Drinking Water Quality and Compliance Village of Elbow Distribution System Station Number SK05HF0014 2024 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 Village of Elbow Distribution System water quality and sample submission compliance record for the <u>January 1, 2024</u>, to <u>December 31, 2024</u>, time period. This report was completed on February 1, 2025. Readers should refer to the WSA's <u>Municipal Drinking Water Quality Monitoring Guidelines</u> 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	53	53	0
E. Coli	0 Organisms/100 mL	53	53	0
Background Bacteria	Less than 200/100 mL	53	53	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 Distribution System

Parameter	Minimum Limit (either/or)	Range (mg/L)	# Tests Required	# Tests Submitted	# Adequate Chlorine
Free Chlorine	0.10 mg/L	0.55 - 1.10	53	53	F 2
Total Chlorine	0.50 mg/L	0.74 - 1.24	53	53	53

A minimum of 0.10 milligrams per litre (mg/L) free chlorine residual <u>OR</u> 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 minimums. A waterworks is required to submit chlorine residual test results on every bacteriological sample they submit.

Free Chlorine Residual for Water Entering Distribution System

	Minimum		Average	# Tests	# Tests	% Adequate
Parameter	Limit (mg/L)	Range (mg/L)	(mg/L)	Required	Performed	Chlorine
Free Chlorine	0.10	0.56 - 1.20	0.91	366	Continuous	100

Residuals are monitored continuously and recorded.

Village of Elbow Distribution System

TURBIDITY

Turbidity - From Test Results Submitted with Bacteriological Samples from Distribution System

Paramete	r Limit (NTU)	Range (NTU)	# Tests	# Tests Performed	# Exceeding
raiamete	Limit (NTO)	Nange (NTO)	Required	renomieu	Limit
Turbidity	No standard	0.12 - 0.35	0	53	0

Turbidity is a measure of water treatment efficiency. Turbidity measures the "clarity" of the drinking water and is reported in Nephelometric Turbidity Units (NTU). Additional testing was done for informational purposes.

CHEMICAL - TRIHALOMETHANES (THM)

The Village of Elbow is not required to perform this testing in 2024 as part of the operating permit. The next testing is required in 2026. The 2023 results are shown for informational purposes.

Trihalomethanes are formed when chlorine reacts with organic matter in water. The four THM compounds are: chloroform, dibromochloromethane, bromodichloromethane, 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)	2023 Average (mg/L)	# Samples Required 2024	# Samples Submitted 2024
Trihalomethanes	0.100	0.061	0	0

CHEMICAL - HALOACETIC ACIDS (HAAs)

The Village of Elbow is not required to perform this testing in 2024 as part of the operating permit. The next testing is required in 2026. The 2023 results are shown for informational purposes.

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)	2023 Average (mg/L)	# Samples Required 2024	# Samples Submitted 2024	
Haloacetic Acids 5	0.080	0.035	0	0	

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

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