

# 2024 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](mailto:wastewater@oxfordcounty.ca).

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<b>Wastewater Treatment Plant:</b>	Mount Elgin WWTP
<b>Wastewater Treatment Plant Number:</b>	120002870
<b>Certificate of Approval (CofA):</b>	0611-6Q3JQL (May 25, 2006)
<b>Reporting Period:</b>	January 1, 2024 – December 31, 2024

#### 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  
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## 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, 5.7 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 to the recirculation tanks. The influent is pumped to the recirculating sand filter and then collected and pumped to a splitter valve that allows 80% of the flow to recirculate and 20% to enter the dosing tank. From the dosing tank, treated effluent is pumped to the shallow buried trench drain field that provides for the subsurface discharge of the treated effluent. Effluent samples are collected from the dosing tank ahead of the drain field.

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 <sup>3</sup> /d
2024 Average Daily Flow	119 m <sup>3</sup> /d
2024 Maximum Daily Flow	344 m <sup>3</sup> /d
2024 Total Volume of Wastewater	43,652 m <sup>3</sup> /year

## 1.2 Major Expenses

In 2024, the Mount Elgin WWTP had forecasted operating and maintenance expenditures of approximately \$236,000.

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, notable Capital Improvement Projects for Mount Elgin were forecasted at approximately \$625,000 for improvements to the wastewater collection system and the Mount Elgin WWTP.

Notable Mount Elgin Capital Improvement Projects included:

- \$625,000 for Mount Elgin WWTP Capacity Expansion

Capital Improvement Projects for all systems included:

- \$427,000 to develop Countywide 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<sub>5</sub>), Total Suspended Solids (TSS), Total Phosphorus (TP), and Total Kjeldahl Nitrogen (TKN).

Effluent grab samples are analyzed for CBOD<sub>5</sub>, TSS, TP, ammonia, TKN, nitrite, nitrate, pH, and E. coli every three months at a minimum.

Groundwater testing for nitrite, nitrate, chloride and pH are completed every three months at a minimum. Enhanced groundwater sampling has been implemented (January 2024 through December 2026) 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 all monitoring well data and will continue to monitor groundwater results on our behalf.

A table of all 2024 groundwater monitoring well 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 2024 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<sub>5</sub> 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 <sub>5</sub>	80	9.5
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 2024.

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 <sub>5</sub>	quarterly	10.0	4.0 – 6.0	4.6
Total Suspended Solids	quarterly	10.0	4.0 – 16.5	7.5

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

On January 26, 2024, heavy rainfall in the area resulted in high flows observed at the Mount Elgin WWTP. The On-call Wastewater Operator was alerted of the high-level condition at the onsite WWTP lift station. The Operator arrived onsite to find influent on the ground, exiting from the joints in the wet well casing. A vacuum truck was dispatched to the Mount Elgin WWTP and was used to clean up the spilled liquid (15 m<sup>3</sup>). The truck then removed approximately 45 m<sup>3</sup> of influent (being transported to a neighbouring WWTP), lowering the level within the lift station wet well further, to reduce the chance of a subsequent spill.

The overflow event was reported to the Spills Action Center and MECP at the time of occurrence.

The planned Inflow & Infiltration (I&I) Reduction Program will aim to reduce future overflow events.

There were no additional overflows, bypassing, upsets, spills, or abnormal conditions for 2024.

There were three (3) complaints received in 2024.

On July 24, the MECP contacted Oxford County in response to a call they had received about a large number of vacuum trucks being used to haul liquid out of the WWTP. A response was sent to the MECP stating that a vacuum truck was used during an overflow event on January 26, and for regular scheduled bi-annual tank maintenance on April 9, 10 and July 9. All removed liquids and materials were transported to a neighbouring WWTP for additional treatment.

On August 8, the MECP contacted Oxford County to in response to a few complaints they had received about trucking of dirt and material from the WWTP. A response was sent to the MECP stating that there wasn't any construction underway at the WWTP or material being trucked offsite. The source was most likely from an adjacent large housing development.

On November 18, the MECP contacted the County as they had received a call from a resident expressing concerns with the existing wastewater system and the recent development in the Village. A response was sent to the MECP, stating that the existing WWTP has adequate capacity to treat all approved development, and the County is actively working on the Phase 3 and 4 expansions of the WWTP to be able to provide capacity for future growth in the Community out to 2046.

There were no additional complaints in 2024.

#### **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**

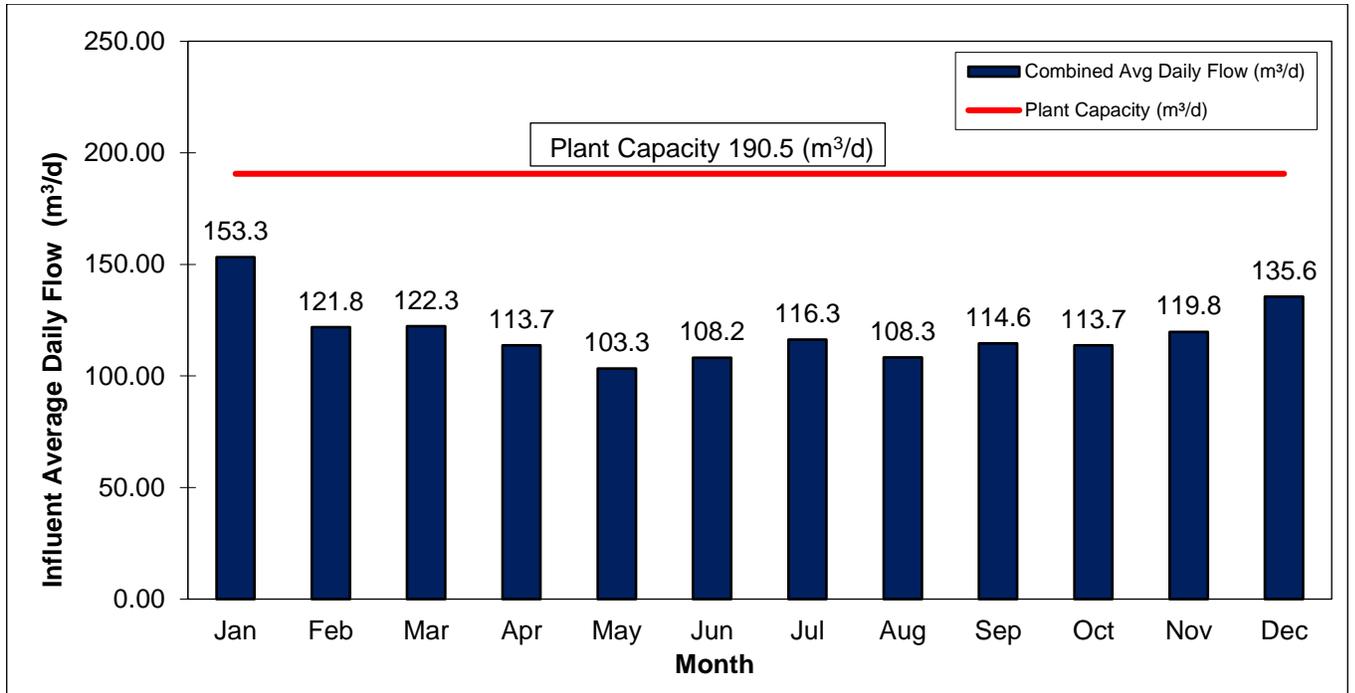
The MECP did not conduct an inspection of the Mount Elgin WWTP in 2024. MECP inspection typically occurs every three years.

