

City of Nelson 2023 Annual Drinking Water Report

2023 Monitoring Year



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City of Nelson 2023 Annual Drinking Water Report

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Acronyms

<u>Abbreviations</u>	<u>Meaning</u>
CCCP	Cross-Connection Control Program
CFU	Colony Forming Units
DNA	Deoxyribonucleic Acid
EOCP	Environmental Operators Certification Program
GCDWQ	Guideline for Canadian Drinking Water Quality
HAA	Haloacetic Acid
KEI	Kootenay Environmental Innovations
LRAA	Locational Running Annual Average
MACs	Maximum Acceptable Concentration Limits
NTU	Nephelometric Turbidity Units
Reg	Regulation
RNA	Ribonucleic Acid
THM	Trihalomethane
UV	Ultraviolet Light
UVT	Ultraviolet Transmittance
WC	Water Cooled

City of Nelson 2023 Annual Drinking Water Report

1 Introduction

This report is provided to enhance communications between the City of Nelson (the City) and the public regarding the management, planning and operations of the City's water treatment and distribution system. The City is required by Interior Health Authority to monitor various aspects of the raw water and treated water systems, including:

- Annual water consumption,
- Bacteriological colony forming units in raw and treated water,
- Continuous raw water turbidity data,
- Continuous ultraviolet light treatment data,
- Trihalomethane and haloacetic acid data in treated water, and
- Residual chlorine data.

In addition to the water quality monitoring results listed above, the City is required to maintain multiple management plans, including:

- Water Master Plan,
- Capital Works Plan
- Cross-Connection Control Program,
- Emergency Response Plan, and
- Maintenance of Environmental Operators Certification Program training for the City's Treatment Plant Operators.

In addition to being a communication tool between the City and the public, this Annual Drinking Water Report satisfies requirements outlined in the drinking water protection regulation, BC Reg. 200/2003, and the City's operating permit for the City's water treatment and distribution system, including Facility #0210671 – Mountain Station Water Treatment Plant.

2 System Design

The City sources its drinking water from Five Mile Creek, Fell Creek, Anderson Creek and Selous Creek. Fell Creek is a tributary to Anderson Creek and feeds into the reservoir at the Anderson Creek intake. Unless otherwise noted, all references to Anderson Creek will include Fell Creek, as most activities related to Anderson Creek occur below the confluence of Fell Creek and Anderson Creek.

Water is taken year-round from Five Mile Creek and is supplemented by Anderson Creek and Selous Creek in periods of peak demand during the summer. Though raw water from Anderson Creek and Selous Creek is not required during periods of low demand, approximately one to two litres per second is always maintained in the transmission lines to ensure the water in those portions of the distribution system does not become stagnant or freeze.

In March of 2023 upon the completion of the Anderson Creek Booster Station, water from the Anderson and Fell catchments was now able to be pumped to the Mountain Station Water treatment Facility, completing a multi-year program of capital investment to consolidate all of Nelsons water sources at a single facility for treatment. A map of the four catchments, main distribution pipes and buildings associated with the City's drinking water system can be seen in Figure 1.

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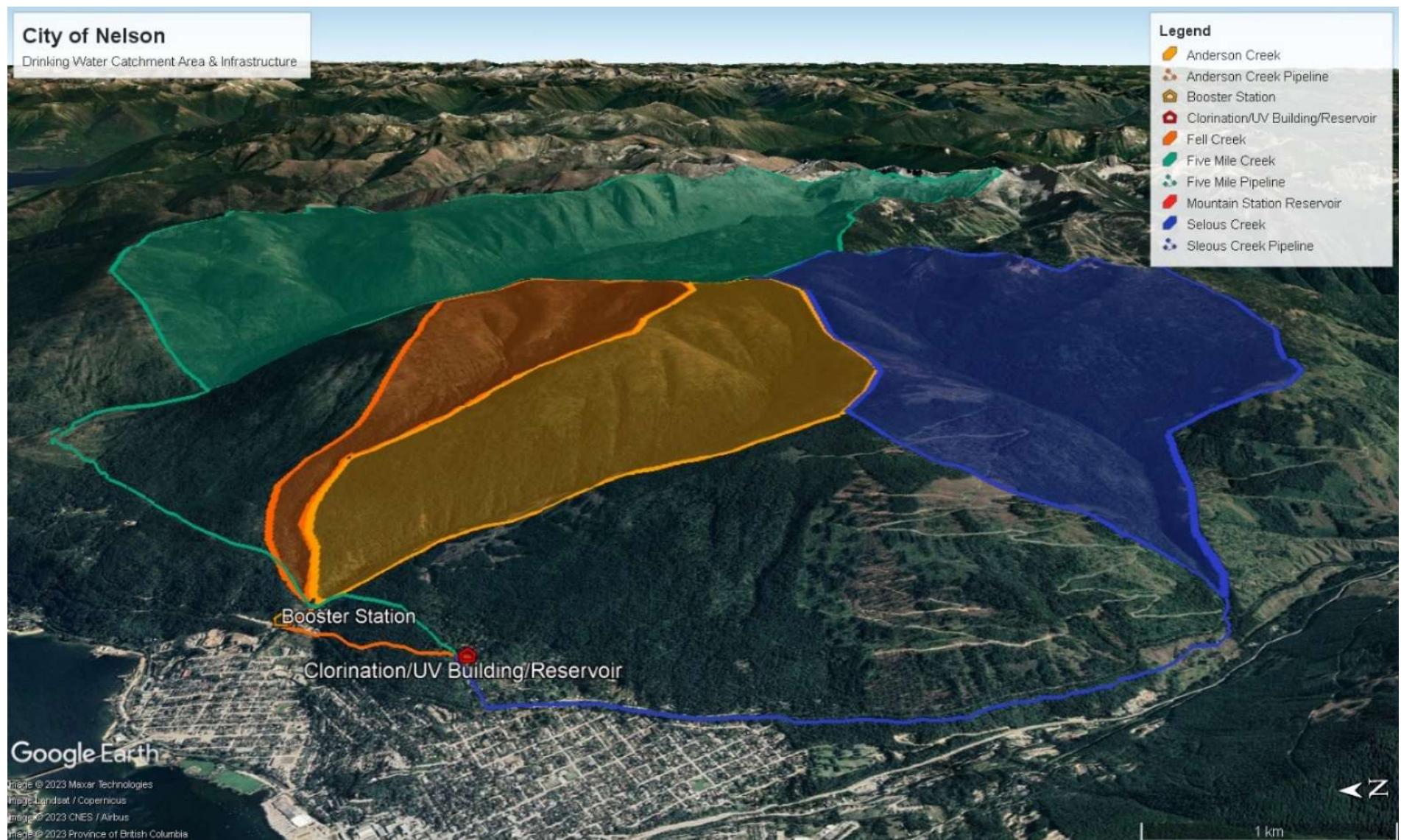


Figure 1: City of Nelson Catchments & Drinking Water Infrastructure as of 2023.

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3 2023 Water Consumption

The City consumed 1,946,430 m³ of drinking water in 2023, which is comparable to the 1,857,241 m³ consumed in 2022 and 1,846,496 m³ in 2021. Figure 2 shows the City's monthly water consumption, while Figure 3 shows the daily water consumption by source. Five Mile's size and flow continue to make it the largest contributor to Nelson's drinking water, contributing 87%, Selous Creek 11% and Anderson Creek contributing 2%.

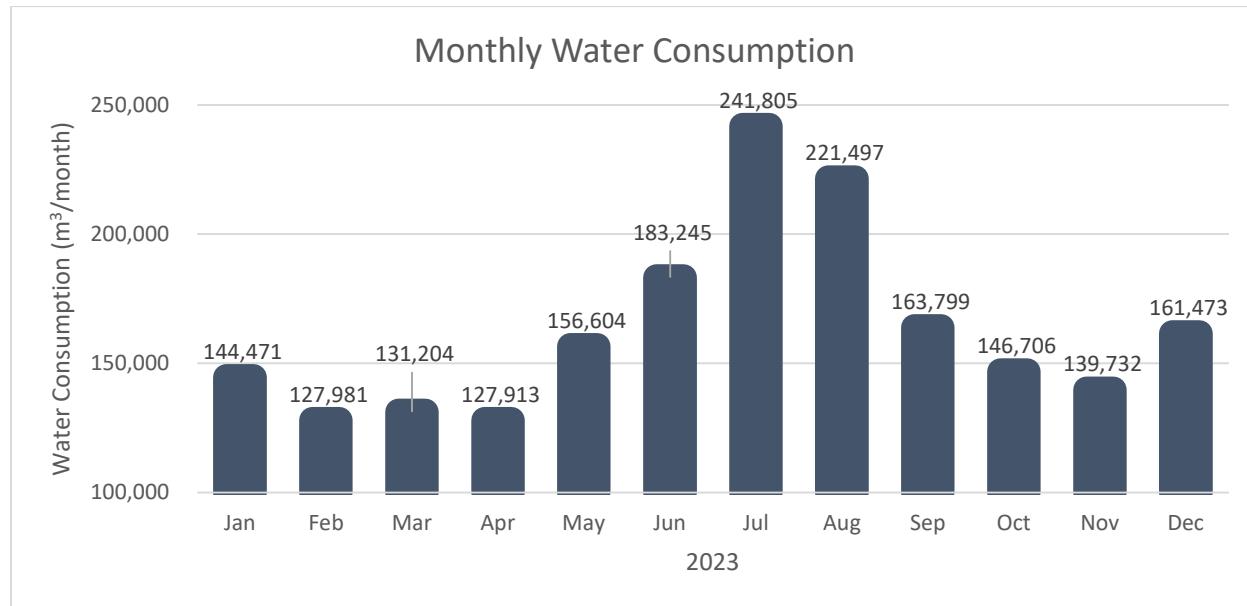


Figure 2: Monthly Water Consumption

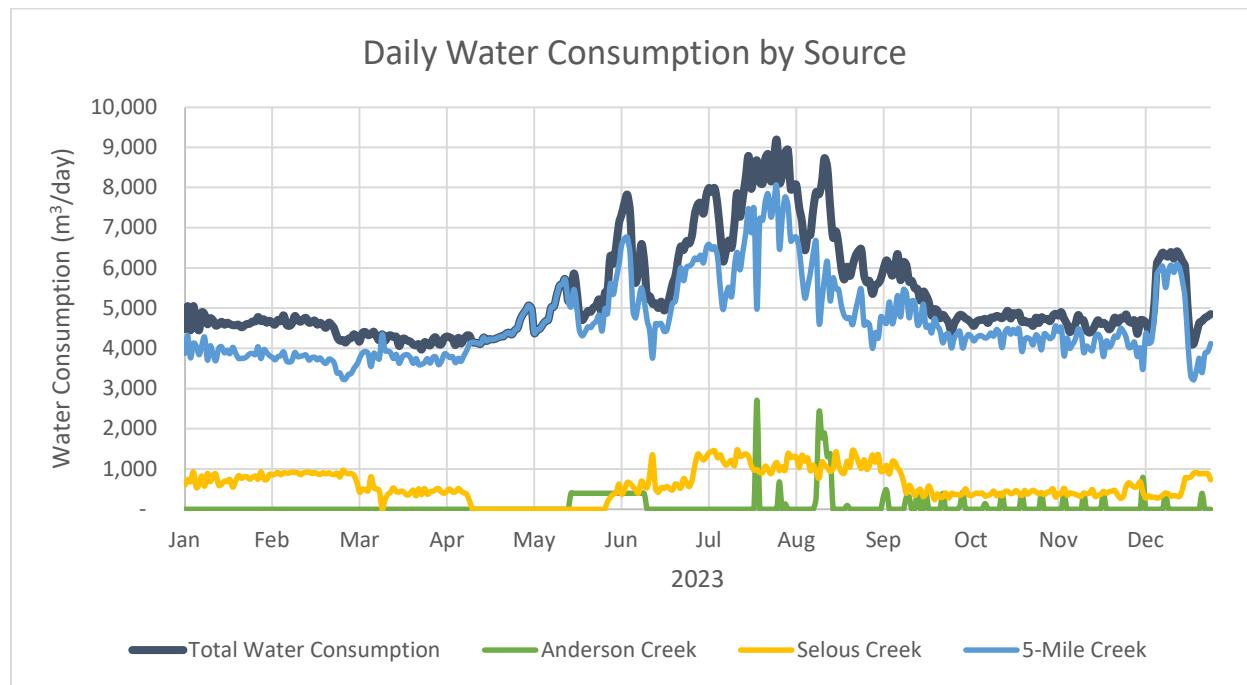


Figure 3: Daily Water Consumption by Source

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4 Water Quality Monitoring Program

The City's Water Quality Monitoring Program requires the collection of, and reporting on, the following parameters:

- Weekly bacteriological sampling for:
 - E. coli,
 - Fecal Coliforms, and
 - Total Coliforms;
- Continuous turbidity data at the Anderson and Selous Creek intakes and the Mountain Station reservoir;
- Continuous UV performance/transmittance (UVT) data;
- Quarterly trihalomethane (THM) and haloacetic acid (HAA) testing in the distribution system;
- A full comprehensive raw water analysis for each source collected annually; and
- Continuous chlorine residuals.

4.1 Weekly Bacteriological Sampling

The City conducts bacteriological sampling of treated water at four locations within the distribution system, while raw water samples are taken at Anderson Creek and the Mountain Station reservoirs. All samples are taken weekly, except for the raw water samples at the Anderson Creek reservoir, which are taken weekly only when water is sourced from the stream. Raw water samples are taken only at Anderson Creek and the Mountain Station reservoir because these are the two locations where raw water is treated and enters the distribution system.

The following four locations are the weekly sample locations within the distribution system:

- Rosemont reservoir,
- 300 Block Silica Street,
- 3rd Street and Davies Street, and
- Fell Street and 11th Street.

Tables 1 and 2 below show the bacteriological sampling results produced by a third-party independent laboratory, Passmore Laboratories Ltd.. The original reports from Passmore Laboratories can be found in Appendix B.

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Table 1: Weekly Coliform Results (Jan – Jun 2023)

Weekly Coliform Results (Jan to Jun 2023)

Sample Date	Rosemont Reservoir	Silica St.	3rd & Davies	Fell & 11th	Anderson Creek	Mtn. Station Reservoir		
	Treated Drinking Water					Raw Water		
	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli
2022-01-03	0	0	0	0	0	0	15	0
2023-01-10	0	0	0	0	0	0	0	0
2023-01-17	0	0	0	0	0	0	6	1
2023-01-24	0	0	0	0	0	0	4	0
2023-01-31	0	0	0	0	0	0	8	0
2023-02-07	0	0	0	0	0	0	6	0
2023-02-14	0	0	0	0	0	0	6	0
2023-02-21	0	0	0	0	0	0	9	0
2023-02-28	0	0	0	0	0	0	4	0
2023-03-07	0	0	0	0	0	0	11	0
2023-03-14	0	0	0	0	0	0	6	0
2023-03-21	0	0	0	0	0	0	2	0
2023-03-28	0	0	0	0	0	0	6	0
2023-04-04	0	0	0	0	0	0	5	0
2023-04-11	0	0	0	0	0	0	5	0
2023-04-18	0	0	0	0	0	0	5	0
2023-04-25	0	0	0	0	0	0	10	0
2023-05-02	0	0	0	0	0	0	30	0
2023-05-09	0	0	0	0	0	0	22	4
2023-05-16	0	0	0	0	0	0	14	7
2023-05-23	0	0	0	0	0	0	16	2
2023-05-30	0	0	0	0	0	0	22	0
2023-06-06	0	0	0	0	0	0	0	0
2023-06-13	0	0	0	0	0	0	30	0
2023-06-20	0	0	0	0	0	0	49	6
2023-06-22	0	0		0	0			

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Table 2: Weekly Coliform results (Jul – Dec 2023)

Weekly Coliform Results (Jul to Dec 2023)

Sample Date	Rosemont Reservoir	Silica St.	3rd & Davies	Fell & 11th	Anderson Creek	Mtn. Station Reservoir		
	Treated Drinking Water					Raw Water		
	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli	Coliforms, Total	Verified E.coli
2023-06-27	0	0	0	0	0	0	0	0
2023-07-04	0	0	0	0	0	0	0	0
2023-07-11	0	0	0	0	0	0	0	6
2023-07-18	0	0	0	0	0	0	0	2
2023-07-25	0	0	0	0	0	0	0	1
2023-08-01	0	0	0	0	0	0	0	0
2023-08-08	0	0	0	0	0	0	0	6
2023-08-15	0	0	0	0	0	0	0	1
2023-08-22	0	0	0	0	0	0	0	4
2023-08-29	0	0	0	0	0	0	0	2
2023-09-05	0	0	0	0	0	0	0	3
2023-09-12	0	0	0	0	0	0	0	0
2023-09-19	0	0	0	0	0	0	0	0
2023-09-26	0	0	0	0	0	0	0	0
2023-10-03	0	0	0	0	0	0	0	0
2023-10-10	0	0	0	0	0	0	0	0
2023-10-17	0	0	0	0	0	0	0	0
2023-10-24	0	0	0	0	0	0	0	0
2023-10-31	0	0	0	0	0	0	0	1
2023-11-07	0	0	0	0	0	0	0	3
2023-11-14	0	0	0	0	0	0	0	1
2023-11-21	0	0	0	0	0	0	0	0
2023-11-28	0	0	0	0	0	0	0	0
2023-12-05	0	0	0	0	0	0	0	1
2023-12-12	0	0	0	0	0	0	0	1
2023-12-19	0	0	0	0	0	0	0	0
2023-12-27	0	0	0	0	0	0	0	0

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Throughout the 2023 bacteriological no samples within the treated water system returned a positive result for any coliforms.

