2025 Annual Report, Hall's Glen Waste Transfer Station

Environmental Compliance Approval No. A341004

March 27, 2026

Prepared for:
The Township of Douro-Dummer

Cambium Reference: 12987-002

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Executive Summary

The Hall's Glen Waste Transfer Station is owned and operated by the Township of Douro-Dummer under Ministry of the Environment, Conservation and Parks Environmental Compliance Approval No. A341004. The site is on Lot 25, Concession 4, geographic Township of Dummer, Township of Douro-Dummer, County of Peterborough. Currently, the site operates as a non-hazardous solid waste and materials transfer station.

This report presents the results of the 2025 activities that were completed at the Hall's Glen waste transfer station. The report and activities have been completed and reported on in general conformance with the November 2010 Ministry of the Environment Technical Guidance Document entitled *Monitoring and Reporting for Waste Disposal Sites – Groundwater and Surface Water*. The Monitoring and Screening Checklist is provided in Appendix A.

Natural attenuation was occurring at the site as concentrations decreased with distance from the waste mound. Non-waste related sources were influencing groundwater quality in some areas of the site.

A supplemental monitoring program for the analysis of Per- and Polyfluoroalkyl Substances at select wells was completed in 2023 (Cambium, 2024). There were no detectable Per- and Polyfluoroalkyl Substances concentrations at any down-gradient wells installed in the upper bedrock aquifer. The only detectable Per- and Polyfluoroalkyl Substances concentrations in down-gradient monitors were at MW10-1, MW11-1, and R1; however, the signature was dissimilar to the leachate characterization. This indicated that there was a potential non-waste related source contributing to the down-gradient water quality. All Per- and Polyfluoroalkyl Substances concentrations in the down-gradient monitoring wells complied with the Canadian Drinking Water Guidelines and the Drinking Water Screening Values as prescribed by Health Canada.

Shallow groundwater was interpreted to discharge to surface down-gradient of the waste mound for at least a portion of the year. As such, groundwater results were compared to the Provincial Water Quality Objectives and Canadian Water Quality Guidelines. Minor impacts

were attributed, at least in part, to non-waste related sources such as saturated organic soils, decaying organic vegetation, and surrounding agricultural land use.

Groundwater samples collected from MW08, MW09, MW10, MW11, MW12, and R1 were used to assess compliance with Ministry Guideline B-7 - Reasonable Use. Although select parameters continued to exceed the compliance criteria, these exceedances were naturally occurring or attributed to a non-waste related source. The only parameter to persistently exceed the Ontario Drinking Water Quality Standards was manganese which is an aesthetic objective.

A new down-gradient surface water monitoring station (S3) was established near monitoring well MW12 in 2023. Initial results indicated water quality similar to or better than the background quality. Only two samples have been collected at this surface water since 2023, including a surface water sample in 2025. Downstream surface water results at station S2 were stable or decreasing within historical ranges.

About 991 tonnes of waste was accepted at the Site in 2025 and transferred to the Peterborough Waste Management Facility. About 119 tonnes of divertible materials (e.g., blue box recyclables, scrap metal, electronics, etc.) was collected at the Site.

The Township of Douro-Dummer operated the Hall's Glen waste transfer station in compliance with the Environmental Compliance Approval in 2025. The property area of 1.0 ha owned by the Township of Douro-Dummer was considered sufficient for operational buffer and contaminant attenuation zone purposes in 2025 for the Hall's Glen Waste Transfer Site.

Recommendations have been made regarding the future operation of the Hall's Glen waste transfer station and work to be completed in 2026.

Respectfully submitted,

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1.0 Introduction

The Corporation of the Township of Douro-Dummer (Township) retained Cambium Inc. (Cambium) to complete the 2025 annual monitoring program for the Hall's Glen Waste Transfer Station (Site). The Site operates under the Ontario Ministry of the Environment, Conservation and Parks (Ministry) Environmental Compliance Approval (ECA) No. A341004, most recently amended August 22, 2016 (Appendix B).

To aid in the understanding of the history and development of the Site, the following information is included digitally in the report package:

- *Closure Report* (TSH, 2002a)
- *Design, Operations, Maintenance and Closure Report* (TSH, 2002b)
- Historical Correspondence
- Historical water quality

1.1 Site Location

The Site is on Lot 25, Concession 4, geographic Township of Dummer, Township of Douro-Dummer, County of Peterborough (Figure 1). The municipal address for the Site is 1951 County Road 6, about 10 km north of the community of Warsaw. The Universal Transverse Mercator (UTM) coordinates for the site entrance area Zone 17, 727911 m east, 4933207 m north, North American Datum 83.

1.2 Site Description

The Township has owned and operated the Site as a natural attenuation landfill since 1970. The ECA which approved landfill operations was granted in 1980. Closure activities began in the summer of 2003, where the landfill area was mounded and capped. Final closure activities were completed from 2003 to 2005. An area of Fill Beyond Acceptable Limits (FBAL) on the north side of the waste mound was identified in Drawing 1 of the *Closure Report* (TSH, 2002a). It is understood that the Township addressed the FBAL in 2004 and 2005. To Cambium's

knowledge there is no FBAL at the Site. Currently the Site operates as a non-hazardous solid waste and materials transfer station.

The Site is in a rural area and is surrounded by agricultural fields and forest; surrounding land use is primarily passive agriculture. An abandoned residential dwelling and an old barn used for farm equipment storage is present near the southeast property boundary. Site details are in Embedded Table 1. A Local Topography Plan and an Existing Conditions Plan are included as Figure 2 and Figure 3, respectively.

Embedded Table 1 Site Details

Total Site Area	48.5 ha
Approved Area of Refuse Placement	1.0 ha

The groundwater monitoring program is in the process of being redefined to reflect current environmental conditions. After on-going discussions between Cambium and the Ministry in 2022 and 2023, agreement was reached to enact changes to the approved monitoring program in a two-stage approach. Approval for Stage 1 reductions have been granted and are reflected in Table 1. Further changes to the monitoring program (referred to as Stage 2 reductions and not yet fully defined) were contingent on a Per- and Polyfluoroalkyl Substances (PFAS) sampling program at select wells to delineate leachate impacts at the Site. The specific details and results of the PFAS sampling program are outlined in the *2023 Annual Report* (Cambium, 2024). The results of the sampling program are referenced herein, where applicable. Approval had not been received at the time of this report for Stage 2 reductions.

1.3 Scope of Work

The scope of the 2025 work program was based on the results of the 2024 groundwater monitoring program (Cambium, 2025), requirements outlined in the ECA, and included:

- Groundwater elevation monitoring
- Surface water and groundwater sampling and analysis
- Landfill gas monitoring

- Evaluation of groundwater quality against the Ontario Drinking Water Quality Standards (ODWQS) and Reasonable Use Concept (RUC) values developed in accordance with Ministry Guideline B-7
- Evaluation of groundwater quality at select monitoring wells against the Provincial Water Quality Objectives (PWQO), the Canadian Water Quality Guidelines (CWQG) for the Protection of Aquatic Life and the British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCG)
- Evaluation of surface water quality against the PWQO, the CWQG, and the BCG
- An overview of site development and operations
- Preparation of this annual report

This report presents the results of the 2025 work program, provides an assessment of the current landfill impact on the surrounding groundwater and surface water environments, and a summary of the operational activities at the Site. Cambium has provided recommendations for the 2026 monitoring program and site operations based on the 2025 results and assessment.

2.0 Methodology

The 2025 work program was completed to maintain compliance with the ECA and Ministry requirements. As such, the environmental monitoring work program was completed consistent with *Guidance Manual for Landfill Sites Receiving Municipal Waste* (MOEE, 1993), *Landfill Standards* (MECP, 2021) and *Monitoring and Reporting for Waste Disposal Sites, Groundwater and Surface Water, Technical Guidance Document* (MOE, 2010).

Field tasks were completed following Cambium's Standard Operating Procedures developed from recognized standard procedures such as those listed above and *Guidance on Sampling and Analytical Methods for use at Contaminated Sites in Ontario* (MOEE, 1996). A health and safety program was developed for site-specific conditions and all Cambium personnel working on the project were familiarized and required to follow the identified protocol.

Groundwater and surface water samples were stored in coolers with freezer packs and maintained at less than 10°C during transport to Caduceon Environmental Laboratories (Caduceon) in Kingston, Ontario. Caduceon is accredited by the Canadian Association for Laboratory Accreditation Inc. for specific environmental tests listed in the scope of accreditation. Groundwater and surface water samples were submitted at the frequency and for analysis of the parameters outlined in Table 1.

2.1 Groundwater Monitoring Program

The following tasks were completed as part of the 2025 groundwater monitoring program:

- Prior to sampling, water levels were measured at each monitoring well using an electronic water level tape.
- The purge volume was calculated on-site during each monitoring event using the measured water level, well depth, and the well diameter. Each groundwater monitoring well to be sampled was purged about three well volumes. For wells with low recovery, at least one saturated well volume was purged prior to sampling. Purged water was disposed overland, down-gradient of each respective well.

- Samples were collected using dedicated polyethylene tubing equipped with inertial-lift foot valves to prevent potential cross contamination and reduce waste.
- Groundwater samples for metals and dissolved organic carbon (DOC) analysis were field filtered.
- Field measurements were recorded for pH, conductivity, temperature, dissolved oxygen (DO), and oxygen reduction potential (ORP).

Water levels were measured at all monitoring wells in the approved program listed in Table 1 on April 7 (as part of the landfill gas monitoring program) and October 15. Groundwater samples were collected on October 15 from the monitoring wells listed below. The following exceptions were noted:

- Water levels were not measured at MW01-1, MW01-2, and MW02-1 in April due to field error.
- MW01-2, MW02-2, MW05-2, and MW06-2 were dry in October and not sampled.
- There is a suspected blockage (assumed to be bentonite) at MW02-1 preventing water level measurements and sample collection.

- MW01-1
- MW01-2
- MW02-1
- MW02-2
- MW05-1
- MW05-2
- MW06-1
- MW06-2
- MW08-1
- MW08-2
- MW09-1
- MW09-2
- MW 10-1
- MW10-2
- MW11-1
- MW11-2
- MW12-1
- MW12-2
- MW12-3
- MW13-1
- MW13-2

Monitoring wells included in the groundwater monitoring program are shown on Figure 2. The UTM coordinates for the monitoring locations are in Table 2. Groundwater results are discussed in Section 4.2. Field data sheets are in Appendix C. Laboratory Certificates of Analysis are in Appendix D. Photographs of each monitoring location are in Appendix E.

2.2 Surface Water Monitoring Program

The following tasks were completed as part of the 2025 surface water monitoring program:

- Weather conditions prior to and during field events were recorded.
- Surface water samples were collected by immersing the sample container into the water body.
- When sample bottles were prefilled with preservatives, a clean bottle was used to collect and decant the water directly into the sample bottle.
- Surface water samples for mercury (0.45 µm) analysis were filtered by the laboratory.
- Field measurements including pH, conductivity, temperature, DO, and ORP were recorded at each sample location.
- Where possible, depth, width, and flow velocity measurements were collected at each surface water location.

The surface water monitoring program included collection of samples from on-site sampling stations S1, S2, and S3 on April 7. All three surface water stations were dry during the autumn event on October 15.

Surface water sampling locations are shown on Figure 2. The UTM coordinates for the monitoring locations are in Embedded Table 2. Surface water results are discussed in Section 4.4. Field data sheets are in Appendix C. Laboratory Certificates of Analysis provided by Caduceon are in Appendix D. Photographs of each surface water sample location are in Appendix E.

2.3 Residential Well Monitoring Program

Residential well samples from R1, R3, and R4 were collected on October 15. A sample was not collected from R2 as the resident was not home.

Water samples from R2, R3, and R4 were collected prior to filtration or softening, from a tap that was purged for about five minutes prior to sampling. No samples were field filtered for metals.

Residential well R1 is not technically a residential supply well but a 0.05 m diameter PVC monitoring well that was installed to replace the abandoned stone dug well that was sampled historically (also identified as R1) (GHD, 2021). To Cambium's knowledge, the original R1 well has not recently been used as a private water supply and the existing R1 (monitoring well) is not used as a water supply. Given the construction of the well, the methodology outlined in Section 2.1 was generally used.

Residential well locations are on Figure 2. Results from the residential well sampling are discussed in Section 4.3. Field data sheets are in Appendix C. Laboratory Certificates of Analysis as provided by Caduceon are in Appendix D.

2.4 Quality Assurance / Quality Control Program

Quality Assurance/Quality Control (QA/QC) measures were in place to ensure the integrity of sample collection and analysis. Cambium collected blind field duplicate samples for groundwater and surface water as part of the QA/QC program. In addition to these samples, the laboratory completed an internal QA/QC. The duplicate samples were collected at the same time and location as the original samples. Duplicate samples were collected by filling the bottles for the same analysis at the sample time to ensure samples were consistent. Other key parts of Cambium's QA/QC program included:

- Calibration of field equipment at the start of each day. Equipment was checked throughout the day, as necessary.
- Laboratory grade detergent and distilled water were used for decontamination of non-disposable equipment. Care was taken to avoid cross contamination.

- Surface water sampling was conducted from the farthest station downstream/down-gradient of the Site, followed by advancing up-gradient/upstream or toward the Site.
- Use of new nitrile gloves at each sample location.
- Use of dedicated tubing and inertial foot-valves at each groundwater well to prevent potential cross-contamination and reduce waste.

Blind duplicate groundwater and surface water samples were collected from the following locations as part of the QA/QC program. The results of QA/QC program are presented in Section 4.1.

- S3 in April
- MW08-1 and MW12-2 in October

2.5 Landfill Gas Monitoring Program

Landfill gas is not actively managed at the Site. The large, open site area and isolated location from the public support passive landfill gas management, which allows generated landfill gas to naturally disperse to the atmosphere through the waste and naturally permeable cover soil.

The purpose of the monitoring is to assess compliance with Section 4.10 of *Landfill Standards, A Guideline on the Regulatory and Approval Requirements for New and Expanding Landfilling Sites* (MECP, 2021)

An RKI Eagle II calibrated for methane, and hydrogen sulphide was used to collect landfill gas measurements at all the monitoring wells. Equipment was calibrated for methane daily by Cambium field staff. Hydrogen sulfide was calibrated by Maxim Environmental. Calibration standards were brought in the event the instrument needed to be recalibrated (e.g., due to elevated readings, equipment malfunction, etc.).

Landfill gas measurements were collected prior to measuring groundwater levels or collecting samples. Methane and hydrogen sulphide concentrations were measured at each location. The following methodology was used to collect landfill gas measurements:

- Weather conditions for the monitoring event and previous day were recorded including barometric pressure.
- Upon arrival to Site, the RKI Eagle II was turned on and ran for five minutes prior to any measurements to allow the equipment to acclimatize.
- Prior to each reading, the ambient air methane concentration was recorded.
- The well cap was removed, and the gas probe was inserted into the top headspace of the well. A hand was used to cap the top of the well to reduce the amount of gas lost to the atmosphere.
- The peak methane and hydrogen sulphide concentrations were recorded.
- Water levels measurements were measured using an electric water level tape at all monitoring locations.

Landfill gas monitoring was conducted on April 7 and October 15 at all the on-site monitoring wells listed in the monitoring program (Table 1). The only deviation from the approved monitoring program was that measurements were not collected from MW01-2 and MW01-2 due to field error. Landfill gas monitoring results are in Table 11 and discussed in Section 4.5. Sample locations are shown in Figure 2. Field data sheets and calibration certifications are in Appendix C.

2.6 Site Inspection and Operations Overview

Site operations were observed during site visits completed in April and October 2025. During these visits, the items listed below were inspected on the accessed areas of the Site and observations were noted in the field file. In early 2026, the Township provided additional 2025 site operations information. Site inspection results are presented in Section 5.0.

- Litter control
- Condition and layout of waste and recycling bins
- Status of monitoring well security

- Condition and layout of access roads, access gates
- Final cover integrity
- Presence of leachate seeps

3.0 Geological and Hydrogeological Context

3.1 Topography and Drainage

The Site is in the Indian River quaternary watershed, which is within the Otonabee River tertiary watershed (Figure 2). The surface water drainage systems on and near the Site have generally been characterized as poorly drained/stagnant and discontinuous. As such, surface water at and around the Site will either evaporate or infiltrate into the subsurface. An unevaluated wetland is within the central portion of the Site, east of the waste mound, and extends to the north and south. Various disconnected unevaluated wetlands have also been identified off-site to the north, southeast, and southwest. In general, surface water flow is only interpreted to occur during wetter times of the year. The nearest mapped watercourse is an unnamed tributary about 1.5 km south of the Site which eventually discharges into the Indian River. Topographic maps suggest that surface water flow within the area is generally south (during times of year when surface water flow occurs).

A surface water reconnaissance was completed by Cambium field personnel in autumn 2022. The purpose was to identify any defined surface water channels between monitoring wells MW11 and MW12 which has been an area speculated to receive groundwater discharge. The presence of a surface water channel would identify a primary flow path; however, no channels were observed during the reconnaissance. As such, it is likely that any groundwater discharging to surface will remain ponded and either evaporate or re-infiltrate the subsurface (as water levels fluctuate throughout the year). No defined flow channels have been observed by Cambium staff anywhere on-site. Nonetheless, a new surface water monitoring station was established near the southeast property boundary in April 2023, identified as S3. Although there was no defined channel identified when establishing this monitoring station, this location will assist in determining surface water compliance to the southeast.

There are three surface water stations incorporated in the existing monitoring program (Table 1). These stations were established within topographic depressions:

- S1 is about 700 m southeast of the waste mound and near residential well R1.

- S2 is about 200 m east-northeast of the waste mound and has historically monitored the background surface water quality. Station S2 is where, according to available mapping, surface water flows south onto the Site from areas north of the property (making this location a background surface water monitoring station). Due to the proximity of station S2 to the waste mound, and the discontinuous nature of the flow surface water systems on-site, this station may be influenced from landfill leachate. Alternatively, this station may be in an area where impacted groundwater discharges to surface. See Section 4.3 for more details.
- S3 is about 225 m southeast of the waste mound near the property boundary.