## ***WWTP Expansion***

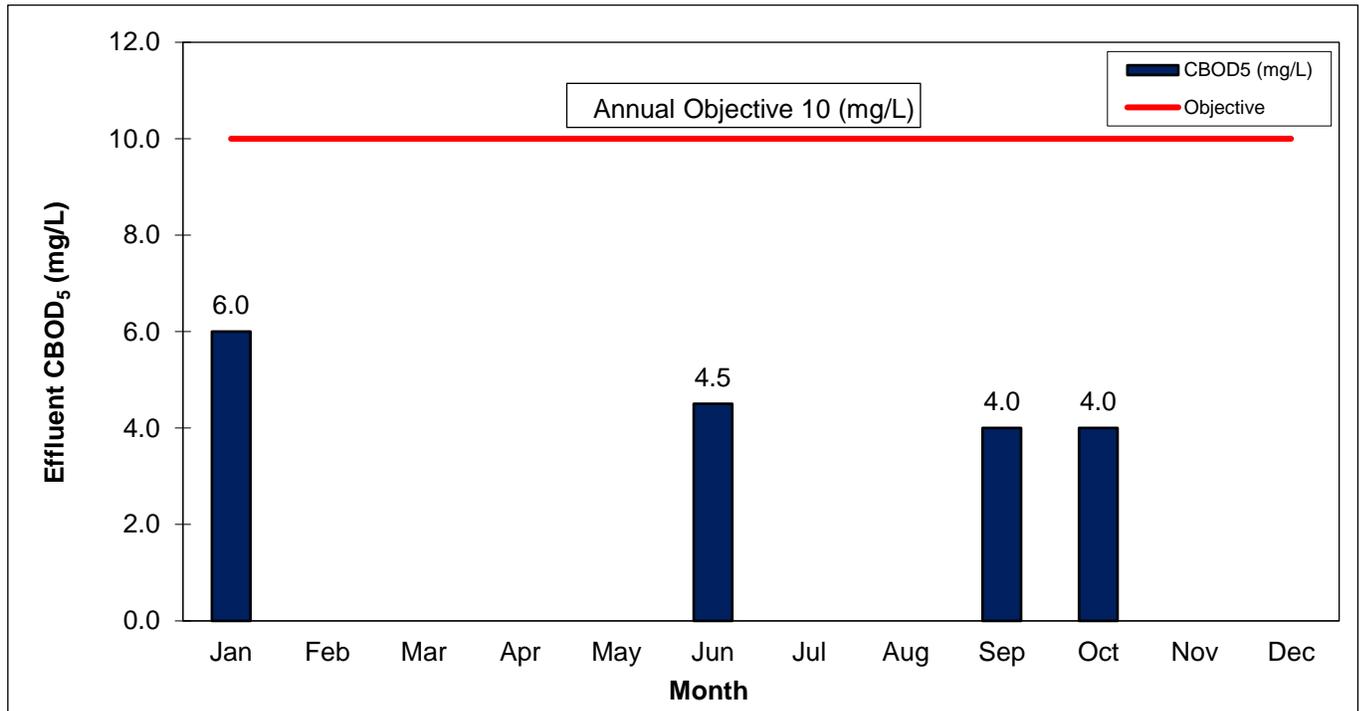
To meet the future wastewater treatment servicing needs of the community, design work continued in 2024, for the Phase 3 and 4 expansions of the Mount Elgin WWTP, to increase the rated capacity of the system from 190.5 m<sup>3</sup>/day to 381 m<sup>3</sup>/day. The project includes a flow equalization tank, additional sand filters and disposal beds as well as an electrical upgrade. Pending MECP approvals, construction is planned for 2025/2026.

## APPENDIX A: GRAPHS OF 2024 DISCHARGE PARAMETERS VS. EFFLUENT DISCHARGE LIMITS AND GROUNDWATER SAMPLING RESULTS

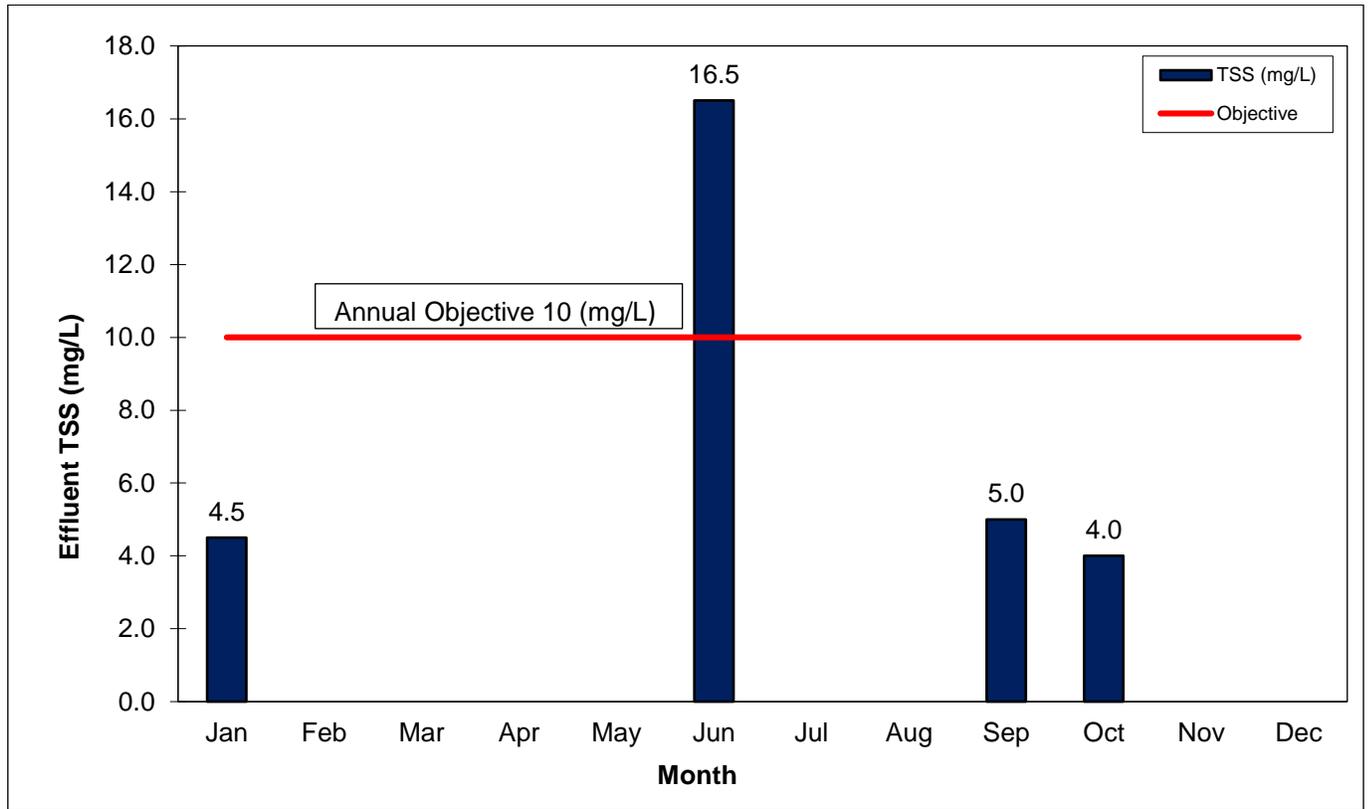
Mount Elgin WWTP Influent Monthly Average Daily Flow in Cubic Meters per Day, 2024



