2025 ANNUAL WASTEWATER TREATMENT SYSTEM SUMMARY REPORT

Mount Elgin Wastewater Treatment Plant

1. GENERAL INFORMATION

Oxford County (the County) prepares a report summarizing wastewater treatment operation and treated effluent discharge quality for every municipal wastewater treatment plant (WWTP) annually. The reports detail the latest effluent quality testing results and quantity statistics, and any non-compliance conditions that may have occurred for the previous year. They are available for review by the end of March on the County website at http://www.oxfordcounty.ca/waterwastewater or by contacting the Public Works Department.

All efforts have been made to ensure the information presented in this report is as accurate as possible.

If you have any questions or comments concerning the report, please contact the County at the address and phone number listed below or by email at wastewater@oxfordcounty.ca.

Wastewater Treatment Plant:	Mount Elgin WWTP
Wastewater Treatment Plant Number:	120002870
Certificate of Approval (CofA):	0611-6Q3JQL (May 25, 2006)
Reporting Period:	January 1, 2025 – December 31, 2025

Wastewater Treatment Plant Owner & Contact Information:

Oxford County Public Works Department - Wastewater Services
P.O. Box 1614
21 Reeve Street
Woodstock, ON N4S 7Y3
Telephone: 519-539-9800
Toll Free: 866-537-7778
Email: wastewater@oxfordcounty.ca

1.1 System Description

The Mount Elgin WWTP consists of a central Recirculating Sand Filter (RSF) and subsurface discharge. The wastewater collection system includes two (2) sewage pumping stations, 6.4 kilometers of sanitary gravity sewers, 0.2 kilometers of sanitary forcemain sewers and 1.3 kilometers of sanitary low-pressure sewers. Within the wastewater collection system, individual properties are serviced by septic tanks where sewage is pretreated to remove solids and grease before discharge to a small diameter variable grade sewer. The small diameter collection mains direct the primary treated effluent to a sewage pumping station.

At the WWTP, the primary treated effluent is pumped into the recirculation tanks. From there the influent is pumped to the recirculating sand filters and then collected and pumped through a splitter valve that allows 80% of the flow to recirculate and 20% of the flow to enter the dosing tanks. From the dosing tanks, treated effluent is pumped to the shallow buried trench drain fields that provide for the subsurface discharge of the treated effluent. Effluent samples are collected from the dosing tanks ahead of the drain fields.

A standby generator is available to power the plant in case of a power failure.

The system is maintained by licensed wastewater system operators and licensed mechanics that operate, monitor, and maintain the treatment equipment, in accordance with the regulations, and collect samples as required by the CofA. Alarms automatically notify operators in the event of failure of critical operational requirements.

Facility	Mount Elgin WWTP
Design Capacity	190.5 m^3/d
2025 Average Daily Flow	119 m^3/d
2025 Maximum Daily Flow	309 m^3/d
2025 Total Volume of Wastewater	43,554 $m^3/year$

1.2 Major Expenses

In 2025, the Mount Elgin WWTP had forecast operating and maintenance expenditures of approximately $273,000.

Planning for major wastewater system expenses is included within Oxford County's Wastewater Services Master Plan and managed according to our Asset Management and Capital Replacement Program. In addition to regular operational and maintenance expenditures, Capital Improvement Projects for Mount Elgin were forecast at approximately $400,000 which included improvements to the wastewater collection system and the Mount Elgin WWTP.

Notable Mount Elgin Capital Improvement Projects included:

- $200,000 for Mount Elgin WWTP Capacity Expansion.

Capital Improvement Projects for all systems included:

- $1,340,000 to develop Countywide Supervisory Control and Data Acquisition (SCADA) Master Plan for all wastewater systems.

2. SUMMARY AND INTERPRETATION OF MONITORING DATA

2.1 Effluent Quality Assurance and Control Measures

Sampling Procedure

Grab samples are collected from the influent lift station every three months. Samples are tested for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Suspended Solids (TSS), Total Phosphorus (TP), and Total Kjeldahl Nitrogen (TKN).

Effluent grab samples are analyzed for $CBOD_5$, TSS, TP, ammonia, TKN, nitrite, nitrate, pH, and E. coli every three months at a minimum.

Groundwater testing for nitrite, nitrate, chloride and pH is completed every three months at a minimum. Enhanced groundwater sampling has been implemented (January 2024 through December 2026, results reviewed by a Hydrogeologist consultant) to further define and understand the effects of the facility on shallow groundwater at the site. Enhanced sampling includes monthly sample collection and testing for the previously listed parameters, in addition to fluoride, sulphate, sodium, potassium, total dissolved solids, total Kjeldahl nitrogen and ammonia. Oxford County's Hydrogeologist has reviewed the monitoring program results and reports on the program from GEI Consultants. There are no concerns at this time.

Additionally, as part of the ongoing WWTP expansion, a contaminant attenuation zone (CAZ) was established adjacent to the WWTP. Each month, groundwater sampling results were reviewed by a Hydrogeologist consultant retained by the County, confirming CAZ compliance throughout 2025.