The geospatial coordinates (NAD 83) for the surface water monitoring stations are outlined in Embedded Table 2. Although it is generally a best management practice to conduct surface water sampling during flowing conditions whenever possible, field observations often describe these stations as ponded with limited or no flow. Flow and discharge rates measured during the monitoring events are included in Appendix C. There was no staining observed at the surface water monitoring stations that would be indicative of leachate impacted groundwater discharge.

Embedded Table 2 Surface Water Stations Coordinates

Surface Water Station	UTM (Zone 17)
S1	729187 m east, 4933099 m north
S2	728686 m east, 4933486 m north
S3	728599 m east, 4933228 m north

3.1.1 Precipitation Data

A review of the 2025 precipitation data for Peterborough Trent U Farms (Government of Canada, 2026) in comparison to the normal precipitation data for 1991 to 2020 for Peterborough A (Government of Canada, 2025) indicated that the annual precipitation was 15% lower than normal; however, varied month to month. January and June through August received about 30% to 85% less precipitation than normal. February, March, and December

were the wettest months of the years and received about 40% to 50% more precipitation than normal. The monthly precipitation, as well as the amount of precipitation during and in the three days prior to the sampling events is summarized in Embedded Table 3. Refer to Appendix C for field sheets and climate data.

Embedded Table 3 Historical and 2025 Precipitation Data

Sampling Date	Average Monthly Precipitation (mm) (1991 – 2010)	2025 Monthly Precipitation (mm)	Precipitation During and Prior to Sampling (mm)
April 7	72.7	76.2	8.4
October 15	74.7	61.0	0.0

3.2 Geology and Hydrogeology

Based on the assessment completed by GHD (GHD, 2021) and other consultants, the following summary of the hydrogeological conditions of the Site is provided. The Site is in the physiographic region known as the Dummer Moraine. This area can be characterized as relatively flat, stoney ground covered with shallow deposits of glacial till. The average overburden depth in the area is 3.25 mbgs. The overburden unit is underlain by limestone bedrock from the Lindsay Formation. The bedrock is part of the Trenton-Black River Group and is of Middle Ordovician age.

The current monitoring program consists of 13 multi-level groundwater wells. Available information indicates that the monitoring wells intercepted four water bearing units (an overburden aquifer and three bedrock aquifers; Appendix F). The aquifers in which each well has been installed are outlined below. It is noted that the well groupings listed below were based off available information. In some cases, the water bearing strata in which a well is installed was estimated based on available information and assumptions regarding well construction.

- Overburden: MW01-2, MW02-2, MW03-2, MW04-2, MW05-2, MW06-2, MW07-2, and MW13-2

- Shallow Bedrock (determined to be either the first bedrock aquifer encountered beneath overburden, or the shallowest bedrock well in a multi-level bedrock well grouping): MW01-1, MW02-1, MW03-1, MW04-1, MW05-1, MW06-1, MW07-1, MW08-2, MW09-2, MW10-2, MW11-2, MW12-1, and MW13-1
- Deep Bedrock: MW08-1, MW09-1, MW10-1, MW11-1, and MW12-2
- Monitoring well MW12-3 is the deepest well installed in bedrock on-site

3.2.1 Well Records

According to the Ministry Water Well Information System (WWIS), there are 20 wells records available within or about 500 m of the Site (Figure 2) (MECP, 2025).Of the 20 well records reviewed, 13 well records were for monitoring wells, and seven were for domestic water supply. Refer to Appendix G for summary details. Information outlined in the well records indicated the following:

- Of the 13 monitoring well records, one well record (7338879) identified to the southeast of the Site, was for R1 residential monitoring well. This well was installed in the limestone bedrock at about 5 mbgs. Overburden materials were described as sand, coarse sand, and gravel. Bedrock was found between surface and about 3 mbgs. Static water level was 2 mbgs.
- Out of 7 domestic water supply wells, three well records (5119156, 5101116, and 5110084) were identified for residential monitoring locations R4, R3 and R2, respectively, included in the approved monitoring program (Table 1).

  Well record No. 5110084 (R2) was to the southeast of the Site, along 5th line Road. The well was installed in the limestone bedrock at about 16 mbgs. Bedrock was found between surface and about 8.2 mbgs. Water was found at depth of 16 mbgs. Static water level was 2 mbgs.
- Well record No. 511916 (R4) and 7265867 were to the west of the Site, along 4th line Road. These wells were installed in the limestone bedrock at an average depth of 15 mbgs. Overburden materials were described as topsoil, clay and gravel. Bedrock was found

between surface and about 4.9 mbgs. Water was found at an average depth of 11 mbgs. Static water levels were with an average of 5 mbgs.

- Well record No.5101116 (R3) and 5106571 were to the southwest of the Site, along 4th line Road. These wells were installed in the limestone bedrock at an average depth of 10 mbgs. Overburden materials were described as clay and gravel. Bedrock was found between surface and about 5.5 mbgs. Water was found at an average depth of 9 mbgs. Static water levels were with an average of 7.6 mbgs.
- Two well records (5113996 and 5112368) were to the north of the Site. These wells were installed in the limestone bedrock at an average depth of 14 mbgs. Overburden materials were described as clay and boulders. Bedrock was found between surface and about 2.4 mbgs. Water was found at an average depth of 12 mbgs. Static water levels were with an average of 2 mbgs.

Based on the above, a residential monitoring program is completed annually at three private supply wells and R1 (monitoring well to replace a residential supply well in the program). Results are discussed in Section 4.3.

3.2.2 Groundwater Flow Direction

Historically, the regional direction of groundwater flow within the overburden deposits and bedrock has been to the southeast toward Indian River (GHD, 2021). To determine the current groundwater elevation, water table gradient, and groundwater flow direction, water level measurements were collected in the spring and autumn. The water level data was used to calculate the groundwater elevations summarized in Table 2 and on Figure 4 (overburden), Figure 5 (shallow bedrock), and Figure 6 (deep bedrock). Several water elevations in April 2025 were up to 1.5 m higher than typical, while several groundwater elevations in October 2025 were up to 0.7 m lower than typical. This was attributed to the wetter than typical spring (February and March) and drier than normal summer (June through August).

Groundwater elevation contours and flow directions are on Figure 7 (overburden), Figure 8 (shallow bedrock), and Figure 9 (deep bedrock). The predominant direction of groundwater

flow in the three upper aquifers (not including the deepest bedrock system) is to the east/southeast. There is a portion of flow in the deep bedrock aquifer that flowed northeast from MW09-1. The water chemistry at monitor MW01-1, northwest of the waste mound, suggested that there was likely a degree of groundwater mounding within the waste mound which would contribute a component of radial flow. Refer to Section 4.2 for additional detail.

Background monitoring wells MW13-1 and MW13-2 were surveyed in 2022 and confirmed that groundwater flow from these monitors was eastwards. Results of the supplementary PFAS monitoring program indicated that a component of radial flow from the waste mound may be present in the overburden unit, directing some impacts from the waste mound southwest to MW13-2 (Cambium, 2024).

Embedded Table 4 provides a summary of horizontal hydraulic gradients calculated in 2025.

Embedded Table 4 Summary of Horizontal Hydraulic Gradients

Unit	April	October
Overburden (southeast)	0.023 m/m	-
Shallow Bedrock (east/southeast)	0.003 m/m	0.005 m/m
Deep Bedrock (east/southeast)	0.006 m/m	0.002 m/m
Deep Bedrock (northeast MW09-1 to MW08-1)	0.003 m/m	0.002 m/m

3.2.3 Hydraulic Conductivity

Slug tests were conducted in 2009 by GHD on four wells to assess the permeability of some of the water bearing strata on-site. The results of the slug tests indicated that the overburden soils were silty sand with a relatively high hydraulic conductivity. The bedrock results indicated that the underlying limestone was fractured, also yielding a high conductivity.
Embedded Table 5 summarizes the results of the slug tests as reported by GHD (GHD, 2021) .

Embedded Table 5 Summary of Hydraulic Conductivity

Well	Test Type	Hydraulic Conductivity (cm/s)	Geometric Mean, K (cm/s)	Aquifer
MW03-1	Falling Head	6×10^{-3}	10×10^{-3}	Fractured limestone
	Rising Head	3×10^{-3}		
MW07-2	Falling Head	3×10^{-2}	10×10^{-2}	Silty sand, clean sand
	Rising Head	2×10^{-2}		
MW08-2	Falling Head	2×10^{-2}	10×10^{-2}	Silty sand, clean sand
	Rising Head	4×10^{-2}		
MW08-1	Falling Head	4×10^{-3}	10×10^{-3}	Fractured limestone
	Rising Head	2×10^{-3}		

3.2.4 Vertical Gradients

Vertical hydraulic gradients were calculated between all clustered wells at the Site (Table 3). Calculated hydraulic gradients for the wells near the waste mound were generally downward between the overburden and the shallow bedrock aquifer (i.e., MW03, MW04, MW05, MW06, and MW07). Farther away from the waste mound, at wells MW08, MW09, MW10, MW11, and MW12 vertical gradients were generally calculated to be upward between deep and shallow bedrock aquifers. The only exception was a downward gradient calculated at well MW13. Wells MW08, MW09, MW10, MW11, and MW12 do not include overburden monitors and hydraulic gradients between overburden and bedrock aquifers could not be calculated; however, the shallow bedrock was assumed to be hydraulically connected to the overburden. Calculated vertical hydraulic gradients in 2025 varied somewhat from historical results, as follows:

- An atypical upward gradient between the shallow bedrock and overburden at MW07, although this was also the case in October 2024.
- Downward vertical gradients were calculated at MW10 in April and October between the shallow and deep bedrock. Although gradients at these locations were historically upward, the gradient has been calculated to be downward since October 2023.

- A downward gradient was calculated between the shallow and deep bedrock at MW11 in April 2025, consistent with October 2024. Gradients returned to upward in October 2025.
- A downward gradient was calculated at MW12 between the deep bedrock aquifer, and the deeper bedrock in April 2025.

3.3 Conceptual Site Model

The Site is underlain by a thin veneer of overburden soils identified as silty-sand till. Underlying the soil is regionally extensive limestone bedrock, with trending drumlins and moraines in a northeast-southwest orientation. These features create natural basins and poor drainage conditions.

In general, precipitation infiltrates the overburden soil around the waste mound. Leachate impacted groundwater migrates down into the overburden and bedrock aquifers, where it then flows to the southeast. Upward vertical gradients were generally present at down-gradient monitors MW08 through MW12 indicating that any leachate laden groundwater which migrated into the deep bedrock aquifer near the waste mound will migrate upward into the shallow bedrock aquifer. The vertical hydraulic gradients between the bedrock and overburden around wells MW08 through MW12 have not been confirmed since there was no overburden monitors included at these locations. However, it is possible that groundwater discharges to surface during some periods of the year when conditions permit.

Groundwater flow in the overburden and shallow bedrock aquifers is generally to the southeast. Groundwater flow in the deep bedrock aquifer is to the east/southeast, but with some flow directed to the north from MW09-1 to MW08-1. Based on this conceptual model, primary receptors of leachate impacted water are the downstream surface water systems and potentially overburden/shallow bedrock groundwater users.

4.0 Results and Discussion

Water quality results from the monitoring program are used to assess the existence, extent, and degree of impacts to the groundwater and surface water environments related to waste disposal site activities at the Site.

To ensure appropriate actions are in place to respond to degradation in surface water or groundwater quality beyond an acceptable level, site-specific trigger levels and contingency measures aid in the assessment of impacts from leachate contamination and help to prevent adverse impacts to the environments surrounding the waste disposal site. This section presents the results of the 2025 routine monitoring program.

4.1 Quality Assurance / Quality Control

Results from the analyses completed on the blind duplicate QA/QC samples were evaluated. Parameter concentrations were considered significantly different if the relative percent difference (RPD) between the duplicate and the parent samples was greater than 30% when both results were greater than five times the reported detection limit (RDL).

The duplicate analysis was compared to the originals. Overall, the duplicate samples correlated well with the parent samples and met the data quality objective of 30%. The only exception was iron at S3 in April.

Parent/duplicate samples with only one measurable concentration or with results reporting less than five times the RDL were assessed qualitatively. Evaluation of these parent/duplicate samples did not identify significant data quality issues.

Considering the low variation between the parent and duplicate samples, the groundwater and surface water results were interpreted with confidence.

4.2 Groundwater Quality

Groundwater analysis data for 2011 to 2025 are in Table 4 through Table 8. Historical groundwater quality data for those parameters no longer included in the monitoring program are included digitally with this report package.

To assess water quality impacts related to landfill site operations, the analytical results for groundwater samples collected were compared to background water quality and historical data, and site compliance was assessed using the ODWQS (MOE, 2006) and RUC (MOEE, 1994a). Furthermore, as groundwater is interpreted to discharge to surface for at least a portion of the year, results from select monitors were also compared against the PWQO (MOEE, 1994b), the CWQG (CCME, 2011), and BCG (BCMOE, 2016). Groundwater analysis results for neighbouring residential water wells were compared against the ODWQS (MOE, 2006).

4.2.1 Background Groundwater Quality

When evaluating the impact of any waste disposal site on a groundwater resource, a reference point or value must be established to assist in determining the magnitude of the impact. In this respect, the quality of the groundwater that is not impacted by the waste disposal site operation (background water quality) should be used for comparison purposes. Nested wells MW01 and MW13 are about 53 and 105 m up-gradient/cross-gradient of the waste mound, respectively. These well are considered representative of background groundwater conditions due to their location in respect to the direction of groundwater flow; however, water levels suggest a component of radial flow away from the waste mound toward MW01-1. Monitoring wells MW01-1 and MW13-1 are installed in the bedrock, and MW01-2 and MW13-2 are installed in the overburden (or at/just within the overburden/bedrock interface).

Historical water quality results from MW01-1 indicated low but detectable concentrations of most metals. Numerous parameters associated with road de-icing activities were elevated at this monitor including sodium, magnesium, calcium, chloride, hardness, alkalinity, and total dissolved solids (TDS). This location is within 10 m of the landfill access road, so road salt impacts were not unexpected. Water chemistry results in 2025 were generally stable and consistent with historical ranges.

Only one sample has been collected historically at MW01-2. No sample was collected in 2025 as the location was dry during the sampling period. Results indicated most metal

concentrations and parameters associated with road de-icing activities were less than adjacent monitor MW01-1.

The water quality at monitoring well MW13-1 has been generally similar to or better than MW01-1. In most cases, parameters concentrations were significantly less than MW01-1. Water quality results in 2025 were consistent with historical concentrations except for phosphorus which was greater than typical. There were no detectable PFAS concentrations in 2023 at MW13-1 indicating that this aquifer has not been impacted by leachate (Cambium, 2024).

Parameter concentrations at MW13-2 have been similar to or slightly greater than adjacent overburden monitor MW13-1. Water quality results were consistent and stable with historical ranges in 2025 except for manganese which was greater than typical.

Results of the supplementary monitoring program in 2023 (Cambium, 2024) indicated detectable concentrations of some PFAS compounds at MW13-2. The PFAS signature was generally similar to leachate monitor MW06-2 indicating that there was likely a component of radial flow from the waste mound toward this monitor; however, given the slight variation in the signature there may also be other sources influencing the water chemistry at MW13-2 including the on-site gravel pit (located between the waste mound and monitor), transfer station staging areas, and surrounding residential and agricultural properties. There were no detectable PFAS concentrations in the adjacent lower bedrock aquifer (i.e., MW13-1). Caution should be used when comparing down-gradient upper bedrock quality to MW13-2.

Cambium agrees with the comments provided by the Ministry Groundwater Reviewer regarding potential impacts to background nested monitors MW01 (Cambium, 2023). As these wells were not included in the supplemental monitoring program, impacts can only be speculated. The water quality at monitor MW13-1 was similar to or better than MW01-1 including parameters that were not associated with road de-icing activities (i.e., magnesium, boron, and barium). Given the proximity of nested well MW01 to the historical waste mound, there is potential that this well(s) may be impacted by a component of groundwater radial flow

or run-off from transfer station operations. As such, caution should be used when comparing down-gradient water quality to nested background wells MW01.

4.2.2 Leachate Characteristics

There are three well nests installed within the waste footprint used to assess leachate quality. Nested wells MW02 were installed centrally within the waste mound. Nested wells MW05 and MW06 were installed on the eastern and southern toe of the waste mound, respectively. Monitors MW02-2, MW05-2, and MW06-2 were screened within the overburden and MW02-1, MW05-1, and MW06-1 were screened in the shallow bedrock.

An assessment of the leachate indicator parameters (LIPs) was conducted in 2023 as outlined in Embedded Table 6, and the following observations were noted:

- Due to suspected bentonite blockage at nested well MW02, no samples have been collected from this location since installation. It is recommended that these wells be decommissioned.
- LIP concentrations at MW05-1 were generally similar to or less than the overburden monitor MW05-2. Concentrations of total Kjeldahl nitrogen (TKN) have been elevated since 2021. While fluctuations have been reported, concentrations have generally been stable with no trends reported. Parameter concentrations at MW05-1 in 2025 were within typical ranges.
- Only six samples have been collected from MW05-2 since installation as the monitor is often reported as dry in the autumn. A sample was not collected in 2025.
- Similar to well nest MW05, parameter concentrations in the shallow bedrock well MW06-1 were less than those reported in the paired overburden well (MW06-2). The only exception was phosphorus, which historically has been greater in the bedrock (MW06-1). Water quality results in 2025 were generally within typical ranges except for chemical oxygen demand (COD), phosphorus, and TKN which were greater than typical.
- Water quality results at MW06-2 have historically been variable. As such, it is difficult to discern trends at this monitor; however, ammonia concentrations have been slowly

increasing at this monitor since May 2020. A sample was not collected in 2025 due to dry conditions.

Embedded Table 6 Leachate Indicator Parameters

arsenic	barium	boron	alkalinity	iron
ammonia	manganese	magnesium	phosphorus	potassium
TKN	DOC	COD		

In addition to the above, the supplemental monitoring program in 2023 characterized leachate as having detectable concentrations of the several PFAS compounds. The leachate signature between the overburden and bedrock monitors was generally similar; however, greater concentrations were typically in the overburden at MW06-2. This supports that conceptual site model that impacts would migrate from the overburden to the bedrock aquifer near the waste mound.

Overall, it is evident that site-related impacts were generally greater in the overburden at monitors MW05-2 and MW06-2 when compared to the shallow bedrock monitors. The water chemistry was considered stable at these monitors.

