



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	220000031
Drinking-Water System Name:	Clifford Drinking Water System
Drinking-Water System Owner:	Town of Minto
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2025 to December 31, 2025

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [<input checked="" type="checkbox"/>]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [<input checked="" type="checkbox"/>] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> <p>Town of Minto 5941 Hwy #89 R.R. #1 Harriston, ON NOG 1Z0</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; padding: 2px; display: inline-block;">N/A</div></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to: <div style="border: 1px solid black; padding: 2px; display: inline-block;">N/A</div></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [<input checked="" type="checkbox"/>] No []</p>
--	---

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 of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
Clifford Drinking Water System	220000031

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 of its drinking water?
Yes [] No []



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

- Public access/notice via the web** Town of Minto Website
- Public access/notice via Government Offices**
- 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** Tax Letter

Describe your Drinking-Water System

Clifford is currently serviced by a municipal water system that consists of: three drilled well supplies, two pumphouses; a 1,275 m3 elevated storage facility and a distribution network. In the event of a prolonged power outage, a portable generator is available for Well #1 to supply back-up power. In addition, there is a stand-by natural gas generator located at Wells #3 & #4 to supply back-up power.

Well #3 is a deep overburden well and serves as the primary production well for the system. Well # 1 and #4 are bedrock wells and provide peak flows and redundancy to the system. Wells #3 and #4 are a combined supply and are not allowed to operate together. All three operating wells are equipped with submersible pumps; the pump in Well #3 is a variable speed pump.

In the pumphouses, the raw water supply is injected with 12% sodium hypochlorite for disinfection and the chemical sodium silicate, for iron sequestering. The treated water from Well #1 leaves the pumphouse and enters an underground contact pipe and is discharged into the distribution system after adequate contact time is achieved. Treated water from Well #3 and #4 is discharged back into the elevated storage tank before being discharged into the distribution system.

The wells are controlled (start/stop) automatically based on elevated storage tank liquid levels and pressures in the distribution system. Each pumphouse is equipped with alarms for free chlorine low and high residuals (and corresponding lockout of well pumps), low water level and intrusion. Each wellhouse has a continuous monitoring analyzer for chlorine with lockouts and alarms.

SCADA provides continuous monitoring of the Clifford Drinking Water System.

List all water treatment chemicals used over this reporting period

- 12% Sodium Hypochlorite (disinfectant)
- Sodium Silicate (sequestering agent)

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment



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

To continually meet the requirements of O. Reg. 170/03, upgrades, installation and replacement of various system components have been completed. However, maintaining the system includes repair and replacement of individual components as required.

2025 Capital Expenses

- \$53,570 – to Upgrade the Clifford Well #1 SCADA system
- \$10,560 – Replacement Free Chlorine Analyzer
- \$14,075 – Tower Painting Preparation

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	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
July 21, 2025	Total Coliform	1	cfu/100mL	Resample	July 23, 2025

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

		Number of Samples	Range of Total Coliform Results (min #)-(max #)	Range of E.Coli Or Fecal Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	Well 1	52	0 - 0	0 - 0	N/A	N/A
	Well 3	52	0 - 0	0 - 0	N/A	N/A
	Well 4	52	0 - 0	0 - 0	N/A	N/A
Treated	Well 1	52	0 - 0	0 - 0	52	< 10 - < 10
	Well 3	52	0 - 0	0 - 0	52	< 10 - 80
	Well 4	52	0 - 0	0 - 0	52	< 10 - 40
Distribution		159	0 - 1	0 - 0	159	NDOGHPC

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

		Number of Samples	Range of Results (min #)-(max #)	Unit of Measure
Turbidity Raw	Well 1	76	0.11 - 0.68	NTU
	Well 3	74	0.09 - 0.79	NTU
	Well 4	76	0.10 - 0.89	NTU
Chlorine	Well 1	365	0.82 - 1.66	mg/L
	Well 3	365	0.85 - 1.63	mg/L
	Well 4	365	0.95 - 1.64	mg/L
	Distribution	563	0.52 - 1.47	mg/L
Fluoride (If the DWS provides fluoridation)		N/A	N/A	N/A

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



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	Result	Unit of Measure
N/A	N/A	N/A	N/A	N/A