A table of all 2025 groundwater monitoring sample results are included in this report in Appendix 'A'.

Laboratory and Field Testing

All samples for parameters used to evaluate compliance are analyzed by a licensed laboratory except for pH, which is tested in the field during collection. Laboratory analysis is performed by SGS Lakefield Research Ltd. Any other information generated in-house is used in process control but is not included in this report.

2.2 WWTP Performance and Effluent Quality

Influent Streams and Effluent Streams

The Mount Elgin WWTP provided effective treatment in 2025 and was 100% compliant with all its final effluent objectives.

There are no effluent limits for the system, however, the CofA requires the County to use best efforts to operate the Mount Elgin WWTP with the objective that the average annual

concentrations of both $CBOD_5$ and Suspended Solids do not exceed 10 mg/L in the effluent ahead of the subsurface disposal system. The County is also required to collect grab samples of raw sewage, effluent ahead of the subsurface disposal system, and groundwater in monitoring wells around the Mount Elgin WWTP.

Graphs of discharge parameters versus effluent discharge limit are included in this report in Appendix 'A'.

Influent wastewater characteristics results are presented in the table below:

Influent Wastewater Characteristics (annual average)		
Parameter	**Concentration (mg/L)**	**Loading (kg/d)**
$CBOD_5$	127	15
Total Suspended Solids	35	4.2
Total Phosphorus	6.7	0.8
Total Kjeldahl Nitrogen	63	7.5

2.3 Final Effluent Design Objectives

Objectives are non-enforceable effluent quality values which the Owner is obligated to use best efforts to strive towards achieving on an ongoing basis. These objectives are to be used as a mechanism to trigger corrective action proactively, and voluntarily before environmental impairment occurs and before the compliance limits are exceeded.

All effluent discharge objectives listed in the Mount Elgin WWTP CofA were met in 2025.

The following table presents the range of effluent discharge values vs. CofA objectives and the annual average effluent concentration, ahead of the subsurface disposal system:

Effluent Parameter	**Sample Frequency**	**Annual Average Objective Concentration** (mg/L)	**Quarterly Results Min-Max** (mg/L)	**Annual Average Effluent Concentration** (mg/L)
$CBOD_5$	quarterly	10.0	2.5 – 5.0	3.5
Total Suspended Solids	quarterly	10.0	2.5 – 14.0	5.8

3. OVERFLOWS, BYPASSING, UPSETS, SPILLS, AND ABNORMAL CONDITIONS

There were no overflows, bypasses, upsets, spills, or abnormal conditions for 2025.

There were two (2) complaints received in 2025.

On February 28th, the Ministry of the Environment, Conservation and Parks (MECP) contacted Oxford County in response to a call they had received about the effluent disposal beds being flooded. A written response was sent to the MECP, which included pictures, showing that effluent disposal beds were not flooded. The wooded wetland areas north of the disposal beds did contains a small amount of standing water, which is typical at most times of the year.

On March 5th, the MECP contacted the County in response to a call they had received about the effluent disposal beds being flooded. The MECP and the County conducted a site meeting and tour of the WWTP later that day. No standing water was observed on the effluent disposal beds.

There were no additional complaints in 2025.

4. MAINTENANCE OF WORKS

The operating and maintenance staff at the Mount Elgin WWTP conducts regularly scheduled maintenance of the WWTP equipment. The Mount Elgin WWTP utilizes a database system known as Cartegraph to issue work orders and maintain records for regular maintenance and repair at the WWTP.

5. MONITORING EQUIPMENT MAINTENANCE AND CALIBRATION

The calibration of flow meters was conducted by JBF Controls Ltd. in accordance with the requirements of the Mount Elgin WWTP CofA. The records are kept on-site at the Mount Elgin WWTP.

All other operational monitoring equipment was calibrated by staff and records are kept on-site at the Mount Elgin WWTP.