4.2.3 Down-Gradient Groundwater Quality

Five well nests were installed down gradient of the waste mound; MW08, MW09, MW10, MW11, and MW12.

- MW08: 312 m east of the waste mound. MW08-1 is screened in the deep bedrock and MW08-2 is screened in within the shallow bedrock/overburden interface.
- MW09: 305 m east of the waste mound. MW09-1 is screened in the deep bedrock and MW09-2 is screened in within the shallow bedrock.
- MW10: 274 m southeast of the waste mound. MW10-1 is screened in the deep bedrock and MW10-2 is screened in within the shallow bedrock.
- MW11: 325 m southeast of the waste mound. MW11-1 is screened in the deep bedrock and MW11-2 is screened in within the shallow bedrock.

- MW12: 110 m south of the waste mound. MW12-1 is screened in the shallow bedrock. MW12-2 is screened in the deep bedrock. MW12-3 is the only monitoring well on-site screened at this depth, below the deep bedrock.

LIP concentrations at well nests MW08, MW09, MW10, and MW11 have been greater in the deep bedrock aquifer. The exception is iron which were reported to be greater in the shallow bedrock aquifer (i.e., MW10-2, and MW11-2) suggesting potential influence from the wetland type environment on-site.

The water quality at the down-gradient monitors was generally considered stable and results were consistent with historical concentrations in 2025.

- Potassium, magnesium, and boron concentrations at MW08-1 have been decreasing since 2020. Barium concentrations have been increasing since about 2020.
- Most parameter concentrations at MW08-2 and MW09-2 continued to exhibit variability.
- Concentrations of DOC at MW09-2 have been marginally greater than MW11-1.
- No discernible trends were apparent at MW09-1, MW10-2, MW11-1 and MW11-2.
- Boron, magnesium, manganese, and sodium concentrations continued to decrease at MW10-1.
- LIP concentrations have been variable at well nest MW12. Concentrations of boron, ammonia, magnesium, and potassium at MW12-2 were greater than MW12-1/3. Concentrations of barium and potassium have been the greatest at MW12-1.
- Several parameters (i.e., barium, boron, TDS, magnesium, manganese, potassium, sodium, sulphate etc.) have been decreasing at MW12-2 since 2021. Conversely, chloride concentrations have been increasing.
- Boron and magnesium concentrations at MW12-1 have been increasing since 2020. Concentrations of calcium, chloride, TSS, and sodium have been decreasing.

Results of the supplemental monitoring program in 2023 (Cambium, 2024) indicated the presence of limited PFAS compounds at MW10-1 and MW11-1. Given the notable difference

in signature when compared to leachate, the PFAS concentrations did not confirm leachate impacts were occurring southeast of the waste mound. There were no detectable PFAS concentrations at MW08 and MW09. This indicated that there may be a preferential flow path for leachate laden groundwater to the southeast (toward MW10 and MW11).

Overall, water quality results from the supplemental monitoring program in 2023 indicated that there was a potential for site-related impacts to the southeast (toward MW10, MW11). The absence of PFAS at monitors MW08 and MW09 indicated that site-related impacts were limited in this area, if any.

4.2.4 Volatile Organic Compounds

Samples for analysis of volatile organic compounds (VOC) are collected from MW05-1 and MW05-2 once every five years. VOC analysis was last completed in 2022. Refer to Table 7 for VOC results.

Historically, there have been low but detectable concentrations of benzene, toluene, 1,2-cis-dichloroethane and chlorobenzene at MW05-1 and MW05-2. The next VOC analysis will be completed in 2027.

4.2.5 Groundwater/Surface Water Interaction

As indicated by the Ministry in their 2014 memorandum, the shallow overburden aquifer may discharge to the wetland southeast of the landfill. As such, the groundwater from down-gradient overburden and shallow bedrock wells should be compared to the PWQO criteria (MOEE, 1994b) to determine compliance with provincially regulated surface water standards. For boron concentrations, the CWQG objective for the Protection of Aquatic Life of 1,500 µg/L (CCME, 2011) which is based on more current toxicological information, was used in replacement of the PWQO criteria.

As discussed in Section 3.2.4, vertical gradients at nested wells MW08, MW09, MW10, MW11 and MW12 have generally been calculated to be upward from the deep to shallow bedrock. None of the wells outlined have an accompanying shallow overburden aquifer; however, it has

been assumed groundwater may discharge to surface in these areas at least a portion of the year.

The following wells were used for this assessment: MW08-2, MW09-2, MW10-2, MW11-2, and MW12-1. Embedded Table 7 provides a summary of parameters that did not meet the PWQO or CWQG in 2025. Refer to Table 8 for a full comparison.

Embedded Table 7 Summary of parameters that did not meet PWQO/CWQG

Monitoring Well	Parameters
MW08-2	DO
MW09-2	DO
MW10-2	iron and DO
MW11-2	iron and DO
MW12-1	DO and phenols

Due to the nature of DO in groundwater, low DO measurements are not unexpected and are not considered significant for groundwater quality comparisons. Furthermore, DO concentrations are known to fluctuate throughout the year as DO is directly related to temperature and environmental conditions.

Iron (LIP) consistently exceeds PWQO criteria at MW10-2 and MW11-2 and is consistently greater than background water quality. Iron is considered to have naturally variable concentrations which exceed the PWQO within low-lying, stagnant areas due to natural reducing conditions cause by decaying organic vegetation. The elevated iron concentrations at MW10-2 and MW11-2 were attributed to this natural variation.

The absence of any PFAS compound in the down-gradient upper bedrock aquifer (i.e., MW08-2, MW09-2, MW10-2, MW11-2) indicated that these wells have not been impacted by leachate and any elevated LIP concentrations (i.e., iron, phenols) were attributed to non-waste related sources.

Comparing the water quality from shallow wells MW08, MW09, MW10, MW11 and MW12 is used as a general reference for potential impacts to surface water quality. As discussed in Section 4.2.3, an area of potential concern was identified at monitoring well MW12 near the

southwest property boundary. Based on the conceptual site model, it is possible that groundwater discharges to surface within this area. As discussed in Section 3.1, a surface water monitoring station identified as S3 was implemented during the spring 2023 monitoring event. Initial water quality results are discussed in Section 4.4.

4.2.6 Groundwater Compliance Assessment

The conceptual site model indicates that groundwater may discharge to surface in the areas east of the waste mound. However, there is potential for leachate impacted groundwater to migrate laterally off the Site in the overburden and bedrock aquifers. Migration of leachate into deeper bedrock aquifers is restricted since there are upwards hydraulic gradients between deep and shallow bedrock wells onsite.

To ensure appropriate recognition and response to potential degradation in groundwater quality beyond an acceptable level at the down-gradient property boundary occurs, site-specific trigger values and contingency plans have been developed for the Site. These are the RUC values developed in accordance with Ministry Guideline B-7 (MOEE, 1994a). The Ministry Guideline B-7 states that, in accordance with the appropriate criteria for particular uses, a change in quality of the groundwater on an adjacent property will be accepted only as follows (Ministry Procedure B-7-1):

> *The quality cannot be degraded by an amount in excess of 50% of the difference between background and the ODWQS for non-health related parameters and in excess of 25% of the difference between background and the ODWQS for health-related parameters. Background is considered to be the quality of the groundwater prior to any man-made contamination.*

The maximum concentration of a particular contaminant that is considered acceptable in the groundwater beneath an adjacent property is calculated in accordance with the following relationship:

$$C_m = C_b + x\,(C_r - C_b)$$

Where,

C_m is maximum concentration accepted

C_b is background concentration

C_r is maximum concentration permitted in accordance with the ODWQS

x is a constant that reduces the contamination to a level that is considered by the Ministry to have a negligible effect on water use (i.e., 0.5 for non-health related parameters and 0.25 for health-related parameters

The RUC values were calculated using the median value of the background concentration (C_b) from a minimum of the previous five sampling events as required by Ministry Eastern Region Technical Support Section. Where background concentrations were less than the laboratory RDL, the RDL was used as the background concentration. Where the background concentrations exceeded ODWQS, the C_b value was set as the RUC value. The calculated C_m values for the Site were set as the RUC values.

The RUC values were calculated for all LIPs with an ODWQS criteria at the Site using background water quality at nested monitors MW01 and MW13 for the overburden and bedrock, respectively. RUC compliance criteria of the shallow and deep bedrock wells was assessed at MW08, MW09, MW10, MW11, and MW12.

The predominant direction of groundwater flow in the overburden was toward the southeast, away from the waste mound. There are no overburden monitoring wells installed near the property boundary, except for R1. As such R1 is referenced as the RUC compliance well for the overburden.

Refer to Table 4, Table 5, and Table 6 for a summary of the RUC assessment in the overburden, shallow bedrock, and deep bedrock aquifers, respectively. Embedded Table 8 provides a summary of the RUC exceedances in 2025.

Embedded Table 8 RUC exceedances in 2025

Location	RUC Exceedance
MW01-1 (background)	none
MW13-1 (background)	none
MW13-2 (background)	*manganese*
R1	*manganese and DOC*
MW08-1	DOC
MW08-2	DOC
MW09-1	barium and manganese
MW09-2	DOC
MW10-1	barium
MW10-2	barium, iron, manganese, and DOC
MW11-1	barium, DOC, and manganese
MW11-2	barium, iron, manganese, and DOC
MW12-1	barium
MW12-2	none
MW12-3	none

Notes:
Italics indicates overburden monitor
Shaded cells indicate shallow bedrock monitor
No formatting indicates deep bedrock monitor

As discussed in Section 4.2.3, results of the supplementary monitoring program in 2023 (Cambium, 2024) confirmed that no waste related impacts were occurring at nested wells MW08 and MW09 (i.e., there were no detectable PFAS concentrations). Furthermore, there were no detectable PFAS concentrations at any shallow bedrock monitoring well. As such, any RUC exceedances reported at these wells (i.e., iron, barium, DOC, manganese) were attributed to non-waste related sources.

A PFAS signature was present at MW10-1, MW11-1, and R1 suggesting that leachate impacts were potentially extending southeast from the waste mound; however, there was uncertainty with these results given that the PFAS signature between these three wells was dissimilar to the PFAS signature present at leachate monitors MW05-1 and MW06-1. Although this may suggest that natural attenuation was occurring at the Site, results may also indicate that an

alternative source down-gradient of the waste mound was responsible for the differing leachate signature. This was because PFBA was not detected at MW10-1 but was reported at farthest down-gradient monitor R1 at a concentration slightly less than leachate (i.e., MW06-1). Given the surrounding property use near R1, MW10-1, and MW11-1, it would possible that the passive agricultural space, outdoor storage, and residential dwelling were a source of the PFAS concentrations in this area.

Barium was the only RUC exceedance reported at MW10-1, and barium, DOC and manganese were the only RUC exceedances at MW11-1 (i.e., locations with detectable PFAS concentrations). Concentrations of these parameters also exceeded the RUC criteria at MW09-1 where no PFAS were detected. This would indicate that the elevated concentrations were from a non-waste related source. Embedded Table 9 provides a summary of average manganese, barium, and DOC concentrations at the down-gradient deep bedrock monitoring wells.

Embedded Table 9 Average Concentrations at Select Wells (2012-2025)

Monitor	Average manganese Concentration (µg/L)	Average barium Concentration (µg/L)	Average DOC Concentrations (mg/L)
MW08-1	72	115	2.3
MW09-1	64	690	1.9
MW10-1	88	865	1.8
MW11-1	75	630	2.2
MW12-2	143	199	1.8
MW12-3	32	46	2.1

Although there were RUC exceedances at the down-gradient monitors, results suggest that they could be attributed to a non-waste related source. Manganese is the only parameter which persistently exceeded the ODWQS aesthetic objective at MW10-1, MW11-1, and R1. Down-gradient drinking water users are limited to R2 (included in the monitoring program) where results have indicated that the well has not been impacted by waste disposal operations (Section 4.3).

Based on the above, Cambium recommends that the standard monitoring program continue. The Site is not considered to be a threat to local groundwater and surface water users, as such Cambium respectfully requests the Ministry's approval to reduce the reporting frequency from once annual to biennially (once every two years).

4.3 Residential Groundwater Quality

To ensure that residential groundwater supplies around the Site are not influenced from leachate, four residential wells are sampled as part of the monitoring program. Results of the residential monitoring program are detailed in Table 4 for R1 and Table 9 for R2 to R4. The following describes the residential well monitoring locations.

- R1 is within the site boundaries about 620 m southeast of the waste mound. The original well was a stone dug well; however, was abandoned in the summer of 2019 and replaced with a monitoring well installed to a similar depth within the overburden. This well was replaced to assess compliance along the southeast property boundary.
- R2 is about 750 m east-southeast of the waste mound on the eastern side of 5th Line Road North Dummer.
- R3 and R4 are hydraulically up-gradient of the waste mound about 500 m southwest and 435 m west, respectively.

The farthest down-gradient monitoring location to the southeast is R1. Although part of the residential well monitoring program, this well is used to assess impacts in the shallow overburden aquifer. Historical water quality results from residential well R1 indicated variable results for certain parameters (e.g., barium, magnesium, iron, manganese, nitrate, potassium, TDS) but similar to or better than the quality reported from wells MW08, MW09, MW10, and MW11. Water quality results in 2025 were consistent with historical concentration ranges. Manganese exceeded the ODWQS criteria in 2025. Although PFAS results in 2023 were detected at R1, the signature was different than results from any leachate monitoring well suggesting that the water quality at R1 may be being influencing adjacent residential dwelling, outdoor storage, and surrounding property use (Cambium, 2024).

Historical water chemistry at residential well R2 reported low but detectable concentrations of most metals and a neutral pH. There has been the sporadic ODWQS exceedance for TDS and iron. No sample was collected in 2025 as the resident was not at home during the sampling events.

Historical water quality results at R3 indicated low but detectable concentrations of most metals, a neutral pH, and the sporadic exceedance of the ODWQS for iron, lead, TDS, and manganese. There have been occasional ODWQS exceedances for copper, iron, TDS, DOC, and lead. Permission was obtained in autumn 2025 to resume sample collection. The last time samples were collected was in November 2020. Water quality results in 2025 were generally within historical ranges; however, arsenic, COD, DOC, sodium, and TKN were elevated. DOC exceeded the ODWQS. Given the limited samples, further monitoring is required to understand the trends at this location.

Historical water quality at R4 indicated low but detectable concentrations of metals, sporadic exceedances of the ODWQS for chloride, and a persistent exceedance of the ODWQS for TDS. Water quality results were consistent and stable with historical ranges in 2025 except for TKN which was elevated. Chloride and TDS exceeded the ODWQS in 2025.

4.4 Surface Water Quality

The 2014 to 2025 surface water quality data are in Table 10. Historical data and data for those parameters no longer included in the monitoring program are attached to the report package digitally. The surface water data have been compared with background water quality and historical data, and compliance was assessed using the PWQO (MOEE, 1994b).

4.4.1 Background Surface Water Quality

Historically station S2 was selected to represent background surface water quality; however, chemistry results over time indicated that this station was not suitable for comparison purposes. Comments received from the Ministry's Surface Water Reviewer supported Cambium's recommendations that since the water quality at station S1 (down-gradient) was interpreted to be unimpacted, it could be used for background purposes. This is under the

agreement that the data is reviewed annually to determine if a negative change in water quality has occurred.

Station S1 is 695 m southeast of the waste mound. As mentioned above, historically S1 was used to assess downstream water quality. Given the generally low concentrations of most parameters and the infrequent PWQO exceedances, this location was deemed suitable for background purposes. Only one sample was collected at this station in April 2025 as it was dry in October. The water quality results remained consistent with historical concentration ranges in 2025 except for total phosphorus which was elevated and exceeded the PWQO.

4.4.2 Downstream Surface Water Quality

Ministry comments recommended that station S2 remain in the monitoring program to determine if this station is being impacted by surface water runoff from the waste mound and/or potential groundwater discharge. Runoff generated from the waste mound generally flows in a southeastern direction; however, it is suspected that there is a component of radial flow around S2 due to a northeast-southwest trending topographical high that would deflect surface water flow in the northeastern to northwestern direction and potentially toward station S2. Although, the water chemistry at S2 may suggest site-related impacts, the variability in the water chemistry may also suggest that the elevated concentrations may be due to poor sampling conditions (ponded) in an area that does not receive regular, sustained surface water flow.

Historically, phenols and copper frequently exceeded the PWQO, and total phosphorus has sporadically exceeded the criteria at station S2. Four samples have been collected at station S2 since 2020. A sample was collected in April 2025, but the location was dry in October. Water chemistry results in 2025 were generally stable and within historical ranges. Total phosphorus did not meet the PWQO criteria in 2025.

Due to the proximity of well nest MW12 to the southwest property boundary and the potential for groundwater to discharge to surface (upward gradients), the Ministry supported the implementation of a new surface water station (sample ID :S3) near nest well MW04/MW12 in

June 2022 (Cambium, 2023). Station S3 was established in spring 2023 about 20 m down-gradient of MW12.

Only two samples have been collected from this station since implementation as this location has often been dry. Visual observations to date suggest that any potential groundwater discharging to surface would be limited seasonally. Furthermore, as there were no observed surface water channels in this area, this station is likely to remain ponded when present with flow only anticipated during times of increased precipitation.

Parameter concentrations in April 2022 and April 2025 were generally similar to or less than S1 and S2. Phenols exceeded the PWQO criteria in 2025. Further monitoring is required to fully assess impacts at this surface water station.

4.5 Landfill Gas Monitoring

Landfill gas, specifically methane and carbon dioxide, is derived from the decomposition of organic wastes. Production of landfill gases from landfilled waste normally reaches a maximum rate about two years after placement and may continue at this rate for many years. The biological decomposition process results in the generation of landfill gas until some period, likely decades, after the landfilling of that waste ceases. Methane is explosive at volumes of 5 to 17% methane by volume (50,000 to 170,000 ppm) in air (Werner Sölken, 2021).

Once landfill gases are produced under the surface, they tend to migrate from the landfill through pore spaces within the refuse and cover material. Landfill gases are lighter than air and naturally tend to move upward, usually through the landfill surface. Where upward migration is restricted by densely compact waste or impermeable landfill cover, gases tend to migrate horizontally. Generally, a landfill's peak production of gas occurs within five to seven years following closure and gas is no longer produced 20 years following closure; however, small quantities of gas may continue to be emitted from a landfill for 50 or more years.