Raw water samples from the Mountain Station reservoir returned positive results for total coliforms, fecal (thermotolerant) coliforms, and E. coli. By observing the trends in Figure 4, showing the colony forming units (CFUs) in the raw water at the Mountain Station reservoir, the City is aware of CFUs being high during the summer months and fall precipitation events. Fecal (thermotolerant) coliforms and E. coli were only observed during the spring, summer and fall and are monitored by City staff. Raw water samples were not taken at Anderson Creek, Five Mile Creek or Selous Creek reservoirs, though this sampling may begin in future years.

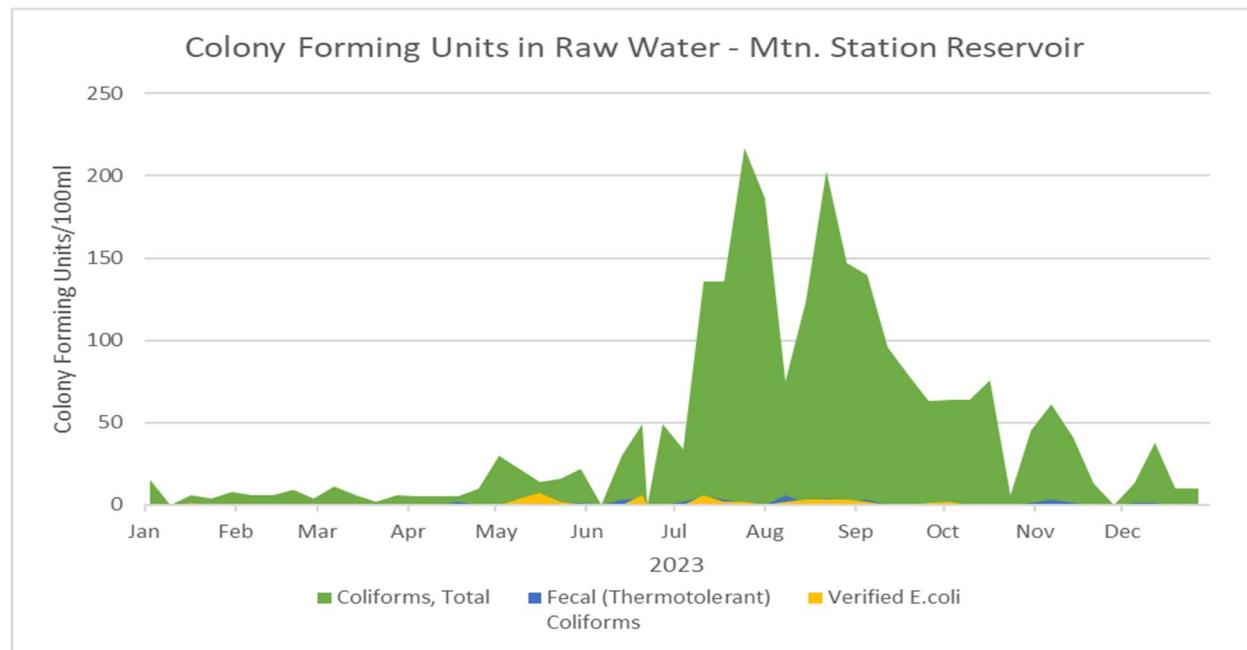


Figure 4: Colony Forming Units in Raw Untreated Water at Mtn. Station Reservoir

Though E. coli was observed in the raw water, the results remained below the filtration exemption criteria outlined in the Province's Drinking Water Treatment Objective for Surface Water in BC. The filtration exemption criteria state that E. coli should not exceed 20 CFU per 100 ml in at least 90% of the weekly samples from the previous six months (British Columbia, 2022a). In 2023, the highest E. Coli sample count was 7 CFU/100ml on May 16th, 2023. The City met the filtration exemption criteria for bacteriological monitoring in 2023.

4.2 Continuous Raw Water Turbidity

The City conducts in-line turbidity monitoring at Anderson Creek, Selous Creek and at the Mountain Station reservoir. The Province's filtration deferral criteria outline that average daily turbidity measurements should not exceed "around 1 [Nephelometric Turbidity Units] NTU, but do not exceed 5 NTU for more than two days in a 12-month period" (British Columbia, 2022a). As shown in Figure 5, the City did exceed 1 NTU, but was never above 2 NTU on multiple days during the spring freshet, and never exceed 5 NTU. During days when the turbidity was above 1 NTU, the City of Nelson issued a Water Quality Advisory, and notified the Interior Health Authority, as per the City's response plan. Water advisories were in place from May 3rd to 10th, and May 18th to 24th.

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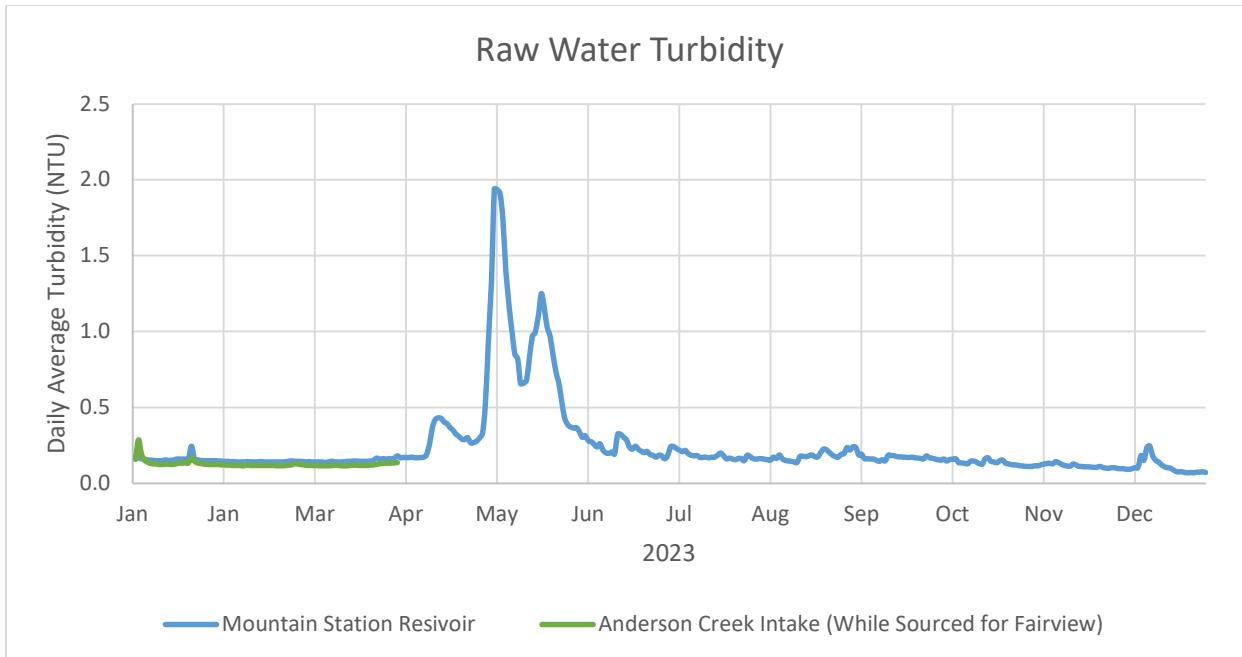


Figure 5: Daily Raw Water Turbidity

The monthly average turbidity represented in Nephelometric Turbidity Units (NTU) is displayed in Figure 6. The City continuously monitors turbidity levels in each water source and adjusts the water supply daily to ensure the cleanest possible water.

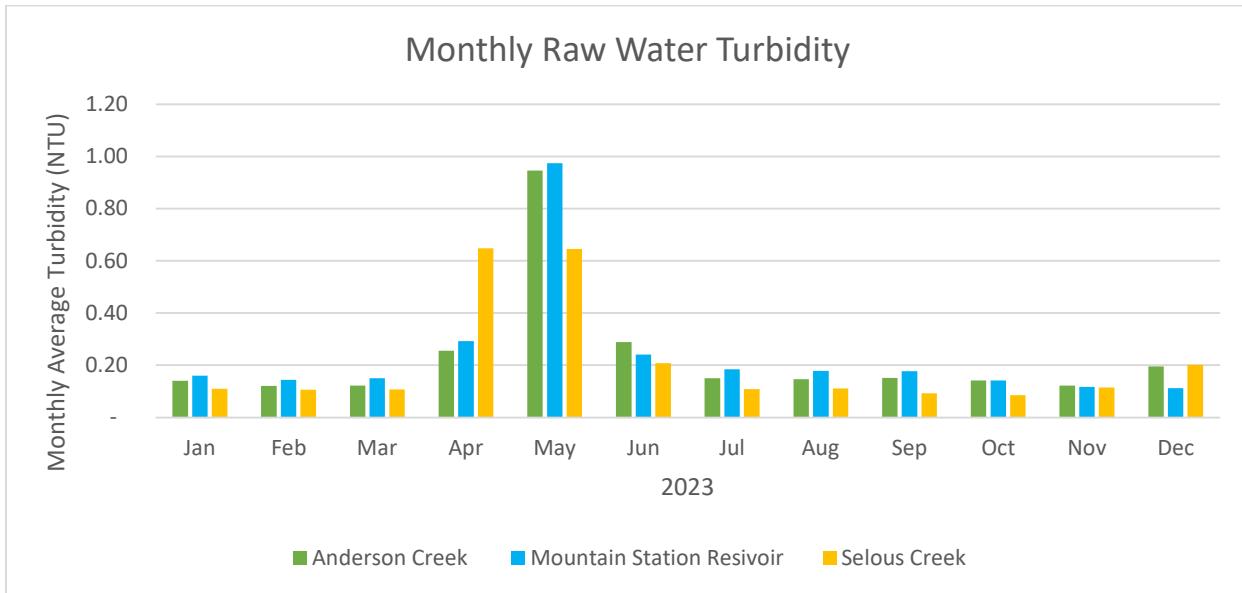


Figure 6: Monthly Raw Water Turbidity

4.3 Continuous Ultraviolet Performance

Ultraviolet (UV) performance is measured as the percent transmittance of ultraviolet light, referred to as Ultraviolet Transmittance (UVT), through a 10ml quartz cell. UV light is used in the drinking water

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disinfection process as UV "inactivates pathogens by damaging their nucleic acids (DNA and RNA) so that they cannot replicate and infect humans" (British Columbia, 2022b).

UVT is a vital performance metric as "it is related to the quantity of organics, colloidal solids and other material in the water which absorb and scatter the UV light as it passes through the water column. In a UV disinfection system, if the UVT of the water is low, the UV light cannot penetrate the water as effectively, thereby reducing the potency of the dose." (Real Tech Inc., n.d.)

As outlined in the Province's Guidelines for Ultraviolet Disinfection of Drinking Water, water entering a UV reactor is recommended to have a UVT greater than that recommended by the UV equipment supplier (British Columbia, 2022b). The UV system installed at Mountain Station is rated to achieve a 3-log reduction of giardia and cryptosporidium at a UVT of 72% at a flow up to 210 L/sec. In 2023 the raw water ultraviolet transmittance at Mountain Station fell below 72% for a period of 8 consecutive days in late April and early May, as shown in Figure 7, correlating to a higher than average turbidity event as discussed in section 4.2.

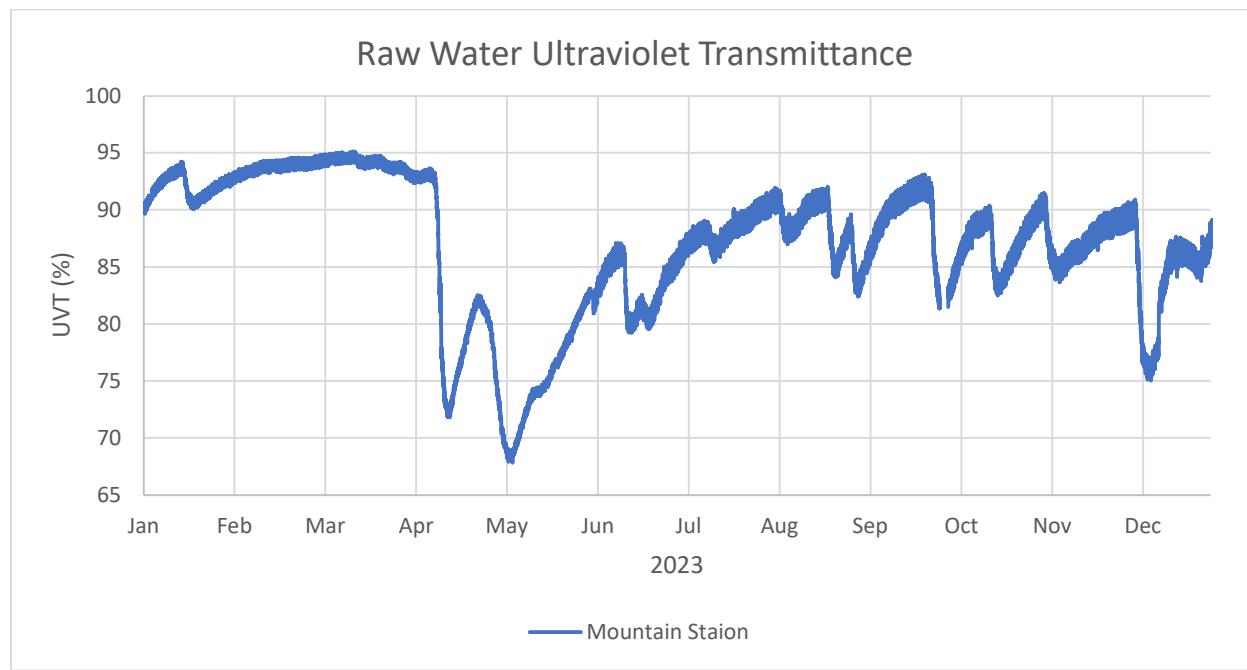


Figure 7: Mtn. Station Raw Water Ultraviolet Transmittance

4.4 Quarterly Trihalomethanes and Haloacetic Acids and Manganese Testing

The Guidelines for Canadian Drinking Water Quality (GCDWQ) published by Health Canada establishes Maximum Acceptable Concentration Limits (MACs) for Trihalomethanes (THMs) and Haloacetic Acids (HAAs). The MACs for these compounds are calculated over an average of the previous four calendar quarters at a designated location within the distribution system. This method of calculation is called the Locational Running Annual Average (LRAA). The MAC for THMs is 0.100mg/L (Health Canada, 2006), and the MAC for HAAs is 0.08mg/L (Health Canada, 2010).

The City was below Health Canada's MACs for THMs and HAA for all four quarters in 2023 based on an LRAA analysis. The results of the LRAA analysis for THMs and HAAs are shown in Tables 3 and 4. The quarterly THMs and HAAs sample results can be found in Appendix A.