6. INSPECTION, PILOTS, AND TRIALS

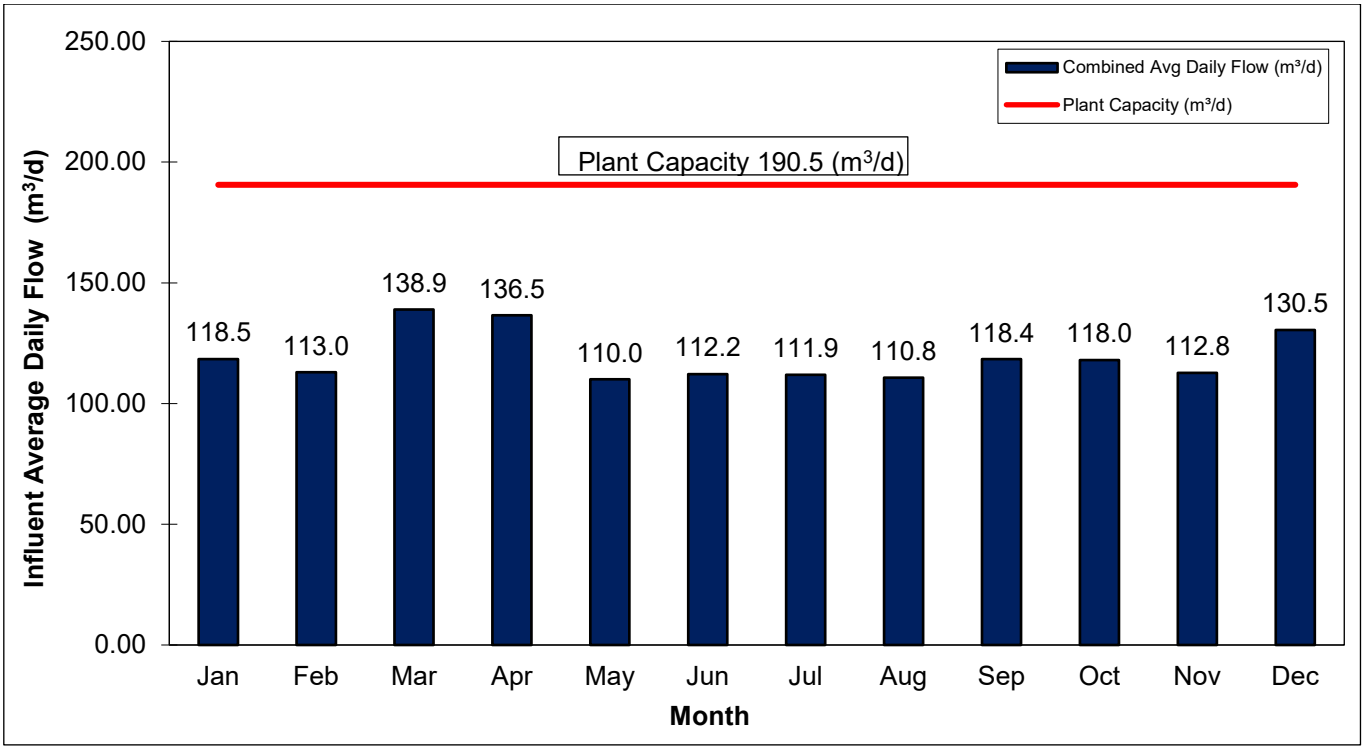
The MECP did not conduct an inspection of the Mount Elgin WWTP in 2025. MECP inspection typically occurs every three years.

WWTP Expansion

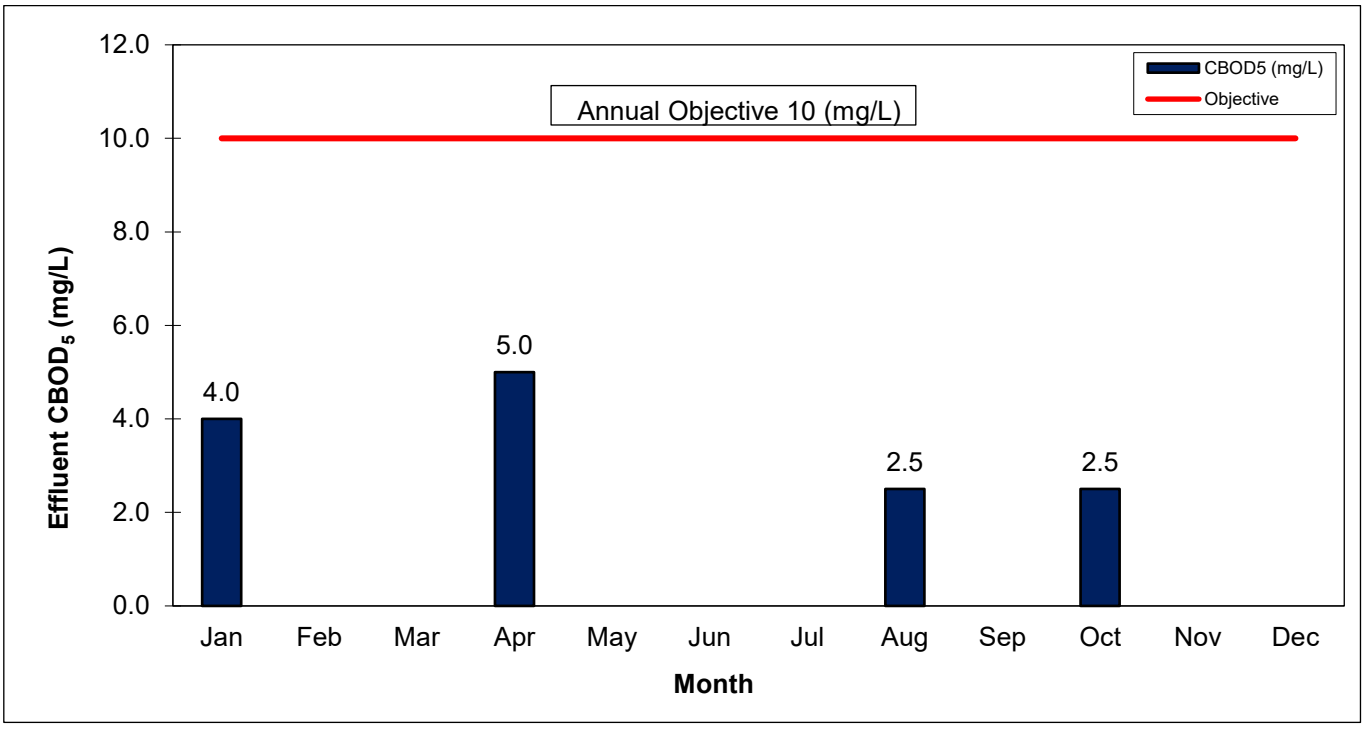
To meet the future wastewater treatment servicing needs of the community, design work continued in 2025, for the Phase 3 and 4 expansions of the Mount Elgin WWTP, to increase the rated capacity of the system from 190.5 m^3/day to 381 m^3/day. The project includes a flow equalization tank, additional recirculation tanks, sand filters, and disposal beds as well as an electrical upgrade. Design is being finalized, and pending MECP approvals, construction is expected to begin in 2026.