Mount Elgin WWTP Effluent CBOD<sub>5</sub> (mg/L), 2024



### Mount Elgin WWTP Effluent TSS (mg/L), 2024



### Mount Elgin WWTP Groundwater Sampling Results, 2024

Parameter (mg/L)	Date	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)	2024-01-08	275.449	275.453	274.99	275.197	275.405	275.865	*	275.367	275.499	275.656	274.985	275.186
Top of casing stickup above ground level (m)	2024-01-08	0.817	1.05	0.985	0.986	0.958	0.829	*	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-01-08	1.38	2.06	1.55	1.85	2.02	2.19	*	1.65	2.03	2.27	1.66	2
Water level elevation (m ASL)	2024-01-08	274.069	273.393	273.44	273.347	273.385	273.675	*	273.717	273.469	273.386	273.325	273.186
Ammonia Ammonium (N)	2024-01-08	<0.1	0.1	0.9	<0.1	<0.1	<0.1	*	0.1	0.1	0.1	0.2	0.2
Temperature Upon Receipt	2024-01-08	8.0	8.0	8.0	8.0	8.0	8.0	*	8.0	8.0	8.0	8.0	8.0
Total Dissolved Solids	2024-01-08	666	274	514	474	549	877	*	817	363	629	1520	474
Total Kjeldahl Nitrogen	2024-01-08	1.1	1.1	1.6	1.6	1.8	0.5	*	1.2	0.9	1.4	1.4	1.3
Fluoride	2024-01-08	0.47	0.92	0.86	0.45	0.32	0.69	*	0.18	0.23	0.11	0.41	0.66

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Nitrate (as N)	2024-01-08	<0.06	<0.06	1.02	0.19	0.07	33.7	*	0.21	0.59	6.57	0.06	0.06
Nitrate + Nitrite (as N)	2024-01-08	<0.06	<0.06	1.02	0.19	0.07	33.7	*	0.21	0.59	6.57	0.06	0.06
Nitrite (as N)	2024-01-08	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	*	0.03	0.03	0.03	0.06	0.03
Potassium (dissolved)	2024-01-08	0.831	3.32	3.86	4.21	2.00	5.80	*	1.02	0.708	1.01	9.82	1.99
Sodium (dissolved)	2024-01-08	37.0	37.1	75.6	5.63	57.3	138	*	80.2	2.16	61.0	61.9	28.7
Sulphate	2024-01-08	93	30	60	78	55	50	*	230	35	60	670	70
Chloride	2024-01-08	93	31	96	4	7	200	*	150	9	190	55	37
pH	2024-01-08	7.45	7.94	7.94	7.57	7.42	7.43	*	7.64	7.57	7.56	7.46	7.86
Top of casing elevation (m ASL)	2024-01-22	275.449	275.453	274.99	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	*
Top of casing stickup above ground level (m)	2024-01-22	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	*
Depth to water below top of casing (m)	2024-01-22	1.36	1.87	1.52	1.8	2	2.1	0.8	1.56	1.72	2	1.58	*
Water level elevation (m ASL)	2024-01-22	274.089	273.583	273.47	273.397	273.405	273.765	273.751	273.807	273.779	273.656	273.405	*
Ammonia Ammonium (N)	2024-01-22	<0.1	0.6	0.3	<0.1	0.2	<0.1	0.2	<0.1	<0.1	<0.1	0.3	*
Temperature Upon Receipt	2024-01-22	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	*
Total Dissolved Solids	2024-01-22	691	393	433	523	554	820	246	817	300	694	1570	*
Total Kjeldahl Nitrogen	2024-01-22	<0.5	9.9	1.0	1.0	1.0	4.3	<0.5	0.9	<0.5	<0.5	1.2	*
Fluoride	2024-01-22	0.49	0.95	0.85	0.44	0.28	0.88	1.18	0.23	0.30	0.23	0.39	*
Nitrate (as N)	2024-01-22	<0.06	<0.06	<0.06	0.11	0.06	27.3	0.16	0.13	0.26	8.42	<0.06	*
Nitrate + Nitrite (as N)	2024-01-22	<0.06	<0.06	<0.06	0.11	0.06	27.3	0.16	0.13	0.26	8.42	<0.06	*
Nitrite (as N)	2024-01-22	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	*
Potassium (dissolved)	2024-01-22	0.889	4.36	1.62	4.33	1.70	5.82	1.93	1.38	0.738	1.20	7.89	*
Sodium (dissolved)	2024-01-22	35.1	31.5	59.5	6.36	49.6	103	18.1	64.8	2.14	84.8	36.3	*
Sulphate	2024-01-22	120	22	71	76	48	54	24	270	37	51	680	*
Chloride	2024-01-22	130	18	85	6	9	150	5	150	9	220	56	*

