2022 Annual Report for Water Works (R. 170/03, Sec. 11)

Drinking-Water System Number:	**220003252**
Drinking-Water System Name:	**Orangeville Drinking Water System**
Drinking-Water System Owner:	The Corporation of the Town of Orangeville
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 to December 31, 2022

Complete if your Category is Large Municipal Residential or Small Municipal Residential	**Complete for all other Categories.**
Does your Drinking-Water System serve more than 10,000 people? Yes [X] No [ ] **Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]** **Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.** Town of Orangeville Municipal Offices 87 Broadway Orangeville ON L9W 1K1	**Number of Designated Facilities served: Not Applicable** **Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]** **Number of Interested Authorities you report to: Not Applicable** **Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]**

Note: For the following tables below, additional rows or columns may be added, or an appendix may be attached to the report

List all Drinking-Water Systems (if any), which receive all their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	N/A

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all its drinking water?
Yes [ ] No [ ] Not Applicable [X]

Indicate how you notified system users that your annual report is available and is free of charge.

- **[X] Public access/notice via the web**
- **[X] Public access/notice via Government Office**
- **[X] Public access/notice via a newspaper**
- **[ ] Public access/notice via Public Request**
- **[ ] Public access/notice via a Public Library**
- **[ ] Public access/notice via other method** _____

Describe your Drinking-Water System

The Orangeville drinking water system consists of 12 water supply wells, two grade-level water storage reservoirs, one elevated water storage reservoir, one water storage standpipe, and approximately 129.4 km of watermains, 1,056 fire hydrants and 1,288 watermain valves. Ultraviolet (UV) light and liquid sodium hypochlorite are used at 9 wells for primary disinfection. Liquid sodium hypochlorite is used for primary disinfection at the remaining 3 wells. Liquid sodium silicate is also used at two wells for iron sequestration. The system currently has approximately 10,919 residential, industrial, commercial, and institutional water service connections.

List all water treatment chemicals used over this reporting period

1. Liquid sodium hypochlorite for single-stage primary disinfection at 3 wells.
2. Ultraviolet (UV) light and liquid sodium hypochlorite for two-stage primary disinfection at 9 wells.
3. Liquid sodium silicate for iron sequestration at 2 wells.
4. Liquid potassium permanganate for pre-filtration iron and manganese oxidation at 1 well.
5. Liquid sodium hypochlorite for pre-filtration iron oxidation at 8 wells.
6. Liquid sodium hypochlorite for secondary disinfection throughout the distribution system.
7. Cartridge and/or pressure filters for water treatment at 9 wells.

Were any significant expenses incurred to?

- **[X]** Install required equipment
- **[X]** Repair required equipment
- **[X]** Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

1. Rehabilitation and recoating work completed at municipal water storage standpipe.
2. Replace submersible pump and motor at municipal water supply Well 5A.
3. Install stainless steel liners inside the casings at municipal water supply Wells 9A and 9B.

Abbreviations used in this report

1. ND indicates the sample result was Not Detected.
2. N/A means not applicable.
3. mg/L means milligrams per litre; or approximately one part per million (ppm).
4. ug/L means micrograms per litre; or approximately one part per billion (ppb).
5. CFU/100 ml means Colony Forming Units (viable bacterial cells) per 100 ml of sample.
6. MPN/100 ml means Most Probable Number (viable bacterial cells) per 100 ml of sample.
7. * preceding or following a test result in the tables indicates the result is less than the laboratory method detection limit for that specific parameter (not detectable).
8. < means less than.
9. < MDL following a test result in the tables indicates the result is less than the laboratory method detection limit for that specific parameter (not detectable).

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date and AWQI No.	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date or Date Resolved
15 Mar 2022 157998	Improperly disinfected water discharged to the distribution system due to UV communications failure. UV system not operating while water discharged to the system. [R. 170/03, S. 16-4]	0	W/m^2	Sample and test for microbiological parameters. Repeat sampling and testing after 24 hours. IT Staff investigated and corrected the UV communications failure. Testing results were within regulated microbiological standards. No further action required.	22 Mar 2022
13 Apr 2022 158205	Watermain depressurizations due to significant watermain break. [R. 170/03, S. 16-4]	< 138	kPa	Repairs completed, affected watermains flushed, chlorine residuals checked, and water samples collected for microbiological testing. Testing results were within regulated microbiological standards. No further action required.	18 Apr 2022
19 Dec 2022 161004 161009	Arsenic concentration > 10 ug/L in a distribution system water sample. The same sample was analyzed twice by the lab, resulting in two different AWQI numbers and slightly different test results. [Reg. 170/03, S. 16-3(1)1]	21.0 / 19.6	ug/L	Resample and test as required. Resample result was 2.3 ug/L. No further action required.	21 Dec 2022

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC / Background Samples	Range of HPC / Background Results (min #)-(max #)
Well 2A					
Raw *(1 source well)*	25	0-0	0-1	25 / 25	0-20 / 0-1
Treated *(point of entry)*	21	0-0	0-0	21 / 21	0-20 / 0-5
Wells 5 and 5A					
Raw *(2 source wells)*	103	0-0	0-0	103 / 103	0-170 / 0-0
Treated *(point of entry)*	52	0-0	0-0	52 / 52	0-20 / 0-0

	Number of Samples	Range of E.Coli or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC / Background Samples	Range of HPC / Background Results (min #)-(max #)
Well 6					
Raw *(1 source well)*	52	0-0	0-0	52 / 52	0-20 / 0-0
Treated *(point of entry)*	52	0-0	0-0	52 / 52	0-10 / 0-0
Well 7					
Raw *(1 source well)*	52	0-0	0-0	52 / 52	0-220 / 0-1
Treated *(point of entry)*	52	0-0	0-0	52 / 52	0-10 / 0-0
Wells 8B and 8C					
Raw *(2 source wells)*	104	0-0	0-0	104 / 104	0-97 / 0-1
Treated *(point of entry)*	50	0-0	0-0	50 / 50	0-30 / 0-0
Wells 9A and 9B					
Raw *(2 source wells)*	94	0-0	0-0	94 / 94	0-40 / 0-69
Treated *(point of entry)*	47	0-0	0-0	47 / 47	0-10 / 0-78
Well 10					
Raw *(1 source well)*	52	0-0	0-0	52 / 52	0-0 / 0-0
Treated *(point of entry)*	52	0-0	0-0	52 / 52	0-280 / 0-0
Well 11					
Raw *(1 source well)*	50	0-0	0-0	50 / 50	0-30 / 0-6
Treated *(point of entry)*	50	0-0	0-0	50 / 50	0-90 / 0-0
Well 12					
Raw *(1 source well)*	52	0-0	0-0	52 / 52	0-50 / 0-0
Treated *(point of entry)*	52	0-0	0-0	52 / 52	0-57 / 0-0
Orangeville Distribution System					
Distribution *(routine)*	594	0-0	0-0	593 / 594	0-120 / 0-19
Distribution *(non-routine)*	118	0-0	0-0	117 / 117	0-17 / 0-0