Landfill gas monitoring was completed to assess compliance with Section 4.10 of *Landfill Standards, A Guideline on the Regulatory and Approval Requirements for New and Expanding Landfilling Sites* (MECP, 2021), which states that methane gas concentrations must be:

- less than 2.5% methane gas in the subsurface at the property boundary,
- less than 1.0% methane in an on-site building, or its foundation, and
- less than 0.05% methane (i.e. not present) in a building, or its foundation, which is located off-site.

Landfill gas collected from the monitoring locations in 2025 were less than 0.05% methane by volume except nested monitor MW02 in April. Given that both the wells are installed within the waste mound, high concentrations of methane were not unexpected. As there were no methane concentrations at the property boundaries greater than 2.5% by volume the Site complied with Section 4.10 of *Landfill Standards, A Guideline on the Regulatory and Approval Requirements for New and Expanding Landfilling Sites* (MECP, 2021). Landfill gas results are included in Table 11 and Appendix C.

4.6 Adequacy of Monitoring Program

As discussed in Section 1.3, Ministry support has been received for Stage 1 reductions of a two-stage process. These changes were implemented in 2023 which included a reduction in sample locations, frequency, and parameters analyzed (Table 1). Stage 2 reductions were contingent on the results of the supplementary monitoring program (Cambium, 2024). As outlined in the *2023 Annual Report* (Cambium, 2024), Cambium recommended that the monitoring program continue as outlined in Table 1; however, Cambium recommended the reporting frequency be reduced from once annual to biennially (once every two years). This recommendation was based on the following conclusions:

- All detectable PFAS concentrations at MW10-1, MW11-1, and R1 were less than the applicable compliance criteria.
- Manganese was generally the only parameter which exceeded the ODWQS criteria at MW10-1, MW11-1, and R1. The ODWQS criterion for manganese is an aesthetic objective.
- All LIPs were stable or decreasing at down-gradient monitors MW10-1, MW11-1, and R1.

- There have been no exceedances of any health related ODWQS criteria at the farthest down-gradient monitoring well R1 other than an anomalous concentration of lead in 2016.
- The only down-gradient residential well user is included in the current monitoring program as R2. Results to date indicate that the water quality at this well has not been impacted by waste disposal operations.
- Groundwater sample collection is once annually.

It is also recommended to decommission nested well MW02-1/MW02-2, as no samples have been collected at these wells due to suspected bentonite blockage.

Once an agreement of all the changes to the monitoring program is understood between the Ministry and the Township, then an application must be submitted to the Ministry to amend the ECA to formally reflect the approved changes.

5.0 Site Operations

This section summarizes operations as reported by the Township for 2025 and discusses the following requirements of PC of A Condition 62.

- a monthly summary of the type and quantity of all incoming and outgoing wastes, and the destination of all outgoing waste (Section 5.6.1 and Table 12)
- a discussion of any operational or environmental problems encountered at the Site and corrective action taken (Section 5.3)
- any changes to the Emergency Response Plan or Design and Operations Report that have been approved by the Director since the last Annual Report (Section 5.7)
- Recommendations respecting any proposed changes in the operation of the Site (Section 5.8)

5.1 Site Access and Security

The Site is not visible from County Road 6- and Fourth-Line Road as it is well screened by surrounding trees, thick vegetation, and natural topography. A lockable gate at the entrance controls access. Signs were posted at the Site entrance which detailed the hours of operation, acceptable and prohibited materials, and tipping fees.

The Site services the residents of the Township of Douro-Dummer, though signage at the gate directs contractors to use the Bensfort Road Waste Facility in Peterborough or the nearby Stoney Lake transfer station managed by Waste Connections. Ratepayers are required to show a pass for Site access. A site attendant is present during the hours of operation. The hours of operation in 2025 were:

Summer – May 1 to October 31

Monday, Wednesday, Friday, and Saturday: ... 10:00 AM to 2:00 PM

Sunday: ..... 10:00 AM to 6:00 PM

Winter – November 1 to April 30

Saturday, Sunday, and Wednesday: ..... 10:00 AM to 2:00 PM

Furthermore, the Site remains closed on Christmas Day and New years' Day.

5.2 Training

Staff from the Township and Township appointed contractors operate the Site. As required by PC of A Condition 30, all employees working at the Site are properly trained for the tasks that they are expected to perform and are provided with continued on-the-job training. The site attendants' responsibilities included, but were not limited to the following:

- Controlling admission of authorized vehicles with acceptable wastes
- The terms and conditions of the PC of A and any relevant waste management legislation and regulation (e.g., EPA, and O. Reg. 347)
- Ensuring proper daily litter control
- Controlling collection and transport of materials by a licensed hauler
- Maintaining a daily record of all operations, which are available for inspection by the Ministry
- Emergency response procedures (e.g., spills, and first aid)
- Equipment and Site inspection procedures
- Record keeping of quantities of waste being delivered to the Site and records of all incidents of illegal dumping, complaints, and unauthorized waste disposal.

The Township reported that the Public Works Manager, Lead Hand, and the site attendant completed a training course provided by the Solid Waste Association of North America

(SWANA) in December 2022 (Cambium, 2023). Training records are kept on file as required by PC of A Condition 31. No formal training was completed in 2025.

5.3 Site Inspections

This section discusses observations during site inspections conducted by Cambium and summarizes information provided by the Township in 2025.

In 2025, the Township completed regular routine site inspections to meet PC of A Condition 32. Site inspections included observations of the following:

- Waste material staging areas including: the condition of disposal bins, waste oil tank, and divertible material, and if any waste quantity exceeded the maximum allowable capacity described in PC of A Condition 20, 21, 22, and 24.
- On-site equipment, buildings, and barriers
- General housekeeping (e.g., first aid, security, personal protective equipment, etc.)

A written record of the areas inspected are maintained at the Site as required by PC of A Condition 32. The records include: the names of the trained personnel conducting the inspection, date and time, areas inspected, any maintenance completed, and recommendations for remedial action.

5.3.1 Litter Control

As noted by Cambium staff, the Site was in good condition. Minimal litter was observed during site visits in 2025, and the transfer station and surrounding areas were reported to be tidy.

The intent of good housekeeping practices is to protect on-site worker health and safety, and the surrounding environment from nuisance effects. Nuisance effects are minimized by adopting good housekeeping measures as part of the Site operations. Regular housekeeping is essential to control such nuisances as:

- Blowing and loose litter
- Odour

- Rodents and insects
- Scavenging birds

5.3.2 Roads

The access road has sufficient width at the entrance and within the Site to allow unimpeded winter travel and access for emergency and snow removal equipment. The site access roads were observed to be well maintained and graded and were reported to be regularly cleared of snow with a sand mixture applied as needed by the Township during the winter months.

5.3.3 Final Cover Integrity

The waste mound was adequately covered and there was minimal evidence of erosion observed from the areas accessed during visits in 2025. Furthermore, the waste mound was well vegetated, which is an effective erosion control measure. No seeps were noted during any site visits conducted in 2025.

5.4 Complaints and Incidents

The Township reported that there were no complaints or incidents regarding the Site in 2025.

5.5 Monitoring Well Security

All monitoring wells listed in Table 1 were inspected by Cambium personnel for compliance with R.R.O. 1990 Regulation 903 - Wells. All wells compiled with Reg 903 in 2025; however, MW03-2 required minor well repairs. As previously mentioned in Section 2.1, a bentonite blockage is obstructing MW02-1. No samples have been collected from nest monitor MW02 since 2018, it is recommended that these wells be decommissioned. Refer to Appendix E for photographs of the monitoring wells.

5.6 Materials Summary

The following waste types are collected at the Site; refer to Figure 3 for the collection locations of each material. In 2022, the Township reported that the Site no longer accepts mattresses and box springs (Cambium, 2023).

- Domestic solid, non-hazardous waste
- Blue box recycling
- Organic waste
- Scrap metal and white goods
- Freon Appliances
- Brush
- Wood waste
- Waste Electrical and Electronic Equipment (WEEE)
- Propane tanks
- Used oil

5.6.1 Site Usage

Site usage, as documented by the Township, is summarized in Embedded Table 10. The Site is equipped with a scale, such that the tonnage of waste accepted can be determined annually. Waste collected is transferred to the Peterborough Waste Management Facility (Bensfort Road Landfill). Refer to appended Table 12 for a monthly summary of materials accepted and transferred at the Site.

Embedded Table 10 Summary of Site Usage

	2025	2024	2023	2022	2021
Household Garbage (tonnes)	991.3	1,013.8	1,008.12	976.90	200.51

In addition to the above, the Township reported that the Site accepted the following tonnages in 2025:

- Clean wood: 64.77 tonnes
- C&D materials: 11 tonnes

5.6.2 Material Diversion

Embedded Table 11 provides a summary of the materials diverted from the Site in 2025, as provided by the Township and the County of Peterborough. Blue box recyclables are hauled to the Peterborough County Material Recycling Facility – Pido Road.

Embedded Table 11 Summary of Diverted Materials

Material	tonnes
Blue Box (Containers and Fibres)	58.28
MHSW (May 27 and August 12)	6.93
Scrap Metal and White Goods[1]	14.28
WEEE	8.40
Organics	31.14
TOTAL	**119.03**
Other	
Alcohol Containers	2,885 units
Tires	329 units
Freon Appliances[1]	36 units

Notes:

1. Includes white goods quantities.

Embedded Table 12 summarizes additional waste the County manages and reports as diverted from within the Township in 2025.

Embedded Table 12 Summary of Divertible Materials - Private and Curbside

Depot – Leaf and Yard Waste (Warsaw)[1]	45.08 tonnes
Curbside Leaf and Yard[2]	13.06 tonnes

Notes:

1. Leaf and Yard Waste Collected at the Warsaw Public Works Yard from Spring to Autumn

2. *Curbside Leaf and Yard and Organics materials are hauled to County's Harper Road Composting Facility*

In addition to the above, the Township sells backyard composted and digesters to their residents. This initiative was implemented to divert food waste from the solid waste stream.

5.7 Site Documentation Reviews and Updates

The following documents are maintained by the Township and updated as required. There were no changes to these documents in 2025.

- *Hall's Glen Landfill Site, Closure Report* (TSH, 2002a)
- *Hall's Glen Landfill Site Transfer Station: Design, Operation, Maintenance, and Closure Report* (TSH, 2002b)

5.8 Operations, Equipment, and Procedures

The Township has made conscientious efforts to mitigate risk to the surrounding environment and promote a safe location for the disposal of waste for the site attendants and residents. As such, Cambium has no recommendation regarding the operation of the Site.

5.9 Compliance with Ministry Approval

The property area of 1.0 ha owned by the Township of Douro-Dummer was considered sufficient for operational buffer and contaminant attenuation zone purposes in 2025 for the Hall's Glen Waste Transfer Station.

The Hall's Glen transfer station was operated in compliance with all PC of A conditions in 2025. Furthermore, the Township operated the Site in compliance with all required inspection and reporting requirements contained in the PC of A.

6.0 Conclusions and Recommendations

Based on the 2025 routine monitoring program and supplemental monitoring program, Cambium makes the following conclusions regarding the Hall's Glen waste disposal site:

- The water level measurements indicated that the predominant direction of groundwater flow in all three aquifers was to the east/southeast.
- Natural attenuation was occurring at the Site as concentrations decreased with distance from the waste mound. The down-gradient water quality suggest that non-waste related impacts may be influencing the water chemistry (i.e., saturated organic soils, and decaying organic vegetation).
- Results of the supplemental monitoring program in 2023 (Cambium, 2024) indicated a similar leachate signature between background monitoring well MW13-2 and the leachate monitoring wells suggesting a potential component of radial flow to the southwest. There were no detectable PFAS concentrations in the down-gradient wells installed in the shallow bedrock aquifer. PFAS were detected at down-gradient residential well R1 and deep bedrock monitors MW10-1 and MW11-1; however, the signature present was different that what was reported in the leachate quality suggesting a potential non-waste related source.
- Groundwater samples collected from MW08, MW09, MW10, MW11, MW12, and R1 were used to assess compliance with Ministry Guideline B-7 - Reasonable Use. Although select parameters continued to exceed the compliance criteria, these exceedances were attributed to non-waste related source(s). Furthermore, the only parameter to continually exceed the ODWQS was manganese which is an aesthetic objective.
- A new down-gradient surface water monitoring station (S3) was established in 2023. Initial results indicated similar to or better water quality than the background quality. Only one sample was collected during the monitoring period as S3 was dry in autumn. Down-gradient surface water results at station S2 were consistent and stable. Further monitoring is required to fully assess impacts at these stations.

- About 991 tonnes of waste accepted at the Site and transferred to the Peterborough Waste Management Facility.
- About 119 tonnes of blue box recycling, scrap metal, organics, MHSW, and WEEE were collected at the Site.
- The Township of Douro-Dummer operated the Hall's Glen waste transfer station in compliance with the Provisional Certificate of Approval in 2025

Based on the results of the work completed in 2025, Cambium recommends the following:

- The groundwater and surface water monitoring program should continue as outlined in Table 1.
- The reporting frequency should be reduced from annually to biennially.
- Nest well MW02 should be decommissioned. Field staff noted MW02-1 to be compromised during the autumn sampling event and no samples have been collected at either MW02-1 and MW02-2.
- Once an agreement of all the monitoring program and reporting changes is understood between the Ministry and the Township, then an application to amend the ECA should be formally submitted to reflect these changes.

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Glossary of Terms

- **Active Face/Area**
  The portion of the landfill facility where waste is currently being deposited, spread and/or, compacted prior to the placement of cover material.
- **Adverse Environmental Impact**
  Any direct or indirect undesirable effect on the environment resulting from an emission or discharge that is caused or likely to be caused by human activity.
- **Annual Report**
  Report documenting the results of water quality, environmental quality, and operations monitoring for the year, or for a period as prescribed in the Certificate of Approval.
- **Approved Design and Operations Plan**
  The design of a landfill site and its facilities which have been submitted along with the application documents for which formal Ministry approval has been issued through the Certificate of Approval.
- **Approved Site or Facility**
  A landfill site/facility for which there is an existing and current Certificate of Approval.
- **Aquifer**
  A geologic unit (soil or rock) that contains sufficient saturated permeable material to yield measurable quantities of water to wells and springs.
- **Attenuation**
  Natural process through which the concentrations of landfill generated contaminants are reduced to safe levels.
- **Borehole**
  A hole drilled for soil sampling purposes.
- **Buffer Area**
  An area of land situated within the peripheral area surrounding an active filling area, but limited in extent to the property boundary, assigned to provide space for remedial measures, contaminant control measures, and for the reduction or elimination of adverse environmental impact caused by migrating contaminants.
- **Certificate of Approval**
  The license or permit issued by the Ministry for the operation of a landfill site. Issued to the owner of the site with conditions of compliance stated therein.
- **Contaminant**
  A compound, element, or physical parameter, usually resulting from human activity, or found at elevated concentrations that have or may have a harmful effect on public health or the environment.
- **Contaminant Migration Path**
  Route by which a contaminant will move from the site into adjacent properties or the natural environment. Usually a route that offers the least resistance to movement.
- **Contamination Attenuation Zone**
  The zone beneath the surface, located beyond the landfill site boundary, where contaminants will be naturally attenuated to predetermined levels. Also, see Reasonable Use Policy.
- **Contingency Plan**
  A documented plan detailing a co-ordinated course of action to be followed to control and remediate occurrences such as a fire, explosion, or release of contaminants in an uncontrolled manner that could threaten the environment and public health.
- **Cover Material**
  Material approved by the Ministry that is used to cover compacted solid waste. Usually, a soil with suitable characteristics for specific end-use.
- **Site Development Plan and Operations Report**
  Development and Operations Plan or Report is a document detailing the planned sequence of activities through the landfill site's active life, the control systems, site facilities and monitoring systems that are necessary. This document is required for obtaining a Certificate of Approval.
- **Design Capacity**
  The maximum amount of waste that is planned to be disposed of at a landfill site.
- **Detection Limit**
  Concentration under which a parameter cannot be quantitatively measured.

- **EAA or EA Act**
  Environmental Assessment Act, Revised Statutes of Ontario, 1990. One of the primary acts of legislation intended to protect, conserve, and wisely manage Ontario's environment through regulating planning and development.
- **Environmental Compliance Approval**
  The license or permit issued by the Ministry for the operation of a landfill site. Issued to the owner of the site with conditions of compliance stated therein.
- **EPA**
  Environmental Protection Act, Revised Status of Ontario, 1990. EPA is another of the primary pieces of Provincial legislation governing the protection of the natural environment of the Province.
- **Evapotranspiration**
  The evaporation of all water from soil, snow, ice, vegetation and other surfaces, including the water absorbed by plants, that is released to the atmosphere as vapour.
- **Fill Area**
  The area of a landfill site designed and designated for the disposal of waste.
- **Final Cover**
  Soil material or soil in combination with synthetic membranes, overlain by vegetation in a planned landscape, placed over a waste cell that has reached the end of its active life.
- **Groundwater**
  Subsurface water that occurs beneath the water table in soils and rocks that are fully saturated.
- **Hydraulic Conductivity**
  The rate of flow of water through a cross-section under a specific hydraulic gradient. It is a property of the geologic formation and the fluid, in hydrogeologic applications where the fluid is water (Units of m/day or cm/s).
- **Hydraulic Gradient**
  The head drop per unit distance in the direction of flow, the driving force for groundwater flow.
- **Hydrogeology**
  The study of subsurface waters and related geologic aspects of surface waters.
- **Impermeable Fill**
  Soil material that is placed as filling material that is sufficiently cohesive and fine grained to impede and restrict the flow of water through it.
- **In situ Testing**
  Testing done on-site, in the field, of material or naturally occurring substances in their original state.
- **Landfill Gas**
  Combustible gas (primarily methane and carbon dioxide) generated by the decomposition of organic waste materials.
- **Landfill Site**
  A parcel of land where solid waste is disposed of in or on land for the purposes of waste management.
- **Leachate**
  Water or other liquid that has been contaminated by dissolved or suspended particles due to contact with solid waste.
- **Leachate Breakout**
  Location where leachate comes to the ground surfaces; a seep or spring.
- **Limit of Filling**
  The outermost limit at which waste has been disposed of, or approved or proposed for disposal at a landfill.
- **Ministry**
  Ontario Ministry of the Environment, Conservation and Parks.
- **Monitoring**
  Regular or spontaneous procedures used to methodically inspect and collect data on the performance of a landfill site relating to environmental quality (i.e., air, leachate, gas, ground or surface water, unsaturated soils, etc.).
- **Monitoring Well**
  The constructed unit of casing (riser and screen) installed in a borehole.
- **Multi-Level Monitoring Well**
  More than one monitoring well installed at a given test well location.
- **Native Soil**
  Soil material occurring naturally in the ground at a location.