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

Clifford Well #1

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	22/05/25	< 0.6	ug/L	No
Arsenic	19/03/25	6.8	ug/L	No
Arsenic - (Sch. 23 & 24)	22/05/25	7.6	ug/L	No
Arsenic	23/05/25	7.8	ug/L	No
Arsenic	15/08/25	6.3	ug/L	No
Arsenic	14/11/25	7.3	ug/L	No
Barium	22/05/25	250	ug/L	No
Boron	22/05/25	22	ug/L	No
Cadmium	22/05/25	< 0.003	ug/L	No
Chromium	22/05/25	0.17	ug/L	No
Manganese	08/08/25	19.5	ug/L	No
Mercury	22/05/25	< 0.01	ug/L	No
Selenium	22/05/25	< 0.04	ug/L	No
Sodium	22/05/25	22.8	mg/L	No
Uranium	22/05/25	0.692	ug/L	No
Fluoride	24/05/22	0.52	mg/L	No
Nitrite	19/03/25	< 0.003	mg/L	No
Nitrite	23/05/25	< 0.003	mg/L	No
Nitrite	15/08/25	< 0.003	mg/L	No
Nitrite	14/11/25	< 0.003	mg/L	No
Nitrate	19/03/25	< 0.006	mg/L	No
Nitrate	23/05/25	< 0.006	mg/L	No
Nitrate	15/08/25	< 0.006	mg/L	No
Nitrate	14/11/25	< 0.006	mg/L	No

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Clifford Well #3

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	22/05/25	< 0.6	ug/L	No
Arsenic	19/03/25	0.9	ug/L	No
Arsenic - (Sch. 23 & 24)	22/05/25	0.9	ug/L	No
Arsenic	23/05/25	0.9	ug/L	No
Arsenic	15/08/25	0.9	ug/L	No
Arsenic	14/11/25	1.0	ug/L	No

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Barium	22/05/25	149	ug/L	No
Boron	22/05/25	15	ug/L	No
Cadmium	22/05/25	0.004	ug/L	No
Chromium	22/05/25	0.16	ug/L	No
Manganese	08/08/25	20.7	ug/L	No
Mercury	22/05/25	< 0.01	ug/L	No
Selenium	22/05/25	< 0.04	ug/L	No
Sodium	22/05/25	18.5	mg/L	No
Uranium	22/05/25	0.537	ug/L	No
Fluoride	24/05/22	0.30	mg/L	No
Nitrite	19/03/25	< 0.003	mg/L	No
Nitrite	23/05/25	< 0.003	mg/L	No
Nitrite	15/08/25	< 0.003	mg/L	No
Nitrite	14/11/25	< 0.003	mg/L	No
Nitrate	19/03/25	0.355	mg/L	No
Nitrate	23/05/25	0.372	mg/L	No
Nitrate	15/08/25	0.392	mg/L	No
Nitrate	14/11/25	0.371	mg/L	No

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Clifford Well #4

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	22/05/25	< 0.6	ug/L	No
Arsenic	19/03/25	6.6	ug/L	No
Arsenic - (Sch. 23 & 24)	22/05/25	7.4	ug/L	No
Arsenic	23/05/25	7.1	ug/L	No
Arsenic	15/08/25	6.3	ug/L	No
Arsenic	14/11/25	6.5	ug/L	No
Barium	22/05/25	156	ug/L	No
Boron	22/05/25	12	ug/L	No
Cadmium	22/05/25	0.003	ug/L	No
Chromium	22/05/25	0.15	ug/L	No
Manganese	08/08/25	26.3	ug/L	No
Mercury	22/05/25	< 0.01	ug/L	No
Selenium	22/05/25	< 0.04	ug/L	No
Sodium	22/05/25	14.4	mg/L	No
Uranium	22/05/25	0.658	ug/L	No
Fluoride	24/05/22	0.31	mg/L	No
Nitrite	19/03/25	< 0.003	mg/L	No
Nitrite	23/05/25	< 0.003	mg/L	No
Nitrite	15/08/25	< 0.003	mg/L	No
Nitrite	14/11/25	< 0.003	mg/L	No
Nitrate	19/03/25	0.062	mg/L	No
Nitrate	23/05/25	0.023	mg/L	No
Nitrate	15/08/25	0.046	mg/L	No
Nitrate	14/11/25	0.067	mg/L	No