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
pH	2024-01-22	7.41	7.59	7.99	7.68	7.57	7.50	7.92	7.81	7.66	7.58	7.52	*
Top of casing elevation (m ASL)	2024-02-05	275.449	275.453	274.99	275.197	275.405	275.865	*	275.367	275.499	275.656	274.985	275.186
Top of casing stickup above ground level (m)	2024-02-05	0.817	1.05	0.985	0.986	0.958	0.829	*	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-02-05	1.33	1.82	1.45	1.64	1.81	2.02	*	1.49	1.55	1.71	1.43	1.76
Water level elevation (m ASL)	2024-02-05	274.119	273.633	273.54	273.557	273.595	273.845	*	273.877	273.949	273.946	273.555	273.426
Ammonia Ammonium (N)	2024-02-05	<0.1	0.1	0.3	0.1	0.1	<0.1	*	<0.1	<0.1	<0.1	0.2	0.2
Temperature Upon Receipt	2024-02-05	6	6	6	6	6	6	*	6	6	6	6	6
Total Dissolved Solids	2024-02-05	697	269	323	517	477	640	*	666	309	514	1530	480
Total Kjeldahl Nitrogen	2024-02-05	1	0.8	0.6	1.5	1.3	<0.5	*	0.8	1	0.7	1.2	0.7
Fluoride	2024-02-05	0.45	1	0.88	0.4	0.26	0.67	*	0.31	0.26	0.1	0.34	0.45
Nitrate (as N)	2024-02-05	<0.06	<0.06	<0.06	<0.06	0.08	16	*	0.07	0.73	5.84	<0.06	<0.06
Nitrate + Nitrite (as N)	2024-02-05	<0.06	<0.06	<0.06	<0.06	0.08	16	*	0.07	0.73	5.84	<0.06	<0.06
Nitrite (as N)	2024-02-05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	*	<0.03	<0.03	<0.03	<0.03	<0.03
Potassium (dissolved)	2024-02-05	0.89	2.29	2.38	4.22	1.21	5.43	*	1.44	0.759	0.804	8.63	1.66
Sodium (dissolved)	2024-02-05	36.7	28.2	60.2	7.99	36.6	84.4	*	39.3	2.23	60.9	41.5	23.5
Sulphate	2024-02-05	130	22	83	92	37	36	*	160	40	27	670	92
Chloride	2024-02-05	89	8	73	4	10	68	*	77	10	83	53	38
pH	2024-02-05	7.42	7.91	8	7.56	7.41	7.48	*	7.62	7.7	7.63	7.56	7.69
Top of casing elevation (m ASL)	2024-02-20	275.449	275.453	274.99	275.197	275.405	275.865	*	275.367	275.499	275.656	274.985	275.186
Top of casing stickup above ground level (m)	2024-02-20	0.817	1.05	0.985	0.986	0.958	0.829	*	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-02-20	1.47	1.87	1.67	1.95	2.05	2.18	*	1.6	1.68	2.07	1.76	2.2
Water level elevation (m ASL)	2024-02-20	273.979	273.583	273.32	273.247	273.355	273.685	*	273.767	273.819	273.586	273.225	272.986
Ammonia Ammonium (N)	2024-02-20	0.2	<0.1	0.2	<0.1	0.3	0.2	*	0.3	<0.1	<0.1	0.1	0.2
Temperature Upon Receipt	2024-02-20	7	7	7	7	7	7	*	7	7	7	7	7

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Total Dissolved Solids	2024-02-20	685	154	350	490	485	420	*	637	335	53	1340	795
Total Kjeldahl Nitrogen	2024-02-20	<0.5	<0.5	0.5	1.2	1.1	<0.5	*	0.6	0.6	0.6	1.1	<0.5
Fluoride	2024-02-20	0.54	1.13	0.98	0.42	0.31	0.63	*	0.28	0.26	0.13	0.39	0.47
Nitrate (as N)	2024-02-20	<0.06	<0.06	<0.06	<0.06	<0.06	22.9	*	0.1	0.62	6.09	0.13	<0.06
Nitrate + Nitrite (as N)	2024-02-20	<0.06	<0.06	<0.06	<0.06	<0.06	22.9	*	0.1	0.62	6.09	0.16	<0.06
Nitrite (as N)	2024-02-20	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	*	<0.03	<0.03	<0.03	<0.03	<0.03
Potassium (dissolved)	2024-02-20	1.46	1.94	1.59	4.42	1.5	6.48	*	1.18	0.645	1.08	10.8	0.995
Sodium (dissolved)	2024-02-20	36.6	24.8	49.1	7.25	53.3	116	*	59.1	1.63	35.8	53.4	21.4
Sulphate	2024-02-20	110	17	52	87	36	55	*	170	36	35	640	76
Chloride	2024-02-20	88	4	57	4	11	170	*	69	7	180	47	41
pH	2024-02-20	7.2	7.67	7.97	7.32	7.23	7.13	*	7.45	7.4	7.41	7.33	7.44
Top of casing elevation (m ASL)	2024-03-04	275.449	275.453	274.99	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)	2024-03-04	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-03-04	1.36	1.74	1.59	1.86	1.9	2.11	0.84	1.51	1.6	2.02	1.55	2.08
Water level elevation (m ASL)	2024-03-04	274.089	273.713	273.4	273.337	273.505	273.755	273.711	273.857	273.899	273.636	273.435	273.106
Ammonia Ammonium (N)	2024-03-04	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Temperature Upon Receipt	2024-03-04	13	13	13	13	13	13	13	13	13	13	13	13
Total Dissolved Solids	2024-03-04	643	234	506	511	437	760	260	526	280	520	1460	443
Total Kjeldahl Nitrogen	2024-03-04	0.5	0.5	0.5	1.1	0.6	1.1	0.5	0.5	0.5	0.8	0.6	0.5
Fluoride	2024-03-04	0.49	0.97	0.78	0.35	0.32	0.56	1.11	0.44	0.26	0.11	0.36	0.49
Nitrate (as N)	2024-03-04	0.06	0.06	0.06	0.06	0.06	26.8	0.14	0.09	0.27	5.19	0.18	0.06
Nitrate + Nitrite (as N)	2024-03-04	0.06	0.06	0.06	0.06	0.06	26.8	0.14	0.09	0.27	5.19	0.18	0.06
Nitrite (as N)	2024-03-04	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)	2024-03-04	1.54	1.83	1.56	3.81	1.66	6.26	1.85	1.38	0.668	1.07	12.5	1.06

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Sodium (dissolved)	2024-03-04	37.4	25.6	65.5	9.56	63.5	139	19.9	41.7	1.9	73.6	75.6	26.2
Sulphate	2024-03-04	110	10	50	87	41	51	6	150	35	36	650	72
Chloride	2024-03-04	94	12	120	4	20	190	39	66	7	120	47	49
pH	2024-03-04	7.53	7.8	7.99	7.61	7.65	7.42	7.97	7.75	7.69	7.73	7.35	7.78
Top of casing elevation (m ASL)	2024-03-18	275.449	275.453	274.99	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	*
Top of casing stickup above ground level (m)	2024-03-18	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	*
Depth to water below top of casing (m)	2024-03-18	1.28	1.62	1.47	1.66	1.76	2	0.9	1.42	1.51	1.82	1.42	*
Water level elevation (m ASL)	2024-03-18	274.169	273.833	273.52	273.537	273.645	273.865	273.651	273.947	273.989	273.836	273.565	*
Ammonia Ammonium (N)	2024-03-18	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	*
Temperature Upon Receipt	2024-03-18	9	9	9	9	9	9	9	9	9	9	9	*
Total Dissolved Solids	2024-03-18	740	203	437	500	446	769	234	394	246	554	1350	*
Total Kjeldahl Nitrogen	2024-03-18	0.6	0.6	0.6	1.2	0.9	5.2	0.5	0.6	0.6	0.6	0.9	*
Fluoride	2024-03-18	0.48	1.02	0.77	0.36	0.31	0.67	1.08	0.61	0.24	0.11	0.41	*
Nitrate (as N)	2024-03-18	0.06	0.06	0.06	0.07	0.32	24.5	0.16	0.11	0.07	7.12	0.12	*
Nitrate + Nitrite (as N)	2024-03-18	0.06	0.06	0.06	0.07	0.32	24.5	0.16	0.11	0.07	7.12	0.12	*
Nitrite (as N)	2024-03-18	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	*
Potassium (dissolved)	2024-03-18	2.19	1.67	1.3	4.27	1.89	8.13	1.97	1.52	0.786	1.63	15.3	*
Sodium (dissolved)	2024-03-18	45.3	25.6	66	11.4	50.2	128	19.7	30.5	1.86	79.2	89	*
Sulphate	2024-03-18	130	16	84	97	45	49	16	81	30	40	660	*
Chloride	2024-03-18	160	2	82	10	24	200	4	37	4	110	28	*
pH	2024-03-18	7.75	8.2	8.04	7.51	7.83	7.57	8.03	8.01	7.83	7.85	7.55	*
Top of casing elevation (m ASL)	2024-04-02	275.449	275.453	274.99	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)	2024-04-02	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-04-02	1.32	1.74	1.53	1.64	1.88	2.07	0.91	1.52	1.555	1.935	1.54	1.94