- **Natural Attenuation**
  Where contaminants are reduced to acceptable concentration levels by natural mechanisms (dilution, absorption onto the soil matrix, etc.), biological action, and chemical interaction.
- **Occupational Health and Safety Act**
  The primary act of legislation enacted by Ontario Ministry of Labour to regulate and control the safety in the workplace; also Occupational Health and Safety Act, Revised Statutes of Ontario, 1990.
- **Odour Control**
  Minimizing or eliminating the nuisance and undesirable impact of objectionable or unpleasant odours arising from waste disposal operations.
- **Open Burning**
  Burning any matter whereby the resultant combustion products are emitted directly to the atmosphere without passing through an adequate stack, duct, or chimney.
- **Operations Plan**
  A document detailing the waste disposal operations in a planned, and if necessary, a staged manner, that ensure compliance with regulatory provisions concerning the operations of a landfill site.
- **Operator (Site Operator)/Attendant**
  The individual or organization who, through ownership or under contract, manages and operates a landfill site for the purpose of waste disposal.
- **Owner**
  A person, persons, organization, or municipal authority who own a landfill facility or part of a landfill facility, and in whose name the Certificate of Approval for the site is issued.
- **Percolation**
  The movement of infiltrating water through soil.
- **Permeability**
  Often used interchangeable with hydraulic conductivity, but not strictly correct. Permeability is a property of the porous media only. Dependent upon media properties that affect flow, diameter, sphericity, roundness, and packing of the grains.
- **Piezometer**
  A well that intersects a confined aquifer.
- **Provisional Certificate of Approval (Provisional C of A)**
  Same as Certificate of Approval.
- **Reasonable Use Policy**
  A policy developed by the Ministry to stipulate limits to the level of groundwater quality impairment that may be permitted to occur at site property boundaries, to allow the reasonable use of adjacent properties or land without adversely affecting public health and the environment.
- **Recharge Zone**
  An area where precipitation or surface run-off infiltrates into the ground and then, through natural percolation enters an aquifer.
- **Recycling**
  Sorting, collecting or processing waste materials that can be used as a substitute for the raw materials in a process or activity for the production of (the same or other) goods. For example, the "Blue Box" system, in-plant scrap handling, or raw material recovery systems. Recycling is also the marketing of products made from recycled or recycled materials.
- **Reduction (of waste or component of 3Rs program)**
  Those actions, practices, or processes that result in the production or generation of less waste.
- **Remedial Action**
  Corrective action taken to clean-up or remedy a spill, an uncontrolled discharge of a contaminant, or a breach in a facility or its operations, in order to minimize the consequent threat to public health and the environment.
- **Representative Sample**
  A small portion of soil, water, etc. which can be subjected to testing and analysis, that is expected to yield results that will reliably represent the identical characteristics of the source of the material or of a larger body of material.
- **Reuse (component of 3Rs program)**
  The use of an item again in its original form, for a similar purpose as originally intended, or to fulfil a different function.
- **Run-off**
  The part of precipitation (rainwater, snowmelt) that flows overland and does not infiltrate the surface material (soil or rock).

- **Saturated Zone**
  The zone of a subsurface soil where all voids are filled with water.
- **Sedimentation**
  The deposition of fine grained soil in an undesirable location, caused by the scouring, erosion and transportation of earth materials by surface run-off.
- **Sensitive Land Use**
  A land use where humans or the natural environment may experience an adverse environmental impact.
- **Settlement**
  The subsidence of the top surface and underlying waste of a landfill or waste cell as a result of densification under its own weight.
- **Site Capacity**
  The maximum amount of waste that is planned to be disposed (design capacity) or that has been disposed of at a landfill site.
- **Site Closure**
  The planned and approved cessation or termination of landfilling activities at a landfill site upon reaching its site capacity.
- **Site Life**
  The period from its inception through active period of waste disposal, to the time when a landfill site reaches its' site capacity, when it ceases to receive any further waste, including and up to closure.
- **Solid Waste**
  Any waste matter that cannot be characterized by its physical properties as a liquid waste product.
- **Solid Waste Disposal Site or Facility**
  A site or facility such as a landfill site where solid waste is disposed of.
- **Source Separation**
  The separation of various wastes at their point of generation for the purposes of recycling or further processing.
- **Standpipe**
  A monitoring well that intersects the water table aquifer.
- **Storm water**
  Run-off that occurs as a direct result of a storm event or thaw.
- **Storm water Detention**
  Control of storm water by the construction of impoundments of structures for the purpose of regulating storm water flows during high intensity rainfall events that would otherwise transport excessive amounts of sediment, cause soil erosion or cause flooding.
- **Stratigraphy**
  The geologic sub-structuring, usually layered with different distribution, deposition and age.
- **Surface Run-off (Drainage)**
  See Run-off.
- **Surface Water**
  Water that occurs at the earth's surface (ponds, streams, rivers, lakes, oceans).
- **Sub-Soil**
  Soil horizons below the topsoil.
- **Test hole**
  A hole drilled for soil sampling purposes.
- **Topsoil**
  The uppermost layer of the soil containing appreciable organic materials in mineral soils. Adequate fertility to support plant growth.
- **Unsaturated Zone**
  The zone (also vadose zone) in a porous sub-soil, where the voids are not completely water-filled, but contain some air-filled voids. Limited above by the land surface and below by the water table.
- **Vector**
  A disease carrier and transmitter; usually an insect or rodent.
- **VOC**
  Volatile organic compounds are those compounds that will readily volatilize (convert from liquid to gas phase) at conditions normally found in the environment.

- **Waste**
  Ashes, garbage, refuse, domestic waste, industrial waste, or municipal refuse and other used products as are designated or interpreted by the provisions of the Environmental Protection Act.
- **Waste Disposal Site (Facility)**
  Any land or land covered by water upon, into, in or through which, or building or structure in which, waste is deposited or processed and any machinery or equipment or operation required for the treatment or disposal of waste.
- **Waste Management System**
  All facilities, equipment and operations for the complete management of waste, including the collection, handling, transportation, storage, processing and disposal thereof, and may include one or more waste disposal sites.
- **Water Table**
  The water level attained in a monitoring well, which screens the surficial unconfined aquifer.
- **Water Balance**
  Amounts of water to various components in a system so that water entering the system equals the amount of water contained within and discharged out of a system.
- **Water Level**
  The level of water in a well.
- **Well Casing**
  The pipe that is used to construct a well.
- **Well Screen**
  A filtering device used to keep sediment from entering a well.
- **Wetlands**
  Areas where water is at, near or above the land surface long enough to be capable of supporting aquatic or hydrolytic vegetation, and which have soils indicative of wet conditions.

Abbreviations

RFP	Request For Proposal
ha	hectare
Ministry	Ontario Ministry of the Environment, Conservation and Parks
tonne	metric ton
MNRF	Ontario Ministry of Natural Resources and Forestry
t	metric tonne
ECA	Environmental Compliance Approval
µS	microSiemens
EPA	Environmental Protection Act
ODWQS	Ontario Drinking Water Quality Standards
EAA	Environmental Assessment Act
PC of A	Provisional Certificate of Approval
MW	monitoring well
PWQO	Provincial Water Quality Objectives
masl	metres above sea level
TOC	Total Organic Carbon
pg	picogram
VOC	Volatile Organic Compound
ng	nanogram
BTU	British Thermal Unit
µg	microgram
°C	temperature in degrees Celsius
g	gram
N/A	not available
kg	kilogram
%	percent
L	Litre
cfm	cubic feet per minute
mg/L	milligrams per litre
ppmdv	part per million by dry volume
mm	millimetre
ppmv	part per million by volume
m	metre
ppm	part per million
km	kilometre
min	minimum
m^3	cubic metre
max	maximum
m^2	square metre

Statement of Qualifications & Limitations

Limited Warranty

Cambium relies on its client to provide instructions on the scope of work to be performed. Cambium undertakes all work in accordance with applicable accepted industry practices and standards, and with the degree of care and skill ordinarily exercised by professionals performing similar services for similar projects in the same region. Unless required under applicable laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

Reliance on Materials and Information

The findings, results, information and data prepared by Cambium are based on the materials, documents and information provided by the client to Cambium and on the facts, conditions and circumstances encountered by Cambium during the performance of the work. In formulating its findings, results, information and data, Cambium assumes that the information, documents and materials provided by the client to Cambium are factual, accurate and represent a true depiction of the circumstances that exist at the Project. Cambium relies on its client to inform Cambium if there are changes to any such information, documents and materials. Cambium does not review, analyze or attempt to verify the accuracy or completeness of the information, documents or materials provided by the client, other than in accordance with applicable accepted industry practice. Cambium will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to Cambium, are unknown by Cambium, or are otherwise concealed from Cambium during the provision of its services.

Facts, conditions, information and circumstances may vary with time and locations and Cambium's work is based on a review of such matters as they existed at the particular time and location indicated in the findings, results, information and data prepared by Cambium. No assurance is made by Cambium that the facts, conditions, information, circumstances or any underlying assumptions made by Cambium in connection with the work performed will not change after Cambium has completed its work. If any such changes occur or additional information is obtained, Cambium should be advised and requested to consider if the changes or additional information affect its work.

When preparing reports, Cambium considers applicable legislation, regulations, governmental guidelines and policies. Cambium is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, governmental guidelines and policies is for information purposes only and is not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

Site Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work considers any locations or times other than those from which information, sample results and data was specifically received, the work shall be based on a reasonable extrapolation from such information, sample results and data, but the actual conditions encountered may vary from those extrapolations.

Only conditions at the site and locations chosen for study by the client are evaluated; no adjacent or other properties are evaluated unless specifically requested and paid for by the client. Any physical or other aspects of the site chosen for study by the client, or any other matter not specifically addressed in findings, results, information and data prepared by Cambium, are beyond the scopes of the work performed by Cambium and such matters have not been investigated or addressed.

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Upon full payment of all fees properly owing to Cambium, the client shall have a perpetual, non-exclusive, non-transferable license (without sub-licensing rights) to use the work and reports prepared by Cambium solely for their intended purpose. For greater certainty, Cambium retains all right, title, and interest in and to the work and reports, and they may not be modified, used for other purposes, or relied upon for additional work without Cambium's prior written consent.

Reliance

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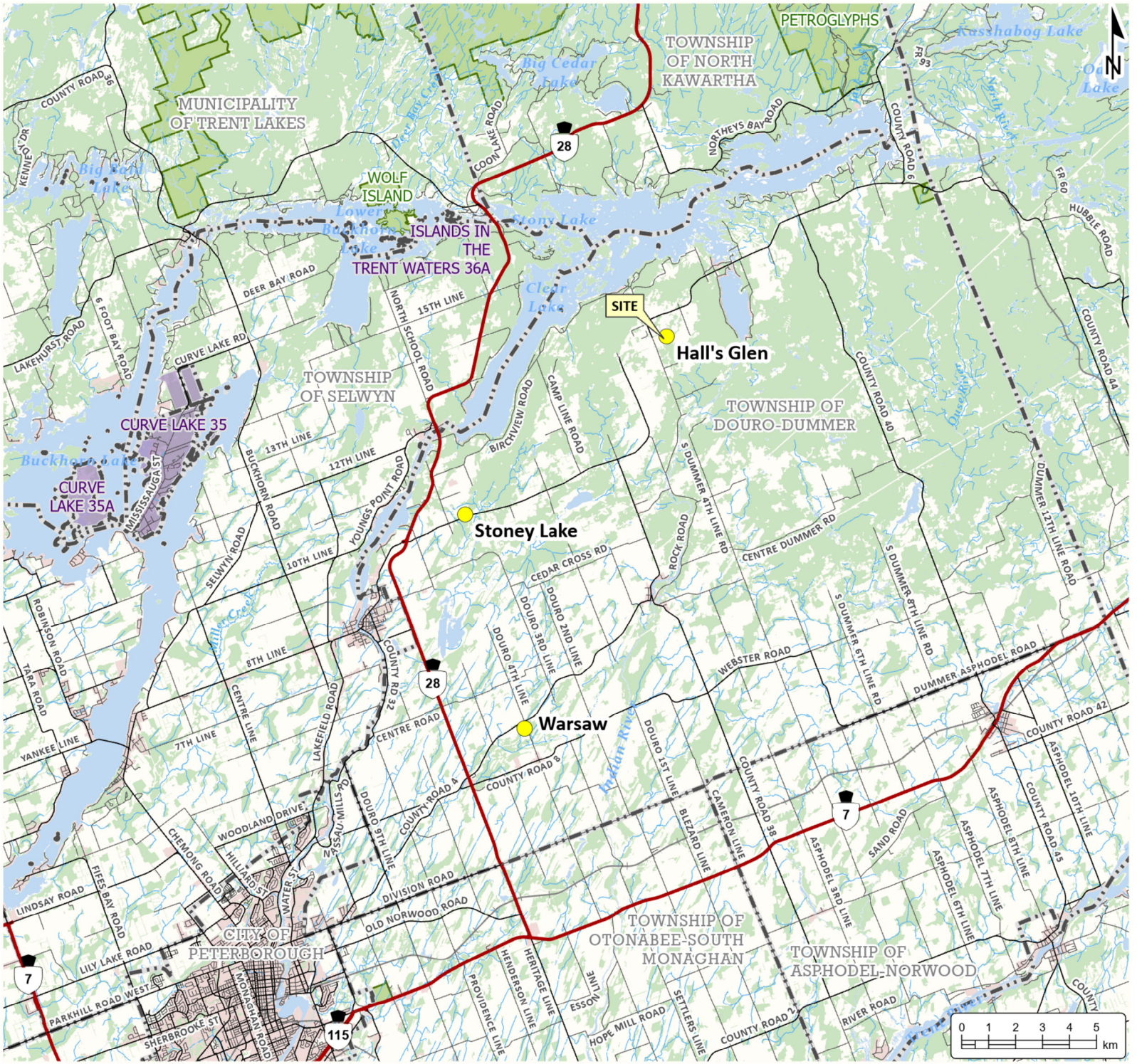
Appended Figures

2025 ANNUAL REPORT
HALL'S GLEN
WASTE TRANSFER STATION

1951 COUNTY ROAD 6
Hall's Glen, Ontario
The Township of Douro-Dummer



LEGEND

- Township of Douro-Dummer Waste Disposal Site
- Highway
- Major Road
- Minor Road
- Railway
- Watercourse
- Municipal Boundary
- First Nations Reserve
- Provincial Park
- Water Area
- Wooded Area
- Built Up Area

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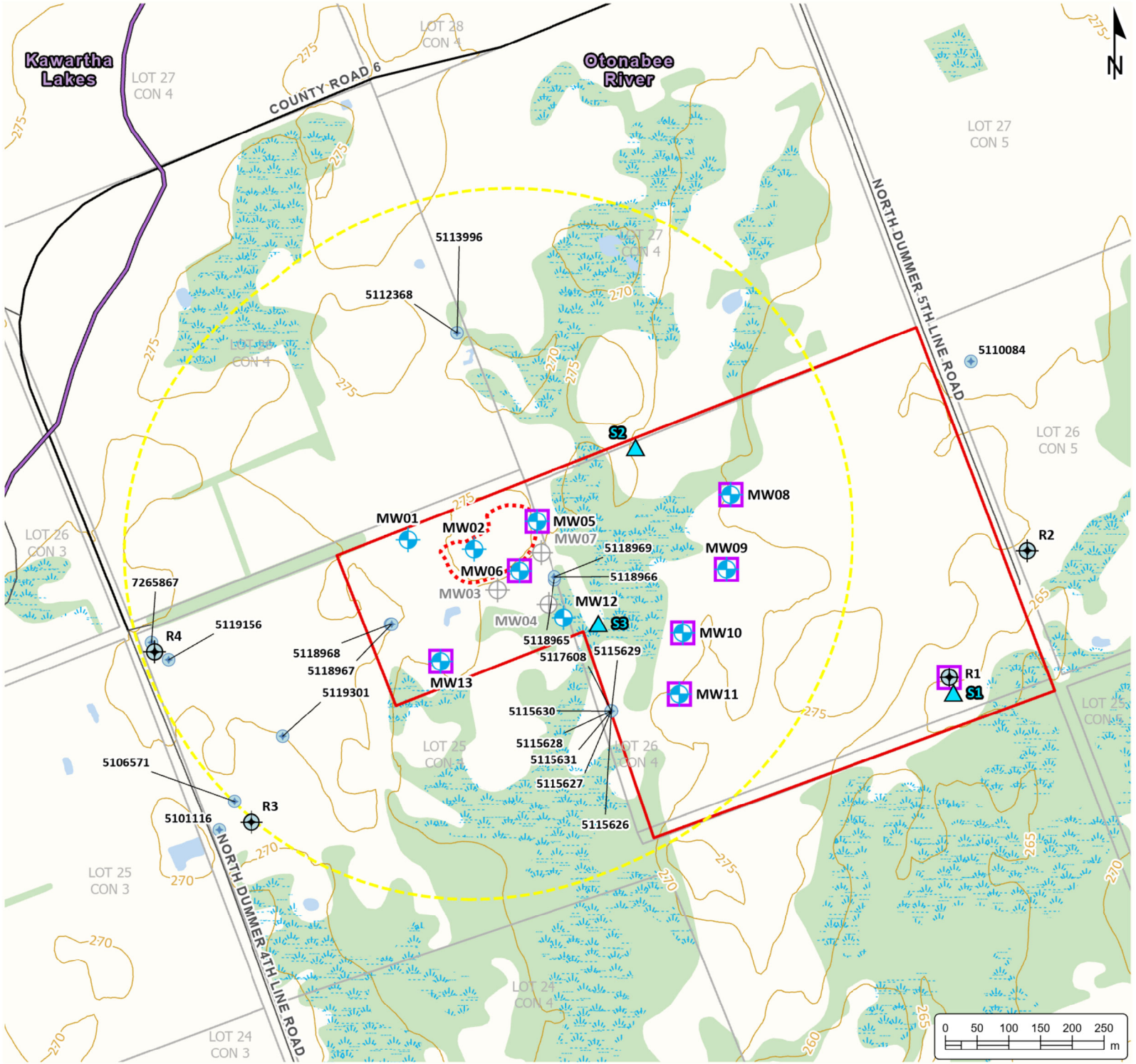
SITE LOCATION PLAN