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

Summary of lead testing under Schedule 15.1 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	Date	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Limit
Plumbing	Dec. 2013 – Apr. 2014	22	< 1.0 – 2.5	ug/L	10
Distribution	Winter Dec. 15/22 – Apr. 15/23	2	0.02 – 0.36	ug/L	10
Distribution	Summer Jun. 15/23 – Oct. 15/23	2	0.02 – 0.20	ug/L	10

No adverse results were identified.

Reduced Sampling

Town of Minto is now exempt from plumbing sampling for lead due to less than 10% of plumbing results exceeded 10 ug/L.

Distribution sampling is still required every “winter” and “summer” period.

- each year for pH and alkalinity
- once every 3 years for lead

	Sample Date	Number of Samples	Range of Results (min) – (max)	Unit of Measure	Guideline
Winter Alkalinity	07/02/25	2	309 - 318	mg/L	30 - 500
Winter pH	07/02/25	2	7.05 - 7.15		6.5 – 8.5
Summer Alkalinity	31/07/25	2	299 - 306	mg/L	30 - 500
Summer pH	31/07/25	2	7.31 – 7.40		6.5 – 8.5

Summary of Organic parameters sampled during this reporting period or the most recent sample results.
Clifford Well #1

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	22/05/25	< 0.02	ug/L	No
Atrazine	22/05/25	< 0.01	ug/L	No
Atrazine + N-dealkylated metabolites	22/05/25	< 0.01	ug/L	No
Azinphos-methyl	22/05/25	< 0.05	ug/L	No
Benzene	22/05/25	< 0.32	ug/L	No
Benzo(a)pyrene	22/05/25	< 0.004	ug/L	No
Bromoxynil	22/05/25	< 0.33	ug/L	No
Carbaryl	22/05/25	< 0.05	ug/L	No
Carbofuran	22/05/25	< 0.01	ug/L	No
Carbon Tetrachloride	22/05/25	< 0.17	ug/L	No
Chlorpyrifos	22/05/25	< 0.02	ug/L	No
Desethyl Atrazine	22/05/25	< 0.01	ug/L	No
Diazinon	22/05/25	< 0.02	ug/L	No
Dicamba	22/05/25	< 0.2	ug/L	No
1,2-Dichlorobenzene	22/05/25	< 0.41	ug/L	No
1,4-Dichlorobenzene	22/05/25	< 0.36	ug/L	No
1,2-Dichloroethane	22/05/25	< 0.35	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	22/05/25	< 0.33	ug/L	No
Dichloromethane	22/05/25	< 0.35	ug/L	No



Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
2-4 Dichlorophenol	22/05/25	< 0.15	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	22/05/25	< 0.19	ug/L	No
Diclofop-methyl	22/05/25	< 0.4	ug/L	No
Dimethoate	22/05/25	< 0.06	ug/L	No
Diquat	22/05/25	< 1.0	ug/L	No
Diuron	22/05/25	< 0.03	ug/L	No
Glyphosate	22/05/25	< 1.0	ug/L	No
Malathion	22/05/25	< 0.02	ug/L	No
MCPA	22/05/25	< 0.00012	mg/L	No
Metolachlor	22/05/25	< 0.01	ug/L	No
Metribuzin	22/05/25	< 0.02	ug/L	No
Monochlorobenzene	22/05/25	< 0.3	ug/L	No
Paraquat	22/05/25	< 1.0	ug/L	No
Pentachlorophenol	22/05/25	< 0.15	ug/L	No
Phorate	22/05/25	< 0.01	ug/L	No
Picloram	22/05/25	< 1.0	ug/L	No
Polychlorinated Biphenyls (PCB) - Total	22/05/25	< 0.04	ug/L	No
Prometryne	22/05/25	< 0.03	ug/L	No
Simazine	22/05/25	< 0.01	ug/L	No
Terbufos	22/05/25	< 0.01	ug/L	No
Tetrachloroethylene (perchloroethylene)	22/05/25	< 0.35	ug/L	No
2,3,4,6-Tetrachlorophenol	22/05/25	< 0.2	ug/L	No
Triallate	22/05/25	< 0.01	ug/L	No
Trichloroethylene	22/05/25	< 0.44	ug/L	No
2,4,6-Trichlorophenol	22/05/25	< 0.25	ug/L	No
Trifluralin	22/05/25	< 0.02	ug/L	No
Vinyl Chloride	22/05/25	< 0.17	ug/L	No