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)
Well 2A		
Turbidity (NTU) *(Raw Water, 1 Well)*	27	0.01 – 0.74
Turbidity (NTU) *(Filter Effluent Line)*	8760	0.98 (max.)
Pressure Differential (kPa) *(5-micron Cartridge Filter)*	8760	5.77 (max.)
Chlorine (mg/L) *(Sch. 7-2(1), Point of Entry, 2-stage Disinfection)*	8760	0.60 (min.)
Wells 5 and 5A		
Turbidity (NTU) *(Raw Water, 2 Wells)*	111	0.04 – 0.70
Chlorine (mg/L) *(Sch. 7-2(1), Point of Entry, 2-stage Disinfection)*	8760	1.30 (min.)
Well 6		
Turbidity (NTU) *(Raw Water, 1 Well)*	50	0.05 – 0.66
Chlorine (mg/L) *(Sch. 7-2(1), Point of Entry)*	8760	0.46 – 2.00
Well 7		
Turbidity (NTU) *(Raw Water, 1 Well)*	57	0.10 – 0.98
Chlorine (mg/L) *(Sch. 7-2(1), Point of Entry)*	8760	0.63 – 2.37
Wells 8B and 8C		
Turbidity (NTU) *(Raw Water, 2 Wells)*	111	0.10 – 1.90
Turbidity (NTU) *(Filter Effluent Line)*	8760	1.00 (max.)
Pressure Differential (kPa) *(5-micron Cartridge Filter)*	8760	10.00 (max.)
Chlorine (mg/L) *(Sch. 7-2(1), Point of Entry, 2-stage Disinfection)*	8760	0.41 (min.)
Wells 9A and 9B		
Turbidity (NTU) *(Raw Water, 2 Wells)*	99	0.06 – 1.22
Chlorine (mg/L) *(Sch. 7-2(1), Point of Entry, 2-stage Disinfection)*	8760	0.40 (min.)

NOTE: For continuous monitors use 8760 as the number of samples.

	Number of Grab Samples	Range of Results (min #)-(max #)
Well 10		
Turbidity (NTU) *(Raw Water, 1 Well)*	57	0.07 – 0.69
Chlorine (mg/L) *(Sch. 7-2(1), Point of Entry, 2-stage Disinfection)*	8760	0.95 (min.)
Well 11		
Turbidity (NTU) *(Raw Water, 1 Well)*	53	0.03 – 0.95
Chlorine (mg/L) *(Sch. 7-2(1), Point of Entry)*	8760	0.42 – 2.99
Well 12		
Turbidity (NTU) *(Raw Water, 1 Well)*	58	0.07 – 0.76
Chlorine (mg/L) *(Sch. 7-2(1), Point of Entry, 2-stage Disinfection)*	8760	1.36 (min.)
Orangeville Distribution System		
Chlorine (mg/L) *(Sch. 7-2(3), Dist. System)*	868	0.72 – 2.01

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order, or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Minimum Result	Unit of Measure
Well 2A Treatment				
01 Dec 2020	Ultraviolet Intensity (UVI)	2022	42.8	W/m^2
Wells 5 and 5A Treatment				
01 Dec 2020	Ultraviolet Dose (UVD)	2022	40.0 [(a)]	mJ/cm^2
01 Dec 2020	Ultraviolet Transmittance (UVT)	2022	90.0	%
Wells 8B and 8C Treatment				
01 Dec 2020	Ultraviolet Intensity (UVI)	2022	0.0	W/m^2
Wells 9A and 9B Treatment				
01 Dec 2020	Ultraviolet Intensity (UVI)	2022	40.0	W/m^2
Well 10 Treatment				
01 Dec 2020	Ultraviolet Intensity (UVI)	2022	40.2	W/m^2
Well 12 Treatment				
01 Dec 2020	Ultraviolet Dose (UVD)	2022	54.5 [(a)]	mJ/cm^2

Date of legal instrument issued	Parameter	Date Sampled	Minimum Result	Unit of Measure
01 Dec 2020	Ultraviolet Transmittance (UVT)	2022	90.0	%

(a) Trojan UV Swift 12 units for Wells 5, 5A and 12 can maintain required UV dose based on real time values for flow, intensity, and transmittance.

Summary of testing under Schedule 15.1-5 (10) during this reporting period
(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Parameter Tested	Number of Samples	Range of Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Distribution *(Sentry Monitoring, Winter 2022)*	Lead	Not tested in 2022.		ug/L	N/A
	Alkalinity	4	263 - 267	mg/L	N/A
	pH	4	7.07 – 7.15	none	N/A
Distribution *(Sentry Monitoring, Summer 2022)*	Lead	Not tested in 2022.		ug/L	N/A
	Alkalinity	7	219 - 266	mg/L	N/A
	pH	4	7.32 – 7.41	none	N/A

Well 2A Treated Water: (Point of entry sample results)

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

The lead testing summarized in this table is separate from the requirements of Regulation 170/03, Schedule 15.1, and has not been completed to satisfy any regulatory requirements. The lead results presented above are for supplemental information purposes only.

Parameter Name	***ODWQS***	***Location*** / ***Matrix*** / ***Sampling Date*** / ***Units***	**Well 2A**			
			Treated Water 28-Apr-22 ***Result***	Treated Water 30-May-22 ***Result***	Treated Water 18-Jul-22 ***Result***	Treated Water 15-Aug-22 ***Result***
Antimony (Sb)	6	µg/L	<0.60	<0.60	<0.6	<0.6
Arsenic (As)	10	µg/L	<1.0	<1.0	<0.2	<0.2
Barium (Ba)	1000	µg/L	**74**	**78**	**81.9**	**80.6**
Boron (B)	5000	µg/L	<50	<50	**19**	**14**
Cadmium (Cd)	5	µg/L			**0.11**	
Chromium (Cr)	50	µg/L	<1.0	<1.0	**0.31**	**0.28**
Fluoride (F)	1.5	mg/L	**0.19**	**0.2**	**0.25**	**0.22**
Lead (Pb)	10	µg/L	<1.0	<1.0	**0.02**	**0.02**
Mercury	1	µg/L			<0.01	
Nitrate (as N)	10	mg/L	**4.49**	**4.67**	**3.17**	**3.15**
Nitrite (as N)	1	mg/L	<0.010	<0.010	**0.005**	<0.003
Selenium (Se)	50	µg/L	<1.0	<1.0	**0.14**	**0.08**
Sodium (Na)	**(200)**	mg/L	**33.6**	**34.2**	**31.3**	**35.4**
Uranium (U)	20	µg/L	<2.0	<2.0	**0.729**	**0.817**

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bracketed Standard	Denotes an aesthetic objective
Bold	Above the Detection Limit

