

Chemical - Health & Toxicity

Parameter Name	Units/ Results	Max. Acceptable Concentration	Aesthetic Objective
Aluminum	N/A	none set	none set
Arsenic	µg/L 0.10	< 10	none set
Barium	µg/L 54.7	< 1000	none set
Boron	mg/L 0.1	< 5	none set
Cadmium	mg/L < 0.15	< 5	none set
Chromium	µg/L < 0.19	< 50	none set
Flouride *avg	N/A	< 1.5	none set
Lead	µg/L 0.07	< 10	none set
Nitrate *avg	N/A	< 45	none set
Selenium	µg/L < 1.13	< 10	none set
Uranium	µg/L 4.6	< 20	none set

Chemical - General / Water Quality

Parameter	Aesthetic Objectives *(mg/L)	Sample Results (average)	# of Sample Results Submitted / Required
Alkalinity	< 500	383 mg/L	1/1
Bicarbonate	No Objective	467 mg/L	1
Calcium	No Objective	116 mg/L	1/1
Carbonate	No Objective	0 mg/L	1/1
Chloride	< 250	37.7 mg/L	1/1
Conductivity	No Objective	1043 uS/cm	1/1
Hardness	< 800	533 mg/L	1/1
Magnesium	< 200	59 mg/L	1/1
PH	6.5-9.0	7.4 mg/L	1/1
Sodium	< 300	29 mg/L	1/1
Sulphate	< 500	142.1mg/L	1/1
Total dissolved solids	< 1500	858 mg/L	1/1

All waterworks serving less than 5000 persons are required to submit water samples for SE's General Chemical category once every two years if a ground water source and once per three months every second year if a surface water or blended surface/groundwater source. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, sodium, conductivity, hardness (as CaCO₃), magnesium, sulphate and total dissolved solids.

**Objectives apply to certain characteristics of or substances found in water for human consumptive or hygienic use. The presence of these substances will affect the acceptance of water by consumers and/or interfere with the practice of supplying good quality water. Compliance with drinking water aesthetic objectives is not mandatory as these objectives are in the range where they do not constitute a health hazards. The aesthetic objectives for several parameters (including hardness as CaCO₃, magnesium, sodium and total dissolved solids) consider regional differences in drinking water sources and quality.*

More information on water quality and sample submission performance may be obtained from:

Town of Naicam
PO Box 238 | Naicam, Sask. | S0K 2Z0
Phone: (306) 874-2280
Fax: (306) 874-5444
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Town of Naicam 2021 Drinking Water Quality and Compliance Report



Introduction

The Water Security Agency and the Ministry of Environment requires that at least once each year waterworks owners provide notification to consumers of the quality of water produced and supplied as well as information on the performance of the waterworks in submitting samples as required by a Minister's Order or Permit to Operate a waterworks. The following is a summary of the **Town of Naicam** water quality and sample submission compliance record for the **January 1, 2021 – December 31, 2021** time period. This report was completed on **February 15, 2022**. Readers should refer to Water Security Agency's Municipal Drinking Water Quality Monitoring Guidelines, June 2015, EPB 502 for more information on minimum sample submission requirements and the meaning of type of sample. Permit requirements for a specific waterworks may require more sampling than outlined in the department's monitoring guidelines. If consumers need more information on the nature and significance of specific water tests, for example, "what is the significance of Selenium in a water supply", more detailed information is available from:

http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index_e.html.



Water Quality Standards

Bacteriological Quality

Parameter/Location	Limit	Regular Samples Required	Regular Samples Submitted	# of positive regular samples submitted (%)
Total Coliform, E. coli and Background Bacteria	0 Organisms /100 mL Less than 200/100 mL	52	64	0

Water Disinfection

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

Parameter	Minimum Limit Chlorine (%)	Total Chlorine Residual Range	Free Chlorine Residual Range	# of Tests Required	# of Tests Submitted	# of Tests not meeting req.
Chlorine Residual 100%	0.1 mg/L free OR 0.5 mg/L total	0.42 – 3.9	0.45 – 2.17	52	64	0

Free Chlorine Residual for Water Entering Distribution System from Waterworks Records-From Water Treatment Plant Records

Parameter	Limit (mg/L)	Test Level Range	# of Tests Required	# of Tests Performed	# of Tests not meeting requirements
Free Chlorine Residual	at least 0.1	0.45 – 2.17	365	365	0

A minimum of 0.1 milligrams per litre (mg/L) free chlorine residual is required for water entering the distribution system. Tests are normally performed twice daily by the waterworks operator and are to be recorded in operation records. This data includes the number of free chlorine residual tests performed, the overall range of free chlorine residual (highest and lowest recorded values) and the number of tests and percentage of results not meeting the minimum requirement of 0.1 mg/L free chlorine residual.

Turbidity

From Water Treatment Plant Records

Parameter	Limit (NTU)	Total Level Range	# of Tests not meeting requirements	Maximum Turbidity (NTU)	# of Tests Required	# of Tests Performed
Turbidity	1.0	0.08– 0.66	0	0.66	365	365

Chemical Analysis

All waterworks serving less than 5000 persons are required to submit water samples for SE's Chemical Health category once every 2 years. The Chemical Health category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium. The last sample for Chemical General Health and Health & Toxicity analysis was submitted in 2021.