pipe	Electrolysis? Age?	SS Repair clamp