Drinking Water Quality and Compliance for *The Village of Jansen* 2023 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 Village of Jansen water quality and sample submission compliance record for the Jan 1 – Dec 31, 2023 time period. This report was completed on March 19, 2024 (must be completed before June 30 each year on a calendar year based reporting frequency). 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	26	26	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			# Adequate Chlorine (%)	
Chlorine	0.1 mg/L free OR						
Residual	0.5 mg/L total	0.74 - 2.17	0.34 - 1.48	26	26	0	

Water Disinfection - Free Chlorine Residual for Water Entering Distribution System from Waterworks Records-From Water Treatment Plant Records

		Test Level	# Tests	# Tests Not Meeting	
Parameter	Limit (mg/L)	Range	Performed	Requirements	
Free Chlorine Residual	at least 0.1	0.82 – 1.55	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	Test Level	# Tests Not Meeting	Maximum	# Tests	# Tests
	(NTU)	Range	Requirements	Turbidity (NTU)	Required	Performed
Turbidity	1.0	0.13 - 0.37	0	0.82	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 Oct 25, 2022. Sample results indicated that the provincial drinking water quality standards were not exceeded





Daramatar	Limit	Limit	Sample	# Samples	
Parameter	MAC(mg/L)	IMAC (mg/L)	Result(s)	Exceeding Limit	
Arsenic	0.010				* Results expressed
Barium	1.0				as average values
Boron		5.0			for communities or
Bromate	0.01				waterworks that
Cadmium	0.005				fluoridate drinking
Chlorate	1.0				water supplies or
Chlorite	1.0				those with elevated
Chromium	0.05				concentrations of
Fluoride (avg*)	1.5				fluoride or nitrates.
Lead	0.01				_
Nitrate (avg.*)	45.0				
Seleniuum	0.01				_
Uranium	0.02				_

General Chemical

				
Parameter	Aesthetic Objectives * (mg/L)	Sample Results (average)		# Samples Submitted
		(average)	Required	Submitted
Alkalinity	500			
Bicarbonate	No Objective			
Calcium	No Objective			
Carbonate	No Objective			
Chloride	250			
Conductivity	No Objective			
Hardness	800	979 mg/L_	1	1
Magnesium	200			
PH	No Objective			
Sodium	300			
Sulphate	500	694.5 mg/L_	1	1
Total dissolved		~ –		
Solids	1500	1662 mg/L	1	1

All waterworks serving less than 5000 persons are required to submit water samples for SE's General Chemical category once every two years if a ground water source and once per three months every second year if a surface water or blended surface/groundwater source. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO₃), magnesium, sodium, sulphate and total dissolved solids.

The last sample for General Chemical analysis was required on November 30, 2022 and submitted on October 25, 2022. Samples exceeded provincial aesthetic objectives for the General Chemical category for the following parameters: Hardness, sulphate, solids (please see table above).

*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.

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

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306-364-2013 fax: 306-364-2088 jansen@jansen.ca

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