**Drinking Water Quality and Compliance**
**Village of Air Ronge**
**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 Air Ronge water quality and sample submission compliance record for the January 1, 2024, to December 31, 2024, time period. This report was completed on February 1, 2025. 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 | 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 in Distribution System – From Test Results Submitted with Bacteriological Samples**

| Parameter | Minimum Limit (either/or) | Range (mg/L) | # Tests Required | # Tests Submitted | # Adequate Chlorine |
|---|---|---|---|---|---|
| Free Chlorine | 0.10 mg/L | 0.23 – 0.85 | 53 | 53 | 53 |
| Total Chlorine | 0.50 mg/L | 0.48 – 1.07 | 53 | 53 | |

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 minimums. A waterworks is required to submit chlorine residual test results on every bacteriological sample they submit.

**Chlorine Residual for Water Throughout the Distribution System**

| Parameter | Minimum Limit (either/or) | Range (mg/L) | # Tests Required | # Tests Performed | % Adequate Chlorine |
|---|---|---|---|---|---|
| Free Chlorine | 0.10 mg/L | 0.19– 0.97 | 366 | 732 | 100 |
| Total Chlorine | 0.50 mg/L | 0.42 – 1.25 | 366 | 732 | |

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. Additional testing was done for informational purposes.

*Village of Air Ronge*

## TURBIDITY

**Turbidity in the Distribution System – From Test Results Submitted with Bacteriological Samples**

| Parameter | Limit (NTU) | Range (NTU) | Average (NTU) | # Tests Required | # Tests Performed | # Exceeding Limit |
|---|---|---|---|---|---|---|
| Turbidity | No standard | 0.06 – 0.25 | 0.12 | 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.

## FLUORIDE

**Fluoride – From Test Results Submitted with Bacteriological Samples (off-site testing)**

| Parameter | Maximum Limit (mg/L) | Average (mg/L) | Maximum (mg/L) | # Samples Required | # Samples Submitted | # Exceeding Limit |
|---|---|---|---|---|---|---|
| Fluoride | 1.50 | 0.49 | 0.60 | 53 | 53 | 0 |

## 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 |
|---|---|---|---|---|
| Trihalomethane | 0.100 | 0.045 | 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 HAAs is a long-term objective based on an annual average of quarterly samples.

| Parameter | Maximum Limit (mg/L) | Average (mg/L) | # Samples Required | # Samples Submitted |
|---|---|---|---|---|
| Haloacetic Acids | 0.080 | 0.029 | 4 | 4 |

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

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