APPENDIX A: GRAPHS OF 2025 DISCHARGE PARAMETERS VS. EFFLUENT DISCHARGE LIMITS AND GROUNDWATER SAMPLING RESULTS

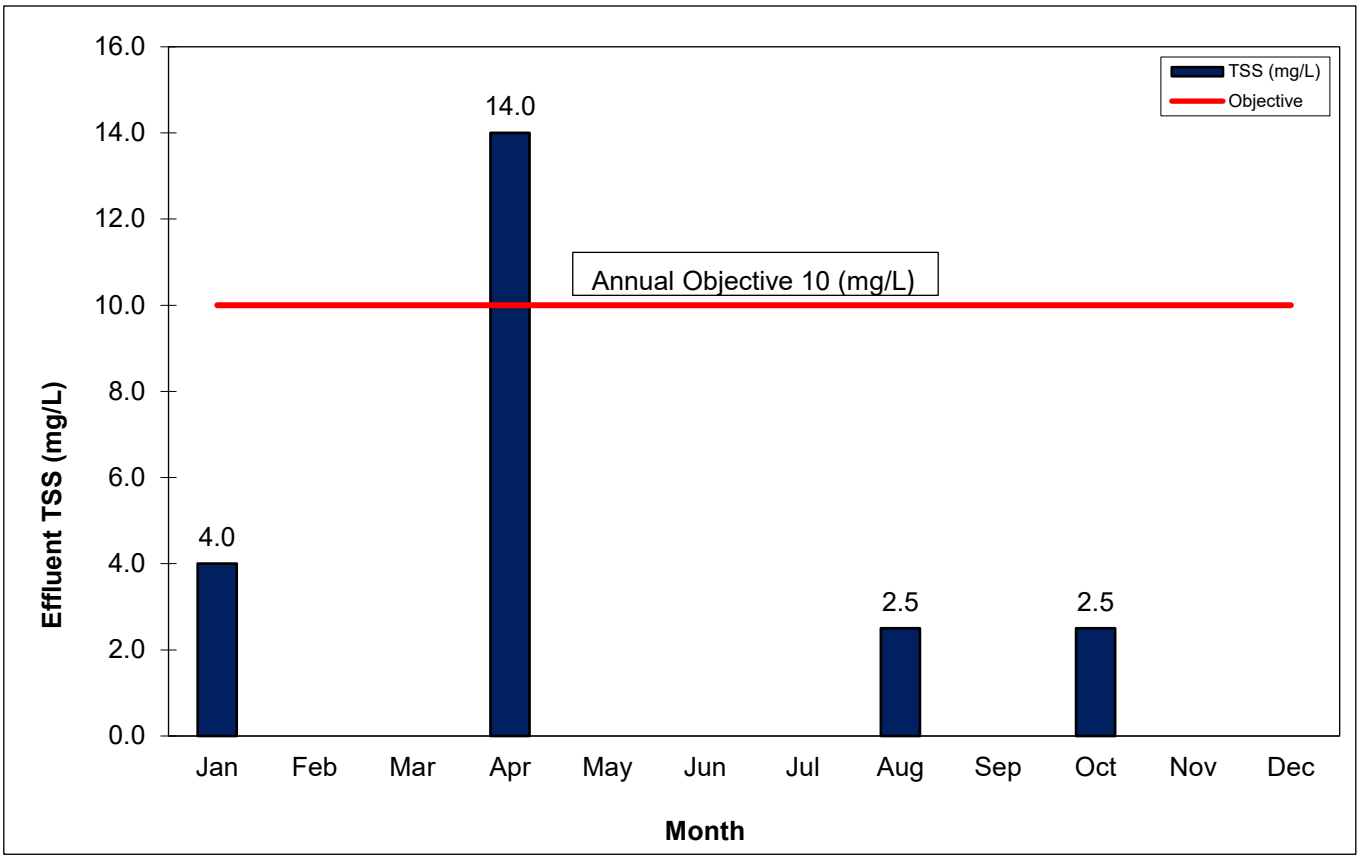
Mount Elgin WWTP Influent Monthly Average Daily Flow in Cubic Meters per Day, 2025