Project No.:	Date:
12987-002	March 2026
Scale: 1:200,000	Projection: NAD 1983 UTM Zone 17N
Created by: NLB	Checked by: SNR
Figure: 1	

O:\GIS\Projects\12900-12999\12987-002TDD-HallsGlen\2025 Halls Glen AMR.aprx



2025 ANNUAL REPORT
HALL'S GLEN
WASTE TRANSFER STATION

1951 COUNTY ROAD 6
Hall's Glen, Ontario
The Township of Douro-Dummer

LEGEND

- Surface Water Sampling Location
- Ministry Well Record
- Residential Well
- Monitoring Well
- Historical Monitoring Well - Water Level Only
- Supplemental Monitoring Program (Monitoring and Residential Well)
- Major Road
- Minor Road
- Contour (5m Interval)
- Landfill Footprint
- Site (approximately 48.5 ha)
- 500m Area of Influence
- Lot/Concession
- Tertiary Watershed
- Unevaluated Wetland
- Water Area
- Wooded Area

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SAMPLE LOCATION PLAN

Project No.:	Date:
12987-002	March 2026
Scale: 1:8,500	Projection: NAD 1983 UTM Zone 17N
Created by: NLB	Checked by: SNR
Figure: 2	

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2025 ANNUAL REPORT
HALL'S GLEN WASTE TRANSFER STATION

1951 COUNTY ROAD 6
HALL'S GLEN, ONTARIO
THE TOWNSHIP OF DOURO-DUMMER

N

RECYCLE BINS
ORGANICS
BULK OIL
PROPANE
MHSW
WEEE
SCALE
ATTENDANT'S SHELTER
REUSE CENTRE
BOTTLE DRIVE
DONATION BIN
GATE
HOUSEHOLD WASTE
RAMP
EXTRA BIN
WHITE GOODS
BRUSH
WOOD
WOOD WASTE
SCRAP METAL
TIRES
CONCRETE & RUBBLE

LEGEND

- Site (approximate)
- Approximate Landfill Footprint (1.0 ha)
- Topographic Contour
- Approximate Treeline

GRAPHIC SCALE
(IN METRES)
10 0 5 10 20 30
1 : 750

Notes:
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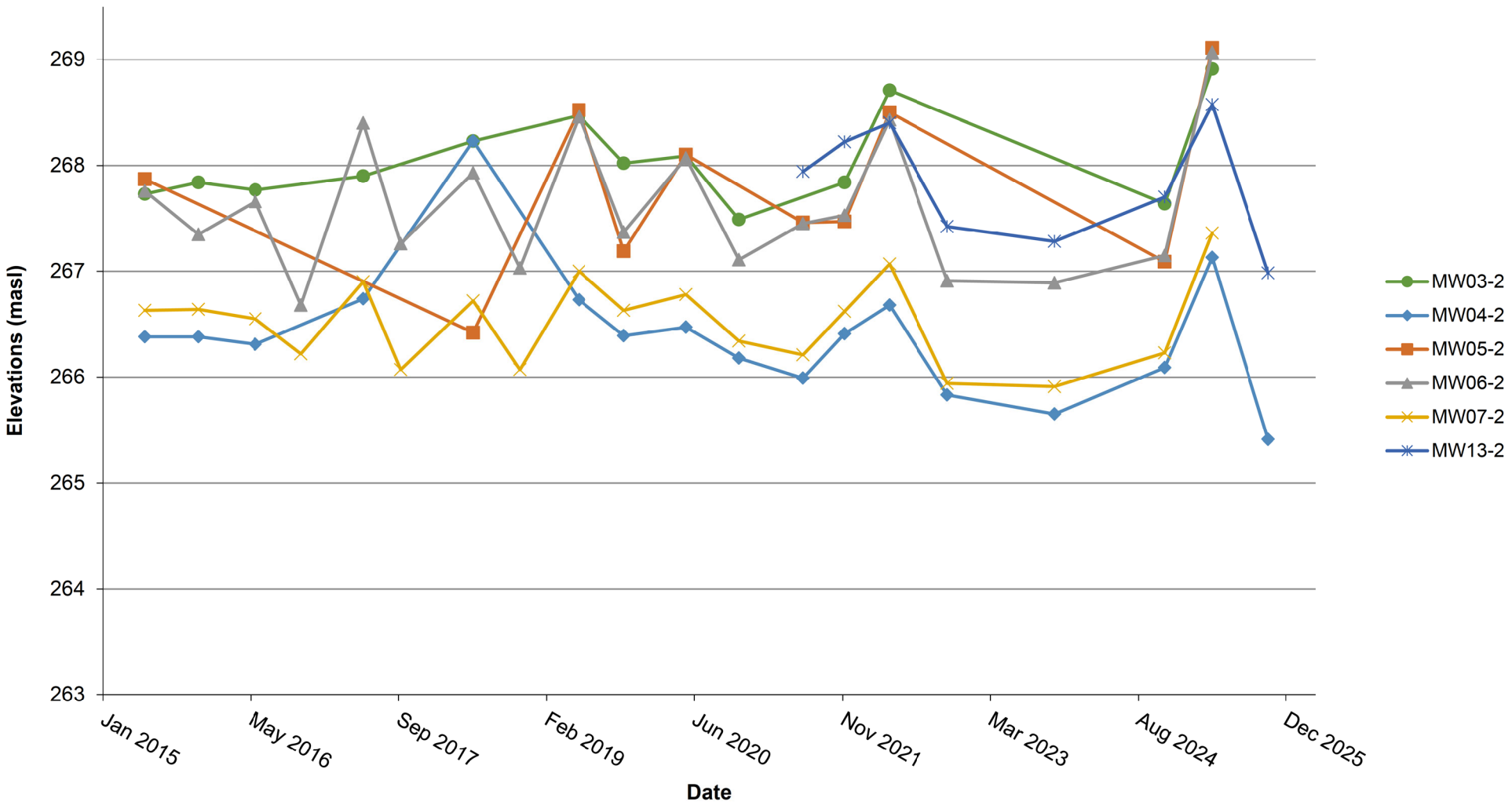
EXISTING CONDITIONS

Project No.:	Date:
12987-002	March 2026
Horizontal Scale: 1:750	Projection: UTM Zone 17N
Drawn By: NLB	Checked By: SNR
Figure: 3	

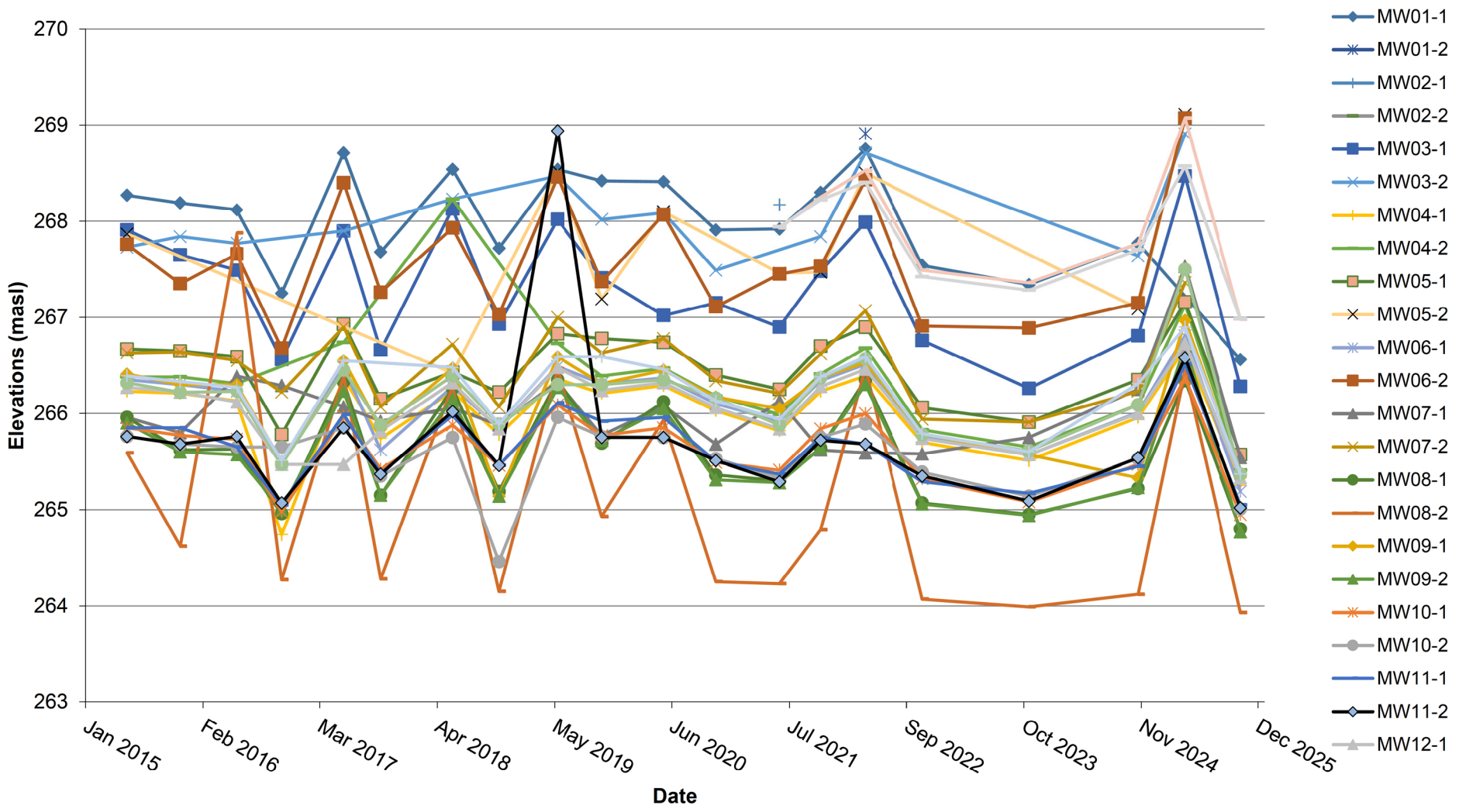


Groundwater Elevations (Overburden)

2025 Annual Report, Hall's Glen Waste Transfer Station
1951 County Road 6, Hall's Glen
The Township of Douro-Dummer

Figure:	**4**
Date:	13/Mar/26
Project Manager:	Stephanie Reeder
Project No.:	12987-002

CAMBIUM

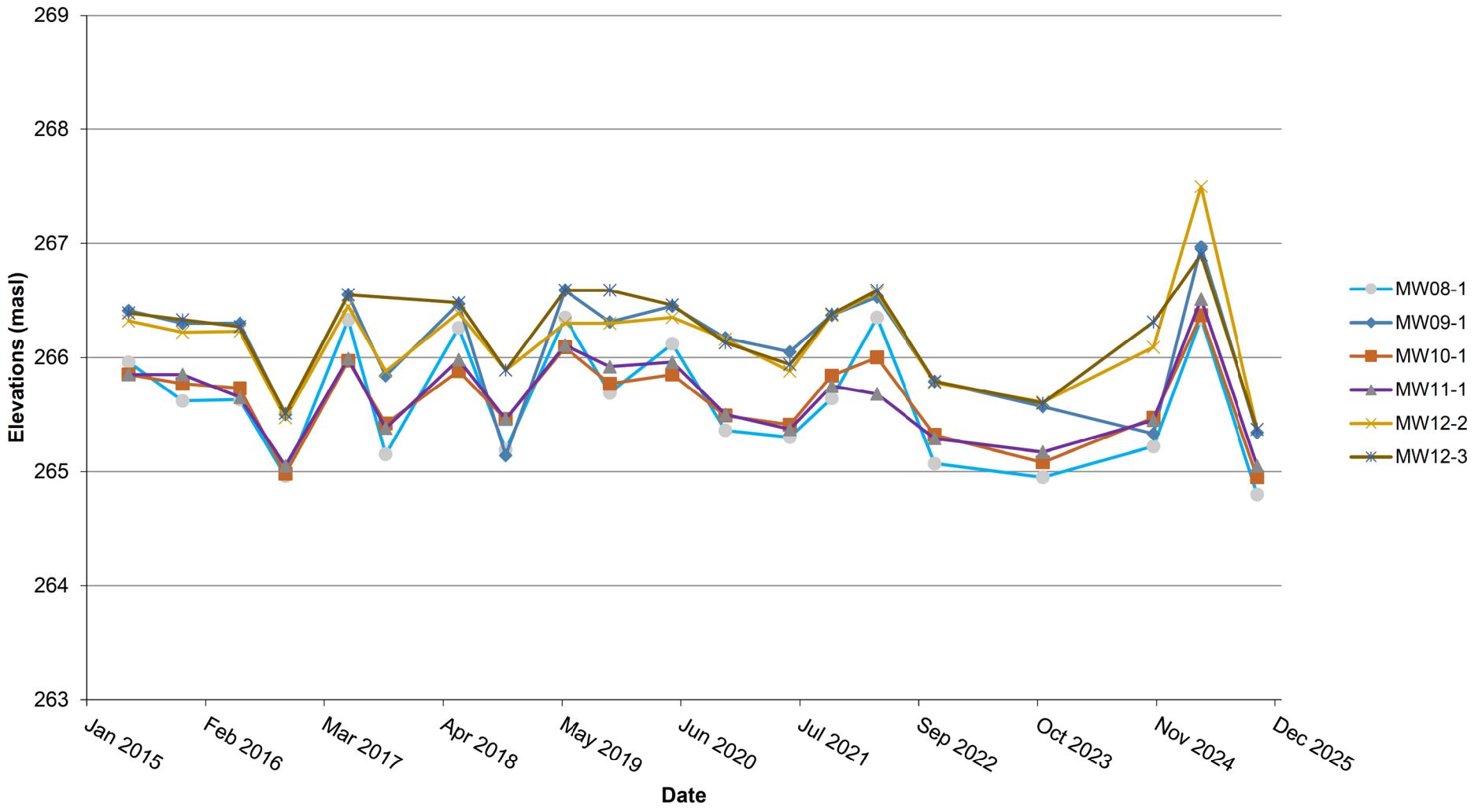


Groundwater Elevations (Shallow Bedrock)

2025 Annual Report, Hall's Glen Waste Transfer Station
1951 County Road 6, Hall's Glen
The Township of Douro-Dummer

Figure:	**5**
Date:	13/Mar/26
Project Manager:	Stephanie Reeder
Project No.:	12987-002

CAMBIUM

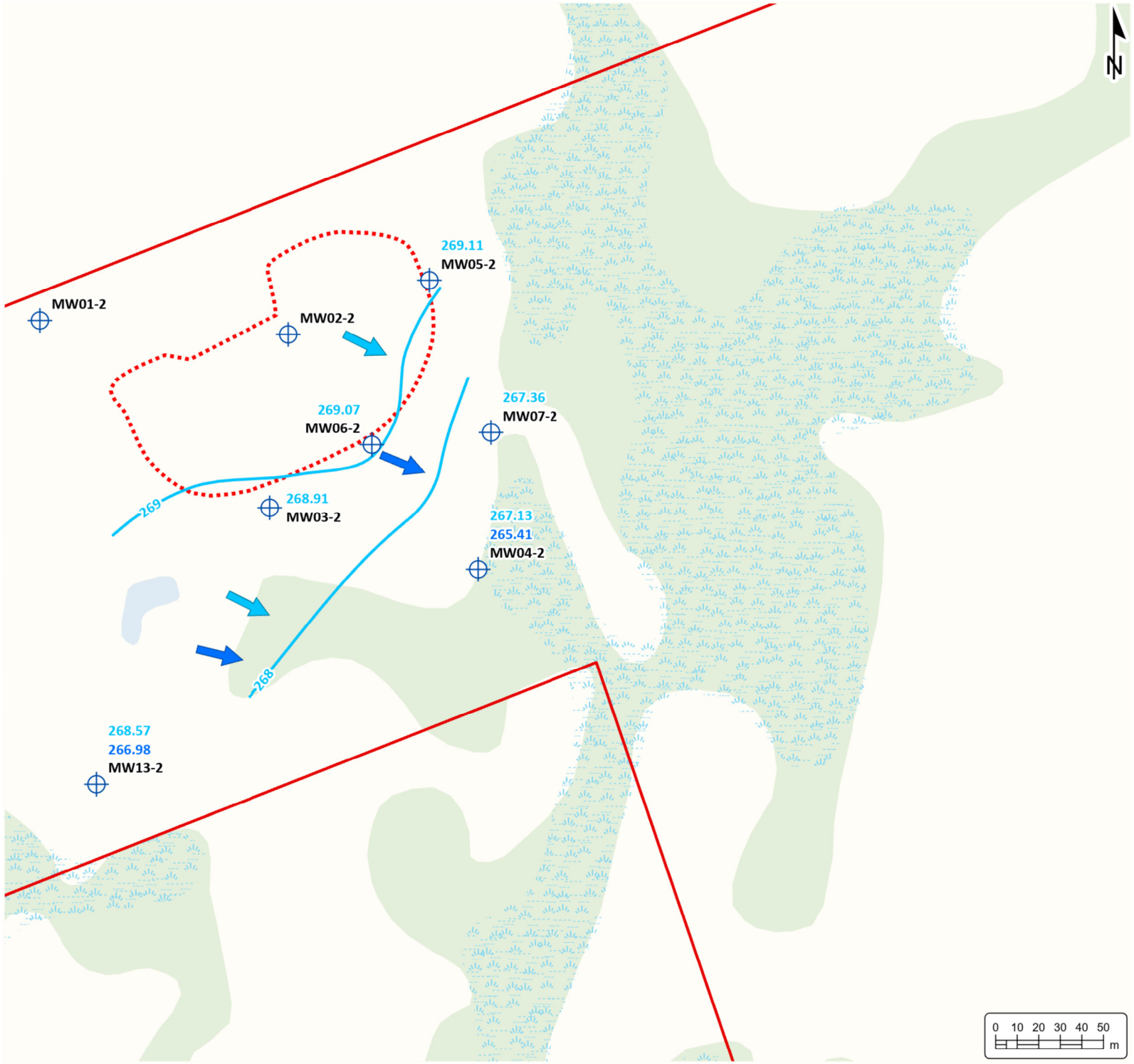


Groundwater Elevations (Deep Bedrock)