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Table 3: Q4 & Q3 THM & HAA LRAA Results

Legend

Below maximum acceptable concentration	Above Maximum Acceptable Concentration
Below Reporting Limits	Not Reported

2023 Q4 Locational Running Annual Average

Analyte	Rosemont	3rd St &	Fell St &	Silica St &	Mountain	Reporting Units	Limit	GCDWQ Standard
	Reservoir	Davies St	11th St	Stanley St	Station Res			
Volatile Organic Compounds (VOC)	Bromodichloromethane	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001 N/A
	Bromoform	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001 N/A
	Chloroform	0.1041	0.0836	0.0668	0.0847	0.0455	mg/L	0.001 N/A
	Dibromochloromethane	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001 N/A
Haloacetic Acids	Monochloroacetic Acid	0.0037	0.0155	0.0021	0.0026	0.0023	mg/L	0.002 N/A
	Monobromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002 N/A
	Dichloroacetic Acid	0.0306	0.0272	0.0269	0.0263	0.0174	mg/L	0.002 N/A
	Trichloroacetic Acid	0.0431	0.0366	0.0383	0.0371	0.0154	mg/L	0.002 N/A
	Dibromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002 N/A
	Total Haloacetic Acids (HAA5)	0.0771	0.0671	0.0666	0.0654	0.0346	mg/L	0.002 MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0897	0.0836	0.0668	0.0847	0.0455	mg/L	0.004 MAC=0.1

2023 Q3 Locational Running Annual Average

Analyte	Rosemont	3rd St &	Fell St &	Silica St &	Mountain	Reporting Units	Limit	GCDWQ Standard
	Reservoir	Davies St	11th St	Stanley St	Station Res			
Volatile Organic Compounds (VOC)	Bromodichloromethane	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001 N/A
	Bromoform	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001 N/A
	Chloroform	0.0838	0.0687	0.0559	0.0700	0.0342	mg/L	0.001 N/A
	Dibromochloromethane	0.0005	0.0005	0.0007	0.0005	0.0005	mg/L	0.001 N/A
Haloacetic Acids	Monochloroacetic Acid	0.0037	0.0155	0.0021	0.0026	0.0023	mg/L	0.002 N/A
	Monobromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002 N/A
	Dichloroacetic Acid	0.0272	0.0235	0.0228	0.0230	0.0134	mg/L	0.002 N/A
	Trichloroacetic Acid	0.0386	0.0314	0.0338	0.0327	0.0117	mg/L	0.002 N/A
	Dibromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002 N/A
	Total Haloacetic Acids (HAA5)	0.0692	0.0582	0.0579	0.0576	0.0267	mg/L	0.002 MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0838	0.0687	0.0559	0.0700	0.0346	mg/L	0.004 MAC=0.1

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Table 4: Q2 & Q1 THM & HAA LRAA Results

2023 Q2 Locational Running Annual Average

Analyte	Rosemont	3rd St &	Fell St &	Silica St &	Mountain	Reporting Units	Limit	GCDWQ Standard
	Reservoir	Davies St	11th St	Stanley St	Station Res			
Volatile Organic Compounds (VOC)	Bromodichloromethane	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001 N/A
	Bromoform	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001 N/A
	Chloroform	0.0803	0.0579	0.0510	0.0667	0.0422	mg/L	0.001 N/A
	Dibromochloromethane	0.0005	0.0005	0.0007	0.0005	0.0005	mg/L	0.001 N/A
Haloacetic Acids	Monochloroacetic Acid	0.0025	0.0147	0.0010	0.0018	0.0015	mg/L	0.002 N/A
	Monobromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002 N/A
	Dichloroacetic Acid	0.0253	0.0207	0.0202	0.0208	0.0147	mg/L	0.002 N/A
	Trichloroacetic Acid	0.0366	0.0282	0.0309	0.0305	0.0134	mg/L	0.002 N/A
	Dibromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002 N/A
	Total Haloacetic Acids (HAA5)	0.0638	0.0511	0.0511	0.0523	0.0286	mg/L	0.002 MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0803	0.0579	0.0510	0.0667	0.0426	mg/L	0.004 MAC=0.1

2023 Q1 Locational Running Annual Average

Analyte	Rosemont	3rd St &	Fell St &	Silica St &	Mountain	Reporting Units	Limit	GCDWQ Standard
	Reservoir	Davies St	11th St	Stanley St	Station Res			
Volatile Organic Compounds (VOC)	Bromodichloromethane	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001 N/A
	Bromoform	0.0005	0.0005	0.0005	0.0005	0.0005	mg/L	0.001 N/A
	Chloroform	0.0554	0.0443	0.0411	0.0547	0.0404	mg/L	0.001 N/A
	Dibromochloromethane	0.0005	0.0007	0.0007	0.0005	0.0005	mg/L	0.001 N/A
Haloacetic Acids	Monochloroacetic Acid	0.0019	0.0140	0.0010	0.0010	0.0015	mg/L	0.002 N/A
	Monobromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002 N/A
	Dichloroacetic Acid	0.0171	0.0168	0.0163	0.0175	0.0129	mg/L	0.002 N/A
	Trichloroacetic Acid	0.0221	0.0237	0.0216	0.0252	0.0114	mg/L	0.002 N/A
	Dibromoacetic Acid	0.0010	0.0010	0.0010	0.0010	0.0010	mg/L	0.002 N/A
	Total Haloacetic Acids (HAA5)	0.0404	0.0418	0.0379	0.0427	0.0248	mg/L	0.002 MAC**=0.08
Trihalomethanes	Total Trihalomethanes	0.0554	0.0443	0.0411	0.0547	0.0408	mg/L	0.004 MAC=0.1

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Total Manganese is included in the same analysis as THMs and HAA and thus is also reported. The Guidelines for Canadian Drinking Water Quality listed the MAC for manganese at 0.12 mg/L for adults and 0.02 mg/L for infants who are fed formula “where water containing manganese at levels above the MAC are used to prepare formula.” The health considerations of manganese in exceedance of the MAC can lead to “effects on neurological development and behaviour; deficits in memory, attention, and motor skills” (Health Canada, 2023).

The City was below the MAC for adults and infants during all sampling events in 2023. The results of the 2023 quarterly sampling are shown below in Table 5.

Table 5: Quarterly Total Manganese

Legend

Below maximum acceptable concentra	Above Maximum Acceptable Concentration
Below Reporting Limits	Not Reported

2023 Quarterly Manganese Results										
Sample Date	Analyte	Rosemont Reservoir	3rd St & Davies St	Fell St & 11th St	Silica St & Stanley St	Mountain Station Res	Units	Detection Limit	GCDWQ Adults	GCDWQ Infants
Q4 (2022-12-29)	Manganese, total	0.00045	0.00068	0.00043	0.00204	0.00250	mg/L	0.0002	MAC =0.12	MAC =0.02
Q3 (2023-09-15)		0.00050	0.00217	0.00067	0.00238	0.00212	mg/L	0.0002		
Q2 (2023-06-19)		0.00107	0.00130	0.00162	0.00385	0.00313	mg/L	0.0002		
Q1 (2023-03-13)		0.00038	<0.00060	0.00040	0.00149	0.00153	mg/L	0.0002		

4.5 Annual Full Comprehensive Raw Water Analysis

A raw water analysis of Five Mile, Anderson, Selous Creeks and the Mountain Station reservoir, were taken on November 20th, 2023. The results can be found in Appendix C.

The raw water analysis shows that the raw water was within the recommended levels outlined in the Guidelines for Canadian Drinking Water Quality (GCDWQ), published by Health Canada, for all parameters.

CARO Analytical Services (Kelowna facility) conducted the 2023 raw water analysis and reported on the following parameters:

- Chloride
- Fluoride
- Nitrate
- Nitrite
- Sulphate
- Langelier Index
- Hydrogen Sulfide
- Trihalomethanes
- Hardness
- Total Dissolved Solids
- UV Transmittance
- Colour
- Alkalinity
- Total Organic Carbon
- Cyanide
- Total Suspended Solids
- Sulphite
- Turbidity
- pH
- Conductivity
- Aluminum
- Antimony
- Arsenic
- Barium
- Boron
- Cadmium
- Calcium
- Chromium
- Cobalt
- Copper
- Iron
- Lead
- Magnesium
- Manganese
- Mercury
- Molybdenum
- Nickel
- Potassium
- Selenium
- Sodium
- Strontium
- Uranium
- Zinc
- Bromodichloromethane
- Bromoform
- Chloroform

City of Nelson 2023 Annual Drinking Water Report

4.6 Continuous Chlorine Residual

Chlorine is one of the two ways the City disinfects its drinking water. As a best practice, the City maintains a minimum of 0.2 mg/L chlorine residuals at the furthest point in the distribution system. This small amount of chlorine acts as a secondary disinfectant, reducing the likelihood of biofilm formation in pipes and preventing the growth of opportunistic microorganisms. The City monitors residual chlorine in real-time and daily with a handheld meter at the Anderson Creek and Mountain Station reservoir intakes.

Health Canada notes that residual chlorine "in most Canadian drinking water distribution systems range from 0.04 to 2.0 mg/L." However, the "suggested operational range for free chlorine residual is between a detectable level and 5 mg/L (Health Canada, 2016)." As can be seen in Figure 8, the City's daily handheld residual chlorine readings at the Mountain Station reservoir and at the down-system sample points were most often between 0.04 and 2.0 mg/L. No results were above 5 mg/L and none were undetectable.

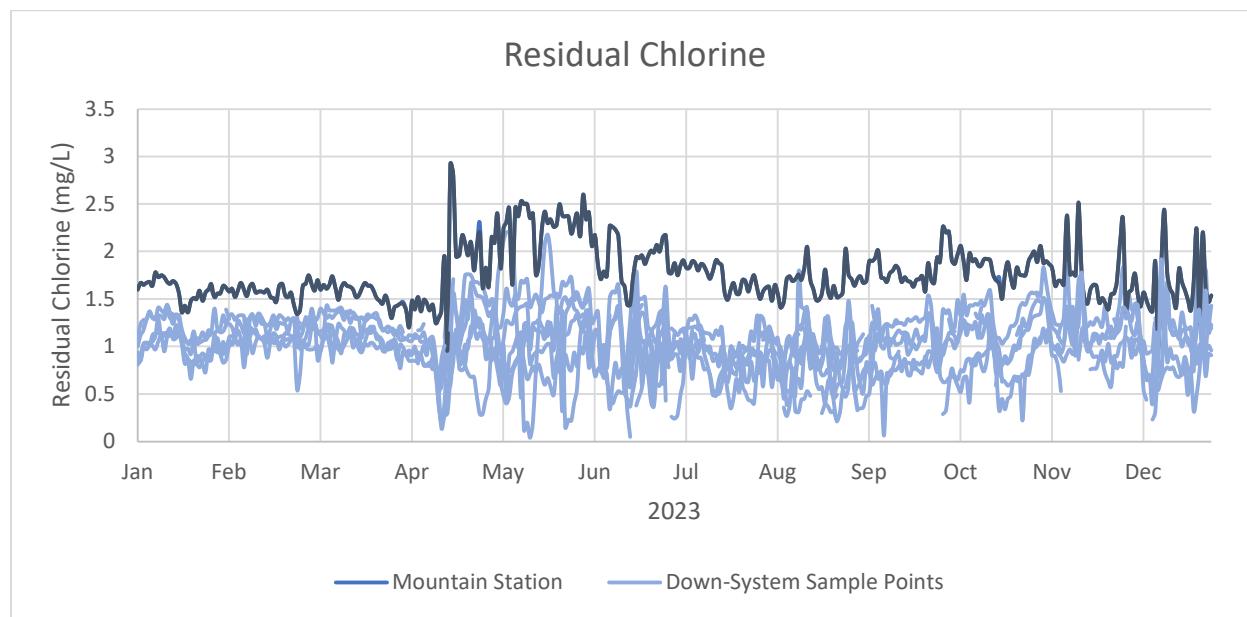


Figure 8: Daily Handheld Residual Chlorine Readings

5 Water Emergency Response Plan

Emergency response planning is an important part of protecting a drinking water system. Most public water systems have to contend with common operating emergencies such as pipe breaks, pump malfunctions, bacteriological contamination, or power outages. These are manageable if the water system has an emergency response plan that can be put into action.

More serious, non-routine emergencies may result from intentional acts of vandalism, chemical spills, floods, earthquakes, windstorms, or droughts. Each emergency has unique effects on different parts of a water system. Floods can cause widespread bacterial contamination and equipment failures, earthquakes can damage water sources, distribution systems and treatment systems, and storms can disrupt power supplies. The common element is that each emergency may threaten the system's ability to deliver potable and palatable drinking water. Emergency response planning is a process by which

City of Nelson 2023 Annual Drinking Water Report

water system managers and staff explore vulnerabilities, make improvements, and establish procedures to follow in an emergency situation. It is also a process that encourages people to form partnerships and get to know one another. Preparing a response plan and practicing it can save lives, prevent illness, enhance system security, minimize property damage, and lessen the overall burden of a catastrophic event and the cost associated with the disaster.

The City developed the current emergency response plan in 2016 and updates the plan annually, with the latest update being in 2022. The plan is available for viewing at the Public Works and Utility Complex located at 80 Lakeside Drive, Nelson, BC, V1L 6B9.

6 Cross-Connection Control Program Summary

The City's Cross-Connection Control Program (CCCP), implemented in 2017, has completed 280 facility inspections, representing 73% of industrial, commercial and institutional customers in the City, and has 137 registered backflow prevention devices in our tracking system.

The City's Waterworks Regulatory Bylaw #3293 (2015) and Subdivision and Development Bylaw #3170 (2011) contain provisions for the protection of the City's water system from potential sources of contamination through cross-connection protection, mandating the installation of backflow protection and provisions for access to properties for inspections by qualified persons.

Building managers continue to submit cross connection control test reports which are recorded in a database.

7 Water Master Plan Summary

The City of Nelson Water Master Plan was updated in 2017, with final Council approval in 2018. A copy of the Master Plan is available by following the link:

<https://www.nelson.ca/DocumentCenter/View/2066/Water-Masterplan-Update->

The plan continues to inform and outline major capital projects intended to strengthen utility resilience and treatment capacity. In 2022, The Capital Project Delivery team commissioned the Anderson Creek Booster Station, a facility designed to deliver raw water from Anderson and Fell Creeks to the Mountain Station Treatment Facility and represents one of the largest water assets that The City of Nelson has commissioned in over a decade. As of March 2023, the Anderson booster station was in full operation with all of Anderson Creek's water being fed to the reservoir at Mountain Station where is treated with UV and chlorination.

The City of Nelson Capital Project Team continues to pursue projects identified in the Master Plan, including the engineering, design and site preparation for a 2000M3 finished water reservoir at the Mountain Station facility.

8 Water Distribution System Capital Works Summary

The 2023 construction season saw the initiation of a multi-year plan to strengthen the resiliency of the water distribution system serving Nelson's commercial core. These projects are intended to improve the

City of Nelson 2023 Annual Drinking Water Report

movement of water through, and bolster fire hydrant performance in the downtown core, ultimately intended to support the replacement of twin water mains that serve the length Baker Street. Nelson Water utility crews installed over 478 meters of pipe in 2023, interconnecting isolated sections of the water system in addition to replacing the twin water mains serving the 100 block of Baker Street. An additional 115 meters of residential watermain were installed in the 300 block of Beasley Street and, as part of the source-water intake capital upgrades, contractors installed 272 meters of raw water transmission pipe that helps deliver raw water to the treatment facility.

Table 6: Water Distribution System Asset Replacement

Material type	Watermain Diameter (mm)	Watermain Length (m)	Location
PVC	200	65.722	100 BAKER ST
PVC	200	81.956	100 BAKER ST
PVC	150	107.031	100 Hume Lane
PVC	150	7.664	200 BAKER ST
PVC	150	6.759	200 baker ST
PVC	200	14.417	200 BAKER ST
PVC	200	108.4	300 BEASLEY ST
PVC	150	7.575	300 BEASLEY ST
PVC	200	2.197	400 FALLS ST
PVC	200	30.813	400 FALLS ST
PVC	200	45.663	400 FALLS ST
PVC	150	13.302	820 Tenth - St Mary's
PVC	300	272	Anderson Creek Intake to Booster

*PVC – Polyvinyl Chloride C900 DR18 water pipe; MPE – Municipal Polyethylene series 160 water pipe

9 Environmental Operators Certification Program Training

The City's water treatment plant and water distribution system operators are certified by the Environmental Operators Certification Program (EOCP). The current levels of each certified operator are documented in Table 7.

Table 7: Operator EOCP Certificates

Facility Operator	EOCP Certification #	Water Treatment Plant Operator	Water Distribution System Operator
Martin Grill – Chief Plant Operator	3964	Level 2	Level 2
Jason Allum	9288	Level 1	Level 2
Jay Moyle	8112	Level 1	Level 2
Chris Laminski	9369	Level 2	Level 2
Glen McDonald	9615	Level 2	n/a
Leonard Arabia	6800	Level 1	Level 2
Matthew Block	7707	Level 2	Level 1

City of Nelson 2023 Annual Drinking Water Report

10 Water Conservation Measures

Table 8 shows the 2023 dates that the City enacted watering restrictions, while Figure 10 shows the restrictions associated with each stage.