Mount Elgin WWTP Effluent $CBOD_5$ (mg/L), 2025



Mount Elgin WWTP Effluent TSS (mg/L), 2025



Mount Elgin WWTP Groundwater Sampling Results, 2025

	1/8/2025												1/24/2025												2/5/2025											
Parameter (mg/L)	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Top of casing elevation (m ASL)	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186
Top of casing stickup above ground level (m)	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040
Depth to water below top of casing (m)	*	1.770	1.550	1.800	*	2.050	*	1.650	2.000	2.130	1.470	2.050	1.420	-	-	-	2.090	-	0.980	-	-	-	-	-	1.350	1.920	1.720	1.980	2.110	2.250	0.730	1.690	2.020	2.370	1.770	2.150
Water level elevation (m ASL)	275.449	273.683	273.440	273.397	275.405	273.815	274.551	273.717	273.499	273.526	273.515	273.136	274.029	275.453	274.990	275.197	273.315	275.865	273.571	275.367	275.499	275.656	274.985	275.186	274.099	273.533	273.270	273.217	273.295	273.615	273.821	273.677	273.479	273.286	273.215	273.036
Ammonia+Ammonium (N)	*	0.2	0.1	0.1	*	0.1	*	0.1	0.1	0.1	0.1	0.1	0.1	-	-	-	0.1	-	0.1	-	-	-	-	-	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Temperature Upon Receipt	*	6	6	6	*	6	*	6	6	6	6	6	5	-	-	-	5	-	5	-	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	7
Total Dissolved Solids	*	223	506	477	*	454	*	1170	286	600	1310	500	706	-	-	-	434	-	657	-	-	-	-	-	591	211	483	574	434	574	829	1210	326	763	1310	511
Total Kjeldahl Nitrogen	*	0.5	0.5	1.1	*	0.6	*	0.5	0.5	0.5	0.7	0.5	0.5	-	-	-	0.7	-	0.5	-	-	-	-	-	0.6	0.5	0.5	0.9	0.7	0.5	0.6	0.5	0.5	0.5	0.5	0.5
Fluoride	*	1.16	0.81	0.47	*	0.94	*	0.18	0.27	0.12	0.42	0.52	0.59	-	-	-	0.31	-	0.94	-	-	-	-	-	0.52	1.14	0.8	0.52	0.34	0.81	0.86	0.23	0.3	0.13	0.46	0.55
Nitrate (as N)	*	0.15	0.35	3.5	*	11.9	*	0.06	0.14	4.14	0.09	0.17	0.06	-	-	-	0.06	-	0.08	-	-	-	-	-	0.06	0.06	0.07	4.45	0.06	8.89	0.98	0.06	0.06	9.84	0.13	0.1
Nitrate + Nitrite (as N)	*	0.18	0.35	3.5	*	11.9	*	0.06	0.14	4.14	0.09	0.21	0.06	-	-	-	0.06	-	0.08	-	-	-	-	-	0.06	0.06	0.07	4.45	0.06	8.89	1.17	0.06	0.06	9.84	0.13	0.1
Nitrite (as N)	*	0.03	0.03	0.03	*	0.03	*	0.03	0.03	0.03	0.03	0.03	0.03	-	-	-	0.03	-	0.03	-	-	-	-	-	0.03	0.03	0.03	0.03	0.03	0.03	0.19	0.03	0.03	0.03	0.03	0.03
Potassium (dissolved)	*	1.10	1.43	3.82	*	5.18	*	1.59	0.424	0.94	10.3	1.15	1.64	-	-	-	1.56	-	1.97	-	-	-	-	-	1.57	1.02	1.14	4.24	1.71	6.2	2.47	1.72	0.466	1.26	13.3	0.986
Sodium (dissolved)	*	27.7	77.7	39.3	*	57.6	*	164	3.24	85.4	50.1	19.6	47.2	-	-	-	46.8	-	97.5	-	-	-	-	-	41	26.4	76.6	65.1	59	93.5	139	158	4.74	115	61.7	22.9
Sulphate	*	17	96	84	*	38	*	270	20	53	620	51	130	-	-	-	56	-	46	-	-	-	-	-	82	17	95	100	49	58	59	320	25	62	600	88
Chloride	*	8	87	6	*	47	*	260	12	160	46	68	120	-	-	-	9	-	160	-	-	-	-	-	82	2	82	6	8	78	220	260	23	200	39	67
pH	*	7.62	7.63	7.26	*	7.38	*	7.12	7.4	7.33	7.07	7.42	7.32	-	-	-	7.37	-	7.46	-	-	-	-	-	7.24	7.86	7.87	7.37	7.19	7.3	7.26	7.2	7.67	7.37	7.24	7.86

* The groundwater monitoring wells were unable to be sampled on January 8/25, and were resampled on January 24/25
m ASL: meters above sea level

