

Drinking Water Quality and Compliance Annual Notice to Consumers

Introduction

Saskatchewan 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 Redvers water quality and sample submission compliance record for the year of January 2020 – December 2020 time period. This report was completed on January 12, 2021. Readers should refer to Environment's Municipal Drinking Water Quality Monitoring Guidelines, November 2002, 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/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 Submitted (%) |
|---------------------|----------------------|-----------------------------|------------------------------|--|
| Total Coliform and | 0 Organisms/100 mL | 52 | 53 (102%) | 0 (0%) |
| Background Bacteria | Less than 200/100 mL | | | |

Water Disinfection -

| Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples | | | | | | |
|--|------------------|----------------|----------------|----------|-----------|--------------|
| | Minimum | Total Chlorine | Free Chlorine | # Tests | # Tests | # Adequate |
| Parameter | Limit | Residual Range | Residual Range | Required | Submitted | Chlorine (%) |
| Chlorine | 0.1 mg/L free OR | | | | | |
| Residual | 0.5 mg/L total | .07-1.77 | .10-1.94 | 52 | 53 | 56 (100%) |

<u>Water Disinfection - Free Chlorine Residual for Water Entering Distribution System from Waterworks Records-</u> 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 | .36-2.50 | 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 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 | Test Level | # Tests Not Meeting | Maximum | # Tests | # Tests |
|-----------|-------|------------|---------------------|-----------------|----------|-----------|
| | (NTU) | Range | Requirements | Turbidity (NTU) | Required | Performed |
| Turbidity | 1.0 | .1579 | 0 | .79 | 365 | 365 |

Chemical - Health Category

Due 2021

General Chemical

Due 2021

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

Town of Redvers Box 249 Redvers, Sask. S0C 2H0

Phone: (306) 452-3533 Fax: (306) 452-3701 Email: bonnie@townofredvers.ca

| Parameter | Limit MAC(mg/L) | Limit IMAC (mg/L) | Sample Result(s) | # Samples Exceeding Limit | |
|-----------------|--------------------|----------------------|---------------------|------------------------------|-----------------------|
| Arsenic | 0.025 | | 0.70 | | * Results expressed |
| Barium | 1.0 | | 6.6 | | as average values |
| Boron | 5.0 | | 0.7 | | for communities or |
| Cadmium | 0.005 | | <0.15 | | waterworks that |
| Chromium | 0.05 | | <0.19 | | fluoridate drinking |
| Fluoride (avg*) | 1.5 | | 0.26 | | water supplies or |
| Lead | 0.01 | | < 0.07 | | those with elevated |
| Nitrate (avg.*) | 45.0 | | <0.2 | | concentrations of |
| Seleniuum | 0.01 | | <1.13 | | fluoride or nitrates. |
| Uranium | 0.02 | | 4.3 | | |

Chemical - Trihalomethanes (THMs)

| Parameter | THMs | Sample | # Samples | # Samples |
|-----------------|--------------|------------------|----------------------|-----------|
| | Limit (mg/L) | Result (average) | Required | Submitted |
| Trihalomethanes | 0.1 | N/A | 4 (1 every 3 months) | N/A |

Note: Only water supplies derived from surface water or groundwater under the influence of surface water are required to monitor for THMs. Waterworks using groundwater sources beyond the influence of surface water do not need to report THMs since sampling/analysis will not likely have been performed.

General Chemical

| 7011 | | | |
|--------------------------------|--|--|---|
| Aesthetic Objectives * (mg/l) | • | • | # Samples Submitted |
| | ` ', | ricquirea | Oublilitteu |
| 500 | 356 | 1 | |
| No Objective | 434 | 1 | |
| No Objective | 179 | 1 | |
| No Objective | 0 | 1 | |
| 250 | 299.0 | 1 | |
| No Objective | 2462 | 1 | |
| 800 | 591 | 1 | |
| 200 | 35 | 1 | |
| No Objective | 8.1 | 1 | |
| 300 | 348 | 1 | |
| 500 | 535.3 | 1 | |
| | | | |
| 1500 | 1841 | 1 | |
| | Aesthetic Objectives * (mg/L) 500 No Objective No Objective No Objective 250 No Objective 800 200 No Objective 300 500 | Aesthetic Sample Results Objectives * (mg/L) (average) 500 356 No Objective 434 No Objective 0 250 299.0 No Objective 2462 800 591 200 35 No Objective 8.1 300 348 500 535.3 | Aesthetic Sample Results # Samples Objectives * (mg/L) (average) Required 500 356 1 No Objective 434 1 No Objective 179 1 No Objective 0 1 250 299.0 1 No Objective 2462 1 800 591 1 200 35 1 No Objective 8.1 1 300 348 1_ 500 535.3 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, conductivity, hardness (as CaCO₃), magnesium, sodium, sulphate and total dissolved solids.

The last sample for General Chemical analysis was required on (insert year required) and submitted on (insert date) (use this statement if a groundwater supply). The last sets of quarterly samples for General Chemical analysis were required on (insert year or sample submission period required) and were submitted on (insert dates) (use this statement if a surface source or blended source). Sample results indicated that there were no exceedences of the provincial aesthetic objectives for the General Chemical category (use this statement if there were no exceedences). (OR) Samples exceeded provincial aesthetic objectives for the General Chemical category for the following parameters: (use only the applicable portions of the table below for which values have been 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:

Town/Village/Hamlet/Rural Municipality/Owner Name and Title

Postal Address

Telephone Number / Facsimile Number (if available)

E-mail address (if available)