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* *Matrix* *Sampling Date* *Units*	**Well 2A** Treated Water 18-Jul-22 *Result*
1,1-Dichloroethylene (vinylidene chloride)	14	µg/L	<0.33
1,2-Dichlorobenzene	200	µg/L	<0.41
1,2-Dichloroethane	5	µg/L	<0.35
1,4-Dichlorobenzene	5	µg/L	<0.36
2,3,4,6-Tetrachlorophenol	100	µg/L	<0.20
2,4,6-Trichlorophenol	100	µg/L	<0.25
2,4-D	100	µg/L	<0.19
2,4-Dichlorophenol	900	µg/L	<0.15
Alachlor	5	µg/L	<0.02
Atrazine	-	µg/L	<0.10
Atrazine + N-dealkylated metabolites	5	µg/L	<0.01
Azinphos-methyl	20	µg/L	<0.05
Benzene	1	µg/L	<0.32
Benzo(a)pyrene	0.01	µg/L	<0.004
Bromoxynil	5	µg/L	<0.33
Carbaryl	90	µg/L	<0.05
Carbofuran	90	µg/L	<0.01
Carbon Tetrachloride	2	µg/L	<0.17
Chlorpyrifos	90	µg/L	<0.02
Diazinon	20	µg/L	<0.02
Dicamba	120	µg/L	<0.20
Dichloromethane	50	µg/L	<0.35
Diclofop-methyl	9	µg/L	<0.40
Dimethoate	20	µg/L	<0.06
Diquat	70	µg/L	<1
Diuron	150	µg/L	<0.03
Glyphosate	280	µg/L	<1
Malathion	190	µg/L	<0.02
MCPA	100	µg/L	<0.00012
Metolachlor	50	µg/L	<0.01
Metribuzin	80	µg/L	<0.02
Monochlorobenzene	80	µg/L	<0.3
Paraquat	10	µg/L	<1
Pentachlorophenol	60	µg/L	<0.15
Phorate	2	µg/L	<0.01
Picloram	190	µg/L	<1
Prometryne	1	µg/L	<0.03
Simazine	10	µg/L	<0.01
Terbufos	1	µg/L	<0.01
Tetrachloroethylene (perchloroethylene)	10	µg/L	<0.35
Total PCBs	3	µg/L	<0.04
Triallate	230	µg/L	<0.01
Trichloroethylene	5	µg/L	<0.44
Trifluralin	45	µg/L	<0.02
Vinyl Chloride	1	µg/L	<0.17

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bold	Above the Detection Limit

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

Wells 5 and 5A Treated Water: *(Point of entry sample results)*

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter Name	***ODWQS***	***Location*** / ***Matrix*** / ***Sampling Date*** / ***Units***	**Well 5**				
			Treated Water 17-Jan-22 ***Result***	Treated Water 17-Jan-22 ***Result***	Treated Water 11-Apr-22 ***Result***	Treated Water 18-Jul-22 ***Result***	Treated Water 17-Oct-22 ***Result***
Antimony (Sb)	6	µg/L	<0.60	<0.60	<0.60	<0.6	<0.6
Arsenic (As)	10	µg/L	<1.0	<1.0	<1.0	**0.3**	**0.2**
Barium (Ba)	1000	µg/L	**83**	**75**	**73**	**71.2**	**80.6**
Boron (B)	5000	µg/L	<50	<5	<50	**15**	**11**
Cadmium (Cd)	5	µg/L		<0.10			**0.003**
Chromium (Cr)	50	µg/L	<1.0	<1.0	<1.0	**0.88**	**0.6**
Fluoride (F)	1.5	mg/L	<0.10		<0.10	**0.13**	**0.12**
Lead (Pb)	10	µg/L	<1.0		<1.0	<0.01	<0.01
Mercury	1	µg/L		<0.10			
Nitrate (as N)	10	mg/L	**5.21**		**5.49**	**5.72**	**5.9**
Nitrite (as N)	1	mg/L	<0.010		<0.010	<0.003	<0.003
Selenium (Se)	50	µg/L	<1.0	<5.0	<1.0	**0.15**	**0.14**
Sodium (Na)	**(200)**	mg/L	**55.9**		**40.7**	**39.8**	**45.9**
Uranium (U)	20	µg/L	<2.0	<0.10	<2.0	**0.48**	**0.538**

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bracketed Standard	Denotes an aesthetic objective
Bold	Above the Detection Limit

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Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* *Matrix* *Sampling Date* *Units*	**Well 5** Treated Water 17-Jan-22 *Result*
1,1-Dichloroethylene (vinylidene chloride)	14	µg/L	<0.50
1,2-Dichlorobenzene	200	µg/L	<0.50
1,2-Dichloroethane	5	µg/L	<0.50
1,4-Dichlorobenzene	5	µg/L	<0.50
2,3,4,6-Tetrachlorophenol	100	µg/L	<0.50
2,4,6-Trichlorophenol	100	µg/L	<0.50
2,4-D	100	µg/L	<0.20
2,4-Dichlorophenol	900	µg/L	<0.30
Alachlor	5	µg/L	<0.10
Atrazine	-	µg/L	<0.10
Atrazine + N-dealkylated metabolites	5	µg/L	<0.20
Azinphos-methyl	20	µg/L	<0.10
Benzene	1	µg/L	<0.50
Benzo(a)pyrene	0.01	µg/L	<0.0050
Bromoxynil	5	µg/L	<0.20
Carbaryl	90	µg/L	<0.20
Carbofuran	90	µg/L	<0.20
Carbon Tetrachloride	2	µg/L	<0.20
Chlorpyrifos	90	µg/L	<0.10
Diazinon	20	µg/L	<0.10
Dicamba	120	µg/L	<0.20
Dichloromethane	50	µg/L	<5.0
Diclofop-methyl	9	µg/L	<0.20
Dimethoate	20	µg/L	<0.10
Diquat	70	µg/L	<1.0
Diuron	150	µg/L	<1.0
Glyphosate	280	µg/L	<5.0
Malathion	190	µg/L	<0.10
MCPA	100	µg/L	<0.20
Metolachlor	50	µg/L	<0.10
Metribuzin	80	µg/L	<0.10
Monochlorobenzene	80	µg/L	<0.50
Paraquat	10	µg/L	<1.0
Pentachlorophenol	60	µg/L	<0.50
Phorate	2	µg/L	<0.10
Picloram	190	µg/L	<0.20
Prometryne	1	µg/L	<0.10
Simazine	10	µg/L	<0.10
Terbufos	1	µg/L	<0.20
Tetrachloroethylene (perchloroethylene)	10	µg/L	<0.50
Total PCBs	3	µg/L	<0.035
Triallate	230	µg/L	<0.10
Trichloroethylene	5	µg/L	<0.50
Trifluralin	45	µg/L	<0.10
Vinyl Chloride	1	µg/L	<0.20

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bold	Above the Detection Limit

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

Well 6 Treated Water: (Point of entry sample results)

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* / *Matrix* / *Sampling Date* / *Units*	Well 6			
			Treated Water 10-Feb-22 *Result*	Treated Water 30-May-22 *Result*	Treated Water 15-Aug-22 *Result*	Treated Water 16-Nov-22 *Result*
Antimony (Sb)	6	µg/L	<0.60	<0.60	<0.6	<0.6
Arsenic (As)	10	µg/L	**1.2**	**1.2**	**1.1**	**1**
Barium (Ba)	1000	µg/L	**161**	**164**	**141**	**182**
Boron (B)	5000	µg/L	<50	<50	**13**	**17**
Cadmium (Cd)	5	µg/L		<0.10		
Chromium (Cr)	50	µg/L	<1.0	<1.0	**0.26**	**0.24**
Fluoride (F)	1.5	mg/L	<0.10	<0.50	**0.12**	**0.12**
Lead (Pb)	10	µg/L	<1.0	<1.0	**0.21**	**0.22**
Mercury	1	µg/L		<0.10		
Nitrate (as N)	10	mg/L	**0.044**	<0.10	**0.057**	**0.063**
Nitrite (as N)	1	mg/L	<0.010	<0.050	<0.003	<0.003
Selenium (Se)	50	µg/L	<1.0	<5.0	**0.07**	**0.84**
Sodium (Na)	**(200)**	mg/L	**99.9**	**118**	**110**	**113**
Uranium (U)	20	µg/L	<2.0	<5.0	**1.58**	**1.5**

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bracketed Standard	Denotes an aesthetic objective
Bold	Above the Detection Limit

The lead testing summarized in this table is separate from the requirements of Regulation 170/03, Schedule 15.1, and has not been completed to satisfy any regulatory requirements. The lead results presented above are for supplemental information purposes only.