	3/31/2025												4/30/2025												5/28/2025											
Parameter (mg/L)	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Top of casing elevation (m ASL)	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186
Top of casing stickup above ground level (m)	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040
Depth to water below top of casing (m)	1.150	1.540	1.250	1.370	1.440	2.040	0.630	1.400	1.440	1.790	1.300	1.750	1.370	1.830	1.680	2.020	2.030	2.220	0.670	1.580	1.720	2.100	1.910	2.020	1.450	1.840	1.680	1.900	2.020	2.160	0.720	1.700	1.880	2.260	1.850	2.070
Water level elevation (m ASL)	274.299	273.913	273.740	273.827	273.965	273.825	273.921	273.967	274.059	273.866	273.685	273.436	274.079	273.623	273.310	273.177	273.375	273.645	273.881	273.787	273.779	273.556	273.075	273.166	273.999	273.613	273.310	273.297	273.385	273.705	273.831	273.667	273.619	273.396	273.135	273.116
Ammonia+Ammonium (N)	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Temperature Upon Receipt	7	7	7	7	7	7	7	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7
Total Dissolved Solids	734	246	523	463	414	540	309	1150	289	737	1260	597	749	303	529	480	374	606	277	1190	269	554	1290	566	723	209	411	660	346	629	251	1000	263	511	1160	563
Total Kjeldahl Nitrogen	0.5	0.5	0.5	0.6	0.7	0.5	0.5	0.5	0.5	0.05	0.7	0.5	0.5	0.5	0.5	1.5	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5	0.5	1.1	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Fluoride	0.58	1.09	0.84	0.5	0.3	0.76	1.09	0.26	0.27	0.14	0.44	0.5	0.7	1.16	1.29	0.5	0.31	0.68	1.18	0.3	0.33	0.13	0.51	0.52	0.81	1.03	0.87	0.5	0.3	0.72	1	0.22	0.25	0.18	0.46	0.39
Nitrate (as N)	0.06	0.1	2.78	7.6	0.07	13.3	0.18	0.06	0.13	9.73	0.09	0.08	0.06	0.18	0.27	6.63	0.06	6.58	0.14	0.06	0.07	5	0.06	0.11	0.06	0.24	0.52	5.96	0.06	6.73	0.21	0.06	0.06	3.04	0.23	0.18
Nitrate + Nitrite (as N)	0.06	0.1	2.85	7.6	0.07	13.3	0.22	0.06	0.13	9.73	0.09	0.13	0.06	0.18	0.27	6.63	0.06	6.58	0.22	0.06	0.07	5	0.06	0.11	0.06	0.24	0.55	5.96	0.06	6.73	0.21	0.06	0.06	3.04	0.23	0.18
Nitrite (as N)	0.03	0.03	0.07	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.08	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Potassium (dissolved)	1.41	0.75	2.03	3.48	0.925	5.15	1.59	1.8	0.455	0.98	10.9	1	1.45	0.91	1.34	2.91	1.16	5.6	1.4	1.68	0.342	0.86	12	0.868	2.33	0.97	1.51	3.52	1.18	5.62	1.51	1.43	0.317	0.96	10.7	0.784
Sodium (dissolved)	47.2	22.7	89.5	22.5	33.6	62.4	32.5	140	3.67	94	51	21.2	46.7	20.7	59	15.1	21.3	78	20.3	121	1.35	66.6	52.2	18.2	48.7	23.8	66.4	32	18.3	85.6	20.7	112	1.34	69.4	70.6	19.9
Sulphate	130	17	73	70	36	48	2	340	22	48	530	65	110	20	86	80	34	52	11	370	27	41	620	77	77	20	72	69	28	61	11	260	17	25	610	76
Chloride	160	2	120	21	9	79	28	230	7	190	33	76	170	3	70	18	10	64	13	230	4	120	22	71	130	30	70	18	27	76	12	180	5	88	22	72
pH	7.51	8.01	7.9	7.68	7.32	7.44	7.97	7.37	7.79	7.59	7.38	7.74	7.1	7.62	7.77	7.55	7.27	7.21	7.77	7.07	7.34	7.43	7.13	7.5	7.09	7.89	7.89	7.58	7.25	7.54	7.79	7.27	7.3	7.42	7.1	7.62

* The groundwater monitoring wells were unable to be sampled on January 8/25, and were resampled on January 24/25
m ASL: meters above sea level