Clifford Well #3

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	22/05/25	< 0.02	ug/L	No
Atrazine	22/05/25	< 0.01	ug/L	No
Atrazine + N-dealkylated metabolites	22/05/25	< 0.01	ug/L	No
Azinphos-methyl	22/05/25	< 0.05	ug/L	No
Benzene	22/05/25	< 0.32	ug/L	No
Benzo(a)pyrene	22/05/25	< 0.004	ug/L	No
Bromoxynil	22/05/25	< 0.33	ug/L	No
Carbaryl	22/05/25	< 0.05	ug/L	No
Carbofuran	22/05/25	< 0.01	ug/L	No
Carbon Tetrachloride	22/05/25	< 0.17	ug/L	No
Chlorpyrifos	22/05/25	< 0.02	ug/L	No
Desethyl Atrazine	22/05/25	< 0.01	ug/L	No
Diazinon	22/05/25	< 0.02	ug/L	No
Dicamba	22/05/25	< 0.2	ug/L	No
1,2-Dichlorobenzene	22/05/25	< 0.41	ug/L	No
1,4-Dichlorobenzene	22/05/25	< 0.36	ug/L	No
1,2-Dichloroethane	22/05/25	< 0.35	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	22/05/25	< 0.33	ug/L	No



Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Dichloromethane	22/05/25	< 0.35	ug/L	No
2-4 Dichlorophenol	22/05/25	< 0.15	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	22/05/25	< 0.19	ug/L	No
Diclofop-methyl	22/05/25	< 0.4	ug/L	No
Dimethoate	22/05/25	< 0.06	ug/L	No
Diquat	22/05/25	< 1.0	ug/L	No
Diuron	22/05/25	< 0.03	ug/L	No
Glyphosate	22/05/25	< 1.0	ug/L	No
Malathion	22/05/25	< 0.02	ug/L	No
MCPA	22/05/25	< 0.00012	mg/L	No
Metolachlor	22/05/25	< 0.01	ug/L	No
Metribuzin	22/05/25	< 0.02	ug/L	No
Monochlorobenzene	22/05/25	< 0.3	ug/L	No
Paraquat	22/05/25	< 1.0	ug/L	No
Pentachlorophenol	22/05/25	< 0.15	ug/L	No
Phorate	22/05/25	< 0.01	ug/L	No
Picloram	22/05/25	< 1.0	ug/L	No
Polychlorinated Biphenyls (PCB) - Total	22/05/25	< 0.04	ug/L	No
Prometryne	22/05/25	< 0.03	ug/L	No
Simazine	22/05/25	< 0.01	ug/L	No
Terbufos	22/05/25	< 0.01	ug/L	No
Tetrachloroethylene (perchloroethylene)	22/05/25	< 0.35	ug/L	No
2,3,4,6-Tetrachlorophenol	22/05/25	< 0.2	ug/L	No
Triallate	22/05/25	< 0.01	ug/L	No
Trichloroethylene	22/05/25	< 0.44	ug/L	No
2,4,6-Trichlorophenol	22/05/25	< 0.25	ug/L	No
Trifluralin	22/05/25	< 0.02	ug/L	No
Vinyl Chloride	22/05/25	< 0.17	ug/L	No