Table 8: 2023 Watering Restrictions

Watering Restriction Level	Start Date
Normal Regulations	2023-01-01
Stage 1	2023-07-04
Stage 2	2023-08-07
Normal Regulations	2023-11-01

Water Restriction Stages (As per Bylaw 3293, 2015)					
Activity	Normal Regulations	1	2	3	
Watering lawns using a sprinkler or irrigation system	4am - 9am & 7pm-10pm Even # address: Even # days of the month Odd # address: Odd # days of the month	4am - 9am & 7pm-10pm Even # address: ONLY ON Wednesday and Saturday	4am-9am & 7pm-10pm Even # address: ONLY ON Wednesday	4am-9am & 7pm-10pm Odd # address: ONLY ON Thursday and Sunday Odd # address: ONLY ON Thursday	X
Watering trees, shrubs, or vegetable & flower gardens using a sprinkler or irrigation system	✓	4am-9am & 7pm-10pm ANY DAY	4am-9am & 7pm-10pm ANY DAY		X
Watering trees, shrubs, or vegetable & flower gardens using a hand-held container, a hose with a shut-off nozzle, or a drip-irrigation system	✓	✓	✓	4am-9am & 7pm-10pm ANY DAY	
Washing sidewalks, driveways, parking lots, exterior building surfaces, and exterior windows *	✓ with a handheld shut-off nozzle	✓ with a handheld shut-off nozzle	X		X
Washing personal Vehicles **	✓ with a handheld shut-off nozzle	✓ with a handheld shut-off nozzle	✓ with a handheld shut-off nozzle		X
Filling of fountains, pools, hot tubs, or garden ponds	✓	✓	✓		X
Watering new sod or grass outside of the permitted restrictions ***	PERMIT REQUIRED	PERMIT REQUIRED	X		X

* Permitted at all stages if necessary for applying product such as paint, preservative and stucco, preparing a surface prior to paving or repointing bricks, or if required bylaw to comply with health or safety regulations.

** Commercial carwash permitted at all stages

*** Permits can be acquired by contacting the Public Works at (250) 352-8238.



Figure 9: City of Nelson Water Restriction Stages

City of Nelson 2023 Annual Drinking Water Report

11 References

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City of Nelson 2023 Annual Drinking Water Report

Appendix A: THM and HAA Quarterly Lab Results



CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	23C1664
ATTENTION	Martin Grill	RECEIVED / TEMP	2023-03-15 09:40 / 6.8°C
PO NUMBER		REPORTED	2023-03-24 15:41
PROJECT	Drinking Water	COC NUMBER	40837.5581
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



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Ahead of the Curve



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

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

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

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

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

Authorized By:

Brent Whitehead
Account Manager



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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 Nelson, City of Drinking Water **WORK ORDER** 23C1664
PROJECT Drinking Water **REPORTED** 2023-03-24 15:41

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Rosemont Reservoir (23C1664-01) Matrix: Water Sampled: 2023-03-13 08:00						
Calculated Parameters						
Total Trihalomethanes	0.0606	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	0.0047	N/A	0.0020	mg/L	2023-03-24	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-24	
Dichloroacetic Acid	0.0109	N/A	0.0020	mg/L	2023-03-24	
Trichloroacetic Acid	0.0132	N/A	0.0020	mg/L	2023-03-24	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-24	
Total Haloacetic Acids (HAA5)	0.0288	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	92		70-130	%	2023-03-24	
Total Metals						
Manganese, total	0.00038	MAC = 0.12	0.00020	mg/L	2023-03-21	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Chloroform	0.0606	N/A	0.0010	mg/L	2023-03-19	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Surrogate: Toluene-d8	80		70-130	%	2023-03-19	
Surrogate: 4-Bromofluorobenzene	76		70-130	%	2023-03-19	

3rd St and Davies St (23C1664-02) | Matrix: Water | Sampled: 2023-03-13 09:00

Calculated Parameters						
Total Trihalomethanes	0.0341	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	0.0053	N/A	0.0020	mg/L	2023-03-24	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-24	
Dichloroacetic Acid	0.0110	N/A	0.0020	mg/L	2023-03-24	
Trichloroacetic Acid	0.0137	N/A	0.0020	mg/L	2023-03-24	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-24	
Total Haloacetic Acids (HAA5)	0.0299	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	88		70-130	%	2023-03-24	
Total Metals						
Manganese, total	< 0.00060	MAC = 0.12	0.00020	mg/L	2023-03-21	RA3
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Chloroform	0.0341	N/A	0.0010	mg/L	2023-03-19	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Surrogate: Toluene-d8	83		70-130	%	2023-03-19	



TEST RESULTS

REPORTED TO	Nelson, City of	WORK ORDER	23C1664
PROJECT	Drinking Water	REPORTED	2023-03-24 15:41

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
3rd St and Davies St (23C1664-02) Matrix: Water Sampled: 2023-03-13 09:00, Continued						
<i>Volatile Organic Compounds (VOC), Continued</i>						
Surrogate: 4-Bromofluorobenzene	77		70-130	%	2023-03-19	
Fell St and 11th St (23C1664-03) Matrix: Water Sampled: 2023-03-13 08:45						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0266	MAC = 0.1	0.00400	mg/L	N/A	
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-18	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-18	
Dichloroacetic Acid	0.0110	N/A	0.0020	mg/L	2023-03-18	
Trichloroacetic Acid	0.0153	N/A	0.0020	mg/L	2023-03-18	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-18	
Total Haloacetic Acids (HAA5)	0.0263	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	101		70-130	%	2023-03-18	
<i>Total Metals</i>						
Manganese, total	0.00040	MAC = 0.12	0.00020	mg/L	2023-03-21	
<i>Volatile Organic Compounds (VOC)</i>						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-03-18	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-03-18	
Chloroform	0.0266	N/A	0.0010	mg/L	2023-03-18	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-03-18	
Surrogate: Toluene-d8	77		70-130	%	2023-03-18	
Surrogate: 4-Bromofluorobenzene	67		70-130	%	2023-03-18	S02
Silica St and Stanley St (23C1664-04) Matrix: Water Sampled: 2023-03-13 08:20						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0615	MAC = 0.1	0.00400	mg/L	N/A	
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-18	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-18	
Dichloroacetic Acid	0.0115	N/A	0.0020	mg/L	2023-03-18	
Trichloroacetic Acid	0.0157	N/A	0.0020	mg/L	2023-03-18	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-18	
Total Haloacetic Acids (HAA5)	0.0272	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	100		70-130	%	2023-03-18	
<i>Total Metals</i>						
Manganese, total	0.00149	MAC = 0.12	0.00020	mg/L	2023-03-21	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water WORK ORDER
REPORTED 23C1664
2023-03-24 15:41

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Silica St and Stanley St (23C1664-04) Matrix: Water Sampled: 2023-03-13 08:20, Continued						
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Chloroform	0.0615	N/A	0.0010	mg/L	2023-03-19	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Surrogate: Toluene-d8	82		70-130	%	2023-03-19	
Surrogate: 4-Bromofluorobenzene	76		70-130	%	2023-03-19	
Mountain Station Res (23C1664-05) Matrix: Water Sampled: 2023-03-13 11:20						
Calculated Parameters						
Total Trihalomethanes	0.0397	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	0.0031	N/A	0.0020	mg/L	2023-03-18	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-18	
Dichloroacetic Acid	0.0076	N/A	0.0020	mg/L	2023-03-18	
Trichloroacetic Acid	0.0063	N/A	0.0020	mg/L	2023-03-18	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-03-18	
Total Haloacetic Acids (HAA5)	0.0170	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	94		70-130	%	2023-03-18	
Total Metals						
Manganese, total	0.00153	MAC = 0.12	0.00020	mg/L	2023-03-21	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Chloroform	0.0397	N/A	0.0010	mg/L	2023-03-19	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-03-19	
Surrogate: Toluene-d8	81		70-130	%	2023-03-19	
Surrogate: 4-Bromofluorobenzene	77		70-130	%	2023-03-19	
Sample Qualifiers:						
RA3	The Reporting Limit has been raised due to comparable level detected in the blank(s).					
S02	Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.					



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Nelson, City of	WORK ORDER	23C1664
PROJECT	Drinking Water	REPORTED	2023-03-24 15:41

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

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

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada, September 2022\)](#)

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

General Comments:

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

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

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



CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	23F2869
ATTENTION	Martin Grill	RECEIVED / TEMP	2023-06-21 09:17 / 11.1°C
PO NUMBER		REPORTED	2023-06-30 15:02
PROJECT	Drinking Water	COC NUMBER	40837.5581
PROJECT INFO			

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Authorized By:

Brent Whitehead
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TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water WORK ORDER 23F2869
REPORTED 2023-06-30 15:02

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Rosemont Reservoir (23F2869-01) Matrix: Water Sampled: 2023-06-19 08:40						
Calculated Parameters						
Total Trihalomethanes	0.189	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	0.0031	N/A	0.0020	mg/L	2023-06-28	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-06-28	
Dichloroacetic Acid	0.0628	N/A	0.0020	mg/L	2023-06-28	
Trichloroacetic Acid	0.0953	N/A	0.0020	mg/L	2023-06-30	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-06-28	
Total Haloacetic Acids (HAA5)	0.161	MAC = 0.08	0.0200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	106		70-130	%	2023-06-30	
Total Metals						
Manganese, total	0.00107	MAC = 0.12	0.00020	mg/L	2023-06-24	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Chloroform	0.189	N/A	0.0010	mg/L	2023-06-27	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Surrogate: Toluene-d8	110		70-130	%	2023-06-27	
Surrogate: 4-Bromofluorobenzene	93		70-130	%	2023-06-27	

3rd St and Davies St (23F2869-02) | Matrix: Water | Sampled: 2023-06-19 09:10

Calculated Parameters						
Total Trihalomethanes	0.137	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	0.0036	N/A	0.0020	mg/L	2023-06-28	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-06-28	
Dichloroacetic Acid	0.0460	N/A	0.0020	mg/L	2023-06-28	
Trichloroacetic Acid	0.0584	N/A	0.0020	mg/L	2023-06-30	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-06-28	
Total Haloacetic Acids (HAA5)	0.108	MAC = 0.08	0.0200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	100		70-130	%	2023-06-30	

Total Metals						
Manganese, total	0.00130	MAC = 0.12	0.00020	mg/L	2023-06-24	

Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Chloroform	0.137	N/A	0.0010	mg/L	2023-06-27	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Surrogate: Toluene-d8	113		70-130	%	2023-06-27	



TEST RESULTS

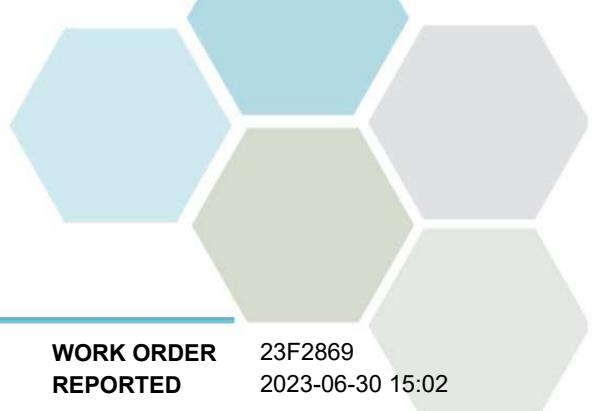
REPORTED TO PROJECT	Nelson, City of Drinking Water	WORK ORDER REPORTED	23F2869 2023-06-30 15:02		
Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
3rd St and Davies St (23F2869-02) Matrix: Water Sampled: 2023-06-19 09:10, Continued					
Volatile Organic Compounds (VOC), Continued					
Surrogate: 4-Bromofluorobenzene	95		70-130 %	2023-06-27	
Fell St and 11th St (23F2869-03) Matrix: Water Sampled: 2023-06-19 10:00					
Calculated Parameters					
Total Trihalomethanes	0.120	MAC = 0.1	0.00400 mg/L	N/A	
Haloacetic Acids					
Monochloroacetic Acid	< 0.0020	N/A	0.0020 mg/L	2023-06-28	
Monobromoacetic Acid	< 0.0020	N/A	0.0020 mg/L	2023-06-28	
Dichloroacetic Acid	0.0447	N/A	0.0020 mg/L	2023-06-28	
Trichloroacetic Acid	0.0694	N/A	0.0020 mg/L	2023-06-28	
Dibromoacetic Acid	< 0.0020	N/A	0.0020 mg/L	2023-06-28	
Total Haloacetic Acids (HAA5)	0.114	MAC = 0.08	0.00200 mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	111		70-130 %	2023-06-28	
Total Metals					
Manganese, total	0.00162	MAC = 0.12	0.00020 mg/L	2023-06-24	
Volatile Organic Compounds (VOC)					
Bromodichloromethane	< 0.0010	N/A	0.0010 mg/L	2023-06-27	
Bromoform	< 0.0010	N/A	0.0010 mg/L	2023-06-27	
Chloroform	0.120	N/A	0.0010 mg/L	2023-06-27	
Dibromochloromethane	< 0.0010	N/A	0.0010 mg/L	2023-06-27	
Surrogate: Toluene-d8	113		70-130 %	2023-06-27	
Surrogate: 4-Bromofluorobenzene	94		70-130 %	2023-06-27	
Silica St and Stanley St (23F2869-04) Matrix: Water Sampled: 2023-06-19 08:55					
Calculated Parameters					
Total Trihalomethanes	0.134	MAC = 0.1	0.00400 mg/L	N/A	
Haloacetic Acids					
Monochloroacetic Acid	0.0042	N/A	0.0020 mg/L	2023-06-28	
Monobromoacetic Acid	< 0.0020	N/A	0.0020 mg/L	2023-06-28	
Dichloroacetic Acid	0.0433	N/A	0.0020 mg/L	2023-06-28	
Trichloroacetic Acid	0.0608	N/A	0.0020 mg/L	2023-06-28	
Dibromoacetic Acid	< 0.0020	N/A	0.0020 mg/L	2023-06-28	
Total Haloacetic Acids (HAA5)	0.108	MAC = 0.08	0.00200 mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	108		70-130 %	2023-06-28	
Total Metals					
Manganese, total	0.00385	MAC = 0.12	0.00020 mg/L	2023-06-24	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water WORK ORDER 23F2869
REPORTED 2023-06-30 15:02

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Silica St and Stanley St (23F2869-04) Matrix: Water Sampled: 2023-06-19 08:55, Continued						
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Chloroform	0.134	N/A	0.0010	mg/L	2023-06-27	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Surrogate: Toluene-d8	109		70-130	%	2023-06-27	
Surrogate: 4-Bromofluorobenzene	95		70-130	%	2023-06-27	
Mountain Station Res (23F2869-05) Matrix: Water Sampled: 2023-06-19 09:30						
Calculated Parameters						
Total Trihalomethanes	0.0610	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-06-28	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-06-28	
Dichloroacetic Acid	0.0269	N/A	0.0020	mg/L	2023-06-28	
Trichloroacetic Acid	0.0261	N/A	0.0020	mg/L	2023-06-28	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-06-28	
Total Haloacetic Acids (HAA5)	0.0530	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	106		70-130	%	2023-06-28	
Total Metals						
Manganese, total	0.00313	MAC = 0.12	0.00020	mg/L	2023-06-24	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Chloroform	0.0610	N/A	0.0010	mg/L	2023-06-27	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-06-27	
Surrogate: Toluene-d8	112		70-130	%	2023-06-27	
Surrogate: 4-Bromofluorobenzene	98		70-130	%	2023-06-27	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Nelson, City of	WORK ORDER	23F2869
PROJECT	Drinking Water	REPORTED	2023-06-30 15:02

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

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

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada, September 2022\)](#)

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

General Comments:

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

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

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



CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	23I2520
ATTENTION	Martin Grill	RECEIVED / TEMP	2023-09-20 09:10 / 17.0°C
PO NUMBER		REPORTED	2023-09-27 16:44
PROJECT	Drinking Water	COC NUMBER	40837.5581
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.

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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.

