

Canora Rural Public Utility Board

Drinking Water Quality and Compliance

2011

Introduction

Saskatchewan 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 Permit to Operate a Waterworks. The following is a summary of the Canora Rural Public Utility Board's water quality and sample submission compliance record for the year 2011. This report was completed on January 9th, 2012.

Readers should refer to Sask 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.

Water Quality Standards

Bacteriological Quality

Testing for Total Coliform – Limit 0 organisms / 100ml

Testing for Background Bacteria – less than 200/100ml

Regular Samples required – 48 total. Samples are taken monthly at the following locations:

- ◆ CRPUB's #1 or #2 pumphouse where water is taken directly from the Town of Canora and is rechlorinated as it enters the Rama/Good Spirit Lake main line.
- ◆ Burgis Beach cistern where water is rechlorinated and distributed within the hamlet.
- ◆ Canora Beach cistern where water is rechlorinated and distributed within the hamlet.
- ◆ The Mikado pumphouse before the water is rechlorinated in the Mikado cistern.

Regular Samples actually taken – 48 total.

of Samples testing positive for coliform or bacteria – None: 0 organisms / 100ml

Water Disinfection – Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples*

<u>Parameter</u>	<u>Minimum Limit</u>	<u>Total Chlorine Residual Range</u>	<u>Free Chlorine Residual Range</u>	<u># Tests Required</u>	<u># Tests Submitted</u>	<u># Adequate Chlorine (%)</u>
Chlorine Residual	Minimum Limit: <i>0.5 mg/L total chlorine OR 0.1 mg/L free chlorine</i>					
	Canora Beach & Burgis Beach	0.56 – 1.38	0.39 – 1.22	24	24	100%
	Rama /Good Spirit Lake Main line	0.05 - 2.20	0.42 – 2.15	12	12	100%
	Mikado line	0.00 – 0.23	0.00 – 0.28	12	12	17%

*Samples taken at the Mikado cistern before the water is re-chlorinated at Mikado have very low chlorine residuals most of the time. Maintaining chlorine residuals at the end of the line on a slow moving rural water pipeline is difficult, but the water entering the system is from a groundwater source treated and chlorinated by the Town of Canora – the water is coming into our closed system pipeline treated and disinfected.

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

Samples are taken daily at the following locations:

- ◆ CRPUB's #1 pumphouse where water is taken directly from the Town of Canora and is rechlorinated as it enters the Rama/Good Spirit Lake main line.
- ◆ Burgis Beach cistern where water is rechlorinated and distributed within the hamlet.
- ◆ Canora Beach cistern where water is rechlorinated and distributed within the hamlet.
- ◆ The Town of Canora treatment facility where water enters the Mikado line.

<u>Parameter</u>	<u>Limit</u>	<u>Test Level Range</u>	<u># Tests Performed</u>	<u># Tests Not Meeting Requirements</u>
Free Chlorine Residual	at least 0.1	0.20 to 2.2	1,459*	0 out of the 1,459.

* The main line was shut down one day in 2011 for maintenance and no sample was available on that day.

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.

**More information on water quality and sample submission performance may be obtained from:
The Canora Rural Public Utility Board
Box 898, Canora, Sask. SOA OLO
phone 563-5184 fax 563-5005
email rm274@sasktel.net**