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Water level elevation (m ASL)	2024-04-02	274.129	273.713	273.46	273.557	273.525	273.795	273.641	273.847	273.944	273.721	273.445	273.246
Ammonia Ammonium (N)	2024-04-02	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Temperature Upon Receipt	2024-04-02	10	10	10	10	10	10	10	10	10	10	10	10
Total Dissolved Solids	2024-04-02	820	271	460	1010	420	820	263	480	309	466	1360	406
Total Kjeldahl Nitrogen	2024-04-02	0.5	0.5	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Fluoride	2024-04-02	0.52	0.98	0.79	0.38	0.34	0.67	1.04	0.57	0.29	0.12	0.37	0.47
Nitrate (as N)	2024-04-02	0.06	0.06	0.06	0.15	0.07	17.1	0.18	0.16	0.09	2.81	0.25	0.06
Nitrate + Nitrite (as N)	2024-04-02	0.06	0.06	0.06	0.19	0.07	17.1	0.18	0.16	0.09	2.81	0.28	0.06
Nitrite (as N)	2024-04-02	0.03	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Potassium (dissolved)	2024-04-02	1.52	1.5	1.14	10.4	1.68	7.52	1.88	1.44	0.689	0.959	13.2	0.868
Sodium (dissolved)	2024-04-02	53.6	25.8	65.4	39.9	40.6	139	19.2	37.8	1.46	58.5	64.4	25.4
Sulphate	2024-04-02	190	15	81	420	33	52	18	98	31	25	590	70
Chloride	2024-04-02	140	1	74	22	25	160	3	42	1	57	30	39
pH	2024-04-02	7.29	7.89	7.98	7.64	7.6	7.32	8.09	7.74	7.54	7.57	7.1	7.67
Top of casing elevation (m ASL)	2024-04-15	275.449	275.453	274.99	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	*
Top of casing stickup above ground level (m)	2024-04-15	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	*
Depth to water below top of casing (m)	2024-04-15	1.25	1.68	1.5	1.35	1.51	1.89	0.9	1.44	1.48	1.695	1.34	*
Water level elevation (m ASL)	2024-04-15	274.199	273.773	273.49	273.847	273.895	273.975	273.651	273.927	274.019	273.961	273.645	*
Ammonia Ammonium (N)	2024-04-15	0.1	0.2	0.4	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.5	*
Temperature Upon Receipt	2024-04-15	12	12	12	12	12	12	12	12	12	12	12	*
Total Dissolved Solids	2024-04-15	603	251	509	500	383	783	283	357	280	443	1430	*
Total Kjeldahl Nitrogen	2024-04-15	1	0.5	0.5	0.8	0.5	0.5	0.5	0.5	0.5	0.5	1.2	*
Fluoride	2024-04-15	0.46	1.02	0.81	0.36	0.32	0.64	1.07	0.71	0.25	0.11	0.48	*
Nitrate (as N)	2024-04-15	0.06	0.06	0.06	0.06	0.1	18.8	0.14	0.14	0.07	2.42	0.12	*

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Nitrate + Nitrite (as N)	2024-04-15	0.06	0.06	0.06	0.06	0.1	18.8	0.14	0.14	0.07	2.42	0.12	*
Nitrite (as N)	2024-04-15	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	*
Potassium (dissolved)	2024-04-15	5.58	2.96	7.4	4.77	1.94	10.6	2.94	2.78	1.09	2.34	13.6	*
Sodium (dissolved)	2024-04-15	30.1	23.9	52.9	10.4	30.5	105	18.5	25.6	1.21	45.5	37.6	*
Sulphate	2024-04-15	110	20	89	69	22	40	11	57	14	19	610	*
Chloride	2024-04-15	71	29	87	11	20	200	17	27	6	59	36	*
pH	2024-04-15	7.26	7.7	7.93	7.86	7.45	7.14	7.88	7.8	7.51	7.6	7.24	*
Top of casing elevation (m ASL)	2024-04-29	275.449	275.453	274.99	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)	2024-04-29	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-04-29	1.32	1.89	1.84	1.76	1.95	2.12	0.83	1.55	1.6	2.02	1.66	1.88
Water level elevation (m ASL)	2024-04-29	274.129	273.563	273.15	273.437	273.455	273.745	273.721	273.817	273.899	273.636	273.325	273.306
Ammonia Ammonium (N)	2024-04-29	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3
Temperature Upon Receipt	2024-04-29	16	16	16	16	16	16	16	16	16	16	16	16
Total Dissolved Solids	2024-04-29	603	217	503	429	366	797	277	414	251	397	1290	489
Total Kjeldahl Nitrogen	2024-04-29	0.5	0.5	0.8	1.4	5	0.5	0.9	0.7	0.8	0.5	0.5	0.5
Fluoride	2024-04-29	0.55	1.17	0.83	0.4	0.39	0.64	1.15	0.73	0.44	0.15	0.44	0.45
Nitrate (as N)	2024-04-29	0.06	0.06	0.06	0.06	0.07	18.3	0.17	0.32	0.06	1.75	0.28	0.06
Nitrate + Nitrite (as N)	2024-04-29	0.06	0.06	0.06	0.06	0.07	18.3	0.17	0.32	0.06	1.75	0.31	0.06
Nitrite (as N)	2024-04-29	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)	2024-04-29	1.69	1.4	1.47	3.85	1.94	8.02	1.83	1.41	0.639	1.19	12.3	1.31
Sodium (dissolved)	2024-04-29	35.3	24.6	63.3	11.6	34.6	114	18.4	31.7	0.96	38.5	89.6	20.3
Sulphate	2024-04-29	120	20	81	66	38	49	22	69	22	25	570	79
Chloride	2024-04-29	65	1	96	4	16	150	4	42	2	43	19	40
pH	2024-04-29	7.06	7.63	7.74	7.28	7.4	6.98	7.58	7.5	7.31	7.39	7.04	7.35