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

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

Authorized By:

Brent Whitehead
Account Manager



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TEST RESULTS

REPORTED TO Nelson, City of Drinking Water **WORK ORDER** 23I2520
PROJECT Drinking Water **REPORTED** 2023-09-27 16:44

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Rosemont Reservoir (23I2520-01) Matrix: Water Sampled: 2023-09-15 10:50						
Calculated Parameters						
Total Trihalomethanes	0.0627	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	0.0060	N/A	0.0020	mg/L	2023-09-24	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-09-24	
Dichloroacetic Acid	0.0246	N/A	0.0020	mg/L	2023-09-24	
Trichloroacetic Acid	0.0304	N/A	0.0020	mg/L	2023-09-24	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-09-24	
Total Haloacetic Acids (HAA5)	0.0611	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	112		70-130	%	2023-09-24	
Total Metals						
Manganese, total	0.00055	MAC = 0.12	0.00020	mg/L	2023-09-25	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Chloroform	0.0627	N/A	0.0010	mg/L	2023-09-23	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Surrogate: Toluene-d8	99		70-130	%	2023-09-23	
Surrogate: 4-Bromofluorobenzene	101		70-130	%	2023-09-23	

3rd St and Davies St (23I2520-02) | Matrix: Water | Sampled: 2023-09-15 13:05

Calculated Parameters						
Total Trihalomethanes	0.0798	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	0.0044	N/A	0.0020	mg/L	2023-09-24	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-09-24	
Dichloroacetic Acid	0.0257	N/A	0.0020	mg/L	2023-09-24	
Trichloroacetic Acid	0.0348	N/A	0.0020	mg/L	2023-09-24	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-09-24	
Total Haloacetic Acids (HAA5)	0.0650	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	106		70-130	%	2023-09-24	
Total Metals						
Manganese, total	0.00217	MAC = 0.12	0.00020	mg/L	2023-09-25	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Chloroform	0.0798	N/A	0.0010	mg/L	2023-09-23	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Surrogate: Toluene-d8	95		70-130	%	2023-09-23	



TEST RESULTS

REPORTED TO Nelson, City of Drinking Water **WORK ORDER** 23I2520
PROJECT Drinking Water **REPORTED** 2023-09-27 16:44

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
3rd St and Davies St (23I2520-02) Matrix: Water Sampled: 2023-09-15 13:05, Continued						
<i>Volatile Organic Compounds (VOC), Continued</i>						
Surrogate: 4-Bromofluorobenzene	99		70-130	%	2023-09-23	
Fell St and 11th St (23I2520-03) Matrix: Water Sampled: 2023-09-15 12:50						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0537	MAC = 0.1	0.00400	mg/L	N/A	
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	0.0053	N/A	0.0020	mg/L	2023-09-24	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-09-24	
Dichloroacetic Acid	0.0246	N/A	0.0020	mg/L	2023-09-24	
Trichloroacetic Acid	0.0321	N/A	0.0020	mg/L	2023-09-24	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-09-24	
Total Haloacetic Acids (HAA5)	0.0620	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	105		70-130	%	2023-09-24	
<i>Total Metals</i>						
Manganese, total	0.00067	MAC = 0.12	0.00020	mg/L	2023-09-23	
<i>Volatile Organic Compounds (VOC)</i>						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Chloroform	0.0537	N/A	0.0010	mg/L	2023-09-23	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Surrogate: Toluene-d8	98		70-130	%	2023-09-23	
Surrogate: 4-Bromofluorobenzene	100		70-130	%	2023-09-23	
Silica St and Stanley St (23I2520-04) Matrix: Water Sampled: 2023-09-15 11:10						
<i>Calculated Parameters</i>						
Total Trihalomethanes	0.0585	MAC = 0.1	0.00400	mg/L	N/A	
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	0.0041	N/A	0.0020	mg/L	2023-09-24	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-09-24	
Dichloroacetic Acid	0.0249	N/A	0.0020	mg/L	2023-09-24	
Trichloroacetic Acid	0.0332	N/A	0.0020	mg/L	2023-09-24	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-09-24	
Total Haloacetic Acids (HAA5)	0.0621	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	110		70-130	%	2023-09-24	
<i>Total Metals</i>						
Manganese, total	0.00238	MAC = 0.12	0.00020	mg/L	2023-09-23	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water WORK ORDER 23I2520
REPORTED 2023-09-27 16:44

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Silica St and Stanley St (23I2520-04) Matrix: Water Sampled: 2023-09-15 11:10, Continued						
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Chloroform	0.0585	N/A	0.0010	mg/L	2023-09-23	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Surrogate: Toluene-d8	93		70-130	%	2023-09-23	
Surrogate: 4-Bromofluorobenzene	94		70-130	%	2023-09-23	
Mountain Station Res (23I2520-05) Matrix: Water Sampled: 2023-09-15 11:30						
Calculated Parameters						
Total Trihalomethanes	0.0357	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	0.0042	N/A	0.0020	mg/L	2023-09-24	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-09-24	
Dichloroacetic Acid	0.0181	N/A	0.0020	mg/L	2023-09-24	
Trichloroacetic Acid	0.0133	N/A	0.0020	mg/L	2023-09-24	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2023-09-24	
Total Haloacetic Acids (HAA5)	0.0356	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	115		70-130	%	2023-09-24	
Total Metals						
Manganese, total	0.00212	MAC = 0.12	0.00020	mg/L	2023-09-23	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Chloroform	0.0357	N/A	0.0010	mg/L	2023-09-23	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2023-09-23	
Surrogate: Toluene-d8	79		70-130	%	2023-09-23	
Surrogate: 4-Bromofluorobenzene	84		70-130	%	2023-09-23	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Nelson, City of	WORK ORDER	23I2520
PROJECT	Drinking Water	REPORTED	2023-09-27 16:44

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

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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<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

Guidelines Referenced in this Report:

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CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	24A0011
ATTENTION	Martin Grill	RECEIVED / TEMP	2024-01-02 09:35 / 12.8°C
PO NUMBER		REPORTED	2024-01-09 15:25
PROJECT	Drinking Water	COC NUMBER	40837.5581
PROJECT INFO			

Introduction:

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Big Picture Sidekicks



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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.

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

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

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

Authorized By:

Brent Whitehead
Account Manager



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TEST RESULTS

REPORTED TO	Nelson, City of	WORK ORDER	24A0011
PROJECT	Drinking Water	REPORTED	2024-01-09 15:25

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Rosemont Reservoir (24A0011-01) Matrix: Water Sampled: 2023-12-29 08:00						
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Dichloroacetic Acid	0.0241	N/A	0.0020	mg/L	2024-01-06	
Trichloroacetic Acid	0.0335	N/A	0.0020	mg/L	2024-01-06	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Total Haloacetic Acids (HAA5)	0.0576	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	105		70-130	%	2024-01-06	
Total Metals						
Manganese, total	0.00045	MAC = 0.12	0.00020	mg/L	2024-01-06	
3rd St and Davies St (24A0011-02) Matrix: Water Sampled: 2023-12-29 08:35						
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Dichloroacetic Acid	0.0261	N/A	0.0020	mg/L	2024-01-06	
Trichloroacetic Acid	0.0393	N/A	0.0020	mg/L	2024-01-06	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Total Haloacetic Acids (HAA5)	0.0654	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	105		70-130	%	2024-01-06	
Total Metals						
Manganese, total	0.00068	MAC = 0.12	0.00020	mg/L	2024-01-06	
Fell St and 11th St (24A0011-03) Matrix: Water Sampled: 2023-12-29 08:50						
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Dichloroacetic Acid	0.0274	N/A	0.0020	mg/L	2024-01-06	
Trichloroacetic Acid	0.0365	N/A	0.0020	mg/L	2024-01-06	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Total Haloacetic Acids (HAA5)	0.0639	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	113		70-130	%	2024-01-06	
Total Metals						
Manganese, total	0.00043	MAC = 0.12	0.00020	mg/L	2024-01-06	
Silica St and Stanley St (24A0011-04) Matrix: Water Sampled: 2023-12-29 08:20						
Haloacetic Acids						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water

WORK ORDER 24A0011
REPORTED 2024-01-09 15:25

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Silica St and Stanley St (24A0011-04) Matrix: Water Sampled: 2023-12-29 08:20, Continued						
<i>Haloacetic Acids, Continued</i>						
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Dichloroacetic Acid	0.0256	N/A	0.0020	mg/L	2024-01-06	
Trichloroacetic Acid	0.0388	N/A	0.0020	mg/L	2024-01-06	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Total Haloacetic Acids (HAA5)	0.0644	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	112		70-130	%	2024-01-06	
<i>Total Metals</i>						
Manganese, total	0.00204	MAC = 0.12	0.00020	mg/L	2024-01-06	
Mountain Station Res (24A0011-05) Matrix: Water Sampled: 2023-12-29 09:55						
<i>Haloacetic Acids</i>						
Monochloroacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Dichloroacetic Acid	0.0170	N/A	0.0020	mg/L	2024-01-06	
Trichloroacetic Acid	0.0158	N/A	0.0020	mg/L	2024-01-06	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2024-01-06	
Total Haloacetic Acids (HAA5)	0.0329	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	105		70-130	%	2024-01-06	
<i>Total Metals</i>						
Manganese, total	0.00250	MAC = 0.12	0.00020	mg/L	2024-01-06	



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Nelson, City of	WORK ORDER	24A0011
PROJECT	Drinking Water	REPORTED	2024-01-09 15:25
<hr/>			
Analysis Description	Method Ref.	Technique	Accredited
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO ₃ +HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓

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

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada, September 2022\)](#)

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CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	24A1090
ATTENTION	Martin Grill	RECEIVED / TEMP	2024-01-11 09:42 / 16.4°C
PO NUMBER	43982	REPORTED	2025-01-17 16:27
PROJECT	Drinking Water	COC NUMBER	40837.5581
PROJECT INFO			

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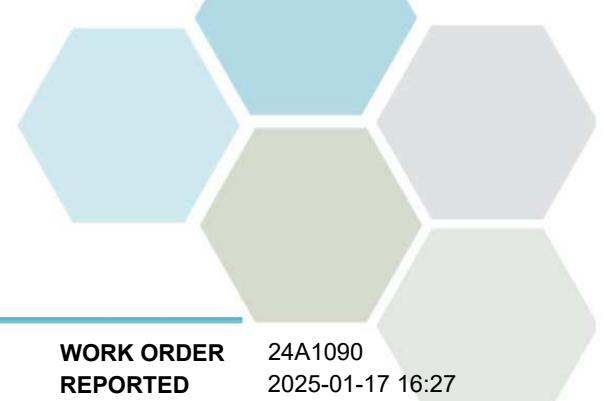
Authorized By:

Brent Whitehead
Account Manager



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TEST RESULTS

REPORTED TO	Nelson, City of	WORK ORDER	24A1090
PROJECT	Drinking Water	REPORTED	2025-01-17 16:27

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Rosemont Reservoir (24A1090-01) Matrix: Water Sampled: 2024-01-09 08:15						
Calculated Parameters						
Total Trihalomethanes	0.0464	MAC = 0.1	0.00400	mg/L	N/A	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Chloroform	0.0464	N/A	0.0010	mg/L	2024-01-14	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Surrogate: Toluene-d8	99		70-130	%	2024-01-14	
Surrogate: 4-Bromofluorobenzene	109		70-130	%	2024-01-14	

3rd St and Davies St (24A1090-02) | Matrix: Water | Sampled: 2024-01-09 10:35

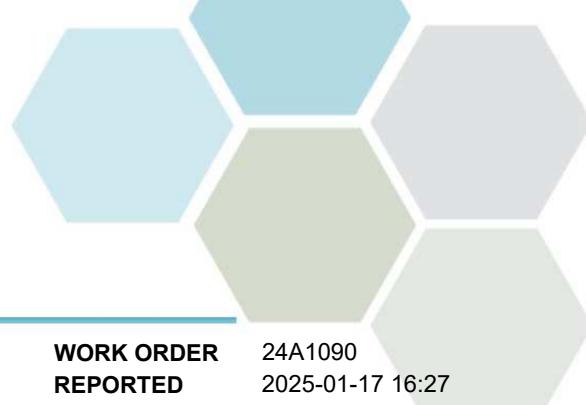
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Calculated Parameters						
Total Trihalomethanes	0.0433	MAC = 0.1	0.00400	mg/L	N/A	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Chloroform	0.0433	N/A	0.0010	mg/L	2024-01-14	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Surrogate: Toluene-d8	93		70-130	%	2024-01-14	
Surrogate: 4-Bromofluorobenzene	101		70-130	%	2024-01-14	

Fell St and 11th St (24A1090-03) | Matrix: Water | Sampled: 2024-01-09 10:45

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Calculated Parameters						
Total Trihalomethanes	0.0405	MAC = 0.1	0.00400	mg/L	N/A	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Chloroform	0.0405	N/A	0.0010	mg/L	2024-01-14	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Surrogate: Toluene-d8	100		70-130	%	2024-01-14	
Surrogate: 4-Bromofluorobenzene	106		70-130	%	2024-01-14	

Silica St and Stanley St (24A1090-04) | Matrix: Water | Sampled: 2024-01-09 09:00

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Calculated Parameters						
Total Trihalomethanes	0.0492	MAC = 0.1	0.00400	mg/L	N/A	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2024-01-14	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT Drinking Water

WORK ORDER 24A1090
REPORTED 2025-01-17 16:27

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Silica St and Stanley St (24A1090-04) Matrix: Water Sampled: 2024-01-09 09:00, Continued						
<i>Volatile Organic Compounds (VOC), Continued</i>						
Bromoform	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Chloroform	0.0492	N/A	0.0010	mg/L	2024-01-14	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2024-01-14	
Surrogate: Toluene-d8	100		70-130	%	2024-01-14	
Surrogate: 4-Bromofluorobenzene	110		70-130	%	2024-01-14	

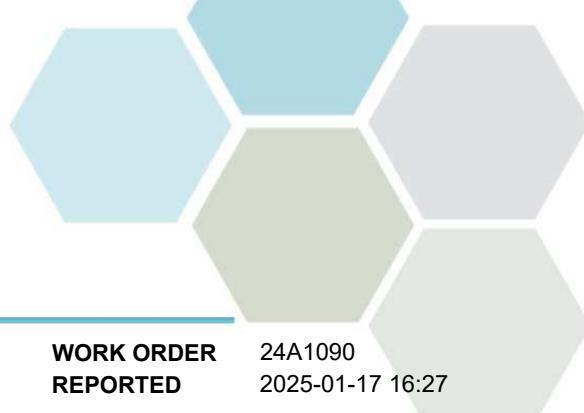
Mountain Station Res (24A1090-05) | Matrix: Water | Sampled: 2024-01-09 11:20

Calculated Parameters

Total Trihalomethanes	0.0276	MAC = 0.1	0.00400	mg/L	N/A
-----------------------	---------------	-----------	---------	------	-----

Volatile Organic Compounds (VOC)

Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2024-01-14
Bromoform	< 0.0010	N/A	0.0010	mg/L	2024-01-14
Chloroform	0.0276	N/A	0.0010	mg/L	2024-01-14
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2024-01-14
Surrogate: Toluene-d8	95		70-130	%	2024-01-14
Surrogate: 4-Bromofluorobenzene	103		70-130	%	2024-01-14



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	Nelson, City of	WORK ORDER	24A1090
PROJECT	Drinking Water	REPORTED	2025-01-17 16:27
Analysis Description	Method Ref.	Technique	Accredited Location

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

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City of Nelson 2023 Annual Drinking Water Report

Appendix B: Weekly Bacteriological Sampling



4240 Passmore Upper Road, Winlaw BC, V0G2J0
250-226-7339
test@passmorelaboratory.ca
passmorelaboratory.ca

Client City of Nelson
Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

Passmore Laboratory Ltd. complies with methods and certification through the Province of British Columbia Enhanced Water Quality Assurance (EWQA) Program and the Clinical Microbiology Proficiency Testing (CMPT) Program. Other analytical results on this report not listed above are not within the scope of the EWQA. Passmore Laboratory assumes no responsibility for any loss or damage resulting from error or omission in the conduct of testing. Liability is limited to the cost of the analysis.

Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Matrix	TW	Sample #	1
Date/Time Sampled	2023-01-03	7:45 AM		Temperature on Receipt	6
Date/Time on Test	2023-01-03	4:20 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Sampler @ Silica and Stanley	Matrix	TW	Sample #	2
Date/Time Sampled	2023-01-03	8:05 AM		Temperature on Receipt	6
Date/Time on Test	2023-01-03	4:25 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Sampler @ 3rd and Davies	Matrix	TW	Sample #	3
Date/Time Sampled	2023-01-03	8:35 AM		Temperature on Receipt	7
Date/Time on Test	2023-01-03	4:30 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Sampler @ Fell and 11th	Matrix	TW	Sample #	4
Date/Time Sampled	2023-01-03	8:25 AM		Temperature on Receipt	8
Date/Time on Test	2023-01-03	4:30 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Mountain Station Reservoir	Matrix	UGW	Sample #	5
Date/Time Sampled	2023-01-03	9:00 AM		Temperature on Receipt	6
Date/Time on Test	2023-01-03	4:35 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	15	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1		

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



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test@passmorelaboratory.ca
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Client City of Nelson
Attention Martin Grill

CERTIFICATE OF ANALYSIS

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Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-01-10	7:30 AM	Matrix tw

Date/Time on Test 2023-01-10 4:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-01-10	8:00 AM	Matrix tw

Date/Time on Test 2023-01-10 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-01-10	9:00 AM	Matrix tw

Date/Time on Test 2023-01-10 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-01-10	9:10 AM	Matrix tw

Date/Time on Test 2023-01-10 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-01-10	10:45 AM	Matrix ugw

Date/Time on Test 2023-01-10 4:55 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



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Client City of Nelson
Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-01-17	8:30 AM	Matrix TW

Date/Time on Test 2023-01-17 5:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-01-17	8:45 AM	Matrix TW

Date/Time on Test 2023-01-17 5:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-01-17	11:21 AM	Matrix TW

Date/Time on Test 2023-01-18 5:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-01-17	11:12 AM	Matrix TW

Date/Time on Test 2023-01-17 5:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-01-17	10:23 AM	Matrix UGW

Date/Time on Test 2023-01-17 5:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	6	CFU/100mL	1
Verified E.coli	1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-01-24	8:10 AM	Matrix TW

Date/Time on Test 2023-01-24 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-01-24	8:25 AM	Matrix TW

Date/Time on Test 2023-01-24 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-01-24	11:00 AM	Matrix TW

Date/Time on Test 2023-01-24 5:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-01-24	10:48 AM	Matrix TW

Date/Time on Test 2023-01-24 5:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-01-24	10:10 AM	Matrix UGW

Date/Time on Test 2023-01-24 5:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	4	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-01-31	9:10 AM	Matrix TW

Date/Time on Test 2023-01-31 4:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-01-31	8:55 AM	Matrix TW

Date/Time on Test 2023-01-31 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-01-31	8:40 AM	Matrix TW

Date/Time on Test 2023-01-31 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-01-31	8:30 AM	Matrix TW

Date/Time on Test 2023-01-31 4:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-01-31	10:55 AM	Matrix UGW

Date/Time on Test 2023-01-31 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	8	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-02-07	9:25 AM	Matrix DW
			Temperature on Receipt 5
Date/Time on Test	2023-02-07	5:05 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2023-02-07	9:05 AM	Matrix DW
			Temperature on Receipt 6
Date/Time on Test	2023-02-07	5:10 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-02-07	8:50 AM	Matrix DW
			Temperature on Receipt 7
Date/Time on Test	2023-02-07	5:15 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-02-07	8:40 AM	Matrix DW
			Temperature on Receipt 7
Date/Time on Test	2023-02-07	5:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-02-07	10:15 AM	Matrix SW
			Temperature on Receipt 7
Date/Time on Test	2023-02-07	5:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	6	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-02-14	9:10 AM	Matrix TW
			Temperature on Receipt 6
Date/Time on Test	2023-02-14	4:20 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-02-14	9:00 AM	Matrix TW
			Temperature on Receipt 7
Date/Time on Test	2023-02-14	4:20 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-02-14	8:45 AM	Matrix TW
			Temperature on Receipt 8
Date/Time on Test	2023-02-14	4:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-02-14	8:30 AM	Matrix TW
			Temperature on Receipt 7
Date/Time on Test	2023-02-14	4:30 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-02-14	9:30 AM	Matrix UGW
			Temperature on Receipt 6
Date/Time on Test	2023-02-14	4:30 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	6	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-02-21	10:50 AM	Matrix TW

Date/Time on Test 2023-02-21 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-02-21	11:05 AM	Matrix TW

Date/Time on Test 2023-02-21 5:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-02-21	9:35 AM	Matrix TW

Date/Time on Test 2023-02-21 5:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-02-21	9:25 AM	Matrix TW

Date/Time on Test 2023-02-21 5:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-02-21	11:20 AM	Matrix SW

Date/Time on Test 2023-02-21 5:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	9	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-02-28	7:50 AM	Matrix TW

Date/Time on Test 2023-02-28 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-02-28	8:00 AM	Matrix TW

Date/Time on Test 2023-02-28 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-02-28	9:10 AM	Matrix TW

Date/Time on Test 2023-02-28 4:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-02-28	9:20 AM	Matrix TW

Date/Time on Test 2023-02-28 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-02-28	10:40 AM	Matrix SW

Date/Time on Test 2023-02-28 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	4	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



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Client City of Nelson
Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Matrix	TW	Sample #	1
Date/Time Sampled	2023-03-07	7:40 AM		Temperature on Receipt	6
Date/Time on Test	2023-03-07	4:50 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Sampler @ Silica and Stanley	Matrix	TW	Sample #	2
Date/Time Sampled	2023-03-07	8:05 AM		Temperature on Receipt	7
Date/Time on Test	2023-03-07	4:50 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Sampler @ 3rd and Davies	Matrix	TW	Sample #	3
Date/Time Sampled	2023-03-07	9:20 AM		Temperature on Receipt	7
Date/Time on Test	2023-03-07	4:55 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Sampler @ Fell and 11th	Matrix	TW	Sample #	4
Date/Time Sampled	2023-03-07	9:30 AM		Temperature on Receipt	7
Date/Time on Test	2023-03-07	5:00 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Mountain Station Reservoir	Matrix	UGW	Sample #	5
Date/Time Sampled	2023-03-07	10:40 AM		Temperature on Receipt	6
Date/Time on Test	2023-03-07	5:00 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	11	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1		

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-03-14	7:50 AM	Matrix DW

Date/Time on Test 2023-03-14 4:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-03-14	8:10 AM	Matrix DW

Date/Time on Test 2023-03-14 4:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-03-14	9:10 AM	Matrix DW

Date/Time on Test 2023-03-14 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-03-14	9:20 AM	Matrix DW

Date/Time on Test 2023-03-14 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-03-14	9:30 AM	Matrix SW

Date/Time on Test 2023-03-14 4:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	6	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-03-21	8:55 AM	Matrix TW
			Temperature on Receipt 6
Date/Time on Test	2023-03-21	4:40 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-03-21	8:20 AM	Matrix TW
			Temperature on Receipt 6
Date/Time on Test	2023-03-21	4:40 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-03-21	10:00 AM	Matrix TW
			Temperature on Receipt 7
Date/Time on Test	2023-03-21	4:45 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-03-21	10:10 AM	Matrix TW
			Temperature on Receipt 6
Date/Time on Test	2023-03-21	4:45 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-03-21	10:40 AM	Matrix UGW
			Temperature on Receipt 6
Date/Time on Test	2023-03-21	4:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	2	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-03-28	8:00 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2023-03-28	4:10 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-03-28	8:15 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2023-03-28	4:15 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-03-28	9:20 AM	Matrix DW
			Temperature on Receipt 7
Date/Time on Test	2023-03-28	4:15 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-03-28	9:30 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2023-03-28	4:20 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-03-28	10:40 AM	Matrix SW
			Temperature on Receipt 9
Date/Time on Test	2023-03-28	4:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	6	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-04-04	8:00 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2023-04-04	3:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-04-04	8:10 AM	Matrix DW
			Temperature on Receipt 7
Date/Time on Test	2023-04-04	3:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-04-04	9:09 AM	Matrix DW
			Temperature on Receipt 7
Date/Time on Test	2023-04-04	3:55 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-04-04	9:20 AM	Matrix DW
			Temperature on Receipt 7
Date/Time on Test	2023-04-04	4:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-04-04	10:45 AM	Matrix SW
			Temperature on Receipt 7
Date/Time on Test	2023-04-04	4:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	5	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-04-11	7:30 AM	Matrix TW

Date/Time on Test 2023-04-11 4:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	Less than 1	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-04-11	7:52 AM	Matrix TW

Date/Time on Test 2023-04-11 4:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	Less than 1	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-04-11	10:40 AM	Matrix TW

Date/Time on Test 2023-04-11 4:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	Less than 1	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-04-11	10:28 AM	Matrix TW

Date/Time on Test 2023-04-11 4:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	Less than 1	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-04-11	9:15 AM	Matrix SW

Date/Time on Test 2023-04-11 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	5	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	Less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
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<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-04-18	8:00 AM	Matrix TW

Date/Time on Test 2023-04-18 3:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	Less than 1	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-04-18	8:50 AM	Matrix TW

Date/Time on Test 2023-04-18 3:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	Less than 1	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-04-18	9:50 AM	Matrix TW

Date/Time on Test 2023-04-18 3:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	Less than 1	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-04-18	9:45 AM	Matrix TW

Date/Time on Test 2023-04-18 3:55 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	Less than 1	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-04-18	9:02 AM	Matrix SW

Date/Time on Test 2023-04-18 4:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	5	CFU/100mL	1
Verified E.coli	Less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	2	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



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Client City of Nelson
Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-04-25	7:45 AM	Matrix TW

Date/Time on Test 2023-04-25 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-04-25	8:35 AM	Matrix TW

Date/Time on Test 2023-04-25 4:55 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-04-25	10:49 AM	Matrix TW

Date/Time on Test 2023-04-25 4:55 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-04-25	10:40 AM	Matrix TW

Date/Time on Test 2023-04-25 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-04-25	9:32 AM	Matrix SW

Date/Time on Test 2023-04-25 5:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	10	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-05-02	9:40 AM	Matrix TW
			Temperature on Receipt 10
Date/Time on Test	2023-05-02	3:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-05-02	9:20 AM	Matrix TW
			Temperature on Receipt 11
Date/Time on Test	2023-05-02	3:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-05-02	9:00 AM	Matrix TW
			Temperature on Receipt 10
Date/Time on Test	2023-05-02	3:55 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-05-02	8:30 AM	Matrix TW
			Temperature on Receipt 10
Date/Time on Test	2023-05-02	4:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-05-02	10:50 AM	Matrix SW
			Temperature on Receipt 12
Date/Time on Test	2023-05-02	4:05 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	30	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-05-09	7:50 AM	Matrix TW
			Temperature on Receipt 9
Date/Time on Test	2023-05-09	5:20 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-05-09	8:20 AM	Matrix TW
			Temperature on Receipt 9
Date/Time on Test	2023-05-09	5:20 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-05-09	8:45 AM	Matrix TW
			Temperature on Receipt 8
Date/Time on Test	2023-05-09	5:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-05-09	8:35 AM	Matrix TW
			Temperature on Receipt 9
Date/Time on Test	2023-05-09	5:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-05-09	9:30 AM	Matrix SW
			Temperature on Receipt 8
Date/Time on Test	2023-05-09	5:30 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	22	CFU/100mL	1
Verified E.coli	4	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	4	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Nelson Seniors Center			Sample #	6	
Date/Time Sampled	2023-05-09	10:30 AM	Matrix	TW	Temperature on Receipt	9
Date/Time on Test	2023-05-09 5:30 PM					
<u>Analyses</u>	<u>Result</u>		<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1		CFU/100mL	1		
Verified E.coli	less than 1		CFU/100mL	1		

Glossary of Terms

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



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Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-05-16	7:50 AM	Matrix TW
			Temperature on Receipt 10
Date/Time on Test	2023-05-16	4:15 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-05-16	8:10 AM	Matrix TW
			Temperature on Receipt 9
Date/Time on Test	2023-05-16	4:20 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-05-16	9:20 AM	Matrix TW
			Temperature on Receipt 10
Date/Time on Test	2023-05-16	4:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-05-16	10:30 AM	Matrix TW
			Temperature on Receipt 9
Date/Time on Test	2023-05-16	4:30 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-05-16	10:45 AM	Matrix SW
			Temperature on Receipt 9
Date/Time on Test	2023-05-16	4:30 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	14	CFU/100mL	1
Verified E.coli	7	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	4	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-05-23	8:10 AM	Matrix DW

Date/Time on Test 2023-05-23 5:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2023-05-23	8:50 AM	Matrix DW

Date/Time on Test 2023-05-23 5:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-05-23	10:02 AM	Matrix DW

Date/Time on Test 2023-05-23 5:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-05-23	10:30 AM	Matrix DW

Date/Time on Test 2023-05-23 5:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-05-23	12:15 PM	Matrix SW

Date/Time on Test 2023-05-23 5:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	16	CFU/100mL	1
Verified E.coli	2	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-05-30	7:30 AM	Matrix TW
			Temperature on Receipt 14
Date/Time on Test	2023-05-30	4:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-05-30	8:00 AM	Matrix TW
			Temperature on Receipt 13
Date/Time on Test	2023-05-30	4:55 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-05-30	8:45 AM	Matrix TW
			Temperature on Receipt 13
Date/Time on Test	2023-05-30	5:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-05-30	8:55 AM	Matrix TW
			Temperature on Receipt 15
Date/Time on Test	2023-05-30	5:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-05-30	9:35 AM	Matrix SW
			Temperature on Receipt 14
Date/Time on Test	2023-05-30	5:05 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	22	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-06-06	7:40 AM	Matrix TW
			Temperature on Receipt 11
Date/Time on Test	2023-06-06	3:55 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-06-06	8:00 AM	Matrix TW
			Temperature on Receipt 11
Date/Time on Test	2023-06-06	4:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-06-06	9:00 AM	Matrix TW
			Temperature on Receipt 11
Date/Time on Test	2023-06-06	4:05 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-06-06	8:42 AM	Matrix TW
			Temperature on Receipt 10
Date/Time on Test	2023-06-06	4:10 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-06-06	9:30 AM	Matrix RW
			Temperature on Receipt 11
Date/Time on Test	2023-06-06	4:15 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



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Client City of Nelson

Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Matrix	TW	Sample #	1
Date/Time Sampled	2023-06-13	7:50 AM		Temperature on Receipt	16
Date/Time on Test	2023-06-13	3:45 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Sampler @ Silica and Stanley	Matrix	TW	Sample #	2
Date/Time Sampled	2023-06-13	8:00 AM		Temperature on Receipt	16
Date/Time on Test	2023-06-13	3:45 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Sampler @ 3rd and Davies	Matrix	TW	Sample #	3
Date/Time Sampled	2023-06-13	8:20 AM		Temperature on Receipt	15
Date/Time on Test	2023-06-13	3:50 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Sampler @ Fell and 11th	Matrix	TW	Sample #	4
Date/Time Sampled	2023-06-13	9:10 PM		Temperature on Receipt	14
Date/Time on Test	2023-06-13	3:55 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	less than 1	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Sample ID	Mtn. Station Reservoir - Raw	Matrix	SW	Sample #	5
Date/Time Sampled	2023-06-13	10:40 AM		Temperature on Receipt	16
Date/Time on Test	2023-06-13	4:00 PM			
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>		
Coliforms, Total	30	CFU/100mL	1		
Verified E.coli	less than 1	CFU/100mL	1		
Fecal (Thermotolerant) Coliforms	3	CFU/100mL	1		

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-06-20	8:05 AM	Matrix TW

Date/Time on Test 2023-06-20 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Comments Note: light background growth present

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-06-20	8:30 AM	Matrix TW

Date/Time on Test 2023-06-20 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-06-20	10:50 AM	Matrix TW

Date/Time on Test 2023-06-20 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Comments Note: light background growth present

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-06-20	10:39 AM	Matrix TW

Date/Time on Test 2023-06-20 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Sample ID	Mtn. Station Reservoir - Raw			Sample #	5
Date/Time Sampled	2023-06-20	10:05 AM	Matrix	SW	Temperature on Receipt 12
Date/Time on Test	2023-06-20 4:35 PM				
<u>Analyses</u>	<u>Result</u>		<u>Units</u>	<u>RDL</u>	
Coliforms, Total	49		CFU/100mL	1	
Verified E.coli	6		CFU/100mL	1	
Fecal (Thermotolerant) Coliforms	4		CFU/100mL	1	

Glossary of Terms

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Mechelle Babic

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-06-22	11:22 AM	Matrix DW

Date/Time on Test 2023-06-22 12:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	2
Date/Time Sampled	2023-06-22	11:00 AM	Matrix DW

Date/Time on Test 2023-06-22 12:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Glossary of Terms

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-06-27	8:30 AM	Matrix TW
			Temperature on Receipt 15
Date/Time on Test	2023-06-27	4:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-06-27	8:50 AM	Matrix TW
			Temperature on Receipt 12
Date/Time on Test	2023-06-27	4:30 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-06-27	9:00 AM	Matrix TW
			Temperature on Receipt 13
Date/Time on Test	2023-06-27	4:40 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-06-27	11:40 AM	Matrix TW
			Temperature on Receipt 11
Date/Time on Test	2023-06-27	4:45 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-06-27	10:35 AM	Matrix SW
			Temperature on Receipt 14
Date/Time on Test	2023-06-27	4:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	49	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-07-04	7:15 AM	Matrix TW

Date/Time on Test 2023-07-04 5:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-07-04	7:40 AM	Matrix TW

Date/Time on Test 2023-07-04 5:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-07-04	8:15 AM	Matrix TW

Date/Time on Test 2023-07-04 5:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-07-04	8:25 AM	Matrix TW

Date/Time on Test 2023-07-04 5:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-07-04	9:30 AM	Matrix SW

