

Drinking Water Quality and Compliance
Interlake Regional Water Board
Station Number SK05EG0309
2019 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 Interlake Regional Water Board's water quality and sample submission compliance record for the January 1, 2019 to December 31, 2019 time period. This report was completed on February 10, 2020. 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

Parameter	Limit	Regular Samples Required	Regular Samples Submitted	# Positive of Regular Submitted
Total Coliform	0 Organisms/100 mL	84	85	0
E. coli	0 Organisms/100 mL	84	85	0
Background Bacteria	Less than 200/100 mL	84	85	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.

Additional testing was done for informational purposes.

WATER DISINFECTION

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

Parameter	Minimum Limit (either/or)	Range (mg/L)	# Tests Required	# Tests Submitted	# Adequate Chlorine
Free Chlorine	0.1 mg/L	0.70 – 1.25	84	85	85
Total Chlorine	0.5 mg/L	0.83 – 1.61	84	85	

A minimum of 0.1 milligrams per litre (mg/L) free chlorine residual **OR** 0.5 mg/L total chlorine residual is required at all times throughout the distribution system. An adequate chlorine 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.

Additional testing was done for informational purposes.

Free Chlorine Residual for Water Entering Distribution System

Parameter	Limit (mg/L)	Range (mg/L)	# Tests Required	# Tests Performed	% Adequate Chlorine
Free Chlorine	At least 0.20	0.66 – 2.32	365	Continuous	100

Residuals are continuously monitored and recorded. Tests normally performed on a daily basis by waterworks operators are recorded in operation records.

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TURBIDITY

Turbidity for Water Entering the Distribution System

Parameter	Limit (NTU)	Range (NTU)	95 th Percentile	# Tests Required	# Tests Performed	Exceeding 95% Limit
Turbidity	< 1.0 – 95% of time	0.02 – 0.34	0.10	365	365	No

Turbidity in the Distribution System – From Test Results Submitted with Bacteriological Samples

Parameter	Limit (NTU)	Range (NTU)	# Tests Required	# Tests Performed	# Exceeding Limit
Turbidity	No standard	0.04 – 0.26	84	85	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). All waterworks are required to monitor turbidity at the water treatment plant. The turbidity is done daily with a bench testing instrument.

Additional testing was done for informational purposes.

CONDUCTIVITY

For Water Entering the Distribution System

Parameter	Limit	Range	# Tests Required	# Tests Submitted	# Exceeding Objective
Conductivity (µs/cm)	No Standard	112.9 – 188.5	39	365	0

Conductivity is normally tested on a daily basis by waterworks operators and recorded in operation records. Additional testing is done for informational purposes.

pH

For Water Entering the Distribution System

Parameter	Objective	Range	# Tests Required	# Tests Submitted	# Outside of Objective
pH	No Limit	6.75 – 7.82	39	365	0

The pH is normally tested on a daily basis by waterworks operators and recorded in operation records. Additional testing is done for informational purposes.

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ARSENIC

For Water Entering Distribution System

Parameter	Limit (mg/L)	Range (mg/L)	Average (mg/L)	#Tests Required	# Tests Submitted	# Exceeding Limit
Arsenic	0.010	<0.0001 - <0.0001	< 0.0001	4	4	0

CHEMICAL – GENERAL

Interlake Regional Water Board is required to submit water samples for the WSA’s General Chemical category once every second year. 2019 is a required sample year.

Parameter	MAC	AO *	Sample Results	# of Samples Required	# of Samples Submitted
Total Alkalinity (mg/L)		500	68	1	1
Bicarbonate (mg/L)	No Objective		83	1	1
Calcium (mg/L)	No Objective		1.7	1	1
Carbonate (mg/L)	No Objective		<1	1	1
Chloride (mg/L)		250	3.6	1	1
Fluoride (mg/L)	1.5		<0.01	1	1
Total Hardness (mg/L)		800	6	1	1
Hydroxide (mg/L)	No Objective		<1	1	1
Magnesium (mg/L)		200	0.4	1	1
Nitrate (mg/L)	45		<0.04	1	1
pH (pH units)		6.5 - 9.0	7.74	1	1
Potassium (mg/L)	No Objective		0.3	1	1
Sodium (mg/L)		300	30	1	1
Conductivity (µs/cm)	No Objective		135	1	1
Sulphate (mg/L)		500	4	1	1
Sum of Ions (mg/L)	No Objective		123	1	1
Total Dissolved Solids (mg/L)		1500	147	1	1

MAC – Maximum Acceptable Concentrations

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.

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CHEMICAL – HEALTH

The Interlake Regional Water Board is required to submit water samples for the WSA's Chemical Health category once every second year. 2019 is a required sample year.

Parameter	MAC (mg/L)	IMAC (mg/L)	AO (mg/L)	Sample Results (mg/L)	# of Samples Required	# of Samples Submitted
Aluminum	No Objective			0.015	1	1
Antimony	0.006			<0.0002	1	1
Arsenic	0.010			<0.0001	4	4
Barium	1.0			0.0020	1	1
Boron		5.0		0.20	1	1
Cadmium	0.005			0.00001	1	1
Chromium	0.05			0.0005	1	1
Copper			1.0	0.017	1	1
Iron			0.3	0.0082	1	1
Lead	0.01			0.0006	1	1
Manganese			0.05	0.0010	1	1
Selenium	0.01			<0.0001	1	1
Silver	No Objective			<0.00005	1	1
Uranium	0.02			<0.0001	1	1
Zinc			5	0.0033	1	1

MAC – Maximum Acceptable Concentrations

AO – Aesthetic Objective

IMAC – Interim Maximum Acceptable Concentrations

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

Interlake Regional Water Board
P.O. Box 240
Cochin SK S0M 0L0
Phone: (306) 386-3152