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* *Matrix* *Sampling Date* *Units*	**Well 6** Treated Water 30-May-22 *Result*
1,1-Dichloroethylene (vinylidene chloride)	14	µg/L	<0.50
1,2-Dichlorobenzene	200	µg/L	<0.50
1,2-Dichloroethane	5	µg/L	<0.50
1,4-Dichlorobenzene	5	µg/L	<0.50
2,3,4,6-Tetrachlorophenol	100	µg/L	<0.50
2,4,6-Trichlorophenol	100	µg/L	<0.50
2,4-D	100	µg/L	<0.20
2,4-Dichlorophenol	900	µg/L	<0.30
Alachlor	5	µg/L	<0.10
Atrazine	-	µg/L	<0.10
Atrazine + N-dealkylated metabolites	5	µg/L	<0.20
Azinphos-methyl	20	µg/L	<0.10
Benzene	1	µg/L	<0.50
Benzo(a)pyrene	0.01	µg/L	<0.0050
Bromoxynil	5	µg/L	<0.20
Carbaryl	90	µg/L	<0.20
Carbofuran	90	µg/L	<0.20
Carbon Tetrachloride	2	µg/L	<0.20
Chlorpyrifos	90	µg/L	<0.10
Diazinon	20	µg/L	<0.10
Dicamba	120	µg/L	<0.20
Dichloromethane	50	µg/L	<5.0
Diclofop-methyl	9	µg/L	<0.20
Dimethoate	20	µg/L	<0.10
Diquat	70	µg/L	<1.0
Diuron	150	µg/L	<1.0
Glyphosate	280	µg/L	<5.0
Malathion	190	µg/L	<0.10
MCPA	100	µg/L	<0.20
Metolachlor	50	µg/L	<0.10
Metribuzin	80	µg/L	<0.10
Monochlorobenzene	80	µg/L	<0.50
Paraquat	10	µg/L	<1.0
Pentachlorophenol	60	µg/L	<0.50
Phorate	2	µg/L	<0.10
Picloram	190	µg/L	<0.20
Prometryne	1	µg/L	<0.10
Simazine	10	µg/L	<0.10
Terbufos	1	µg/L	<0.20
Tetrachloroethylene (perchloroethylene)	10	µg/L	<0.50
Total PCBs	3	µg/L	<0.035
Triallate	230	µg/L	<0.10
Trichloroethylene	5	µg/L	<0.50
Trifluralin	45	µg/L	<0.10
Vinyl Chloride	1	µg/L	<0.20

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bold	Above the Detection Limit

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

Well 7 Treated Water: (Point of entry sample results)

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter Name	***ODWQS***	***Location*** / ***Matrix*** / ***Sampling Date*** / ***Units***	**Well 7**			
			Treated Water 22-Mar-22 ***Result***	Treated Water 20-Jun-22 ***Result***	Treated Water 12-Sep-22 ***Result***	Treated Water 12-Dec-22 ***Result***
Antimony (Sb)	6	µg/L	<0.60	<0.60	<0.6	<0.6
Arsenic (As)	10	µg/L	<1.0	<1.0	**2.1**	**1.1**
Barium (Ba)	1000	µg/L	**128**	**127**	**286**	**128**
Boron (B)	5000	µg/L	<50	<50	**35**	**21**
Cadmium (Cd)	5	µg/L	<0.10			
Chromium (Cr)	50	µg/L	<1.0	<1.0	**0.37**	**0.12**
Fluoride (F)	1.5	mg/L	**0.14**	**0.13**	**0.15**	**0.13**
Lead (Pb)	10	µg/L	<1.0	<1.0	**0.26**	**0.23**
Mercury	1	µg/L	<0.10			
Nitrate (as N)	10	mg/L	<0.020	<0.020	<0.006	<0.006
Nitrite (as N)	1	mg/L	<0.010	<0.010	<0.003	<0.003
Selenium (Se)	50	µg/L	<1.0	<1.0	<0.04	<0.04
Sodium (Na)	**(200)**	mg/L	**10.3**	**10.2**	**20.9**	**9.72**
Uranium (U)	20	µg/L	<2.0	<2.0	**3.26**	**0.255**

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bracketed Standard	Denotes an aesthetic objective
Bold	Above the Detection Limit

The lead testing summarized in this table is separate from the requirements of Regulation 170/03, Schedule 15.1, and has not been completed to satisfy any regulatory requirements. The lead results presented above are for supplemental information purposes only.

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* *Matrix* *Sampling Date* *Units*	**Well 7** Treated Water 21-Mar-22 ***Result***
1,1-Dichloroethylene (vinylidene chloride)	14	µg/L	<0.50
1,2-Dichlorobenzene	200	µg/L	<0.50
1,2-Dichloroethane	5	µg/L	<0.50
1,4-Dichlorobenzene	5	µg/L	<0.50
2,3,4,6-Tetrachlorophenol	100	µg/L	<0.50
2,4,6-Trichlorophenol	100	µg/L	<0.50
2,4-D	100	µg/L	<0.20
2,4-Dichlorophenol	900	µg/L	<0.30
Alachlor	5	µg/L	<0.10
Atrazine	-	µg/L	<0.10
Atrazine + N-dealkylated metabolites	5	µg/L	<0.20
Azinphos-methyl	20	µg/L	<0.10
Benzene	1	µg/L	<0.50
Benzo(a)pyrene	0.01	µg/L	<0.0050
Bromoxynil	5	µg/L	<0.20
Carbaryl	90	µg/L	<0.20
Carbofuran	90	µg/L	<0.20
Carbon Tetrachloride	2	µg/L	<0.20
Chlorpyrifos	90	µg/L	<0.10
Diazinon	20	µg/L	<0.10
Dicamba	120	µg/L	<0.20
Dichloromethane	50	µg/L	<5.0
Diclofop-methyl	9	µg/L	<0.20
Dimethoate	20	µg/L	<0.10
Diquat	70	µg/L	<1.0
Diuron	150	µg/L	<1.0
Glyphosate	280	µg/L	<5.0
Malathion	190	µg/L	<0.10
MCPA	100	µg/L	<0.20
Metolachlor	50	µg/L	<0.10
Metribuzin	80	µg/L	<0.10
Monochlorobenzene	80	µg/L	<0.50
Paraquat	10	µg/L	<1.0
Pentachlorophenol	60	µg/L	<0.50
Phorate	2	µg/L	<0.10
Picloram	190	µg/L	<0.20
Prometryne	1	µg/L	<0.10
Simazine	10	µg/L	<0.10
Terbufos	1	µg/L	<0.20
Tetrachloroethylene (perchloroethylene)	10	µg/L	<0.50
Total PCBs	3	µg/L	<0.035
Triallate	230	µg/L	<0.10
Trichloroethylene	5	µg/L	<0.50
Trifluralin	45	µg/L	<0.10
Vinyl Chloride	1	µg/L	<0.20

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bold	Above the Detection Limit

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

Well 8 Treated Water: (Point of entry sample results)