Parameter (mg/L)	Date	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)	2024-05-10	275.449	275.453	274.99	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	*
Top of casing stickup above ground level (m)	2024-05-10	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	*
Depth to water below top of casing (m)	2024-05-10	1.41	1.82	1.74	1.84	1.99	2.12	0.8	1.57	1.65	2.02	1.82	*
Water level elevation (m ASL)	2024-05-10	274.039	273.633	273.25	273.357	273.415	273.745	273.751	273.797	273.849	273.636	273.165	*
Ammonia Ammonium (N)	2024-05-10	0.1	0.3	0.4	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.4	*
Temperature Upon Receipt	2024-05-10	8	8	8	8	8	8	8	8	8	8	8	*
Total Dissolved Solids	2024-05-10	614	271	329	506	383	809	317	546	257	409	1380	*
Total Kjeldahl Nitrogen	2024-05-10	0.5	0.5	0.5	1.2	0.5	0.5	1.6	0.5	0.5	0.5	0.9	*
Fluoride	2024-05-10	0.61	0.94	0.94	0.4	0.4	0.59	1.03	0.38	0.25	0.11	0.34	*
Nitrate (as N)	2024-05-10	0.06	0.06	0.06	0.06	0.06	15.2	0.22	0.83	0.07	2.12	0.06	*
Nitrate + Nitrite (as N)	2024-05-10	0.06	0.06	0.06	0.06	0.06	15.2	0.3	0.83	0.07	2.12	0.06	*
Nitrite (as N)	2024-05-10	0.03	0.03	0.03	0.03	0.03	0.03	0.08	0.03	0.03	0.03	0.03	*
Potassium (dissolved)	2024-05-10	2.32	1.59	2.53	3.54	1.26	8.5	2.84	1.26	0.482	1.03	9.65	*
Sodium (dissolved)	2024-05-10	37.3	25.5	52.8	13.8	28.2	140	22.1	50.2	1.1	36.5	39.5	*
Sulphate	2024-05-10	130	21	57	80	21	52	38	81	22	21	650	*
Chloride	2024-05-10	63	3	49	4	10	160	9	76	1	46	33	*
pH	2024-05-10	7.53	8.23	8.27	7.73	7.41	7.19	8.1	7.54	7.7	7.63	7.61	*
Top of casing elevation (m ASL)	2024-05-13	275.449	275.453	274.99	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)	2024-05-13	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-05-13	1.75	1.81	1.7	1.82	2.03	2.15	1.75	1.88	1.7	2.1	1.81	2.04
Water level elevation (m ASL)	2024-05-13	273.699	273.643	273.29	273.377	273.375	273.715	272.801	273.487	273.799	273.556	273.175	273.146
Ammonia Ammonium (N)	2024-05-13	0.1	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Temperature Upon Receipt	2024-05-13	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Total Dissolved Solids	2024-05-13	517	234	323	460	351	831	306	577	240	389	1420	520

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Total Kjeldahl Nitrogen	2024-05-13	0.5	0.6	0.7	1	0.7	0.5	0.6	0.5	0.5	0.5	0.8	0.5
Fluoride	2024-05-13	0.52	0.94	1.08	0.4	0.4	0.58	1	0.36	0.29	0.12	0.44	0.51
Nitrate (as N)	2024-05-13	0.06	0.06	0.06	0.06	0.06	16.5	0.09	0.91	0.07	2.92	0.06	0.06
Nitrate + Nitrite (as N)	2024-05-13	0.06	0.06	0.06	0.06	0.06	16.5	0.09	0.91	0.07	2.92	0.06	0.06
Nitrite (as N)	2024-05-13	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)	2024-05-13	1.88	1.45	1.89	4.1	1.37	8.94	2.34	1.43	0.555	1.49	10	1.78
Sodium (dissolved)	2024-05-13	33.7	23.8	37.9	10.2	26.3	129	29.3	52.2	1.16	42.7	31.8	19.4
Sulphate	2024-05-13	94	200	200	73	20	43	20	92	20	20	700	35
Chloride	2024-05-13	94	57	180	10	18	180	75	100	10	87	43	66
pH	2024-05-13	7.3	8.36	8.21	7.67	7.58	7.23	8.16	7.64	7.58	7.66	7.19	7.72
Top of casing elevation (m ASL)	2024-05-27	275.449	275.453	274.99	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	*
Top of casing stickup above ground level (m)	2024-05-27	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	*
Depth to water below top of casing (m)	2024-05-27	1.07	1.7	1.54	1.19	1.57	2.15	0.71	1.5	1.72	2.28	1.44	*
Water level elevation (m ASL)	2024-05-27	274.379	273.753	273.45	274.007	273.835	273.715	273.841	273.867	273.779	273.376	273.545	*
Ammonia Ammonium (N)	2024-05-27	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	*
Temperature Upon Receipt	2024-05-27	4	4	4	4	4	4	4	4	4	4	4	*
Total Dissolved Solids	2024-05-27	612	217	304	409	314	811	366	414	2.29	431	1410	*
Total Kjeldahl Nitrogen	2024-05-27	1	0.5	1	1.3	1	0.5	0.6	0.5	0.9	0.5	1	*
Fluoride	2024-05-27	0.56	0.97	0.95	0.39	0.32	0.6	1	0.35	0.31	0.12	0.36	*
Nitrate (as N)	2024-05-27	0.06	0.06	0.06	0.06	0.06	19.4	0.11	0.67	0.06	2.58	0.06	*
Nitrate + Nitrite (as N)	2024-05-27	0.06	0.06	0.06	0.06	0.06	19.4	0.11	0.67	0.06	2.58	0.06	*
Nitrite (as N)	2024-05-27	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	*
Potassium (dissolved)	2024-05-27	1.78	1.16	1.97	3.39	1.27	9.03	2.34	1.11	0.479	0.944	12.1	*
Sodium (dissolved)	2024-05-27	38.5	23.6	44.9	11.2	12.5	124	33.5	37.2	0.97	35.7	38.9	*

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Sulphate	2024-05-27	140	16	44	75	15	57	84	62	21	21	660	*
Chloride	2024-05-27	69	6	51	3	11	140	44	55	1	48	34	*
pH	2024-05-27	7.6	8.07	8.19	7.64	7.45	7.24	7.93	7.41	7.64	7.44	7.28	*
Top of casing elevation (m ASL)	2024-06-03	275.449	275.453	274.99	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)	2024-06-03	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-06-03	1.34	1.82	1.7	1.56	1.89	2.16	0.78	1.61	1.81	2.28	1.76	2.23
Water level elevation (m ASL)	2024-06-03	274.109	273.633	273.29	273.637	273.515	273.705	273.771	273.757	273.689	273.376	273.225	272.956
Ammonia Ammonium (N)	2024-06-03	0.1	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Temperature Upon Receipt	2024-06-03	19	19	19	19	19	19	19	19	19	19	19	19
Total Dissolved Solids	2024-06-03	683	354	431	457	586	786	677	463	277	449	1470	571
Total Kjeldahl Nitrogen	2024-06-03	0.8	0.6	0.6	1.2	0.8	0.5	0.5	0.5	0.5	0.5	0.8	0.5
Fluoride	2024-06-03	0.69	1.03	1.01	0.44	0.38	0.72	1.01	0.55	0.33	0.15	0.43	0.42
Nitrate (as N)	2024-06-03	0.06	0.33	0.06	0.06	0.06	16.2	0.17	0.59	0.06	2.37	0.12	0.06
Nitrate + Nitrite (as N)	2024-06-03	0.06	0.39	0.06	0.06	0.06	16.2	0.17	0.59	0.06	2.37	0.12	0.06
Nitrite (as N)	2024-06-03	0.03	0.06	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Potassium (dissolved)	2024-06-03	1.98	1.62	1.96	3.13	1.63	7.92	2.25	1.49	0.514	1	9.16	1.11
Sodium (dissolved)	2024-06-03	35.9	25	54.9	13.4	15.3	115	62.5	41	0.96	39	42.5	20.3
Sulphate	2024-06-03	140	24	5	59	25	49	130	74	21	25	650	76
Chloride	2024-06-03	66	4	83	3	9	130	80	68	1	58	42	44
pH	2024-06-03	7.3	7.92	8.02	7.64	7.48	7.16	7.62	7.55	7.54	7.59	7.17	7.92
Top of casing elevation (m ASL)	2024-06-17	275.449	275.453	274.99	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)	2024-06-17	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-06-17	1.65	1.89	1.91	1.97	2.12	2.25	0.87	1.67	2.05	2.41	2	2.33
Water level elevation (m ASL)	2024-06-17	273.799	273.563	273.08	273.227	273.285	273.615	273.681	273.697	273.449	273.246	272.985	272.856