Date/Time on Test 2023-07-04 5:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	34	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	2	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-07-11	7:50 AM	Matrix TW
			Temperature on Receipt 15
Date/Time on Test	2023-07-11	4:35 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-07-11	7:50 AM	Matrix TW
			Temperature on Receipt 15
Date/Time on Test	2023-07-11	4:40 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-07-11	8:05 AM	Matrix TW
			Temperature on Receipt 15
Date/Time on Test	2023-07-11	4:40 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-07-11	8:15 AM	Matrix TW
			Temperature on Receipt 15
Date/Time on Test	2023-07-11	4:45 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-07-11	7:15 AM	Matrix SW
			Temperature on Receipt 15
Date/Time on Test	2023-07-11	4:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	136	CFU/100mL	1
Verified E.coli	6	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	5	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-07-18	9:25 AM	Matrix TW

Date/Time on Test 2023-07-18 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-07-18	9:45 AM	Matrix TW

Date/Time on Test 2023-07-18 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-07-18	11:15 AM	Matrix TW

Date/Time on Test 2023-07-18 4:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-07-18	11:03 AM	Matrix TW

Date/Time on Test 2023-07-18 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-07-18	9:00 AM	Matrix SW

Date/Time on Test 2023-07-18 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	136	CFU/100mL	1
Verified E.coli	2	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	3	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



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Client City of Nelson
Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-07-25	8:00 AM	Matrix TW

Date/Time on Test 2023-07-25 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-07-25	7:40 AM	Matrix TW

Date/Time on Test 2023-07-25 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-07-25	9:29 AM	Matrix TW

Date/Time on Test 2023-07-25 4:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-07-25	9:20 AM	Matrix TW

Date/Time on Test 2023-07-25 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-07-25	9:02 AM	Matrix SW

Date/Time on Test 2023-07-25 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	217	CFU/100mL	1
Verified E.coli	2	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Jennifer Yeow,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-08-01	7:53 AM	Matrix TW

Date/Time on Test 2023-08-01 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-08-01	8:17 AM	Matrix TW

Date/Time on Test 2023-08-01 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-08-01	9:16 AM	Matrix TW

Date/Time on Test 2023-08-01 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-08-01	9:28 AM	Matrix TW

Date/Time on Test 2023-08-01 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-08-01	11:02 AM	Matrix SW

Date/Time on Test 2023-08-01 5:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	186	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: James Lerch

Mechelle Babic,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-08-08	7:52 AM	Matrix DW

Date/Time on Test 2023-08-08 6:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2023-08-08	8:18 AM	Matrix DW

Date/Time on Test 2023-08-08 6:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	3rd and Davies	Sample #	3
Date/Time Sampled	2023-08-08	11:25 AM	Matrix DW

Date/Time on Test 2023-08-08 6:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	11th and Fell	Sample #	4
Date/Time Sampled	2023-08-08	11:12 AM	Matrix DW

Date/Time on Test 2023-08-08 6:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-08-08	10:32 AM	Matrix SW

Date/Time on Test 2023-08-08 6:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	75	CFU/100mL	1
Verified E.coli	2	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	6	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: James Lerch

Mechelle Babic,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-08-15	7:02 AM	Matrix TW

Date/Time on Test 2023-08-15 6:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2023-08-15	7:39 AM	Matrix TW

Date/Time on Test 2023-08-15 6:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	3rd and Davies	Sample #	3
Date/Time Sampled	2023-08-15	10:38 AM	Matrix TW

Date/Time on Test 2023-08-15 6:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	11th and Fell	Sample #	4
Date/Time Sampled	2023-08-15	10:17 AM	Matrix TW

Date/Time on Test 2023-08-15 6:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mountain Station Reservoir	Sample #	5
Date/Time Sampled	2023-08-15	9:05 AM	Matrix SW

Date/Time on Test 2023-08-15 6:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	124	CFU/100mL	1
Verified E.coli	3	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Mechelle Babic,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-08-22	7:38 AM	Matrix DW

Date/Time on Test 2023-08-22 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2023-08-22	8:02 AM	Matrix DW

Date/Time on Test 2023-08-22 5:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-08-22	10:45 AM	Matrix DW

Date/Time on Test 2023-08-22 5:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-08-22	10:37 AM	Matrix DW

Date/Time on Test 2023-08-22 5:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-08-22	9:55 AM	Matrix SW

Date/Time on Test 2023-08-22 5:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	203	CFU/100mL	1
Verified E.coli	3	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	4	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-08-29	7:35 AM	Matrix TW
			Temperature on Receipt 11
Date/Time on Test	2023-08-29	4:45 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-08-29	8:17 AM	Matrix TW
			Temperature on Receipt 11
Date/Time on Test	2023-08-29	4:45 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-08-29	9:56 AM	Matrix TW
			Temperature on Receipt 13
Date/Time on Test	2023-08-29	4:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	4
Date/Time Sampled	2023-08-29	9:47 AM	Matrix TW
			Temperature on Receipt 12
Date/Time on Test	2023-08-29	4:55 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-08-29	9:28 AM	Matrix SW
			Temperature on Receipt 13
Date/Time on Test	2023-08-29	5:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	147	CFU/100mL	1
Verified E.coli	3	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	2	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-09-05	Matrix	TW

Date/Time on Test 2023-09-05 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-09-05	Matrix	TW

Date/Time on Test 2023-09-05 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-09-05	Matrix	TW

Date/Time on Test 2023-09-05 5:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-09-05	Matrix	TW

Date/Time on Test 2023-09-05 5:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-09-05	Matrix	SW

Date/Time on Test 2023-09-05 5:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	140	CFU/100mL	1
Verified E.coli	2	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	3	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



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passmorelaboratory.ca

Client City of Nelson
Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-09-12	8:00 AM	Matrix TW

Date/Time on Test 2023-09-12 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-09-12	8:55 AM	Matrix TW

Date/Time on Test 2023-09-12 4:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-09-12	12:01 PM	Matrix TW

Date/Time on Test 2023-09-12 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-09-12	12:10 PM	Matrix TW

Date/Time on Test 2023-09-12 4:55 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-09-12	11:15 AM	Matrix SW

Date/Time on Test 2023-09-12 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	96	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-09-19	7:30 AM	Matrix TW

Date/Time on Test 2023-09-19 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID Sampler @ Silica and Stanley Sample # 2

Date/Time Sampled	2023-09-19	7:50 AM	Matrix TW	Temperature on Receipt	11
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Date/Time on Test 2023-09-19 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID Sampler @ 3rd and Davies Sample # 3

Date/Time Sampled	2023-09-19	8:00 AM	Matrix TW	Temperature on Receipt	11
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Date/Time on Test 2023-09-19 4:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID Sampler @ Fell and 11th Sample # 4

Date/Time Sampled	2023-09-19	8:10 AM	Matrix TW	Temperature on Receipt	11
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Date/Time on Test 2023-09-19 4:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID Mtn. Station Reservoir - Raw Sample # 5

Date/Time Sampled	2023-09-19	9:20 AM	Matrix SW	Temperature on Receipt	11
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Date/Time on Test 2023-09-19 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	79	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-09-26	7:45 AM	Matrix TW
			Temperature on Receipt 14
Date/Time on Test	2023-09-26	3:35 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-09-26	10:25 AM	Matrix TW
			Temperature on Receipt 14
Date/Time on Test	2023-09-26	3:35 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-09-26	11:00 AM	Matrix TW
			Temperature on Receipt 14
Date/Time on Test	2023-09-26	3:40 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-09-26	10:55 AM	Matrix TW
			Temperature on Receipt 13
Date/Time on Test	2023-09-26	3:45 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-09-26	10:10 AM	Matrix SW
			Temperature on Receipt 14
Date/Time on Test	2023-09-26	3:45 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	63	CFU/100mL	1
Verified E.coli	1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-10-03	7:50 AM	Matrix DW

Date/Time on Test 2023-10-04 10:10 AM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2023-10-03	8:05 AM	Matrix DW

Date/Time on Test 2023-10-04 10:15 AM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-10-03	8:50 AM	Matrix DW

Date/Time on Test 2023-10-04 10:20 AM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-10-03	9:00 AM	Matrix DW

Date/Time on Test 2023-10-04 10:25 AM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-10-03	8:20 AM	Matrix SW

Date/Time on Test 2023-10-04 10:30 AM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	64	CFU/100mL	1
Verified E.coli	2	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
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RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-10-10	7:40 AM	Matrix TW

Date/Time on Test 2023-10-10 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-10-10	8:40 AM	Matrix TW

Date/Time on Test 2023-10-10 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-10-10	8:55 AM	Matrix TW

Date/Time on Test 2023-10-10 4:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-10-10	9:05 AM	Matrix TW

Date/Time on Test 2023-10-10 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-10-10	10:30 AM	Matrix SW

Date/Time on Test 2023-10-10 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	64	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-10-17	7:45 AM	Matrix TW

Date/Time on Test 2023-10-17 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-10-17	8:40 AM	Matrix TW

Date/Time on Test 2023-10-17 4:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-10-17	9:05 AM	Matrix TW

Date/Time on Test 2023-10-17 4:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-10-17	8:55 AM	Matrix TW

Date/Time on Test 2023-10-17 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-10-17	9:30 AM	Matrix SW

Date/Time on Test 2023-10-17 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	76	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-10-24	10:30 AM	Matrix DW

Date/Time on Test 2023-10-24 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-10-24	10:45 AM	Matrix DW

Date/Time on Test 2023-10-24 4:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-10-24	8:35 AM	Matrix DW

Date/Time on Test 2023-10-24 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-10-24	8:40 AM	Matrix DW

Date/Time on Test 2023-10-24 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-10-24	11:00 AM	Matrix SW

Date/Time on Test 2023-10-24 4:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	6	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



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Client City of Nelson

Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-10-31	8:52 AM	Matrix TW

Date/Time on Test 2023-10-31 4:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-10-31	9:07 AM	Matrix TW

Date/Time on Test 2023-10-31 4:20 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-10-31	11:08 AM	Matrix TW

Date/Time on Test 2023-10-31 4:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-10-31	10:58 AM	Matrix TW

Date/Time on Test 2023-10-31 4:25 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-10-31	10:28 AM	Matrix SW

Date/Time on Test 2023-10-31 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	45	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-11-07	10:30 AM	Matrix TW

Date/Time on Test 2023-11-07 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-11-07	9:15 AM	Matrix TW

Date/Time on Test 2023-11-07 4:30 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-11-07	8:15 AM	Matrix TW

Date/Time on Test 2023-11-07 4:35 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-11-07	8:00 AM	Matrix TW

Date/Time on Test 2023-11-07 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-11-07	11:00 AM	Matrix SW

Date/Time on Test 2023-11-07 4:40 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	61	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	3	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-11-14	10:15 AM	Matrix TW

Date/Time on Test 2023-11-14 4:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-11-14	9:15 AM	Matrix TW

Date/Time on Test 2023-11-14 4:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-11-14	8:20 AM	Matrix TW

Date/Time on Test 2023-11-14 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-11-14	9:00 AM	Matrix TW

Date/Time on Test 2023-11-14 4:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-11-14	9:30 AM	Matrix SW

Date/Time on Test 2023-11-15 4:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	41	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-11-21	8:10 AM	Matrix TW

Date/Time on Test 2023-11-21 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-11-21	8:48 AM	Matrix TW

Date/Time on Test 2023-11-21 5:00 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-11-21	11:13 AM	Matrix TW

Date/Time on Test 2023-11-21 5:05 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-11-21	11:00 AM	Matrix TW

Date/Time on Test 2023-11-21 5:10 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-11-21	10:44 AM	Matrix sw

Date/Time on Test 2023-11-21 5:15 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	13	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

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Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-11-28	7:45 AM	Matrix TW
			Temperature on Receipt 10
Date/Time on Test	2023-11-28	4:35 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-11-28	8:00 AM	Matrix TW
			Temperature on Receipt 9
Date/Time on Test	2023-11-28	4:40 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-11-28	8:45 AM	Matrix TW
			Temperature on Receipt 10
Date/Time on Test	2023-11-28	4:40 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-11-28	8:55 AM	Matrix TW
			Temperature on Receipt 10
Date/Time on Test	2023-11-28	4:45 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-11-28	9:45 AM	Matrix SW
			Temperature on Receipt 10
Date/Time on Test	2023-11-28	4:50 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Mechelle Babic

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-12-05	7:41 AM	Matrix DW
			Temperature on Receipt 5
Date/Time on Test	2023-12-05	4:55 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2023-12-05	7:56 AM	Matrix DW
			Temperature on Receipt 4
Date/Time on Test	2023-12-05	5:00 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-12-05	11:02 AM	Matrix DW
			Temperature on Receipt 6
Date/Time on Test	2023-12-05	5:05 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-12-05	10:45 AM	Matrix DW
			Temperature on Receipt 5
Date/Time on Test	2023-12-05	5:10 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-12-05	10:20 AM	Matrix SW
			Temperature on Receipt 6
Date/Time on Test	2023-12-05	5:15 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	13	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

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<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

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Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

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ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-12-12	11:40 AM	Matrix TW
			Temperature on Receipt 8
Date/Time on Test	2023-12-12	4:20 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-12-12	10:10 AM	Matrix TW
			Temperature on Receipt 8
Date/Time on Test	2023-12-12	4:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-12-12	9:05 AM	Matrix TW
			Temperature on Receipt 7
Date/Time on Test	2023-12-12	4:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-12-12	8:55 AM	Matrix TW
			Temperature on Receipt 7
Date/Time on Test	2023-12-12	4:30 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-12-12	10:30 AM	Matrix SW
			Temperature on Receipt 7
Date/Time on Test	2023-12-12	4:30 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	38	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



4240 Passmore Upper Road, Winlaw BC, V0G2J0
250-226-7339
test@passmorelaboratory.ca
passmorelaboratory.ca

Client City of Nelson

Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

Passmore Laboratory Ltd. complies with methods and certification through the Province of British Columbia Enhanced Water Quality Assurance (EWQA) Program and the Clinical Microbiology Proficiency Testing (CMPT) Program. Other analytical results on this report not listed above are not within the scope of the EWQA. Passmore Laboratory assumes no responsibility for any loss or damage resulting from error or omission in the conduct of testing. Liability is limited to the cost of the analysis.

Processed by: Lynne Alexander

Mechelle Babic,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-12-19	7:30 AM	Matrix TW

Date/Time on Test 2023-12-19 4:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Silica and Stanley	Sample #	2
Date/Time Sampled	2023-12-19	8:00 AM	Matrix TW

Date/Time on Test 2023-12-19 4:45 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-12-19	8:15 AM	Matrix TW

Date/Time on Test 2023-12-19 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-12-19	8:45 AM	Matrix TW

Date/Time on Test 2023-12-19 4:50 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1

Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-12-19	9:45 AM	Matrix SW

Date/Time on Test 2023-12-19 4:55 PM

<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	10	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS

Glossary of Terms

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References



Report# 6379
Filename 231227CN.pdf

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Client City of Nelson

Attention Martin Grill

CERTIFICATE OF ANALYSIS

<u>Analyses</u>	<u>Method Description</u>	<u>Reference</u>
Total Coliforms	Membrane Filtration on LES Endo medium	APHA 9222B
E. coli	MF Partition on NA-MUG medium	APHA 9222I
Fecal Coliforms	Membrane Filtration on mFC medium	APHA 9222D

Tests were performed in accordance with methods outlined in the "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017 published by the American Public Health Association.