	6/25/2025												7/30/2025												8/27/2025											
Parameter (mg/L)	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Top of casing elevation (m ASL)	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186
Top of casing stickup above ground level (m)	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040
Depth to water below top of casing (m)	2.000	2.290	1.840	2.120	2.220	2.360	1.040	2.020	2.300	2.570	2.150	3.040	3.000	2.010	1.900	2.120	2.260	2.500	2.450	2.390	2.700	2.820	2.180	2.470	2.960	2.060	1.920	2.240	2.300	2.540	1.980	2.580	2.950	3.010	2.200	2.500
Water level elevation (m ASL)	273.449	273.163	273.150	273.077	273.185	273.505	273.511	273.347	273.199	273.086	272.835	272.146	272.449	273.443	273.090	273.077	273.145	273.365	272.101	272.977	272.799	272.836	272.805	272.716	272.489	273.393	273.070	272.957	273.105	273.325	272.571	272.787	272.549	272.646	272.785	272.686
Ammonia+Ammonium (N)	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.8	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.2	0.2
Temperature Upon Receipt	22	22	22	22	22	22	22	22	22	22	22	22	8	8	8	8	8	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7
Total Dissolved Solids	414	590	514	294	509	731	809	1070	417	420	1120	586	846	231	451	554	411	731	603	869	326	471	940	231	709	234	460	571	429	740	271	723	411	500	1130	637
Total Kjeldahl Nitrogen	0.5	0.5	0.5	1.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.8	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Fluoride	0.94	1.09	0.83	0.55	0.61	0.76	1.12	0.29	0.31	0.16	0.63	0.49	0.65	1.11	0.82	0.53	0.34	0.73	1.1	0.28	0.26	0.06	0.51	0.41	0.89	1.11	0.85	0.51	0.36	0.76	1.13	0.37	0.24	0.18	0.51	0.46
Nitrate (as N)	0.06	0.8	0.29	3.75	0.06	7.76	0.23	0.06	0.06	1.57	0.13	0.22	0.06	0.06	0.33	3.05	0.06	0.86	0.06	0.06	0.06	1.49	0.06	0.06	0.06	0.18	0.15	2.37	0.06	0.06	0.08	0.06	0.06	0.49	0.06	0.06
Nitrate + Nitrite (as N)	0.06	0.8	0.29	3.75	0.06	7.76	0.23	0.06	0.06	1.57	0.13	0.22	0.06	0.06	0.33	3.05	0.06	0.86	0.06	0.06	0.06	1.49	0.06	0.06	0.06	0.18	0.15	2.37	0.06	0.06	0.19	0.06	0.06	0.49	0.06	0.06
Nitrite (as N)	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.11	0.03	0.03	0.03	0.03	0.03
Potassium (dissolved)	2.09	1.37	1.54	3.55	1.37	6.26	1.78	1.72	0.353	0.90	6.92	0.9	2.71	0.97	1.48	4.62	1.66	7.04	1.47	1.89	0.695	1.02	4.87	0.812	2.02	1.43	0.997	3.94	1.74	6.51	1.96	1.66	1.03	1.33	3.18	0.682
Sodium (dissolved)	43.6	22.7	71.6	36	15.3	100	40.2	129	1.47	46.8	50.9	21.8	58.9	24.5	75.5	67.2	18.7	105	19.9	117	3.83	57.9	63.7	24.4	29.9	24	60.2	54.5	18.2	99.9	21.5	82.5	12.4	67.9	43.5	20
Sulphate	150	18	87	60	28	64	27	280	19	30	400	73	140	2	62	90	29	68	11	220	31	37	350	51	200	20	86	89	30	97	23	160	51	61	430	80
Chloride	130	7	72	30	14	140	48	190	4	55	95	73	170	9	92	20	37	160	6	190	8	76	130	94	71	1	63	25	34	170	18	130	33	78	95	78
pH	7.42	7.44	7.77	7.57	7.08	7.17	7.7	7.34	7.49	7.44	7.48	7.84	7.18	7.78	7.58	7.14	7.11	7.22	7.46	7.2	7.49	7.24	7.25	7.71	7.39	7.56	7.6	7	7.07	7.23	7.63	7.44	7.57	7.71	7.19	7.72

* The groundwater monitoring wells were unable to be sampled on January 8/25, and were resampled on January 24/25
m ASL: meters above sea level

