

Drinking Water Quality and Compliance Town of Balgonie

Introduction

The Water Security Agency and the 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 Balgonie's water quality and sample submission compliance record for the **June 2021 to June 2022** time period. This report was completed on **June 8, 2022**. Readers should refer to Water Security Agency's Municipal Drinking Water Quality Monitoring Guidelines, June 2015, EPB 502 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	0 Organisms/100 mL	52	52	0
E. coli	0 Organisms/100 mL			
Background Bacteria	Less than 200/100 mL			

Water Disinfection –

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

Parameter	Minimum Limit	Total Chlorine Residual Range	Free Chlorine Residual Range	# Tests Required	# Tests Submitted	# Adequate Chlorine (%)
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	0.21-1.74	0.19-1.62		52	100%

Water Disinfection - Free Chlorine Residual for Water Entering Distribution System from Waterworks Records- 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	0.19-1.62	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 (NTU)	Test Level Range	# Tests Not Meeting Requirements	Maximum Turbidity (NTU)	# Tests Required	# Tests Performed
Turbidity	1.0	0.01-0.26	0	0.26	365	365

Chemical – Health Category

All waterworks serving less than 5000 persons are required to submit water samples for SE's Chemical Health category once every 2 years. The Chemical Health category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium.

The last sample for Chemical Health analysis was submitted on **January 21, 2022**. Sample results indicated that the provincial drinking water quality standards were not exceeded.

Environmental Services Analysis Report - Final

Invoice Number: 1150120	Collected Date: 17-Jan-2022 10:45 AM
Sample Location: Water Treatment Plant	Received: 18-Jan-2022 11:46 AM
Collected by: Chaun McCurdy	Reported: 21-Jan-2022 10:10 AM
Station #: SK05JF0619	Water Source: Distributed

Permit: 62525
PILOT BUTTE DIST.SYSTEM

Submitted By:	Invoice:
PILOT BUTTE TOWN OF	PILOT BUTTE TOWN OF
BOX 253	BOX 253
222 DIAMOND PLACE	222 DIAMOND PLACE
PILOT BUTTE, SK	PILOT BUTTE, SK
S0G 3Z0	S0G 3Z0

Analysis	Result	Unit	Sask Guideline	Test Comment	Fee
Health and Toxicity Panel					92.50
Boron	0.1	mg/L	< 5.0		
Aluminum (ICPMS)	<6.96	µg/L	No Guideline		
Arsenic (ICPMS)	1.2	µg/L	< 10		
Barium (ICPMS)	1.4	µg/L	< 1000		
Cadmium (ICPMS)	<0.15	µg/L	< 5		
Chromium (ICPMS)	<0.19	µg/L	< 50		
Copper (ICPMS)	<8.29	µg/L	< 1000		
Lead (ICPMS)	<0.07	µg/L	< 10		
Selenium (ICPMS)	<1.13	µg/L	< 10		
Uranium (ICPMS)	0.40	µg/L	< 20		
Zinc (ICPMS)	<4.00	µg/L	< 5000		
Antimony (ICPMS)	<0.16	µg/L	No Guideline		
Silver (ICPMS)	<0.20	µg/L	No Guideline		
General Chemistry/Water Quality Panel					104.00
Conductivity	111	µS/cm	< 2300		
pH	7.8	pH Units	7.0 - 10.5		
Total Alkalinity	40.3	mg/L CaCO3	< 500		
Phenol Alkalinity	0.00	mg/L CaCO3	No Guideline		
Bicarbonate	49	mg/L	No Guideline		
Carbonate	0	mg/L	No Guideline		
Hydroxide	0	mg/L	No Guideline		
Chloride Dissolved	1.1	mg/L	< 250		
Fluoride Dissolved	<0.05	mg/L	< 1.5		
Nitrate Dissolved	<0.2	mg/L	< 45		
Sulfate Dissolved	11.4	mg/L	< 500		
Total Hardness (Calculated)	27	mg/L CaCO3	< 800		
Total Dissolved Solids	84	mg/L	< 1500		
Iron	<0.1	mg/L	< 0.3		
Manganese	0.02	mg/L	< 0.05		
Calcium	6	mg/L	No Guideline		
Magnesium	3	mg/L	< 200		
Potassium	<1	mg/L	No Guideline		
Sodium	12	mg/L	< 300		