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Processed by: Mechelle Babic

Mechelle Babic,
Lab Manager

Please call or Email for with any questions, feedback, or more information

ANALYTICAL RESULTS

Sample ID	Rosemont Res.	Sample #	1
Date/Time Sampled	2023-12-27	8:00 AM	Matrix DW
			Temperature on Receipt 9
Date/Time on Test	2023-12-27	5:10 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Silica st. Sampler	Sample #	2
Date/Time Sampled	2023-12-27	8:15 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2023-12-27	5:15 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ 3rd and Davies	Sample #	3
Date/Time Sampled	2023-12-27	8:50 AM	Matrix DW
			Temperature on Receipt 9
Date/Time on Test	2023-12-27	5:20 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Sampler @ Fell and 11th	Sample #	4
Date/Time Sampled	2023-12-27	9:20 AM	Matrix DW
			Temperature on Receipt 8
Date/Time on Test	2023-12-27	5:25 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	less than 1	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Sample ID	Mtn. Station Reservoir - Raw	Sample #	5
Date/Time Sampled	2023-12-27	10:20 AM	Matrix SW
			Temperature on Receipt 7
Date/Time on Test	2023-12-27	5:30 PM	
<u>Analyses</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>
Coliforms, Total	17	CFU/100mL	1
Verified E.coli	less than 1	CFU/100mL	1
Fecal (Thermotolerant) Coliforms	less than 1	CFU/100mL	1

ANALYTICAL RESULTS**Glossary of Terms**

Less than 1	Less than the Reportable Detection Limit, except under circumstances where the detection limit is higher due to interferences, insufficient sample volume, or dilutions.
APHA	American Public Health Association
CFU/100mL	Colony Forming Units per 100 milliliters
Matrix	SW = Surface water, TW = Treated water, DW = Distribution water, UGW = Untreated Ground water, RW = Raw water
RDL	Reportable Detection Limit

References

City of Nelson 2023 Annual Drinking Water Report

Appendix C: Annual Full Comprehensive Raw Water Analysis



CERTIFICATE OF ANALYSIS

REPORTED TO	Nelson, City of 101-310 Ward St Nelson, BC V1L 5S4	WORK ORDER	23K2595
ATTENTION	Martin Grill	RECEIVED / TEMP	2023-11-22 09:33 / 7.1°C
PO NUMBER		REPORTED	2023-11-27 15:07
PROJECT	General Potability	COC NUMBER	B131858
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



We've Got Chemistry



Ahead of the Curve



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

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

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

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

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

Authorized By:

Brent Whitehead
Account Manager



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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 Nelson, City of
PROJECT General Potability

WORK ORDER
REPORTED 23K2595
2023-11-27 15:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Anderson Ck_Source Water (23K2595-01) Matrix: Water Sampled: 2023-11-20 10:40						
Anions						
Chloride	0.34	AO ≤ 250	0.10	mg/L	2023-11-23	
Fluoride	0.11	MAC = 1.5	0.10	mg/L	2023-11-23	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2023-11-23	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2023-11-23	
Sulfate	11.5	AO ≤ 500	1.0	mg/L	2023-11-23	
Calculated Parameters						
Hardness, Total (as CaCO ₃)	55.4	None Required	0.500	mg/L	N/A	
Langelier Index	-0.7	N/A	-5.0		2023-11-27	CT6
Solids, Total Dissolved	79.0	AO ≤ 500	1.00	mg/L	N/A	
General Parameters						
Alkalinity, Total (as CaCO ₃)	69.5	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Bicarbonate (as CaCO ₃)	69.5	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2023-11-22	
Conductivity (EC)	119	N/A	2.0	µS/cm	2023-11-22	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-11-23	
pH	7.71	7.0-10.5	0.10	pH units	2023-11-22	HT2
Temperature, at pH	23.1	N/A		°C	2023-11-22	HT2
Turbidity	0.14	OG < 1	0.10	NTU	2023-11-23	
Total Metals						
Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2023-11-26	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-11-26	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2023-11-26	
Barium, total	0.0279	MAC = 2	0.0050	mg/L	2023-11-26	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-11-26	
Cadmium, total	0.000016	MAC = 0.007	0.000010	mg/L	2023-11-26	
Calcium, total	19.5	None Required	0.20	mg/L	2023-11-26	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-11-26	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-11-26	
Copper, total	< 0.00040	MAC = 2	0.00040	mg/L	2023-11-26	
Iron, total	< 0.010	AO ≤ 0.3	0.010	mg/L	2023-11-26	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2023-11-26	
Magnesium, total	1.60	None Required	0.010	mg/L	2023-11-26	
Manganese, total	< 0.00020	MAC = 0.12	0.00020	mg/L	2023-11-27	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-11-24	
Molybdenum, total	0.00077	N/A	0.00010	mg/L	2023-11-26	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2023-11-26	
Potassium, total	1.93	N/A	0.10	mg/L	2023-11-26	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-11-26	



TEST RESULTS

REPORTED TO	Nelson, City of	WORK ORDER	23K2595			
PROJECT	General Potability	REPORTED	2023-11-27 15:07			
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Anderson Ck_Source Water (23K2595-01) Matrix: Water Sampled: 2023-11-20 10:40, Continued						
Total Metals, Continued						
Sodium, total	1.75	AO ≤ 200	0.10	mg/L	2023-11-26	
Strontium, total	0.121	MAC = 7	0.0010	mg/L	2023-11-26	
Uranium, total	0.000443	MAC = 0.02	0.000020	mg/L	2023-11-26	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2023-11-26	
Selous Ck_Source Water (23K2595-02) Matrix: Water Sampled: 2023-11-20 11:30						
Anions						
Chloride	0.16	AO ≤ 250	0.10	mg/L	2023-11-23	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2023-11-23	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2023-11-23	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2023-11-23	
Sulfate	10.8	AO ≤ 500	1.0	mg/L	2023-11-23	
Calculated Parameters						
Hardness, Total (as CaCO ₃)	53.8	None Required	0.500	mg/L	N/A	
Langelier Index	-1.8	N/A	-5.0		2023-11-27	CT6
Solids, Total Dissolved	63.7	AO ≤ 500	1.00	mg/L	N/A	
General Parameters						
Alkalinity, Total (as CaCO ₃)	48.1	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Bicarbonate (as CaCO ₃)	48.1	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Colour, True	6.4	AO ≤ 15	5.0	CU	2023-11-22	
Conductivity (EC)	110	N/A	2.0	µS/cm	2023-11-22	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-11-23	
pH	6.71	7.0-10.5	0.10	pH units	2023-11-22	HT2
Temperature, at pH	23.1	N/A	°C		2023-11-22	HT2
Turbidity	0.18	OG < 1	0.10	NTU	2023-11-23	
Total Metals						
Aluminum, total	0.0120	OG < 0.1	0.0050	mg/L	2023-11-26	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-11-26	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2023-11-26	
Barium, total	0.0275	MAC = 2	0.0050	mg/L	2023-11-26	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-11-26	
Cadmium, total	0.000017	MAC = 0.007	0.000010	mg/L	2023-11-26	
Calcium, total	19.3	None Required	0.20	mg/L	2023-11-26	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-11-26	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-11-26	
Copper, total	0.00075	MAC = 2	0.00040	mg/L	2023-11-26	
Iron, total	0.043	AO ≤ 0.3	0.010	mg/L	2023-11-26	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT General Potability

WORK ORDER
REPORTED 23K2595
2023-11-27 15:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Selous Ck_Source Water (23K2595-02) Matrix: Water Sampled: 2023-11-20 11:30, Continued						
Total Metals, Continued						
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2023-11-26	
Magnesium, total	1.36	None Required	0.010	mg/L	2023-11-26	
Manganese, total	0.00405	MAC = 0.12	0.00020	mg/L	2023-11-26	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-11-24	
Molybdenum, total	0.00075	N/A	0.00010	mg/L	2023-11-26	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2023-11-26	
Potassium, total	1.54	N/A	0.10	mg/L	2023-11-26	
Selenium, total	0.00050	MAC = 0.05	0.00050	mg/L	2023-11-26	
Sodium, total	1.24	AO ≤ 200	0.10	mg/L	2023-11-26	
Strontium, total	0.0725	MAC = 7	0.0010	mg/L	2023-11-26	
Uranium, total	0.000179	MAC = 0.02	0.000020	mg/L	2023-11-26	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2023-11-26	
5-Mile Ck @ Reservoir_Source Water (23K2595-03) Matrix: Water Sampled: 2023-11-20 13:30						
Anions						
Chloride	0.11	AO ≤ 250	0.10	mg/L	2023-11-23	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2023-11-23	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2023-11-23	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2023-11-23	
Sulfate	1.6	AO ≤ 500	1.0	mg/L	2023-11-23	
Calculated Parameters						
Hardness, Total (as CaCO ₃)	13.6	None Required	0.500	mg/L	N/A	
Langelier Index	-3.4	N/A	-5.0		2023-11-27	CT6
Solids, Total Dissolved	16.9	AO ≤ 500	1.00	mg/L	N/A	
General Parameters						
Alkalinity, Total (as CaCO ₃)	13.3	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Bicarbonate (as CaCO ₃)	13.3	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Colour, True	7.6	AO ≤ 15	5.0	CU	2023-11-22	
Conductivity (EC)	33.6	N/A	2.0	µS/cm	2023-11-22	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-11-23	
pH	6.27	7.0-10.5	0.10	pH units	2023-11-22	HT2
Temperature, at pH	22.8	N/A	°C		2023-11-22	HT2
Turbidity	0.21	OG < 1	0.10	NTU	2023-11-23	
Total Metals						
Aluminum, total	0.0270	OG < 0.1	0.0050	mg/L	2023-11-26	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-11-26	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2023-11-26	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT General Potability

WORK ORDER 23K2595
REPORTED 2023-11-27 15:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
5-Mile Ck @ Reservoir_Source Water (23K2595-03) Matrix: Water Sampled: 2023-11-20 13:30, Continued						
Total Metals, Continued						
Barium, total	0.0085	MAC = 2	0.0050	mg/L	2023-11-26	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-11-26	
Cadmium, total	0.000013	MAC = 0.007	0.000010	mg/L	2023-11-26	
Calcium, total	4.69	None Required	0.20	mg/L	2023-11-26	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-11-26	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-11-26	
Copper, total	< 0.00040	MAC = 2	0.00040	mg/L	2023-11-26	
Iron, total	0.012	AO ≤ 0.3	0.010	mg/L	2023-11-26	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2023-11-26	
Magnesium, total	0.459	None Required	0.010	mg/L	2023-11-26	
Manganese, total	0.00057	MAC = 0.12	0.00020	mg/L	2023-11-26	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-11-24	
Molybdenum, total	0.00065	N/A	0.00010	mg/L	2023-11-26	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2023-11-26	
Potassium, total	0.64	N/A	0.10	mg/L	2023-11-26	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-11-26	
Sodium, total	1.22	AO ≤ 200	0.10	mg/L	2023-11-26	
Strontium, total	0.0433	MAC = 7	0.0010	mg/L	2023-11-26	
Uranium, total	0.000579	MAC = 0.02	0.000020	mg/L	2023-11-26	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2023-11-26	
Mtn. Stn. Reservoir_Source Water (23K2595-04) Matrix: Water Sampled: 2023-11-20 11:10						
Anions						
Chloride	0.13	AO ≤ 250	0.10	mg/L	2023-11-23	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2023-11-23	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2023-11-23	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2023-11-23	
Sulfate	2.2	AO ≤ 500	1.0	mg/L	2023-11-23	
Calculated Parameters						
Hardness, Total (as CaCO ₃)	15.3	None Required	0.500	mg/L	N/A	
Langelier Index	-3.2	N/A	-5.0		2023-11-27	CT6
Solids, Total Dissolved	19.4	AO ≤ 500	1.00	mg/L	N/A	
General Parameters						
Alkalinity, Total (as CaCO ₃)	15.5	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Bicarbonate (as CaCO ₃)	15.5	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Colour, True	7.7	AO ≤ 15	5.0	CU	2023-11-22	
Conductivity (EC)	38.5	N/A	2.0	µS/cm	2023-11-22	



TEST RESULTS

REPORTED TO	Nelson, City of	WORK ORDER	23K2595			
PROJECT	General Potability	REPORTED	2023-11-27 15:07			
Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Mtn. Stn. Reservoir_Source Water (23K2595-04) Matrix: Water Sampled: 2023-11-20 11:10, Continued						
General Parameters, Continued						
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-11-23	
pH	6.36	7.0-10.5	0.10	pH units	2023-11-22	HT2
Temperature, at pH	22.7	N/A		°C	2023-11-22	HT2
Turbidity	0.28	OG < 1	0.10	NTU	2023-11-23	
Total Metals						
Aluminum, total	0.0273	OG < 0.1	0.0050	mg/L	2023-11-26	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-11-26	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2023-11-26	
Barium, total	0.0098	MAC = 2	0.0050	mg/L	2023-11-26	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-11-26	
Cadmium, total	0.000013	MAC = 0.007	0.000010	mg/L	2023-11-26	
Calcium, total	5.32	None Required	0.20	mg/L	2023-11-26	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-11-26	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-11-26	
Copper, total	0.00060	MAC = 2	0.00040	mg/L	2023-11-26	
Iron, total	0.019	AO ≤ 0.3	0.010	mg/L	2023-11-26	
Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2023-11-26	
Magnesium, total	0.491	None Required	0.010	mg/L	2023-11-26	
Manganese, total	0.00079	MAC = 0.12	0.00020	mg/L	2023-11-26	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-11-24	
Molybdenum, total	0.00062	N/A	0.00010	mg/L	2023-11-26	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2023-11-26	
Potassium, total	0.68	N/A	0.10	mg/L	2023-11-26	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-11-26	
Sodium, total	1.16	AO ≤ 200	0.10	mg/L	2023-11-26	
Strontium, total	0.0426	MAC = 7	0.0010	mg/L	2023-11-26	
Uranium, total	0.000527	MAC = 0.02	0.000020	mg/L	2023-11-26	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2023-11-26	
Fell Ck_Source Water (23K2595-05) Matrix: Water Sampled: 2023-11-20 10:30						
Anions						
Chloride	0.14	AO ≤ 250	0.10	mg/L	2023-11-23	
Fluoride	< 0.10	MAC = 1.5	0.10	mg/L	2023-11-23	
Nitrate (as N)	< 0.010	MAC = 10	0.010	mg/L	2023-11-23	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2023-11-23	
Sulfate	7.9	AO ≤ 500	1.0	mg/L	2023-11-23	
Calculated Parameters						
Hardness, Total (as CaCO ₃)	32.3	None Required	0.500	mg/L	N/A	
Langelier Index	-2.4	N/A	-5.0		2023-11-27	CT6
Solids, Total Dissolved	43.3	AO ≤ 500	1.00	mg/L	N/A	



TEST RESULTS

REPORTED TO Nelson, City of
PROJECT General Potability

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REPORTED 2023-11-27 15:07

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Fell Ck_Source Water (23K2595-05) Matrix: Water Sampled: 2023-11-20 10:30, Continued						
General Parameters						
Alkalinity, Total (as CaCO ₃)	33.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Bicarbonate (as CaCO ₃)	33.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0	mg/L	2023-11-22	
Colour, True	5.2	AO ≤ 15	5.0	CU	2023-11-22	
Conductivity (EC)	76.7	N/A	2.0	µS/cm	2023-11-22	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2023-11-23	
pH	6.53	7.0-10.5	0.10	pH units	2023-11-22	HT2
Temperature, at pH	22.6	N/A		°C	2023-11-22	HT2
Turbidity	0.23	OG < 1	0.10	NTU	2023-11-23	
Total Metals						
Aluminum, total	0.0122	OG < 0.1	0.0050	mg/L	2023-11-26	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2023-11-26	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050	mg/L	2023-11-26	
Barium, total	0.0350	MAC = 2	0.0050	mg/L	2023-11-26	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2023-11-26	
Cadmium, total	0.000514	MAC = 0.007	0.000010	mg/L	2023-11-26	
Calcium, total	10.6	None Required	0.20	mg/L	2023-11-26	
Chromium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-11-26	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2023-11-26	
Copper, total	0.00074	MAC = 2	0.00040	mg/L	2023-11-26	
Iron, total	0.013	AO ≤ 0.3	0.010	mg/L	2023-11-26	
Lead, total	0.00089	MAC = 0.005	0.00020	mg/L	2023-11-26	
Magnesium, total	1.45	None Required	0.010	mg/L	2023-11-26	
Manganese, total	0.00043	MAC = 0.12	0.00020	mg/L	2023-11-27	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2023-11-24	
Molybdenum, total	0.00123	N/A	0.00010	mg/L	2023-11-26	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2023-11-26	
Potassium, total	1.58	N/A	0.10	mg/L	2023-11-26	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2023-11-26	
Sodium, total	1.50	AO ≤ 200	0.10	mg/L	2023-11-26	
Strontium, total	0.0643	MAC = 7	0.0010	mg/L	2023-11-26	
Uranium, total	0.000282	MAC = 0.02	0.000020	mg/L	2023-11-26	
Zinc, total	0.0532	AO ≤ 5	0.0040	mg/L	2023-11-26	

Sample Qualifiers:

CT6 Results were based on lab temperature & lab pH.
 HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Nelson, City of
PROJECT General Potability

WORK ORDER 23K2595
REPORTED 2023-11-27 15:07

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2021)	Titration with H ₂ SO ₄	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Colour, True in Water	SM 2120 C (2021)	Spectrophotometry (456 nm)	✓	Kelowna
Conductivity in Water	SM 2510 B (2021)	Conductivity Meter	✓	Kelowna
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	✓	Kelowna
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
Langelier Index in Water	SM 2330 B (2021)	Calculation		N/A
Mercury, total in Water	EPA 245.7*	BrCl ₂ Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Solids, Total Dissolved in Water	SM 1030 E (2021)	SM 1030 E		N/A
Total Metals in Water	EPA 200.2 / EPA 6020B	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
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
µS/cm	Microsiemens per centimetre
ASTM	ASTM International Test Methods
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO Nelson, City of
PROJECT General Potability

WORK ORDER 23K2595
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General Comments:

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