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* / *Matrix* / *Sampling Date* / *Units*	Well 8			
			Treated Water 22-Mar-22 *Result*	Treated Water 28-Jun-22 *Result*	Treated Water 12-Sep-22 *Result*	Treated Water 12-Dec-22 *Result*
Antimony (Sb)	6	µg/L	<0.60	<0.60	<0.6	<0.6
Arsenic (As)	10	µg/L	<1.0	<1.0	**0.4**	**0.3**
Barium (Ba)	1000	µg/L	**108**	**107**	**99.3**	**95**
Boron (B)	5000	µg/L	<50	<50	**11**	**12**
Cadmium (Cd)	5	µg/L				**0.004**
Chromium (Cr)	50	µg/L	<1.0	<1.0	**0.33**	**0.38**
Fluoride (F)	1.5	mg/L	**0.15**	<0.10	**0.17**	**0.12**
Lead (Pb)	10	µg/L	<1.0	<1.0	**0.02**	**0.02**
Mercury	1	µg/L				<0.01
Nitrate (as N)	10	mg/L	**0.931**	**2.39**	**1.95**	**3.13**
Nitrite (as N)	1	mg/L	<0.010	<0.010	<0.003	<0.003
Selenium (Se)	50	µg/L	<1.0	<1.0	**0.11**	**0.09**
Sodium (Na)	**(200)**	mg/L	**14.8**	**30.8**	**20**	**29.5**
Uranium (U)	20	µg/L	<2.0	<2.0	**0.362**	**0.421**

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bracketed Standard	Denotes an aesthetic objective
Bold	Above the Detection Limit

The lead testing summarized in this table is separate from the requirements of Regulation 170/03, Schedule 15.1, and has not been completed to satisfy any regulatory requirements. The lead results presented above are for supplemental information purposes only.

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* *Matrix* *Sampling Date* *Units*	**Well 8** Treated Water 12-Dec-22 ***Result***
1,1-Dichloroethylene (vinylidene chloride)	14	µg/L	<0.33
1,2-Dichlorobenzene	200	µg/L	<0.41
1,2-Dichloroethane	5	µg/L	<0.35
1,4-Dichlorobenzene	5	µg/L	<0.36
2,3,4,6-Tetrachlorophenol	100	µg/L	<0.20
2,4,6-Trichlorophenol	100	µg/L	<0.25
2,4-D	100	µg/L	<0.19
2,4-Dichlorophenol	900	µg/L	<0.15
Alachlor	5	µg/L	<0.02
Atrazine	-	µg/L	<0.10
Atrazine + N-dealkylated metabolites	5	µg/L	<0.01
Azinphos-methyl	20	µg/L	<0.05
Benzene	1	µg/L	<0.32
Benzo(a)pyrene	0.01	µg/L	<0.004
Bromoxynil	5	µg/L	<0.33
Carbaryl	90	µg/L	<0.05
Carbofuran	90	µg/L	<0.01
Carbon Tetrachloride	2	µg/L	<0.17
Chlorpyrifos	90	µg/L	<0.02
Diazinon	20	µg/L	<0.02
Dicamba	120	µg/L	<0.20
Dichloromethane	50	µg/L	<0.35
Diclofop-methyl	9	µg/L	<0.40
Dimethoate	20	µg/L	<0.06
Diquat	70	µg/L	<1
Diuron	150	µg/L	<0.03
Glyphosate	280	µg/L	<1
Malathion	190	µg/L	<0.02
MCPA	100	µg/L	<0.00012
Metolachlor	50	µg/L	<0.01
Metribuzin	80	µg/L	<0.02
Monochlorobenzene	80	µg/L	<0.3
Paraquat	10	µg/L	<1
Pentachlorophenol	60	µg/L	<0.15
Phorate	2	µg/L	<0.01
Picloram	190	µg/L	<1
Prometryne	1	µg/L	<0.03
Simazine	10	µg/L	<0.01
Terbufos	1	µg/L	<0.01
Tetrachloroethylene (perchloroethylene)	10	µg/L	<0.35
Total PCBs	3	µg/L	<0.04
Triallate	230	µg/L	<0.01
Trichloroethylene	5	µg/L	<0.44
Trifluralin	45	µg/L	<0.02
Vinyl Chloride	1	µg/L	<0.17

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bold	Above the Detection Limit

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

Wells 9A and 9B Treated Water: (Point of entry sample results)

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* / *Matrix* / *Sampling Date* / *Units*	Well 9			
			Treated Water 11-Feb-22 *Result*	Treated Water 30-May-22 *Result*	Treated Water 15-Aug-22 *Result*	Treated Water 16-Nov-22 *Result*
Antimony (Sb)	6	µg/L	<0.60	<0.60	<0.6	<0.6
Arsenic (As)	10	µg/L	<1.0	<1.0	**0.6**	**0.7**
Barium (Ba)	1000	µg/L	**88**	**85**	**84.9**	**98.8**
Boron (B)	5000	µg/L	<50	<50	**21**	**19**
Cadmium (Cd)	5	µg/L			**0.023**	
Chromium (Cr)	50	µg/L	<1.0	<1.0	**0.53**	**0.55**
Fluoride (F)	1.5	mg/L	<0.50	<0.50	**0.17**	**0.15**
Lead (Pb)	10	µg/L	<1.0	<1.0	**0.1**	**0.12**
Mercury	1	µg/L			**0.04**	
Nitrate (as N)	10	mg/L	**3.6**	**3.33**	**4.01**	**3.47**
Nitrite (as N)	1	mg/L	<0.050	<0.050	<0.003	<0.003
Selenium (Se)	50	µg/L	<1.0	<1.0	**0.16**	**1.18**
Sodium (Na)	**(200)**	mg/L	**136**	**152**	**134**	**153**
Uranium (U)	20	µg/L	<2.0	<2.0	**0.687**	**0.684**

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bracketed Standard	Denotes an aesthetic objective
Bold	Above the Detection Limit

The lead testing summarized in this table is separate from the requirements of Regulation 170/03, Schedule 15.1, and has not been completed to satisfy any regulatory requirements. The lead results presented above are for supplemental information purposes only.

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* *Matrix* *Sampling Date* *Units*	**Well 9** Treated Water 15-Aug-22 ***Result***
1,1-Dichloroethylene (vinylidene chloride)	14	µg/L	<0.33
1,2-Dichlorobenzene	200	µg/L	<0.41
1,2-Dichloroethane	5	µg/L	<0.35
1,4-Dichlorobenzene	5	µg/L	<0.36
2,3,4,6-Tetrachlorophenol	100	µg/L	<0.20
2,4,6-Trichlorophenol	100	µg/L	<0.25
2,4-D	100	µg/L	<0.19
2,4-Dichlorophenol	900	µg/L	<0.15
Alachlor	5	µg/L	<0.02
Atrazine	-	µg/L	<0.10
Atrazine + N-dealkylated metabolites	5	µg/L	<0.01
Azinphos-methyl	20	µg/L	<0.05
Benzene	1	µg/L	<0.32
Benzo(a)pyrene	0.01	µg/L	<0.004
Bromoxynil	5	µg/L	<0.33
Carbaryl	90	µg/L	<0.05
Carbofuran	90	µg/L	<0.01
Carbon Tetrachloride	2	µg/L	<0.17
Chlorpyrifos	90	µg/L	<0.02
Diazinon	20	µg/L	<0.02
Dicamba	120	µg/L	<0.20
Dichloromethane	50	µg/L	<0.35
Diclofop-methyl	9	µg/L	<0.40
Dimethoate	20	µg/L	<0.06
Diquat	70	µg/L	<1
Diuron	150	µg/L	<0.03
Glyphosate	280	µg/L	<1
Malathion	190	µg/L	<0.02
MCPA	100	µg/L	<0.00012
Metolachlor	50	µg/L	<0.01
Metribuzin	80	µg/L	<0.02
Monochlorobenzene	80	µg/L	<0.3
Paraquat	10	µg/L	<1
Pentachlorophenol	60	µg/L	<0.15
Phorate	2	µg/L	<0.01
Picloram	190	µg/L	<1
Prometryne	1	µg/L	<0.03
Simazine	10	µg/L	<0.01
Terbufos	1	µg/L	<0.01
Tetrachloroethylene (perchloroethylene)	10	µg/L	<0.35
Total PCBs	3	µg/L	<0.04
Triallate	230	µg/L	<0.01
Trichloroethylene	5	µg/L	<0.44
Trifluralin	45	µg/L	<0.02
Vinyl Chloride	1	µg/L	<0.17