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Ammonia Ammonium (N)	2024-06-17	0.2	0.2	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2
Temperature Upon Receipt	2024-06-17	23	23	23	23	23	23	23	23	23	23	23	23
Total Dissolved Solids	2024-06-17	783	214	397	434	354	774	897	623	226	426	1510	529
Total Kjeldahl Nitrogen	2024-06-17	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5
Fluoride	2024-06-17	0.67	1.05	0.88	0.41	0.33	0.66	0.85	0.31	0.25	0.12	0.35	0.51
Nitrate (as N)	2024-06-17	0.06	0.14	0.07	0.06	0.06	17.1	0.08	0.52	0.09	2.48	0.06	0.06
Nitrate + Nitrite (as N)	2024-06-17	0.06	0.18	0.07	0.06	0.06	17.1	0.08	0.52	0.09	2.48	0.06	0.06
Nitrite (as N)	2024-06-17	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)	2024-06-17	2.63	1.36	2.59	4.24	1.41	7.95	3.26	1.37	0.438	0.869	8.96	1.9
Sodium (dissolved)	2024-06-17	36.3	23.4	54.7	15.7	17.9	126	78.4	44.9	1.06	37.3	38.9	19.3
Sulphate	2024-06-17	170	20	94	63	15	53	100	97	16	23	640	94
Chloride	2024-06-17	77	3	150	3	6	140	160	74	1	55	42	43
pH	2024-06-17	7.27	7.98	8.15	7.59	7.28	7.1	7.62	7.38	7.44	7.53	7.01	7.42
Top of casing elevation (m ASL)	2024-07-03	275.449	275.453	274.99	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)	2024-07-03	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-07-03	1.73	1.92	1.87	2	2.16	2.33	1	1.92	2.26	2.57	1.02	2.28
Water level elevation (m ASL)	2024-07-03	273.719	273.533	273.12	273.197	273.245	273.535	273.551	273.447	273.239	273.086	273.965	272.906
Ammonia Ammonium (N)	2024-07-03	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Temperature Upon Receipt	2024-07-03	8	8	8	8	8	8	8	8	8	8	8	8
Total Dissolved Solids	2024-07-03	831	291	437	491	377	783	689	603	340	457	1280	554
Total Kjeldahl Nitrogen	2024-07-03	0.5	0.5	0.5	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Fluoride	2024-07-03	0.67	1.04	0.91	0.58	0.35	0.72	0.98	0.27	0.36	0.15	0.39	0.44
Nitrate (as N)	2024-07-03	0.06	0.08	0.15	0.1	0.06	15.9	0.15	0.42	0.06	1.2	0.06	0.06
Nitrate + Nitrite (as N)	2024-07-03	0.06	0.12	0.15	0.1	0.06	15.9	0.15	0.42	0.06	1.2	0.06	0.06

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Nitrite (as N)	2024-07-03	0.06	0.12	0.15	0.1	0.06	15.9	0.15	0.42	0.06	1.2	0.06	0.06
Potassium (dissolved)	2024-07-03	1.74	1.26	1.62	3.84	2.14	7.36	2.23	1.34	0.507	0.99	7.15	1
Sodium (dissolved)	2024-07-03	32	21.1	51.3	11.6	11.6	119	61.1	45.6	0.92	32.8	36.9	17.4
Sulphate	2024-07-03	170	2	70	66	16	57	150	92	12	20	520	64
Chloride	2024-07-03	110	19	67	6	15	160	110	75	6	53	72	51
pH	2024-07-03	7.36	7.65	7.81	7.32	7.29	7.06	7.44	7.2	7.36	7.37	7.06	7.54
Top of casing elevation (m ASL)	2024-08-07	275.449	275.453	274.99	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)	2024-08-07	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-08-07	1.845	1.89	1.7	1.65	2.01	2.38	1.075	1.98	2.37	2.66	1.87	2.2
Water level elevation (m ASL)	2024-08-07	273.604	273.563	273.29	273.547	273.395	273.485	273.476	273.387	273.129	272.996	273.115	272.986
Ammonia Ammonium (N)	2024-08-07	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Temperature Upon Receipt	2024-08-07	8	8	8	8	8	8	8	8	8	8	8	8
Total Dissolved Solids	2024-08-07	863	257	463	443	403	809	714	643	369	480	1130	549
Total Kjeldahl Nitrogen	2024-08-07	0.5	0.5	0.5	0.7	0.6	0.5	0.5	0.5	0.5	0.9	0.9	0.5
Fluoride	2024-08-07	0.71	1.06	0.98	0.47	0.37	0.76	1.01	0.26	0.28	0.14	0.49	0.47
Nitrate (as N)	2024-08-07	0.6	0.06	0.12	0.45	0.06	9.66	0.2	0.22	0.06	1.8	0.13	0.06
Nitrate + Nitrite (as N)	2024-08-07	0.6	0.06	0.12	0.45	0.06	9.66	0.2	0.22	0.06	1.8	0.13	0.06
Nitrite (as N)	2024-08-07	0.3	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.06
Potassium (dissolved)	2024-08-07	2.5	1.32	2.3	4.57	3.07	8.21	2.74	1.49	0.724	1.13	6.6	1.51
Sodium (dissolved)	2024-08-07	38.2	24.6	60.3	16.5	13.5	133	66.5	50.2	1.56	50.3	53.5	20.4
Sulphate	2024-08-07	210	16	63	46	23	56	120	100	21	21	330	67
Chloride	2024-08-07	120	3.4	80	3.5	9.8	170	110	93	3.4	65	120	51
pH	2024-08-07	7.46	7.89	7.95	7.46	7.41	7.24	7.7	7.49	7.47	7.62	7.28	7.53
Top of casing elevation (m ASL)	2024-09-04	275.449	275.453	274.99	275.197	275.405	275.865	274.551	275.367	275.499	275.656	274.985	275.186