	9/25/2025											10/29/2025											11/24/2025										
Parameter (mg/L)	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Top of casing elevation (m ASL)	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186
Top of casing stickup above ground level (m)	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040
Depth to water below top of casing (m)	3.150	2.020	1.860	2.100	2.290	2.590	2.150	2.760	3.100	3.200	2.180	2.540	3.030	2.020	1.830	2.160	2.290	2.580	2.250	2.950	3.070	3.150	2.020	2.420	2.200	1.920	1.700	2.030	2.140	2.460	1.650	2.820	3.260	3.070	1.860	2.300
Water level elevation (m ASL)	272.299	273.433	273.130	273.097	273.115	273.275	272.401	272.607	272.399	272.456	272.805	272.646	272.419	273.433	273.160	273.037	273.115	273.285	272.301	272.417	272.429	272.506	272.965	272.766	273.249	273.533	273.290	273.167	273.265	273.405	272.901	272.547	272.239	272.586	273.125	272.886
Ammonia+Ammonium (N)	0.1	0.3	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Temperature Upon Receipt	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Total Dissolved Solids	560	229	460	526	429	720	226	569	403	494	1050	546	469	251	440	537	469	814	240	603	409	606	1150	631	977	229	397	606	551	803	223	669	506	623	1190	683
Total Kjeldahl Nitrogen	0.5	0.6	0.5	0.9	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	1.1	0.8	0.5	0.6	0.5	0.5	0.5	0.8	0.6	0.5	0.5	0.5	1	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Fluoride	0.94	1.1	0.96	0.47	0.34	0.76	1.09	0.46	0.18	0.18	0.46	0.44	0.88	1.11	0.87	0.45	0.44	0.67	1.12	0.52	0.16	0.57	0.49	0.43	0.49	1.12	0.8	0.48	0.33	0.63	1.05	0.51	0.17	0.18	0.46	0.41
Nitrate (as N)	0.13	0.11	1.02	1.14	0.09	1.76	0.44	0.07	0.06	0.06	0.13	0.23	0.11	0.1	0.32	2.52	0.22	0.06	0.12	0.06	0.06	0.06	0.09	0.09	0.06	0.06	0.14	3.22	0.2	0.03	0.08	0.06	0.06	0.06	0.08	0.22
Nitrate + Nitrite (as N)	0.19	0.15	1.16	1.14	0.09	1.76	0.49	0.07	0.06	0.06	0.17	0.23	0.14	0.1	0.32	2.52	0.22	0.06	0.12	0.06	0.06	0.06	0.09	0.09	0.06	0.06	0.14	3.22	0.2	0.06	0.08	0.06	0.06	0.06	0.08	0.22
Nitrite (as N)	0.06	0.04	0.14	0.03	0.03	0.03	0.05	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Potassium (dissolved)	1.92	1.19	2.68	4.49	1.96	7.57	2.15	1.66	1.13	1.65	3.76	1.07	1.64	1.16	1.68	4.94	2.13	7.48	2	1.8	1.14	1.74	3.99	0.986	2.68	1.00	1.23	4.59	2.08	5.58	1.22	1.55	0.986	1.70	5.11	1.07
Sodium (dissolved)	29.5	25.7	85.5	43.9	19.6	133	17.1	57	19.7	51.2	68.3	27	28.6	27.6	79.3	35.5	35.1	136	22.5	56.1	19	57.9	68.8	27.7	73.8	24.6	65.5	52.4	76.8	112	17.1	60.7	16.1	85.5	61.8	27.9
Sulphate	180	14	43	97	36	130	6	160	73	77	390	79	110	17	76	96	47	96	12	150	70	130	450	76	250	15	83	150	70	99	7	160	140	81	500	97
Chloride	55	5	98	20	32	150	8	80	35	79	110	83	29	4	59	19	29	160	4	74	31	81	94	93	150	3	59	19	31	170	2	98	29	130	79	110
pH	7.87	7.45	7.63	7.15	7.09	7.23	8.32	7.6	7.5	7.64	7.16	7.57	7.33	7.72	7.81	7.49	7.06	7.22	7.52	7.68	7.36	7.46	7.15	7.66	7.6	7.75	7.73	7.24	7.02	7.52	7.72	7.7	7.73	7.68	7.37	7.8

* The groundwater monitoring wells were unable to be sampled on January 8/25, and were resampled on January 24/25

m ASL: meters above sea level

	12/4/2025											
Parameter (mg/L)	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Top of casing elevation (m ASL)	275.449	275.453	274.990	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186
Top of casing stickup above ground level (m)	0.817	1.050	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.860	0.853	1.040
Depth to water below top of casing (m)	1.970	1.940	1.670	1.990	2.110	2.410	1.350	2.750	3.260	3.010	1.830	2.320
Water level elevation (m ASL)	273.479	273.513	273.320	273.207	273.295	273.455	273.201	272.617	272.239	272.646	273.155	272.866
Ammonia+Ammonium (N)	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Temperature Upon Receipt	6	6	6	6	6	6	6	6	6	6	6	6
Total Dissolved Solids	951	211	377	529	529	829	309	634	523	626	1290	611
Total Kjeldahl Nitrogen	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Fluoride	0.49	1.1	0.88	0.5	0.32	0.72	1.12	0.52	0.17	0.19	0.45	0.39
Nitrate (as N)	0.06	0.06	0.29	4.71	0.13	0.17	0.25	0.06	0.06	0.06	0.1	0.2
Nitrate + Nitrite (as N)	0.06	0.06	0.29	4.71	0.13	0.17	0.25	0.06	0.06	0.06	0.1	0.2
Nitrite (as N)	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Potassium (dissolved)	2.51	1.00	1.09	4.29	2.2	5.9	1.44	1.72	1.11	1.71	6.68	1.38
Sodium (dissolved)	94.9	25.9	69.4	35.8	81.8	128	31.6	71.9	17.2	92.7	46.9	30.2
Sulphate	260	17	74	130	63	93	19	170	170	74	570	89
Chloride	190	4	60	17	31	160	24	100	32	120	64	130
pH	7.92	7.6	7.96	7.34	7.18	7.45	7.62	7.58	7.67	7.67	7.22	7.7

* The groundwater monitoring wells were unable to be sampled on January 8/25, and were resampled on January 24/25

m ASL: meters above sea level