

Drinking Water Quality and Compliance
Annual Notice to Consumers

Introduction

Saskatchewan Environment (SE) 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 Preeceville water quality and sample submission compliance record for the period from January 1st to December 31st, 2023. This report was completed on June 30, 2024. Readers should refer to SE's "Municipal Drinking Water Quality Monitoring Guidelines, October 2020, EPB 202" 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/hecs-sesc/water/dwqsup.htm>

Water Quality Standards

Bacteriological Quality

Parameter/Location	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted (%)
Total Coliform and Background Bacteria	0 Organisms/100 ml Less than 200/100 ml	52	52	0%

Water Disinfection-

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

Parameter	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	#Tests Required	# Tests Submitted	# Adequate Chlorine (%)
Chlorine Residual	0.1 mg/L free OR .5 mg/L total	.51 – 1.59	.23 – 1.20	52	52	100%

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

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Free Chlorine Residual at least 0.1		.26 – 1.89	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 on a daily basis by the waterworks operator and are to be recorded in operation records. This date 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)	Test Level Range	# Tests Not Meeting Requirements	Maximum Turbidity (NTU)	# Test Required	# Test Performed
Turbidity	1.0	.19 – .65	0	1.0	365	365

Chemical Health Category

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 Health analysis was submitted on July 27th, 2023. Sample results indicated that the provincial drinking water quality standards were not exceeded.

Parameter	Sask. Municipal Max Accept	Units	Sample Result(s)	# Samples Exceeding Limit
Aluminum	None set	ug/L	<6.96	0
Antimony	None set	ug/L	<0.16	0
Arsenic	< 10	ug/L	0.10	0
Barium	< 1000	ug/L	155	0
Boron	< 5.0	mg/L	<0.1	0
Cadmium	< 5	ug/L	<0.15	0
Chromium	< 50	ug/L	<0.19	0
Copper	< 1000	ug/L	<8.29	0
Iron	< 0.3	mg/L	0.1	0
Lead	< 10	ug/L	0.10	0
Manganese	< 0.05	mg/L	<0.01	0
Selenium	< 10	ug/L	<1.13	0
Silver	None set	ug/L	<0.20	0
Uranium	< 20	ug/L	0.30	0
Zinc	< 5000	ug/L	7.4	0

General Chemical

Parameter	Sask. Guidelines	Units	Sample Results (average)	# Samples Exceeding Limit
Conductivity	<2300	uS/cm	664	0
PH	6.5 – 9.0	pH Units	7.8	0
Total Alkalinity	<500	mg/L CaCO3	327	0
Phenol Alkalinity	No Guideline	mg/L CaCO3	0.00	0
Bicarbonate	No Guideline	mg/L	399	0
Carbonate	No Guideline	mg/L	0	0
Hydroxide	No Guideline	mg/L	0	0
Chloride Dissolved	<250	mg/L	18.4	0
Fluoride Dissolved	<1.5	mg/L	0.14	0
Nitrate Dissolved	<45	mg/L	<0.2	0
Sulfate Dissolved	<500	mg/L	24.0	0
Calcium	No Guideline	mg/L	67	0
Magnesium	<200	mg/L	37	0
Potassium	No Guideline	mg/L	5	0
Sodium	<300	mg/L	18	0
Total Hardness	<800	mg/L CaCO3	320	0
Total dissolved Solids	<1500	mg/L	569	0
Iron	<0.3	mg/L	0.1	0
Manganese	<0.05	mg/L	0.02	0

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. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO₃), magnesium, sodium, sulphate and total dissolved solids.

The last sample for General Chemical analysis was submitted on July 18th, 2022. Sample results indicated that the provincial drinking water quality standards were not exceeded.

*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:

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