Parameter (mg/L)	Date	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 stickup above ground level (m)	2024-09-04	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-09-04	1.94	1.93	1.79	1.99	2.15	2.4	1.25	2.16	2.49	2.66	2	2.29
Water level elevation (m ASL)	2024-09-04	273.509	273.523	273.2	273.207	273.255	273.465	273.301	273.207	273.009	272.996	272.985	272.896
Ammonia Ammonium (N)	2024-09-04	0.1	0.2	0.6	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Temperature Upon Receipt	2024-09-04	8	8	8	8	8	8	8	8	8	8	8	8
Total Dissolved Solids	2024-09-04	854	217	531	409	391	829	431	691	314	471	1040	534
Total Kjeldahl Nitrogen	2024-09-04	0.5	0.5	0.6	0.8	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0.5
Fluoride	2024-09-04	0.75	1.16	0.88	0.51	0.34	0.74	1.1	0.27	0.29	0.17	0.49	0.46
Nitrate (as N)	2024-09-04	0.06	0.06	2.63	1.18	0.06	4.95	0.12	0.14	0.06	0.93	0.06	0.15
Nitrate + Nitrite (as N)	2024-09-04	0.06	0.06	2.63	1.18	0.06	4.95	0.12	0.14	0.06	0.93	0.06	0.15
Nitrite (as N)	2024-09-04	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)	2024-09-04	2.46	1.35	2.35	4.23	2.14	8.87	2.22	1.73	0.68	1.16	5.75	1.1
Sodium (dissolved)	2024-09-04	42.5	24.7	75.2	18.2	10	133	44.1	55.7	2	54.2	53.4	21
Sulphate	2024-09-04	180	17	92	51	18	81	59	140	22	27	360	72
Chloride	2024-09-04	120	5	120	6	8	160	46	90	4	75	99	48
pH	2024-09-04	7.54	7.87	7.89	7.62	7.34	7.4	7.77	7.72	7.47	7.57	7.3	7.8
Top of casing elevation (m ASL)	2024-10-03	275.449	275.453	274.99	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)	2024-10-03	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-10-03	1.77	2.02	1.73	2.01	2.16	2.35	1.15	2.3	2.69	2.8	1.93	2.29
Water level elevation (m ASL)	2024-10-03	273.679	273.433	273.26	273.187	273.245	273.515	273.401	273.067	272.809	272.856	273.055	272.896
Ammonia Ammonium (N)	2024-10-03	0.2	0.1	0.1	0.3	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1
Temperature Upon Receipt	2024-10-03	19	19	19	19	19	19	19	19	19	19	19	19
Total Dissolved Solids	2024-10-03	7.54	22	500	7.34	7.18	7.12	7.6	7.47	343	431	1090	449
Total Kjeldahl Nitrogen	2024-10-03	0.6	0.5	0.5	1.2	0.8	0.6	0.5	0.5	0.5	0.5	0.5	0.5

Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Fluoride	2024-10-03	0.74	1.1	0.79	0.46	0.35	0.73	1.11	0.28	0.22	0.14	0.45	0.45
Nitrate (as N)	2024-10-03	0.06	0.06	0.22	0.39	0.06	3.15	0.08	0.06	0.06	0.27	0.06	0.08
Nitrate + Nitrite (as N)	2024-10-03	0.06	0.06	0.22	0.39	0.06	3.15	0.12	0.06	0.06	0.27	0.06	0.08
Nitrite (as N)	2024-10-03	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.05	0.03	0.03	0.03	0.03
Potassium (dissolved)	2024-10-03	2.5	1.17	1.75	4.97	2.64	9.09	2.62	1.99	0.856	1.2	5.01	1.01
Sodium (dissolved)	2024-10-03	43.8	25.1	63.5	22.8	17.8	135	69.6	53.5	3.42	49.5	48.2	20.1
Sulphate	2024-10-03	130	17	91	54	22	92	46	140	27	17	420	71
Chloride	2024-10-03	120	4	95	6	10	190	92	99	10	52	95	41
pH	2024-10-03	7.54	7.78	7.75	7.34	7.18	7.12	7.6	7.47	7.41	7.51	7.11	7.68
Top of casing elevation (m ASL)	2024-11-07	275.449	275.453	274.99	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)	2024-11-07	0.817	1.05	0.985	0.986	0.958	0.829	0.998	0.908	0.912	0.86	0.853	1.04
Depth to water below top of casing (m)	2024-11-07	1.77	1.92	1.72	2.02	2.15	2.39	1.2	2.29	2.81	2.8	1.92	2.25
Water level elevation (m ASL)	2024-11-07	273.679	273.533	273.27	273.177	273.255	273.475	273.351	273.077	272.689	272.856	273.065	272.936
Ammonia Ammonium (N)	2024-11-07	0.1	0.6	0.7	0.4	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.1
Temperature Upon Receipt	2024-11-07	16	16	16	16	16	16	16	16	16	16	16	16
Total Dissolved Solids	2024-11-07	706	211	526	423	397	817	549	726	331	509	1110	346
Total Kjeldahl Nitrogen	2024-11-07	0.5	0.6	1	2.2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Fluoride	2024-11-07	0.68	1.08	0.91	0.48	0.3	0.84	1.1	0.3	0.19	0.13	0.46	0.47
Nitrate (as N)	2024-11-07	0.06	0.11	0.14	0.2	0.06	6.74	0.06	0.08	0.06	0.13	0.09	0.31
Nitrate + Nitrite (as N)	2024-11-07	0.06	0.14	0.23	0.2	0.06	0.74	0.06	0.11	0.06	0.13	0.09	0.31
Nitrite (as N)	2024-11-07	0.03	0.03	0.09	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Potassium (dissolved)	2024-11-07	2.67	1.64	2.47	5.98	1.64	7.42	2.2	1.89	1.12	1.32	5.69	0.993
Sodium (dissolved)	2024-11-07	45.5	23.1	65.4	26.1	22	122	87.2	59.1	8.47	58.9	47.5	18.7
Sulphate	2024-11-07	160	24	95	57	27	93	38	220	39	25	480	66



Parameter (mg/L)	Date	MW1	MW2-R	MW3-R	BH23-01	BH23-02	BH23-03	BH23-05	BH23-06	BH23-07	BH23-08	BH23-09	BH23-10
Temperature Upon Receipt	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	8
Total Dissolved Solids	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	491
Total Kjeldahl Nitrogen	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	1.3
Fluoride	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	0.57
Nitrate (as N)	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	1.26
Nitrate + Nitrite (as N)	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	1.26
Nitrite (as N)	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	0.3
Potassium (dissolved)	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	4.05
Sodium (dissolved)	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	55.7
Sulphate	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	19
Chloride	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	33
pH	2024-12-13	-	-	-	-	-	-	-	-	-	-	-	7.42

m ASL: meters above sea level

\*The groundwater monitoring wells were inaccessible at this time due to surface water ponding

\*\*The groundwater monitoring well was unable to be sampled on the regularly scheduled date due to a faulty pump and was resampled on Dec. 13, once a new pump was procured