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bold	Above the Detection Limit

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

Well 10 Treated Water: (Point of entry sample results)

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* / *Matrix* / *Sampling Date* / *Units*	Well 10				
			Treated Water 17-Feb-22 ***Result***	Treated Water 17-Feb-22 ***Result***	Treated Water 11-Apr-22 ***Result***	Treated Water 18-Jul-22 ***Result***	Treated Water 17-Oct-22 ***Result***
Antimony (Sb)	6	µg/L	<0.60	<0.60	<0.60	<0.6	<0.6
Arsenic (As)	10	µg/L	<1.0	<1.0	<1.0	<0.2	<0.2
Barium (Ba)	1000	µg/L	**112**	**111**	**140**	**134**	**159**
Boron (B)	5000	µg/L	<50	**50**	**174**	**135**	**158**
Cadmium (Cd)	5	µg/L		<0.10			**0.003**
Chromium (Cr)	50	µg/L	**1.2**	**1.1**	<1.0	**0.38**	**0.16**
Fluoride (F)	1.5	mg/L	<0.50		<0.50	**0.11**	**0.1**
Lead (Pb)	10	µg/L	<1.0		<1.0	**0.03**	**0.03**
Mercury	1	µg/L		<0.10			
Nitrate (as N)	10	mg/L	**1.08**		<0.10	**0.006**	**0.01**
Nitrite (as N)	1	mg/L	<0.050		<0.050	<0.003	<0.003
Selenium (Se)	50	µg/L	<1.0	<5.0	<1.0	<0.04	<0.04
Sodium (Na)	**(200)**	mg/L	**100**		**80.9**	**70.9**	**80.5**
Uranium (U)	20	µg/L	<2.0	<5.0	<2.0	**0.499**	**0.539**

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bracketed Standard	Denotes an aesthetic objective
Bold	Above the Detection Limit

The lead testing summarized in this table is separate from the requirements of Regulation 170/03, Schedule 15.1, and has not been completed to satisfy any regulatory requirements. The lead results presented above are for supplemental information purposes only.

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter Name	***ODWQS***	***Location*** **Matrix** ***Sampling Date*** ***Units***	**Well 10** Treated Water 17-Feb-22 ***Result***
1,1-Dichloroethylene (vinylidene chloride)	14	µg/L	<0.50
1,2-Dichlorobenzene	200	µg/L	<0.50
1,2-Dichloroethane	5	µg/L	<0.50
1,4-Dichlorobenzene	5	µg/L	<0.50
2,3,4,6-Tetrachlorophenol	100	µg/L	<0.50
2,4,6-Trichlorophenol	100	µg/L	<0.50
2,4-D	100	µg/L	<0.20
2,4-Dichlorophenol	900	µg/L	<0.30
Alachlor	5	µg/L	<0.10
Atrazine	-	µg/L	<0.10
Atrazine + N-dealkylated metabolites	5	µg/L	<0.20
Azinphos-methyl	20	µg/L	<0.10
Benzene	1	µg/L	<0.50
Benzo(a)pyrene	0.01	µg/L	<0.0050
Bromoxynil	5	µg/L	<0.20
Carbaryl	90	µg/L	<0.20
Carbofuran	90	µg/L	<0.20
Carbon Tetrachloride	2	µg/L	<0.20
Chlorpyrifos	90	µg/L	<0.10
Diazinon	20	µg/L	<0.10
Dicamba	120	µg/L	<0.20
Dichloromethane	50	µg/L	<5.0
Diclofop-methyl	9	µg/L	<0.20
Dimethoate	20	µg/L	<0.10
Diquat	70	µg/L	<1.0
Diuron	150	µg/L	<1.0
Glyphosate	280	µg/L	<5.0
Malathion	190	µg/L	<0.10
MCPA	100	µg/L	<0.20
Metolachlor	50	µg/L	<0.10
Metribuzin	80	µg/L	<0.10
Monochlorobenzene	80	µg/L	<0.50
Paraquat	10	µg/L	<1.0
Pentachlorophenol	60	µg/L	<0.50
Phorate	2	µg/L	<0.10
Picloram	190	µg/L	<0.20
Prometryne	1	µg/L	<0.10
Simazine	10	µg/L	<0.10
Terbufos	1	µg/L	<0.20
Tetrachloroethylene (perchloroethylene)	10	µg/L	<0.50
Total PCBs	3	µg/L	<0.035
Triallate	230	µg/L	<0.10
Trichloroethylene	5	µg/L	<0.50
Trifluralin	45	µg/L	<0.10
Vinyl Chloride	1	µg/L	<0.20

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bold	Above the Detection Limit

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

Well 11 Treated Water: (Point of entry sample results)

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* / *Matrix* / *Sampling Date* / *Units*	Well 11			
			Treated Water 11-Feb-22 *Result*	Treated Water 30-May-22 *Result*	Treated Water 15-Aug-22 *Result*	Treated Water 16-Nov-22 *Result*
Antimony (Sb)	6	µg/L	<0.60	<0.60	<0.6	<0.6
Arsenic (As)	10	µg/L	**6.6**	**6.2**	**6.1**	**5.6**
Barium (Ba)	1000	µg/L	**208**	**203**	**172**	**224**
Boron (B)	5000	µg/L	<50	<50	**19**	**23**
Cadmium (Cd)	5	µg/L				**0.004**
Chromium (Cr)	50	µg/L	<1.0	<1.0	**0.38**	**0.22**
Fluoride (F)	1.5	mg/L	<0.50	<0.50	**0.12**	**0.12**
Lead (Pb)	10	µg/L	<1.0	<1.0	**0.15**	**0.17**
Mercury	1	µg/L				<0.01
Nitrate (as N)	10	mg/L	<0.10	<0.10	<0.006	<0.006
Nitrite (as N)	1	mg/L	<0.050	<0.050	<0.003	<0.003
Selenium (Se)	50	µg/L	<1.0	<1.0	<0.04	**0.83**
Sodium (Na)	**(200)**	mg/L	**85.1**	**83.4**	**81.4**	**83.9**
Uranium (U)	20	µg/L	<2.0	<2.0	**0.487**	**0.496**

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bracketed Standard	Denotes an aesthetic objective
Bold	Above the Detection Limit

The lead testing summarized in this table is separate from the requirements of Regulation 170/03, Schedule 15.1, and has not been completed to satisfy any regulatory requirements. The lead results presented above are for supplemental information purposes only.

