



3851B – 21 Street NE • Calgary, Alberta, Canada • T2E 6T5

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Springate Water Coop**Phone:****Lab Number:** 94423**Fax:****Email:****PO Number:****Sample Info:** Annual Chemistry
Pump House**Sampled By:** WA
Date Sampled: 3/9/2023
Date Received: 3/9/2023
Date Reported: 3/10/2023**TEST REPORT**

Analyte	Units	Result	CDW Guideline Maximum	Detection Limit
Calcium	mg/L	98.9	No Guideline	0.02
Iron	mg/L	<0.03	AO: 0.3	0.03
Magnesium	mg/L	46.0	No Guideline	0.02
Manganese	mg/L	<0.01	AO: 0.02, MAC: 0.12	0.01
Potassium	mg/L	4.0	No Guideline	0.02
Sodium	mg/L	43	AO: 200	0.02
Bicarbonates	mg/L	460	No Guideline	-
Bromides	mg/L	<0.2	No Guideline	0.2
Carbonates	mg/L	0	No Guideline	-
Chlorides	mg/L	54.2	AO: 250	0.1
Fluorides	mg/L	0.10	MAC: 1.5	0.02
Nitrates as N	mg/L	1.38	MAC: 10	0.04
Nitrites as N	mg/L	<0.05	MAC: 1	0.05
NO ₃ + NO ₂ as N	mg/L	1.38	No Guideline	0.04
Sulfates	mg/L	70	AO: 500	0.9
Parameter	Units	Result	CDW Guideline Maximum	Detection Limit
Electrical Conductivity (at 25°C)	µS/cm	930	No Guideline	0.2
pH	pH	7.79	7.0 - 10.5	-
Hardness (as CaCO ₃)	mg/L	436	No Guideline	0.1
Total Alkalinity (as CaCO ₃)	mg/L	377	No Guideline	3
P-Alkalinity (as CaCO ₃)	mg/L	0	No Guideline	-
Hydroxide (as CaCO ₃)	mg/L	0	No Guideline	-
Total Dissolved Solids (calculated)	mg/L	544	AO: 500	4
Microbiology	Units	Result	CDW Guideline Maximum	
Total Coliform	CFU/100 mL	0	MAC: Zero / Absent	
Escherichia Coliform	CFU/100 mL	0	MAC: Zero / Absent	

WSH Labs (1992) Ltd. as per: _____

Sum of Cations	10.69	TDS / EC Ratio	0.59
	10.63		0.90
	1.01		0.89
Sum of Anions		Sodium Adsorption Ratio	
Ion Balance		Saturation Index	

Legalities

Lab Number: 94423

- (1) The results above are related only to the items analyzed.
- (2) Results apply to the sample(s) as received.
- (3) Analytical determinations were performed in Calgary, AB. 3851B - 21 Street NE.
- (4) Condition of sample(s) upon receipt:

Acceptable

- (5) External provider(s) of laboratory results:

References

- (1) Accredited by CALA to ISO/IEC 17025 for specific tests.
- (2) Guidelines for Canadian Drinking Water Quality are provided courtesy of Health Canada, September 2022.
https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/ewh-semt/alt_formats/pdf/pubs/water-eau/sum_guide-res_recom/summary-tables-sept-2022-eng.pdf

Acronyms & Nomenclatures

< denotes less than detection limit
> denotes greater than
AO = Aesthetic Objective
CDW = Canadian Drinking Water

MAC = Maximum Acceptable Concentration
OG = Operational Guidance Value
TNOC = Too Numerous To Count (>80 colonies)

Standard Methods for the Examination of Water and Wastewater 23rd Edition (2017)

Alkalinity. 2320 B. Titration Method.
Ammonia Nitrogen. 4500-NH3 C. Titrimetric Method.
Anions. 4110 B. Ion Chromatography with Chemical Suppression of Eluent Conductivity.
Biochemical Oxygen Demand. 5210 B. 5-Day BOD Test.
Color. 2120 B. Visual Comparison Method.
Conductivity. 2510 B. Laboratory Method.
Fluoride. 4500-F⁻ C. Ion-Selective Electrode Method.
Hardness. 2340 B. Hardness by Calculation.
Metals. 3125 B. Inductively Coupled Plasma / Mass Spectrometry (ICP-MS) Method.
Organic Carbon. 5310 B. High-Temperature Combustion Method.
pH. 4500-H⁺ B. Electrometric Method.
Total Kjeldahl Nitrogen / Nitrogen (Organic). 4500-Norg B. Macro-Kjeldahl Method.
Total Suspended Solids. 2540 D. Total Suspended Solids Dried at 103-105°C.
Turbidity. 2130 B. Nephelometric Method.

Hach Methods

Chemical Oxygen Demand. Hach Method 8000.
Chlorine, Total & Free. As per Hach CN66 Test Kit Instructions.
Coliforms, Total and E. coli. (Membrane Filtration). Hach Method 10029.
Ortho-Phosphate. Hach Method 8048.
Sulfides. Hach Method 8131.
Tannin & Lignin. Hach Method 8193.
Total Phosphate. Hach Method 8190.