2025 Annual Report, Hall's Glen Waste Transfer Station
1951 County Road 6, Hall's Glen
The Township of Douro-Dummer

Figure:	**6**
Date:	13/Mar/26
Project Manager:	Stephanie Reeder
Project No.:	12987-002

CAMBIUM



2025 ANNUAL REPORT
HALL'S GLEN
WASTE TRANSFER STATION

1951 COUNTY ROAD 6
Hall's Glen, Ontario
The Township of Douro-Dummer

LEGEND

- 234.56 — Groundwater Elevation April 7, 2025
- 210.00 — Groundwater Elevation October 16, 2025
- Overburden Monitoring Well
- Groundwater Flow Direction April 7, 2025
- Assumed Groundwater Flow Direction October 16, 2025
- Groundwater Contour April 7, 2025
- Landfill Footprint
- Site (approximately 48.5 ha)
- Wetland Area
- Water Area
- Wooded Area

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OVERBURDEN GROUNDWATER CONFIGURATION

Project No.: 12987-002		Date: March 2026	
Scale: 1:2,500		Projection: NAD 1983 UTM Zone 17N	
Created by: NLB	Checked by: SNR	Figure: 7	

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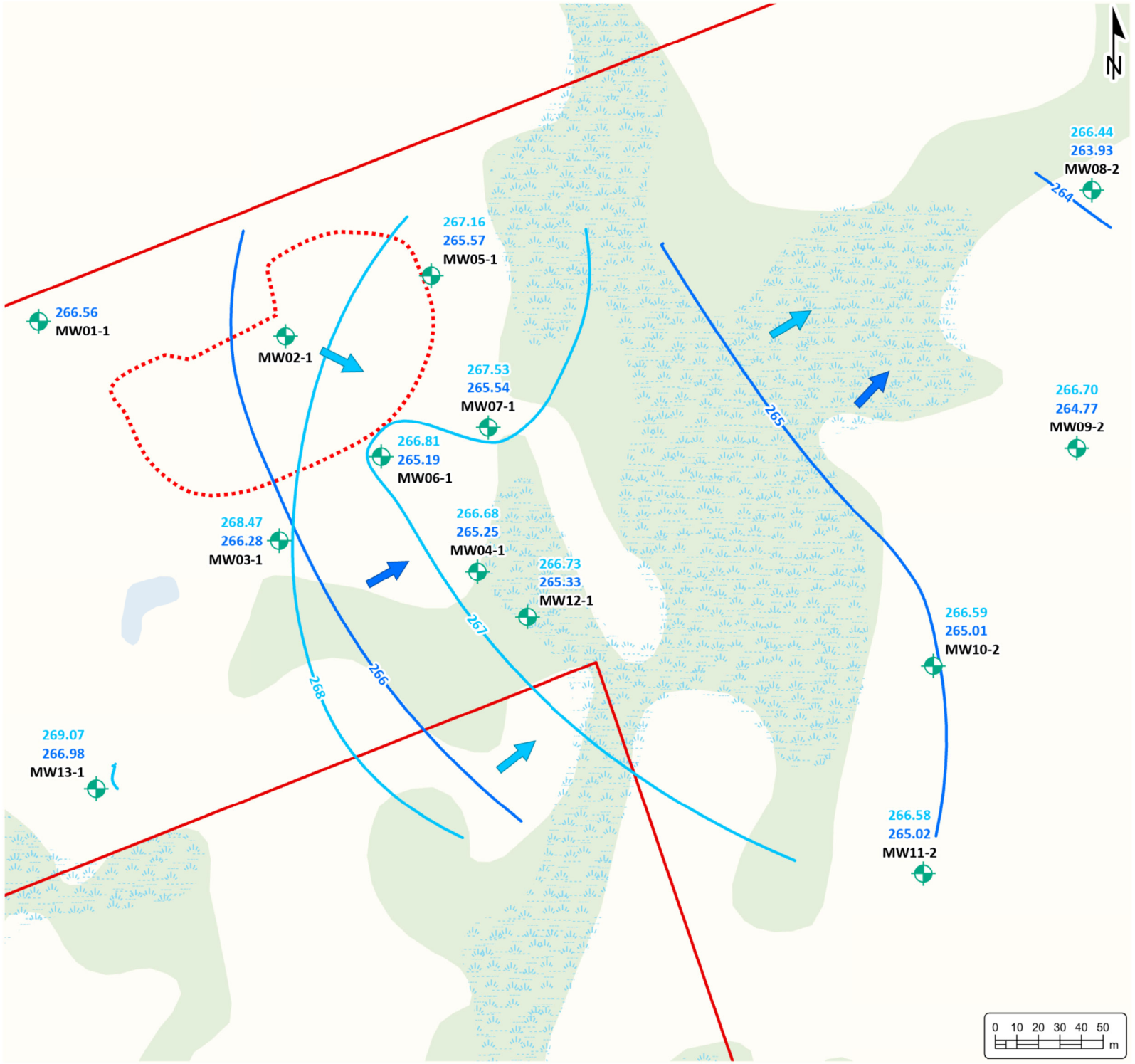

2025 ANNUAL REPORT
HALL'S GLEN
WASTE TRANSFER STATION

1951 COUNTY ROAD 6
Hall's Glen, Ontario
The Township of Douro-Dummer

LEGEND

- 234.56 — Groundwater Elevation April 7, 2025
- 210.00 — Groundwater Elevation October 16, 2025
- Shallow Bedrock Monitoring Well
- Groundwater Flow Direction April 7, 2025
- Groundwater Flow Direction October 16, 2025
- Groundwater Contour April 7, 2025
- Groundwater Contour October 16, 2025
- Landfill Footprint
- Site (approximately 48.5 ha)
- Wetland Area
- Water Area
- Wooded Area

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SHALLOW BEDROCK GROUNDWATER CONFIGURATION

Project No.:	Date:
12987-002	March 2026
Scale: 1:2,500	Projection: NAD 1983 UTM Zone 17N
Created by: NLB	Checked by: SNR
Figure: 8	

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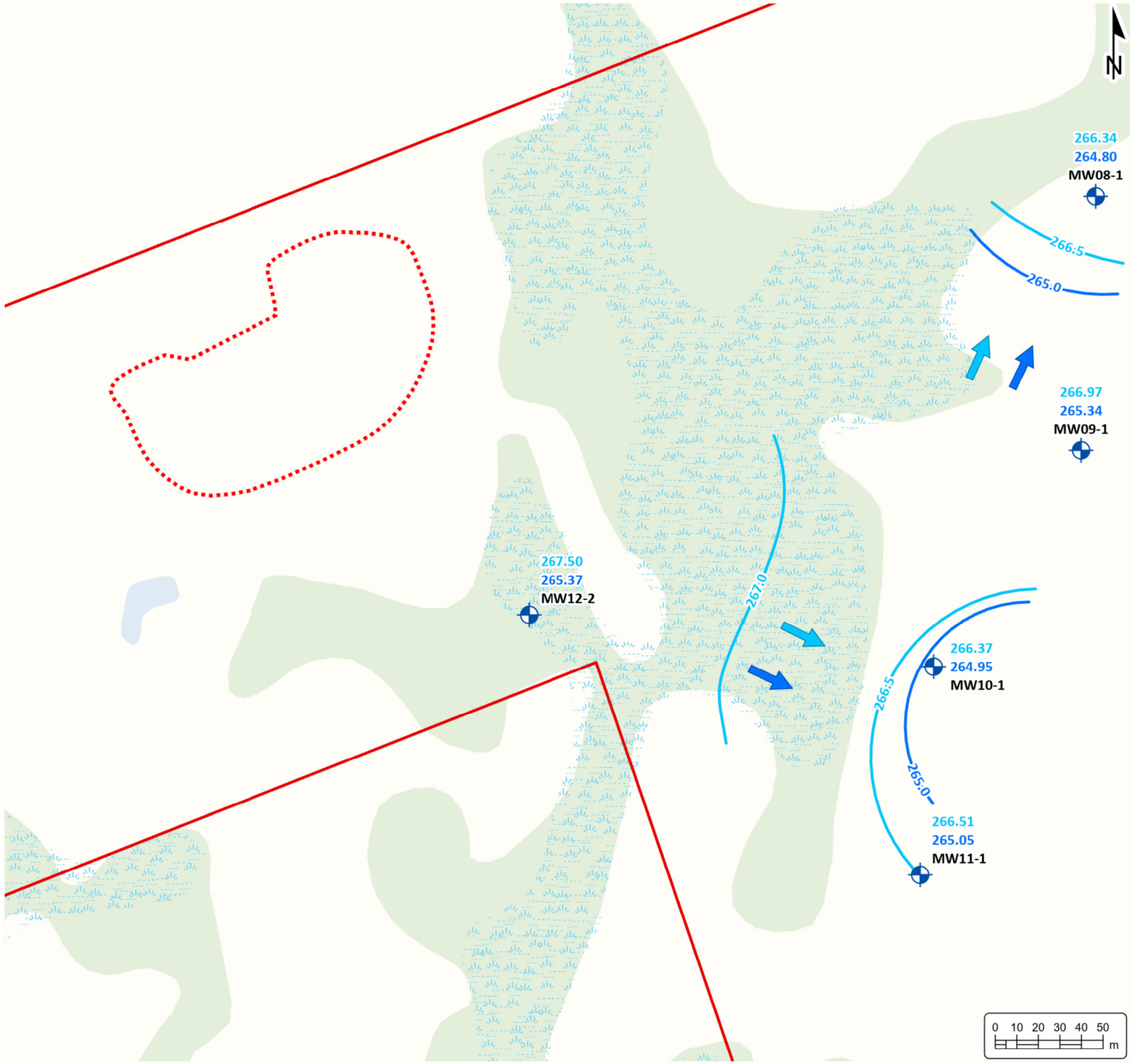

2025 ANNUAL REPORT
HALL'S GLEN
WASTE TRANSFER STATION

1951 COUNTY ROAD 6
Hall's Glen, Ontario
The Township of Douro-Dummer

LEGEND

- 234.56 — Groundwater Elevation April 7, 2025
- 210.00 — Groundwater Elevation October 16, 2025
- Deep Bedrock Monitoring Well
- Groundwater Flow Direction April 7, 2025
- Groundwater Flow Direction October 16, 2025
- Groundwater Contour April 7, 2025
- Groundwater Contour November 6, 2025
- Landfill Footprint
- Site (approximately 48.5 ha)
- Wetland Area
- Water Area
- Wooded Area

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DEEP BEDROCK GROUNDWATER CONFIGURATION

Project No.:	Date:
12987-002	March 2026
Scale: 1:2,500	Projection: NAD 1983 UTM Zone 17N
Created by: NLB	Checked by: SNR
Figure: 9	

O:\GIS\Projects\12900-12999\12987-002TDD-HallsGlen\2025 Halls Glen AMR.aprx

Appended Tables

Table Notes

EQL - reported detection limit for the current year

RUC - Reasonable Use Criteria

PWQO - Water Management, Policies, Guidelines, Provincial Water Quality Objectives (MOEE, 1994b)

ODWQS - Ontario Drinking Water Quality Standards, O.Reg. 169/03 (MOE, 2006)

CWQG - Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME, 2011)

BCG - British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

"Other" criteria are CWQG for boron, chloride, nitrate, and BCG for iron, sulphate

BCG for sulphate depends on hardness

"-" Parameter not analyzed or measured

Unionized ammonia calculated using total ammonia and field data for pH and temperature

Table 1 Groundwater and Surface Water Monitoring Program

Location	Task	Frequency	Analytical Parameters
Groundwater			
MW01-1, MW01-2, MW02-1, MW02-2, MW05-1, MW05-2, MW06-1, MW06-2, MW08-1, MW08-2, MW09-1, MW09-2, MW10-1, MW10-2, MW11-1, MW11-2, MW12-1, MW12-2, MW12-3, MW13-1, MW13-2 R1, R2, R3, R4 QA/QC 1 QA/QC 2	• Measure groundwater levels • Groundwater sampling • Field measurements (pH, temperature, ORP, dissolved oxygen, conductivity)	Once Annually (Autumn)	alkalinity, ammonia, barium, boron, calcium, chloride, conductivity, iron, magnesium, nitrate, pH, sodium, TDS, sulphate, COD, DOC, phenols, arsenic, manganese, phosphorus, potassium, hardness, TKN
MW05-1, MW05-2, trip blank	• VOCs	Once every five years (Autumn, next in 2027)	benzene, 1,4 dichlorobenzene, dichloromethane, toluene, vinyl chloride, monochlorobenzene
All Wells	• Landfill Gas Measurements	Twice Annually (Spring and Autumn)	CH4 and H2S
Surface Water			
S1, S2, S3 QA/QC 1	• Surface water sampling • Flow estimates • Field measurements (pH, temperature, ORP, conductivity, dissolved oxygen)	Twice Annually (Spring & Autumn)	alkalinity, ammonia, arsenic, barium, boron, cadmium, chloride, chromium, conductivity, copper, iron, lead, nitrite, nitrate, TKN, pH, total phosphorus, TSS, TDS, sulphate, zinc, BOD, COD, phenols, hardness, unionized ammonia (field, calc), manganese, magnesium, potassium, DOC **dissolved mercury**

Dissolved mercury to be lab filtered with a 0.45 micron filter for all surface water samples.
Lab to provide calculated unionized ammonia with provided field pH and temperature.

Table 2 - Groundwater Elevation Data

Monitor	UTM (Zone 17)		Top of Casing Elevation (m)	Ground Elevation (m)	Measured Stick-Up (m)	Well Depth (mtop)	Well Depth (m)	Screened Unit	Well Diameter (mm)	Water Level Elevation (masl)											
	mN	mE								22-May-15	19-Nov-15	31-May-16	1-Nov-16	31-May-17	4-Oct-17	6/7- June-2018	11/12- Nov 2018	30-May-19	29-Oct-19	26-May-20	20-Nov-20
MW01-1	4933341	728326	271.24	270.42	0.82	7.65	6.83	Limestone/Shale	50.8	268.27	268.19	268.12	267.25	268.71	267.68	268.54	267.72	268.54	268.42	268.41	267.91
MW01-2			***271.24***	***270.42***	***0.82***	***2.74***	***1.92***	***Clay/Gravel***	***38.1***	***dry***	***dry***	***dry***	***dry***	***dry***	***dry***	***dry***	***dry***	***dry***	***dry***	***-***	***-***
MW02-1	4933327	728431	282.49	282.27	0.22	15.33	15.11	Limestone/Shale	50.8	dry	na	dry	dry	dry	dry	dry	dry	dry	dry	-	-
MW02-2			***282.53***	***282.32***	***0.21***	***5.45***	***5.24***	***Sand/Gravel***	***50.8***	***dry***	***dry***	***dry***	***dry***	***dry***	***dry***	***dry***	***dry***	***dry***	***dry***	***-***	***-***
MW03-1	4933262	728468	269.23	268.80	0.66	5.51	4.85	Limestone	50.8	267.91	267.65	267.49	266.56	267.90	266.66	268.13	266.93	268.02	267.41	267.02	267.15
MW03-2			***269.53***	***268.80***	***0.49***	***1.72***	***1.23***	***Clay/Sand/Gravel***	***38.1***	***267.73***	***267.84***	***267.77***	***dry***	***267.90***	***dry***	***268.23***	***dry***	***268.47***	***268.02***	***268.09***	***267.49***
MW04-1	4933239	728549	268.28	267.36	0.92	5.62	4.70	Limestone/Shale	50.8	266.23	266.21	266.13	264.74	266.37	265.74	266.23	265.78	266.36	266.21	266.29	266.03
MW04-2			***268.28***	***267.43***	***0.85***	***2.99***	***2.14***	***Gravel/Limestone***	***38.1***	***266.38***	***266.38***	***266.31***	***dry***	***266.74***	***dry***	***268.23***	***dry***	***266.73***	***266.39***	***266.47***	***266.18***
MW05-1	4933370	728530	271.35	-	Below Grade	7.68	7.68	Limestone	50.8	266.67	266.65	266.59	265.78	266.93	266.15	266.43	266.22	266.83	266.78	266.74	266.40
MW05-2			***271.35***	***271.13***	***0.22***	***4.38***	***4.16***	***Clay/Sand/Gravel***	***38.1***	***267.87***	***dry***	***dry***	***dry***	***dry***	***dry***	***266.42***	***dry***	***268.52***	***267.19***	***268.10***	***-***
MW06-1	4933292	728502	271.01	270.40	0.61	7.85	7.24	Limestone/Shale	50.8	266.35	266.30	266.23	265.50	266.48	265.62	266.28	265.85	266.49	266.31	266.37	266.10
MW06-2			***271.01***	***270.41***	***0.60***	***5.13***	***4.53***	***Sand/Gravel***	***38.1***	***267.76***	***267.35***	***267.66***	***266.68***	***268.40***	***267.26***	***267.93***	***267.03***	***268.46***	***267.37***	***268.07***	***267.11***
MW07-1	4933309	728559	269.03	268.24	0.79	6.98	6.19	Limestone	50.8	265.96	265.80	266.39	266.29	266.07	265.92	266.06	265.88	266.33	265.77	266.08	265.68
MW07-2			***269.03***	***268.29***	***0.74***	***3.37***	***2.63***	***Clay/Gravel***	***50.8***	***266.63***	***266.64***	***266.55***	***266.22***	***266.90***	***266.07***	***266.72***	***266.07***	***267.00***	***266.63***	***266.78***	***266.34***
MW08-1	4933413	728836	270.74	270.05	0.69	11.31	10.62	Limestone	50.8	265.96	265.62	265.63	264.96	266.33	265.15	266.26	265.19	266.35	265.69	266.12	265.36
MW08-2			270.74	270.04	0.70	7.70	7.00	Gravel/Limestone	50.8	265.59	264.62	267.88	264.27	266.39	264.28	266.28	264.15	266.46	264.93	265.93	264.25
MW09-1	4933295	728829	267.25	266.57	0.68	9.92	9.24	Limestone	50.8	266.41	266.30	266.30	265.50	266.55	265.84	266.47	265.14	266.59	266.31	266.45	266.17
MW09-2			267.25	266.57	0.68	6.16	5.48	Limestone	50.8	265.90	265.60	265.57	265.00	266.23	265.15	266.15	265.14	266.27	265.72	266.05	265.31
MW10-1	4933194	728760	267.97	267.23	0.74	9.89	9.15	Limestone	50.8	265.85	265.77	265.73	264.98	265.97	265.42	265.88	265.46	266.09	265.77	265.85	265.49
MW10-2			267.97	267.24	0.73	6.65	5.92	Limestone	50.8	265.76	265.68	265.65	265.65	265.85	265.35	265.75	264.46	265.96	265.76	265.75	265.53
MW11-1	4933098	728755	268.50	267.80	0.70	9.96	9.26	Limestone	50.8	265.85	265.85	265.65	265.05	265.99	265.38	265.98	265.46	266.11	265.92	265.96	265.50
MW11-2			268.50	267.78	0.72	6.74	6.02	Limestone	50.8	265.76	265.68	265.76	265.07	265.85	265.37	266.02	265.46	268.94	265.75	265.75	265.51
MW12-1	4933218	728573	268.00	267.11	0.89	6.84	5.95	Limestone	50.8	266.27	266.22	266.12	265.47	265.47	265.82	266.32	265.84	266.48	266.24	266.32	266.06
MW12-2			268.00	267.09	0.91	10.21	9.30	Limestone	50.8	266.32	266.22	266.23	265.47	266.45	265.88	266.39	265.89	266.30	266.30	266.35	266.16
MW12-3[5]			268.00	267.10	0.90	13.09	12.19	Limestone	50.8	266.39	266.33	266.27	265.51	266.55	na	266.48	265.89	266.59	266.59	266.46	266.13
MW13-1	4933149	728378	270.07	269.11	0.86	6.04	5.18	Limestone	50.8	-	-	-	-	-	-	-	-	-	-	-	-
MW13-2			***269.96***	***269.11***	***0.86***	***3.76***	***2.90***	***Gravel/Limestone***	***50.8***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***-***

Notes:

1. All measurements are reported relative to an assumed elevation of the site benchmark.
2. Bold and italics wells indicate wells installed in the overburden aquifer.
3. Shaded wells indicate wells installed in the deep bedrock.
4. Unformatted wells indicate wells installed in the shallow bedrock.
5. Well MW12-3 is installed in a deep bedrock aquifer not sampled by other wells on-site.

