



Drinking Water Quality and Compliance
SaskWater – Saskatoon Non-Potable East Pipeline
Station Number – SK05HG0400
2016 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 SaskWater – Saskatoon Non-Potable East Pipeline water quality and sample submission compliance record for the January 1, 2016 to December 31, 2016 time period. This report was completed on March 20, 2017. Readers should refer to the WSA's Municipal Drinking Water Quality Monitoring Guidelines, October 2012, 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. 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

Sampling from Distribution System

Parameter	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted
Total Coliform	0 Organisms/100mL	3	6	6
E. Coli	0 Organisms/100mL	3	6	5
Background Bacteria	Less than 200/100mL	3	6	6

Bacteriological sampling is required on the Saskatoon Non-Potable East Pipeline from Jan 1, 2016 until March 31, 2016. Analysis is performed on a single sample for all parameters mentioned above.

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	2.11 – 4.59	3.13	3	6	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

The Saskatoon Non-Potable Water Supply System – East is required to submit water samples for the WSA's Chemical Health category once every second year. 2016 is a required sampling year. The last sample for Chemical Health analysis was submitted on February 10, 2016. Sample results indicate 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		0.088	1	1
Arsenic	0.010			0.0012	1	1
Barium	1.0			0.089	1	1
Boron		5.0		0.02	1	1
Cadmium	0.005			0.00001	1	1
Chromium	0.05			<0.0005	1	1
Copper			1.0	0.02	1	1
Iron			0.3	0.12	1	1
Lead	0.01			0.0011	1	1
Manganese			0.05	0.027	1	1
Selenium	0.01			0.0005	1	1
Uranium	0.02			0.0013	1	1
Zinc			5	0.0011	1	1

MAC – Maximum Acceptable Concentrations

AO – Aesthetic Objective

IMAC – Interim Maximum Acceptable Concentrations

CHEMICAL – GENERAL

The Saskatoon Non-Potable Water Supply System – East is required to submit water samples for the WSA's General Chemical category once during the first three months of 2016. Additional sampling is done for informational purposes. The last sample for analysis was submitted on November 14, 2016. Sample results indicated that the provincial drinking water quality standards were not exceeded.

Parameter	MAC	AO *	Sample Results (mg/L)	# of Samples Required	# of Samples Submitted
Total Alkalinity (mg/L)		500	170	1	3
Bicarbonate (mg/L)	No Objective		205	1	3
Calcium (mg/L)	No Objective		46	1	3
Carbonate (mg/L)	No Objective		<1	1	3
Chloride (mg/L)		250	11	1	3
Fluoride (mg/L)	1.5		0.14	1	3
Total Hardness (mg/L)		800	200	1	3
Hydroxide (mg/L)	No Objective		<1	1	3
Magnesium (mg/L)		200	21	1	3
Nitrate (mg/L)	45		0.34	1	3
pH (pH units)		6.5 - 9.0	8.25	1	3
Potassium (mg/L)	No Objective		3.7	1	3
Sodium (mg/L)		300	33	1	3
Specific Conductivity (µs/cm)	No Objective		528	1	3
Sulphate (mg/L)		500	95	1	3
Sum of Ions (mg/L)	No Objective		415	1	3
Total Dissolved Solids (mg/L)		1500	321	1	3

MAC – Maximum Acceptable Concentration

AO – Aesthetic Objective

*Objectives apply to certain characteristics of or substances found in water for human 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.

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

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