Drinking Water Quality and Compliance
SaskWater Elbow Potable Water Supply System
Station Number SK05HF0220
2025 Notification to Consumers

The Water Security Agency (WSA) 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 Permit to Operate a waterworks. The following is a summary of the SaskWater Elbow Potable Water Supply System water quality and sample submission compliance record for the January 1, 2025, to December 31, 2025, time period. This report was completed on February 2, 2026. Readers should refer to the WSA's Municipal Drinking Water Quality Monitoring Guidelines for more information on minimum sample submission requirements and types of samples. Permit requirements for a specific waterworks may require more sampling than outlined in the Agency's monitoring guidelines. If consumers need to know more about drinking water in Saskatchewan, more detailed information is available from: http://www.hc-sc.gc.ca/ewh-semt/pubs/water-eau/index-eng.php.

BACTERIOLOGICAL QUALITY

Parameter	Limit	Regular Samples Required	Regular Samples Submitted	# Positive of Regular Submitted
Total Coliform	0 Organisms/100 mL	52	52	0
E. Coli	0 Organisms/100 mL	52	52	0
Background Bacteria	Less than 200/100 mL	52	52	0

Analysis is performed on a single sample for all parameters mentioned above. All waterworks are required to submit samples for bacteriological water quality; the frequency of monitoring depends on the population served by the waterworks.

WATER DISINFECTION

Chlorine Residual – From Test Results Submitted with Bacteriological Samples from WTP

Parameter	Minimum Limit (either/or)	Range (mg/L)	# Tests Required	# Tests Submitted	# Adequate Chlorine
Free Chlorine	0.10 mg/L	0.65 – 1.43	52	52	52
Total Chlorine	0.50 mg/L	0.76 – 1.61	52	52	

A minimum of 0.10 milligrams per litre (mg/L) free chlorine residual **OR** 0.50 mg/L total chlorine residual is required at all times throughout the distribution system. An adequate chlorine is a result that indicates that the chlorine level is above the regulated minimum. A waterworks is required to submit chlorine residual test results on every bacteriological sample they submit.

Free Chlorine Residual for Water Entering Distribution System

Parameter	Minimum Limit (mg/L)	Range (mg/L)	Average (mg/L)	# Tests Required	# Tests Performed	% Adequate Chlorine
Free Chlorine	0.10	0.61 – 2.00	0.90	Continuous	Continuous	100

Residuals are continuously monitored and recorded. Tests routinely performed by waterworks operators are to be recorded in operation records.

Elbow Potable Water Supply System

TURBIDITY

Turbidity – From Test Results Submitted with Bacteriological Samples from the WTP

Parameter	Limit (NTU)	Range (NTU)	# Tests Required	# Tests Performed	# Exceeding Limit
Turbidity	No standard	0.09 – 0.34	52	52	0

Turbidity for Water Leaving the Filter

Parameter	Limit (NTU)*	Range (NTU)	95th Percentile (NTU)	# Tests Required	# Tests Performed	# of Months Exceeding 95th Percentile Limit
Turbidity	< 0.3 or 0.2 – 95% of measurements each month; not to exceed 0.3 or 0.2 for more than 12 consecutive hours; never >1.0	0.03 – 0.35	0.11	Continuous	Continuous	0

Turbidity in Water Entering the Distribution System

Parameter	Limit (NTU)	Range (NTU)	Average (NTU)	# Tests Required	# Tests Performed	# Exceeding Limit
Turbidity	Will Not Compromise Disinfection	0.09 – 0.34	0.16	156	157	0

Additional sampling is done for informational purposes.

Turbidity in Raw Water Entering the Water Treatment Plant

Parameter	Limit (NTU)	Range (NTU)	# Tests Required	# Tests Performed	# Exceeding Limit
Turbidity	No standard	0.27 – 3.80	52	147	0

Additional sampling is done for informational purposes.

Turbidity is a measure of water treatment efficiency. Turbidity measures the “clarity” of the drinking water and is reported in Nephelometric Turbidity Units (NTU). The turbidity is tested with a bench testing instrument, as well as continuously with an on-line analyzer.