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter Name	***ODWQS***	***Location*** ***Matrix*** ***Sampling Date*** ***Units***	**Well 11** Treated Water 16-Nov-22 ***Result***
1,1-Dichloroethylene (vinylidene chloride)	14	µg/L	<0.33
1,2-Dichlorobenzene	200	µg/L	<0.41
1,2-Dichloroethane	5	µg/L	<0.35
1,4-Dichlorobenzene	5	µg/L	<0.36
2,3,4,6-Tetrachlorophenol	100	µg/L	<0.20
2,4,6-Trichlorophenol	100	µg/L	<0.25
2,4-D	100	µg/L	<0.15
2,4-Dichlorophenol	900	µg/L	<0.19
Alachlor	5	µg/L	<0.02
Atrazine	-	µg/L	<0.10
Atrazine + N-dealkylated metabolites	5	µg/L	<0.01
Azinphos-methyl	20	µg/L	<0.05
Benzene	1	µg/L	<0.32
Benzo(a)pyrene	0.01	µg/L	<0.004
Bromoxynil	5	µg/L	<0.33
Carbaryl	90	µg/L	<0.05
Carbofuran	90	µg/L	<0.01
Carbon Tetrachloride	2	µg/L	<0.17
Chlorpyrifos	90	µg/L	<0.02
Diazinon	20	µg/L	<0.02
Dicamba	120	µg/L	<0.20
Dichloromethane	50	µg/L	<0.35
Diclofop-methyl	9	µg/L	<0.40
Dimethoate	20	µg/L	<0.06
Diquat	70	µg/L	<1
Diuron	150	µg/L	<0.03
Glyphosate	280	µg/L	<1
Malathion	190	µg/L	<0.02
MCPA	100	µg/L	<0.00012
Metolachlor	50	µg/L	<0.01
Metribuzin	80	µg/L	<0.02
Monochlorobenzene	80	µg/L	<0.3
Paraquat	10	µg/L	<1
Pentachlorophenol	60	µg/L	<0.15
Phorate	2	µg/L	<0.01
Picloram	190	µg/L	<1
Prometryne	1	µg/L	<0.03
Simazine	10	µg/L	<0.01
Terbufos	1	µg/L	<0.01
Tetrachloroethylene (perchloroethylene)	10	µg/L	<0.35
Total PCBs	3	µg/L	<0.04
Triallate	230	µg/L	<0.01
Trichloroethylene	5	µg/L	<0.44
Trifluralin	45	µg/L	<0.02
Vinyl Chloride	1	µg/L	<0.17

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bold	Above the Detection Limit

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
Arsenic (As)	6.6	ug/L	11-Feb-22
Arsenic (As)	6.2	ug/L	30-May-22
Arsenic (As)	6.1	ug/L	15-Aug-22
Arsenic (As)	5.6	ug/L	16-Nov-22

Well 12 Treated Water: (Point of entry sample results)

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter Name	*ODWQS*	*Location* / *Matrix* / *Sampling Date* / *Units*	Well 12				
			Treated Water 17-Jan-22 *Result*	Treated Water 17-Jan-22 *Result*	Treated Water 11-Apr-22 *Result*	Treated Water 18-Jul-22 *Result*	Treated Water 17-Oct-22 *Result*
Antimony (Sb)	6	µg/L	<0.60	<0.60	<0.60	<0.6	<0.6
Arsenic (As)	10	µg/L	<1.0	<1.0	<1.0	**0.2**	<0.2
Barium (Ba)	1000	µg/L	**92**	**86**	**90**	**85.8**	**97.6**
Boron (B)	5000	µg/L	<50	<50	<50	**7**	**10**
Cadmium (Cd)	5	µg/L		<0.10			**0.018**
Chromium (Cr)	50	µg/L	<1.0	<1.0	<1.0	**0.36**	**0.16**
Fluoride (F)	1.5	mg/L	<0.10		**0.12**	**0.14**	**0.14**
Lead (Pb)	10	µg/L	<1.0		<1.0	<0.01	<0.01
Mercury	1	µg/L		<0.10			
Nitrate (as N)	10	mg/L	**0.455**		**0.592**	**0.741**	**0.786**
Nitrite (as N)	1	mg/L	<0.010		<0.010	<0.003	<0.003
Selenium (Se)	50	µg/L	<1.0	<5.0	<1.0	**0.16**	**0.18**
Sodium (Na)	**(200)**	mg/L	**15.6**		**14.5**	**11.5**	**12.7**
Uranium (U)	20	µg/L	<2.0	<5.0	<2.0	**0.492**	**0.555**

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bracketed Standard	Denotes an aesthetic objective
Bold	Above the Detection Limit

The lead testing summarized in this table is separate from the requirements of Regulation 170/03, Schedule 15.1, and has not been completed to satisfy any regulatory requirements. The lead results presented above are for supplemental information purposes only.

Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter Name	***ODWQS***	***Location*** ***Matrix*** ***Sampling Date*** ***Units***	**Well 12** Treated Water 17-Jan-22 ***Result***
1,1-Dichloroethylene (vinylidene chloride)	14	µg/L	<0.50
1,2-Dichlorobenzene	200	µg/L	<0.50
1,2-Dichloroethane	5	µg/L	<0.50
1,4-Dichlorobenzene	5	µg/L	<0.50
2,3,4,6-Tetrachlorophenol	100	µg/L	<0.50
2,4,6-Trichlorophenol	100	µg/L	<0.50
2,4-D	100	µg/L	<0.20
2,4-Dichlorophenol	900	µg/L	<0.30
Alachlor	5	µg/L	<0.10
Atrazine	-	µg/L	<0.10
Atrazine + N-dealkylated metabolites	5	µg/L	<0.20
Azinphos-methyl	20	µg/L	<0.10
Benzene	1	µg/L	<0.50
Benzo(a)pyrene	0.01	µg/L	<0.0050
Bromoxynil	5	µg/L	<0.20
Carbaryl	90	µg/L	<0.20
Carbofuran	90	µg/L	<0.20
Carbon Tetrachloride	2	µg/L	<0.20
Chlorpyrifos	90	µg/L	<0.10
Diazinon	20	µg/L	<0.10
Dicamba	120	µg/L	<0.20
Dichloromethane	50	µg/L	<5.0
Diclofop-methyl	9	µg/L	<0.20
Dimethoate	20	µg/L	<0.10
Diquat	70	µg/L	<1.0
Diuron	150	µg/L	<1.0
Glyphosate	280	µg/L	<5.0
Malathion	190	µg/L	<0.10
MCPA	100	µg/L	<0.20
Metolachlor	50	µg/L	<0.10
Metribuzin	80	µg/L	<0.10
Monochlorobenzene	80	µg/L	<0.50
Paraquat	10	µg/L	<1.0
Pentachlorophenol	60	µg/L	<0.50
Phorate	2	µg/L	<0.10
Picloram	190	µg/L	<0.20
Prometryne	1	µg/L	<0.10
Simazine	10	µg/L	<0.10
Terbufos	1	µg/L	<0.20
Tetrachloroethylene (perchloroethylene)	10	µg/L	<0.50
Total PCBs	3	µg/L	<0.035
Triallate	230	µg/L	<0.10
Trichloroethylene	5	µg/L	<0.50
Trifluralin	45	µg/L	<0.10
Vinyl Chloride	1	µg/L	<0.20

