



SaskWater



March 26, 2015

(306) 933-1116

City of Martensville
P.O. Box 970
MARTENSVILLE SK S0K 2T0

File: MARTCTY
WS3-03-01-700

To Whom It May Concern:

Re: SaskWater's Saskatoon North Potable Water Supply System 2014 Consumer Notification

Please find enclosed the Drinking Water Quality and Compliance Report for the SaskWater Saskatoon North Potable Water Supply System 2014 Notice to Consumers. The operating records have been submitted to the Water Security Agency in accordance with The Water Regulations Act, 2002.

Please call me at (306) 933-1116 if you have any questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis Frey".

Dennis Frey, A. Sc. T.
Manager, District Operations

DF/sm

Enclosure

cc: Kevin Orchard, Supervisor, Regional Systems, SaskWater
Lee Reinhart, Environmental Project Officer, Water Security Agency

toll free: 1.888.230.1111 • saskwater.com



Drinking Water Quality and Compliance
SaskWater – Saskatoon North Treated Water Supply System
Station Number – SK05HH0025
2014 Notice 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 SaskWater – Saskatoon North Treated Water Supply System water quality and sample submission compliance record for the January 1, 2014 to December 31, 2014 time period. This report was completed on March 30, 2015. Readers should refer to the WSA's Municipal Drinking Water Quality Monitoring Guidelines, November 2002, EPB 202 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. This system is supplied with water by the City of Saskatoon. Results from these tests can be seen at www.saskatoon.ca. 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	# of Samples Submitted	# of Positive Regular Submitted
Total Coliform	0 Organisms/100mL	156	163	1
E. Coli	0 Organisms/100m/L	156	163	0
Background Bacteria	Less than 200/100mL	156	163	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.

One positive Total Coliform sample on April 7, 2014. Follow up repeat sample was negative.

WATER DISINFECTION

Chlorine Residual in Transmission System – From Test Results Submitted with Bacteriological Samples

Parameter	Minimum Limit (either/or)	Range (mg/L)	Average (mg/L)	# Tests Required	# Tests Submitted	# Adequate Chlorine
Total Chlorine	0.5 mg/L	1.13 – 2.08	1.68	156	163	163

A minimum of 0.5 mg/L Total Chlorine residual is required at all times throughout the distribution system. An adequate chlorine residual 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.

Total Chlorine Residual for Water in the Distribution System

Parameter	Limit (mg/L)	Range (mg/L)	# Tests Required	# Tests Performed	% Adequate Chlorine
Total Chlorine	At least 0.5	0.60 – 2.66	365	Continuous	100

Minimum 0.5 milligrams per litre (mg/L) total chlorine residual is required for water in a distribution system. Residuals are monitored continuously and tests normally performed on a daily basis by waterworks operators and are to be recorded in operation records.

TURBIDITY

Turbidity in Transmission System – From Test Results Submitted with Bacteriological Samples

Parameter	Limit (NTU)	Range (NTU)	Average (NTU)	# Tests Required	# Tests Performed	# Exceeding Limit
Turbidity	No Standard	0.09 – 0.38	0.19	156	163	0

Turbidity is a measure of water treatment efficiency. Turbidity measures the "clarity" of the drinking water and is generally reported in Nephelometric Turbidity Units (NTU). The turbidity is tested at the same frequency as the bacteriological testing with a bench testing instrument.

CHEMICAL – HEALTH

Water quality analysis was conducted on January 13, 2014 for information only. SaskWater is not required to perform this testing as part of the operating permit. Sample results indicated that the provincial drinking water quality standards were not exceeded.

Parameter	MAC (mg/L)	IMAC (mg/L)	AO* (mg/L)	Sample Results (mg/L)	# of Samples Required	# of Samples Submitted
Aluminum	No Objective			0.0077	0	1
Arsenic	0.010			0.0002	0	1
Barium	1.0			0.048	0	1
Boron		5.0		0.02	0	1
Cadmium	0.005			<0.00001	0	1
Chromium	0.05			<0.0005	0	1
Copper			1.0	0.0018	0	1
Iron			0.3	0.0042	0	1
Lead	0.01			0.0002	0	1
Manganese			0.05	<0.0005	0	1
Selenium	0.01			0.0005	0	1
Uranium	0.02			0.0013	0	1
Zinc			5	0.0027	0	1

MAC – Maximum Acceptable Concentrations

AO – Aesthetic Objective

IMAC – Interim Maximum Acceptable Concentrations

CHEMICAL – GENERAL

Water quality analysis was conducted on October 20, 2014 for information only. SaskWater is not required to perform this testing as part of the operating permit. Sample results indicated that the provincial drinking water quality standards were not exceeded.

Parameter	MAC	AO*	Sample Results	# of Samples Required	# of Samples Submitted
Total Alkalinity (mg/L)		500	119	0	1
Bicarbonate (mg/L)	No Objective		145	0	1
Calcium (mg/L)	No Objective		35	0	1
Carbonate (mg/L)	No Objective		<1	0	1
Chloride (mg/L)		250	11	0	1
Fluoride (mg/L)	1.5		0.68	0	1
Total Hardness (mg/L)		800	153	0	1
Hydroxide (mg/L)	No Objective		<1	0	1
Magnesium (mg/L)		200	16	0	1
Nitrate (mg/L)	45		1.5	0	1
pH (pH units)		6.5 - 9.0	8.17	0	1
Potassium (mg/L)	No Objective		2.6	0	1
Sodium (mg/L)		300	23	0	1
Specific Conductivity (µs/cm)	No Objective		417	0	1
Sulphate (mg/L)		500	78	0	1
Sum of Ions	No Objective		312	0	1
Total Dissolved Solids (mg/L)		1500	269	0	1

MAC – Maximum Acceptable Concentration

AO – Aesthetic Objective

*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.

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	Limit (mg/L)	Average (mg/L)	# Samples Required	# Samples Submitted
Total Trihalomethanes	0.100	0.059	4	4

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

SaskWater
200 - 111 Fairford Street East
Moose Jaw SK S6H 1C8
Toll Free: 1-888-230-1111
Fax : 306-694-3207
Email: customerservice@saskwater.com