CHEMICAL – TRIHALOMETHANES (THM)

Trihalomethanes are formed when chlorine reacts with organic matter in water. The four THM compounds are: chloroform, dibromochloromethane, bromodichloromethane (BCDM) and bromoform. The sum of the concentrations of these four components is referred to as Total Trihalomethanes. The limit for THM is a long-term objective based on an annual average of seasonal samples.

Parameter	Maximum Limit (mg/L)	Average (mg/L)	# Samples Required	# Samples Submitted
Total Trihalomethanes	0.100	0.047	4	4

CHEMICAL – HALOACETIC ACIDS (HAAs)

Haloacetic acids are formed when chlorine reacts with organic matter in water. The five regulated haloacetic acids are: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid. The sum of the concentrations of these five components is referred to as HAA5. The limit for HAA5 is a long-term objective based on an annual average of seasonal samples.

Parameter	Maximum Limit (mg/L)	Average (mg/L)	# Samples Required	# Samples Submitted
Haloacetic Acids 5	0.080	0.028	4	4

MICROCYSTIN LR and/or TOTAL MICROCYSTIN TOXINS

The Elbow Potable Water Supply System is required to sample for microcystin at the water treatment plant once (1) in August of each year and following detection of significant algal blooms affecting the water intake.

Parameter	Maximum Limit (mg/L)	Average (mg/L)	# Samples Required	# Samples Submitted	# Samples Exceeding Limit
Microcystin	0.0015	0.0001	1	1	0

CHEMICAL – GENERAL

SaskWater's Elbow Potable Water Supply System is required to submit samples for the WSA's General Chemical category once every year.

Parameter	MAC	AO *	Sample Results (mg/L)	# of Samples Required	# of Samples Submitted
Total Alkalinity (mg/L)		500	154	1	1
Bicarbonate (mg/L)	No Objective		186	1	1
Calcium (mg/L)	No Objective		50	1	1
Carbonate (mg/L)	No Objective		1	1	1
Chloride (mg/L)		250	19.1	1	1
Fluoride (mg/L)	1.5		0.14	1	1
Total Hardness (mg/L)		800	203	1	1
Hydroxide (mg/L)	No Objective		0	1	1
Magnesium (mg/L)		200	19	1	1
Nitrate (mg/L)	45		0.2	1	1
pH (pH units)		7.0 – 10.5	8.3	1	1
Potassium (mg/L)	No Objective		3	1	1
Sodium (mg/L)		300	28	1	1
Specific Conductivity (µs/cm)	No Objective		496	1	1
Sulphate (mg/L)		500	79.1	1	1
Total Dissolved Solids (mg/L)		1500	385	1	1

MAC – Maximum Acceptable Concentration AO – Aesthetic Objective

CHEMICAL – HEALTH

SaskWater's Elbow Potable Water Supply System is required to submit water samples for the WSA's Chemical Health category once every year.

Parameter	MAC (mg/L)	IMAC (mg/L)	AO * (mg/L)	Sample Results (mg/L)	# of Samples Required	# of Samples Submitted
Aluminum	No Objective			0.297	1	1
Antimony				<0.00016	1	1
Arsenic	0.010			0.001	1	1
Barium	1.0			0.0754	1	1
Boron		5.0		<0.1	1	1
Cadmium	0.005			<0.00015	1	1
Chromium	0.05			<0.00019	1	1
Copper			1.0	<0.00829	1	1
Iron			0.3	<0.1	1	1
Lead	0.01			<0.00007	1	1
Manganese			0.05	<0.01	1	1
Selenium	0.01			<0.00113	1	1
Silver				<0.00020	1	1
Uranium	0.02			0.0008	1	1
Zinc			5	<0.004	1	1

MAC – Maximum Acceptable Concentration IMAC – Interim Maximum Acceptable Concentration
AO – Aesthetic Objective

*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 health hazards.

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

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