Clifford Well #4

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	22/05/25	< 0.02	ug/L	No
Atrazine	22/05/25	< 0.01	ug/L	No
Atrazine + N-dealkylated metabolites	22/05/25	< 0.01	ug/L	No
Azinphos-methyl	22/05/25	< 0.05	ug/L	No
Benzene	22/05/25	< 0.32	ug/L	No
Benzo(a)pyrene	22/05/25	< 0.004	ug/L	No
Bromoxynil	22/05/25	< 0.33	ug/L	No
Carbaryl	22/05/25	< 0.05	ug/L	No
Carbofuran	22/05/25	< 0.01	ug/L	No
Carbon Tetrachloride	22/05/25	< 0.17	ug/L	No
Chlorpyrifos	22/05/25	< 0.02	ug/L	No
Desethyl Atrazine	22/05/25	< 0.01	ug/L	No
Diazinon	22/05/25	< 0.02	ug/L	No
Dicamba	22/05/25	< 0.2	ug/L	No
1,2-Dichlorobenzene	22/05/25	< 0.41	ug/L	No
1,4-Dichlorobenzene	22/05/25	< 0.36	ug/L	No
1,2-Dichloroethane	22/05/25	< 0.35	ug/L	No



Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
1,1-Dichloroethylene (vinylidene chloride)	22/05/25	< 0.33	ug/L	No
Dichloromethane	22/05/25	< 0.35	ug/L	No
2-4 Dichlorophenol	22/05/25	< 0.15	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	22/05/25	< 0.19	ug/L	No
Diclofop-methyl	22/05/25	< 0.4	ug/L	No
Dimethoate	22/05/25	< 0.06	ug/L	No
Diquat	22/05/25	< 1.0	ug/L	No
Diuron	22/05/25	< 0.03	ug/L	No
Glyphosate	22/05/25	< 1.0	ug/L	No
Malathion	22/05/25	< 0.02	ug/L	No
MCPA	22/05/25	< 0.00012	mg/L	No
Metolachlor	22/05/25	< 0.01	ug/L	No
Metribuzin	22/05/25	< 0.02	ug/L	No
Monochlorobenzene	22/05/25	< 0.3	ug/L	No
Paraquat	22/05/25	< 1.0	ug/L	No
Pentachlorophenol	22/05/25	< 0.15	ug/L	No
Phorate	22/05/25	< 0.01	ug/L	No
Picloram	22/05/25	< 1.0	ug/L	No
Polychlorinated Biphenyls (PCB) - Total	22/05/25	< 0.04	ug/L	No
Prometryne	22/05/25	< 0.03	ug/L	No
Simazine	22/05/25	< 0.01	ug/L	No
Terbufos	22/05/25	< 0.01	ug/L	No
Tetrachloroethylene (perchloroethylene)	22/05/25	< 0.35	ug/L	No
2,3,4,6-Tetrachlorophenol	22/05/25	< 0.2	ug/L	No
Triallate	22/05/25	< 0.01	ug/L	No
Trichloroethylene	22/05/25	< 0.44	ug/L	No
2,4,6-Trichlorophenol	22/05/25	< 0.25	ug/L	No
Trifluralin	22/05/25	< 0.02	ug/L	No
Vinyl Chloride	22/05/25	< 0.17	ug/L	No

Clifford Distribution System

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

Parameter	Sample Date	Result Value RAA	Unit of Measure	ODWS Criteria
THM (NOTE: latest quarterly average shown)	19/03/25	18.25	ug/L	100
	23/05/25	17.75		
	15/08/25	18.00		
	14/11/25	17.50		



Parameter	Sample Date	Result Value RAA	Unit of Measure	ODWS Criteria
HAA (NOTE: latest quarterly average shown)	19/03/25	< 5.3	ug/L	80
	23/05/25	< 5.3		
	15/08/25	< 5.3		
	14/11/25	< 5.3		

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

Clifford Well #1

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Arsenic	19/03/25	6.8	ug/L	10
Arsenic	22/05/25	7.6	ug/L	10
Arsenic - (Sch. 23 & 24)	23/05/25	7.8	ug/L	10
Arsenic	15/08/25	6.3	ug/L	10
Arsenic	14/11/25	7.3	ug/L	10

Clifford Well #4

Parameter	Sample Date	Result Value	Unit of Measure	ODWS Criteria
Arsenic	19/03/25	6.6	ug/L	10
Arsenic	22/05/25	7.4	ug/L	10
Arsenic - (Sch. 23 & 24)	23/05/25	7.1	ug/L	10
Arsenic	15/08/25	6.3	ug/L	10
Arsenic	14/11/25	6.5	ug/L	10