

Drinking Water Quality and Compliance

Cities Short Form – A Template for Annual Notice to Consumers

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 City of Martensville water quality and sample submission compliance records for the January 1st, 2013 to December 31st, 2013 time period. This report was completed on (*June 6, 2014*). Readers should refer to Saskatchewan Water Security Agency'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. 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

Note: Source water for the City of Martensville is supplied by Sask Water pipeline from the City of Saskatoon's treated water supply. The City of Martensville is responsible for monitoring and maintaining secondary disinfection of the distribution drinking water.

Water Quality Standards

Bacteriological Quality

Regular Parameter/Location (%)	Limit	Regular Samples	Regular Samples	# of Positive
		Required	Submitted	Submitted
Total Coliform and Background Bacteria	Organisms/100 mL Less than 200/100 mL	156*	131	0

*Sample frequency amended per license early in 2013

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

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Chlorine Residual	0.1 mg/L free OR 0.5 mg/L total	0.18-2.02	131	1

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

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Total Chlorine Residual	at least 0.5	0.89-2.02	729	0

Turbidity

Parameter	Limit (NTU)	Test Level Range	# Tests Not Meeting Requirements	Turbidity (NTU)	# Tests Required	# Tests Performed
Turbidity	<1.0	0.014-1.34	1	0.16	730	729

Chemical – Health Category

All waterworks serving 5000 persons or more are required to submit water samples for Saskatchewan Environment's "Chemical Health" based on population size. The "Chemical Health" category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium.



Samples for “Chemical Health” analysis were submitted on *(insert date)*. Sample results indicated that the provincial drinking water quality standards were not exceeded. *(Use this one if review indicates that there were no exceedances)*. **(OR)** Samples exceeded provincial water quality standards only for the following parameters: *(Use only the applicable portions of table below for which values have been exceeded)*.



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Parameter	Limit MAC (mg/L)	Limit IMAC (mg/L)	Sample Results	# Samples Exceeding Limit	# Samples Required	# Samples Submitted
Arsenic	0.025		_____	_____	NA	_____
Barium	1.0		_____	_____	NA	_____
Boron		5.0	_____	_____	NA	_____
Cadmium	0.005		_____	_____	NA	_____
Chromium	0.05		_____	_____	NA	_____
Fluoride (avg.*)	1.5		_____	_____	NA	_____
Lead	0.01		_____	_____	NA	_____
Nitrate (avg.*)	45.0		_____	_____	NA	_____
Selenium	0.01		_____	_____	NA	_____
Uranium	0.02		_____	_____	NA	_____

* Results expressed as average values for communities or waterworks which fluoridate drinking water supplies or those with elevated concentrations of fluoride or nitrates.

Chemical – Trihalomethanes

Parameter	Trihalomethanes Limit (mg/L)	Sample Result (average)	# Samples Required	# Samples Submitted
Trihalomethanes	0.1	_.038	4 (1 every 3 months)	4

(Note: Only water supplies derived from surface water or groundwater under the influence of surface water are required to monitor for trihalomethanes. Waterworks using groundwater sources beyond the influence of surface water do not need to report trihalomethanes, since sampling and analysis will not likely have been performed).

Chemical – Pesticides

All waterworks serving 5000 persons or more are required to submit water samples for Saskatchewan Environment's "Pesticides" category. The frequency of sample submission depends on the number of persons supplied by the waterworks. The "Pesticides" category includes analysis for atrazine, bromoxynil, carbofuran, chlorpyrifos, dicamba, 2,4-D, diclofop-methyl, dimethoate, malathion, pentachlorophenol, picloram and trifluralin.

Samples for pesticide analysis were submitted on (*insert date*). Sample results indicated that the provincial drinking water quality standards were not exceeded. (*Use this one if review indicates that there were no exceedences*). **(OR)** Samples exceeded provincial water quality standards only for the following parameters: (*Use only the applicable portions of table below for which values have been exceeded*).

Parameter	Limit MAC (mg/L)	Limit IMAC (mg/L)	Sample Result	# Samples Exceeding MAC/IMAC	#Samples Required	# Samples Submitted
Atrazine		0.005	_____	_____	NA	_____
Bromoxynil		0.005	_____	_____	NA	_____
Carbofuran	0.09		_____	_____	NA	_____
Chlorpyrifos	0.09		_____	_____	NA	_____
Dicamba	0.12		_____	_____	NA	_____
2,4-D*		0.1	_____	_____	NA	_____
Diclofop-methyl	0.009		_____	_____	NA	_____
Dimethoate		0.2	_____	_____	NA	_____
Malathion	.19		_____	_____	NA	_____
Pentachlorophenol	0.06		_____	_____	NA	_____
Picloram		0.19	_____	_____	NA	_____
Trifluralin		0.045	_____	_____	NA	_____



Chemical – Cyanide and Mercury

Parameter	Limit MAC (mg/L)	Sample Results	# Samples Exceeding MAC	# Samples Required	# Samples Submitted
Cyanide	0.2	_____	_____	NA	_____
Mercury	0.001	_____	_____	NA	_____

Chemical – Synthetic Organic Chemicals

All waterworks serving 5000 persons or more are required to submit water samples for Saskatchewan Environment's "Synthetic Organic Chemicals" category. The frequency of sample submission depends on the number of persons supplied by the waterworks. The "Synthetic Organic Chemicals" category includes analysis for Benzene, Benzo(a)pyrene, Carbon tetrachloride, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, Dichloromethane, 2,4-Dichlorophenol, Monochlorobenzene, 2,3,4,6-Tetrachlorophenol, Trichloroethylene, 2,4,6-Trichlorophenol and Vinyl Chloride.

Samples for synthetic organic chemicals were submitted on *(insert dates)*. Sample results indicated that the provincial drinking water quality standards were not exceeded. *(Use this one if review indicates that there were no exceedences)*. **(OR)** Samples exceeded provincial water quality standards only for the following parameters: *(Use only the applicable portion of table below for which values have been exceeded)*.

Parameter/Location	Limit MAC	Limit IMAC	Sample Result(s)	# Samples Exceeding Limit	# Samples Required	# Samples Submitted
Benzene	0.005	_____	_____	_____	NA	_____
Benzo(a)pyrene	0.00001	_____	_____	_____	NA	_____
Carbon Tetrachloride	0.005	_____	_____	_____	NA	_____
Cichlorobenzene, 1,2	0.02	_____	_____	_____	NA	_____
Dichlorobenzene, 1,4	0.005	_____	_____	_____	NA	_____
Dichloroethylene, 1,1	0.014	_____	_____	_____	NA	_____
Dichloromethane	0.05	_____	_____	_____	NA	_____
Dichlorophenol, 2,4	0.9	_____	_____	_____	NA	_____
Monochlorobenzene	0.08	_____	_____	_____	NA	_____
Tetrachlorophenol, 2,3,4,6	0.1	_____	_____	_____	NA	_____
Trichloroethylene	0.05	_____	_____	_____	NA	_____
Trichlorophenol, 2,4,6	0.005	_____	_____	_____	NA	_____
Vinyl Chloride	0.002	_____	_____	_____	NA	_____

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

City of Martensville
Joe Doxey, Director of Infrastructure & Planning
S0K 2T0
306-931-2166
306-933-2468

(Note: This short form may be used for communities or waterworks serving a population of 5000 or more persons).

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