LEGEND	
ODWQS	Ontario Drinking Water Quality Standards
Bold & Red	Exceeds ODWQS
Bold	Above the Detection Limit

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
N/A	N/A	N/A	N/A

Summary of Organic parameters (Total Trihalomethanes) sampled in the distribution system during this reporting period or the most recent sample results

Sample Date	Sample Location	Sample Type	Parameter Tested	Test Results	Unit	Exceedance
13-Apr-21	Murray Ct. (SS)	Distribution	Total Trihalomethanes	27.3	ug/L	
13-Apr-21	South Sector Reservoir (Out)	Distribution	Total Trihalomethanes	20.8	ug/L	
13-Apr-21	Buena Vista Dr. (SS)	Distribution	Total Trihalomethanes	26.3	ug/L	
			Average for Quarter	**24.8**	**ug/L**	**No**
27-Jul-21	Murray Ct. (SS)	Distribution	Total Trihalomethanes	40.6	ug/L	
27-Jul-21	South Sector Reservoir (Out)	Distribution	Total Trihalomethanes	41.6	ug/L	
27-Jul-21	Buena Vista Dr. (SS)	Distribution	Total Trihalomethanes	42.4	ug/L	
			Average for Quarter	**41.5**	**ug/L**	**No**
24-Nov-21	Murray Ct. (SS)	Distribution	Total Trihalomethanes	22.5	ug/L	
24-Nov-21	South Sector Reservoir (Out)	Distribution	Total Trihalomethanes	66.1	ug/L	
24-Nov-21	Buena Vista Dr. (SS)	Distribution	Total Trihalomethanes	37.2	ug/L	
			Average for Quarter	**41.9**	**ug/L**	**No**
17-Jan-22	Murray Ct. (SS)	Distribution	Total Trihalomethanes	24.6	ug/L	
17-Jan-22	South Sector Reservoir (Out)	Distribution	Total Trihalomethanes	24.7	ug/L	
17-Jan-22	Buena Vista Dr. (SS)	Distribution	Total Trihalomethanes	26.7	ug/L	
			Average for Quarter	**25.3**	**ug/L**	**No**
			Running Annual Average of Quarterly Results	**33.4**	**ug/L**	**No**
11-Apr-22	Murray Ct. (SS)	Distribution	Total Trihalomethanes	53	ug/L	
11-Apr-22	South Sector Reservoir (Out)	Distribution	Total Trihalomethanes	52.8	ug/L	
11-Apr-22	Buena Vista Dr. (SS)	Distribution	Total Trihalomethanes	51.3	ug/L	
			Average for Quarter	**52.4**	**ug/L**	
			Running Annual Average of Quarterly Results	**40.3**	**ug/L**	**No**
18-Jul-22	Murray Ct. (SS)	Distribution	Total Trihalomethanes	17	ug/L	

Sample Date	Sample Location	Sample Type	Parameter Tested	Test Results	Unit	Exceedance
18-Jul-22	South Sector Reservoir (Out)	Distribution	Total Trihalomethanes	34	ug/L	
18-Jul-22	Buena Vista Dr. (SS)	Distribution	Total Trihalomethanes	24	ug/L	
			Average for Quarter	**25**	**ug/L**	
			Running Annual Average of Quarterly Results	**36.2**	**ug/L**	**No**
17-Oct-22	Murray Ct. (SS)	Distribution	Total Trihalomethanes	28	ug/L	
17-Oct-22	South Sector Reservoir (Out)	Distribution	Total Trihalomethanes	27	ug/L	
17-Oct-22	Buena Vista Dr. (SS)	Distribution	Total Trihalomethanes	30	ug/L	
			Average for Quarter	**28.3**	**ug/L**	
			Running Annual Average of Quarterly Results	**32.8**	**ug/L**	**No**

Summary of Organic parameters Total Haloacetic Acids (HAA_5) sampled in the distribution system during this reporting period or the most recent sample results

Sample Date	Sample Location	Sample Type	Parameter Tested	Test Results	Unit	Exceedance
13-Apr-21	202 First St. (SS)	Distribution	Total Haloacetic Acids	6.8	ug/L	
13-Apr-21	South Sector Reservoir	Distribution	Total Haloacetic Acids	8.1	ug/L	
13-Apr-21	Buena Vista Dr. (SS)	Distribution	Total Haloacetic Acids	8.6	ug/L	
			Average for Quarter	**7.8**	**ug/L**	
27-Jul-21	202 First St. (SS)	Distribution	Total Haloacetic Acids	6.8	ug/L	
27-Jul-21	South Sector Reservoir	Distribution	Total Haloacetic Acids	9.1	ug/L	
27-Jul-21	Buena Vista Dr. (SS)	Distribution	Total Haloacetic Acids	9.7	ug/L	
			Average for Quarter	**8.5**	**ug/L**	
24-Nov-21	202 First St. (SS)	Distribution	Total Haloacetic Acids	3.8	ug/L	
24-Nov-21	South Sector Reservoir	Distribution	Total Haloacetic Acids	9.7	ug/L	
24-Nov-21	Buena Vista Dr. (SS)	Distribution	Total Haloacetic Acids	5.2	ug/L	
			Average for Quarter	**6.2**	**ug/L**	
17-Jan-22	202 First St. (SS)	Distribution	Total Haloacetic Acids	< 2.2	ug/L	
17-Jan-22	South Sector Reservoir	Distribution	Total Haloacetic Acids	10.5	ug/L	
17-Jan-22	Buena Vista Dr. (SS)	Distribution	Total Haloacetic Acids	10.5	ug/L	
17-Jan-22	Murray Court (SS)	Distribution	Total Haloacetic Acids	10	ug/L	
			Average for Quarter	**< 8.3**	**ug/L**	

Sample Date	Sample Location	Sample Type	Parameter Tested	Test Results	Unit	Exceedance
			Running Annual Average of Quarterly Results	**< 7.7**	**ug/L**	**No**
11-Apr-22	202 First St. (SS)	Distribution	Total Haloacetic Acids	5.5	ug/L	
11-Apr-22	South Sector Reservoir	Distribution	Total Haloacetic Acids	11.9	ug/L	
11-Apr-22	Buena Vista Dr. (SS)	Distribution	Total Haloacetic Acids	12.1	ug/L	
			Average for Quarter	**9.8**	**ug/L**	
			Running Annual Average of Quarterly Results	**< 8.2**	**ug/L**	**No**
18-Jul-22	202 First St. (SS)	Distribution	Total Haloacetic Acids	5.5	ug/L	
18-Jul-22	South Sector Reservoir	Distribution	Total Haloacetic Acids	< 5.3	ug/L	
18-Jul-22	Buena Vista Dr. (SS)	Distribution	Total Haloacetic Acids	< 5.3	ug/L	
			Average for Quarter	**< 5.4**	**ug/L**	
			Running Annual Average of Quarterly Results	**< 7.4**	**ug/L**	**No**
17-Oct-22	202 First St. (SS)	Distribution	Total Haloacetic Acids	< 5.3	ug/L	
17-Oct-22	South Sector Reservoir	Distribution	Total Haloacetic Acids	6.3	ug/L	
17-Oct-22	Buena Vista Dr. (SS)	Distribution	Total Haloacetic Acids	< 5.3	ug/L	
			Average for Quarter	**< 5.6**	**ug/L**	
			Running Annual Average of Quarterly Results	**< 7.3**	**ug/L**	**No**