Table 2 - Groundwater Elevation Data

Monitor	UTM (Zone 17)		Top of Casing Elevation (m)	Ground Elevation (m)	Measured Stick-Up (m)	Well Depth (mtop)	Well Depth (m)	Screened Unit	Well Diameter (mm)	Water Level Elevation (masl)							
	mN	mE								24-Jun-21	11-Nov-21	12-Apr-22	25-Oct-22	23-Oct-23	29-Oct-24	7-Apr-25	15-Oct-25
MW01-1	4933341	728326	271.24	270.42	0.82	7.65	6.83	Limestone/Shale	50.8	267.92	268.30	268.75	267.54	267.34	267.77	-	266.56
MW01-2			***271.24***	***270.42***	***0.82***	***2.74***	***1.92***	***Clay/Gravel***	***38.1***	***-***	***-***	***268.91***	***-***	***-***	***-***	***-***	***-***
MW02-1	4933327	728431	282.49	282.27	0.22	15.33	15.11	Limestone/Shale	50.8	268.17	-	-	-	-	-	-	-
MW02-2			***282.53***	***282.32***	***0.21***	***5.45***	***5.24***	***Sand/Gravel***	***50.8***	***-***	***-***	***-***	***-***	***-***	***-***	***-***	***-***
MW03-1	4933262	728468	269.23	268.80	0.66	5.51	4.85	Limestone	50.8	266.90	267.48	267.99	266.76	266.26	266.81	268.47	266.28
MW03-2			***269.53***	***268.80***	***0.49***	***1.72***	***1.23***	***Clay/Sand/Gravel***	***38.1***	***-***	***267.84***	***268.71***	***-***	***-***	***267.64***	***268.91***	***-***
MW04-1	4933239	728549	268.28	267.36	0.92	5.62	4.70	Limestone/Shale	50.8	265.82	266.23	266.39	265.70	265.51	265.96	266.68	265.25
MW04-2			***268.28***	***267.43***	***0.85***	***2.99***	***2.14***	***Gravel/Limestone***	***38.1***	***265.99***	***266.41***	***266.68***	***265.83***	***265.65***	***266.09***	***267.13***	***265.41***
MW05-1	4933370	728530	271.35	-	Below Grade	7.68	7.68	Limestone	50.8	266.25	266.70	266.90	266.06	265.91	266.35	267.16	265.57
MW05-2			***271.35***	***271.13***	***0.22***	***4.38***	***4.16***	***Clay/Sand/Gravel***	***38.1***	***267.46***	***267.47***	***268.50***	***-***	***-***	***267.09***	***269.11***	***-***
MW06-1	4933292	728502	271.01	270.40	0.61	7.85	7.24	Limestone/Shale	50.8	265.92	266.34	266.51	265.76	265.57	266.01	266.81	265.19
MW06-2			***271.01***	***270.41***	***0.60***	***5.13***	***4.53***	***Sand/Gravel***	***38.1***	***267.45***	***267.53***	***268.43***	***266.91***	***266.89***	***267.15***	***269.07***	***-***
MW07-1	4933309	728559	269.03	268.24	0.79	6.98	6.19	Limestone	50.8	266.13	265.62	265.59	265.58	265.75	266.25	267.53	265.54
MW07-2			***269.03***	***268.29***	***0.74***	***3.37***	***2.63***	***Clay/Gravel***	***50.8***	***266.21***	***266.62***	***267.07***	***265.94***	***265.91***	***266.23***	***267.36***	***-***
MW08-1	4933413	728836	270.74	270.05	0.69	11.31	10.62	Limestone	50.8	265.30	265.64	266.35	265.07	264.95	265.22	266.34	264.80
MW08-2			270.74	270.04	0.70	7.70	7.00	Gravel/Limestone	50.8	264.23	264.79	266.47	264.07	263.99	264.12	266.44	263.93
MW09-1	4933295	728829	267.25	266.57	0.68	9.92	9.24	Limestone	50.8	266.05	266.37	266.53	265.79	265.57	265.33	266.97	265.34
MW09-2			267.25	266.57	0.68	6.16	5.48	Limestone	50.8	265.28	265.64	266.30	265.06	264.94	265.23	266.70	264.77
MW10-1	4933194	728760	267.97	267.23	0.74	9.89	9.15	Limestone	50.8	265.41	265.84	266.00	265.32	265.08	265.47	266.37	264.95
MW10-2			267.97	267.24	0.73	6.65	5.92	Limestone	50.8	265.33	265.75	265.89	265.39	265.14	265.53	266.59	265.01
MW11-1	4933098	728755	268.50	267.80	0.70	9.96	9.26	Limestone	50.8	265.37	265.75	265.68	265.29	265.17	265.45	266.51	265.05
MW11-2			268.50	267.78	0.72	6.74	6.02	Limestone	50.8	265.29	265.72	265.68	265.35	265.09	265.54	266.58	265.02
MW12-1	4933218	728573	268.00	267.11	0.89	6.84	5.95	Limestone	50.8	265.84	266.28	266.46	265.74	265.57	266.00	266.73	265.33
MW12-2			268.00	267.09	0.91	10.21	9.30	Limestone	50.8	265.88	266.37	266.57	265.78	265.61	266.09	267.50	265.37
MW12-3[5]			268.00	267.10	0.90	13.09	12.19	Limestone	50.8	265.94	266.38	266.59	265.79	265.60	266.31	266.90	265.37
MW13-1	4933149	728378	270.07	269.11	0.86	6.04	5.18	Limestone	50.8	267.93	268.25	268.53	267.49	267.36	267.77	269.07	266.98
MW13-2			***269.96***	***269.11***	***0.86***	***3.76***	***2.90***	***Gravel/Limestone***	***50.8***	***267.94***	***268.22***	***268.40***	***267.42***	***267.28***	***267.70***	***268.57***	***266.98***

Notes:

1. All measurements are reported relative to an assumed elevation of the site benchmark.
2. Bold and italics wells indicate wells installed in the overburden aquifer.
3. Shaded wells indicate wells installed in the deep bedrock.
4. Unformatted wells indicate wells installed in the shallow bedrock.
5. Well MW12-3 is installed in a deep bedrock aquifer not sampled by other wells on-site.

Table 3 - Vertical Hydraulic Gradients

Monitor	Geologic Unit in Which Screen is Completed	Difference in Elevation of Bottom of Screen	Vertical Gradients +ve (shaded) = downward-ve = upward									
			26-May-20	20-Nov-20	24-Jun-21	11-Nov-21	12-Apr-22	25-Oct-22	23-Oct-23	29-Oct-24	7-Apr-25	15-Oct-25
MW01-1	Limestone/Shale	-4.91	-	-	-	-	0.03	-	-	-	-	-
MW01-2	***Clay/Gravel***											
MW02-1	Limestone/Shale	-9.92	-	-	-	-	-	-	-	-	-	-
MW02-2	***Sand/Gravel***											
MW03-1	Limestone	-3.79	0.28	0.09	-	0.09	0.11	-	-	0.22	0.12	-
MW03-2	***Clay/Sand/Gravel***											
MW04-1	Limestone/Shale	-2.63	0.07	0.06	0.06	0.07	0.11	0.07	0.05	0.05	0.17	0.06
MW04-2	***Gravel/Limestone***											
MW05-1	Limestone	-3.30	0.41	-	0.37	0.23	0.48	-	-	0.22	0.59	-
MW05-2	***Clay/Sand/Gravel***											
MW06-1	Limestone/Shale	-2.72	0.62	0.37	0.56	0.44	0.71	0.62	0.49	0.42	0.83	-
MW06-2	***Sand/Gravel***											
MW07-1	Limestone	-3.61	0.19	0.18	0.02	0.28	0.41	0.19	0.04	-0.01	-0.05	-
MW07-2	***Clay/Gravel***											
MW08-1	Limestone	-3.61	-0.05	-0.31	-0.30	-0.24	0.03	-0.05	-0.27	-0.30	0.03	-0.24
MW08-2	Gravel/Limestone											
MW09-1	Limestone	-3.76	-0.11	-0.23	-0.20	-0.19	-0.06	-0.11	-0.17	-0.03	-0.07	-0.15
MW09-2	Limestone											
MW10-1	Limestone	-3.24	-0.03	0.01	-0.02	-0.03	-0.03	-0.03	0.02	0.02	0.07	0.02
MW10-2	Limestone											
MW11-1	Limestone	-3.22	-0.07	0.00	-0.02	-0.01	0.00	-0.07	-0.02	0.03	0.02	-0.01
MW11-2	Limestone											
MW12-1	Limestone	-3.37	-0.01	-0.03	-0.01	-0.03	-0.03	-0.01	-0.01	-0.03	-0.23	-0.01
MW12-2	Limestone											
MW12-1	Limestone	-6.25	-0.02	-0.01	-0.02	-0.02	-0.02	-0.02	0.00	-0.05	-0.03	-0.01
MW12-3*	Limestone											
MW12-2	Limestone	-2.88	0.04	-0.01	-0.02	0.00	-0.01	-0.04	0.00	-0.08	0.21	0.00
MW12-3*	Limestone											
MW13-1	Limestone	-2.17	-	-	-0.01	0.01	0.06	0.03	0.04	0.03	0.23	0.00
MW13-2	***Gravel/Limestone***											

Note:
Bold and italics wells indicate wells installed in the overburden aquifer.
Shaded wells indicate wells installed in the deep bedrock.
Unformatted wells indicate wells installed in the shallow bedrock.
* Well MW12-3 is installed in a deep bedrock aquifer not sampled by other wells on-site.

Table 4 - Groundwater Quality Overburden

				Location Code	MW01-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2
				Date	12 Apr 2022	01 Nov 2011	24 May 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	30 May 2019	29 Oct 2019	26 May 2020
	Unit	EQL	***RUC***	**ODWQS**														
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.1	-	-	-	-	-	1.3	0.7	1.0	0.4	0.2	0.3	0.3
Barium (filtered)	µg/L	0.02	***351***	**1,000**	171	***598***	***576***	***455***	***480***	***375***	***596***	***494***	***475***	***402***	175	237	157
Boron (filtered)	µg/L	2	***2,520***	**5,000**	6	315	343	326	324	355	397	420	305	303	563	827	466
Calcium (filtered)	µg/L	10			112,000	241,000	193,000	177,000	183,000	122,000	235,000	192,000	229,000	191,000	246,000	325,000	222,000
Chloride	µg/L	200		**250,000**	26,600	35,000	17,000	12,000	18,000	28,000	28,000	26,000	28,000	12,000	37,000	100,000	54,000
Iron (filtered)	µg/L	3	***159***	**300**	8	***25,500***	***22,300***	***19,300***	***7,270***	***7,850***	***14,600***	***9,160***	***4,410***	***4,820***	132	20	28
Magnesium (filtered)	µg/L	1			1,720	31,000	26,700	22,200	26,800	18,300	26,600	23,200	22,300	21,600	22,000	24,400	27,200
Manganese (filtered)	µg/L	0.01	***26***	**50**	1	-	-	-	-	-	***6,210***	***4,860***	***4,530***	***3,180***	***3,240***	***52***	***822***
Phosphorus (filtered)	µg/L	10			1,150	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			200	-	-	-	-	-	24,800	20,000	20,100	19,100	16,900	21,100	22,900
Sodium (filtered)	µg/L	10		**200,000**	19,500	43,200	34,600	45,400	88,100	126,000	29,500	65,800	26,600	57,700	38,300	43,300	107,000
Alkalinity (total) as CaCO3	mg/L	2	***391***	**500**	270	***685***	***650***	***615***	***772***	***689***	***717***	***655***	380	286	***536***	***559***	***674***
Total Dissolved Solids	mg/L	3		**500**	311	**849**	**760**	**786**	**920**	**830**	**851**	**809**	**671**	389	**677**	**1,120**	**814**
Chemical Oxygen Demand	mg/L	5			127	70	48	44	22	28	27	33	35	26	11	20	26
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	287	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***4.2***	**5**	***4.4***	***4.4***	***11.3***	4.0	***10.0***	***11.5***	***8.9***	-	-	-	-	-	-
Phenols (4AAP)	mg/L	0.001			<0.001	-	-	-	-	-	-	0.002	<0.002	0.004	<0.001	0.002	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	3	17	24	59	23	95	50	80	84	35	70	210	89
Ammonia as N	mg/L	0.01			0.09	1.0	2.3	0.8	0.6	2.5	2.5	3.2	0.6	1.9	0.7	0.1	0.6
Nitrate (as N)	mg/L	0.05		**10**	0.18	<0.05	0.59	<0.06	0.19	<0.06	0.32	0.09	1.23	0.12	1.01	5.39	1.76
Total Kjeldahl Nitrogen	mg/L	0.1			7.5	-	-	-	-	-	-	3.4	0.6	2.3	0.6	<0.5	1.3
Electrical Conductivity (Lab)	µS/cm	1			599	1,350	1,220	1,230	1,470	1,360	1,360	1,280	1,120	710	1,110	1,630	1,360
pH (Lab)	-	0.05		**6.5-8.5**	8.17	7.82	7.51	7.59	7.85	7.47	7.99	7.89	7.46	7.86	7.42	7.58	7.36
DO (Field)	mg/L				10.56	-	-	-	-	-	-	-	-	-	3.7	-	-
Redox (Field)	mV				25	-	-	-	-	-	-	-	-	-	86	-	-
Temperature (Field)	°C				6.9	-	-	-	-	-	-	-	-	-	11.3	-	13.6
Conductivity (field)	µS/cm				519	-	-	-	-	-	-	-	-	-	490	-	-
pH (Field)	-			**6.5-8.5**	6.9	-	-	-	-	-	-	-	-	-	7	-	6.9

Table 4 - Groundwater Quality Overburden

				Location Code	MW03-2	MW03-2	MW03-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2
				Date	18 Nov 2020	11 Nov 2021	12 Apr 2022	01 Nov 2011	28 May 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	04 Oct 2017
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	0.3	0.3	0.2	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***351***	**1,000**	240	320	264	139	120	88.0	103	99.7	140	115	156	99.5	177
Boron (filtered)	µg/L	2	***2,520***	**5,000**	408	550	445	29.4	30.7	15.3	13.0	13.2	42.1	85.3	68.2	28	45
Calcium (filtered)	µg/L	10			296,000	296,000	257,000	123,000	104,000	83,200	97,400	98,200	130,000	102,000	140,000	110,000	128,000
Chloride	µg/L	200		**250,000**	59,000	67,700	21,200	48,000	12,000	4,700	2,900	7,300	23,000	16,000	32,000	35,000	70,000
Iron (filtered)	µg/L	3	***159***	**300**	***1,390***	147	***248***	<3	<3	5	<3	<2	<2	<2	18	16	<7
Magnesium (filtered)	µg/L	1			24,100	28,500	27,600	3,390	3,320	2,230	2,410	2,000	2,930	2,990	5,260	2,490	4,240
Manganese (filtered)	µg/L	0.01	***26***	**50**	***1,010***	***1,400***	***2,820***	-	-	-	-	-	0.28	0.26	***200***	3.31	1.13
Phosphorus (filtered)	µg/L	10			-	-	80	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			26,600	25,100	19,800	-	-	-	-	-	903	960	3,970	608	2,170
Sodium (filtered)	µg/L	10		**200,000**	45,700	59,200	45,200	20,000	11,700	7,010	8,390	5,820	12,000	13,600	27,400	7,230	26,000
Alkalinity (total) as CaCO3	mg/L	2	***391***	**500**	***841***	***745***	***694***	265	269	226	242	274	321	272	270	279	302
Total Dissolved Solids	mg/L	3		**500**	**900**	**907**	**771**	434	289	254	231	320	394	329	300	303	463
Chemical Oxygen Demand	mg/L	5			<8	40	26	11	<8	<8	<8	<8	<8	12	<8	11	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	**857**	**756**	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***4.2***	**5**	-	***10.1***	***11.8***	2.2	2.8	2.1	1.1	2.4	3.9	-	-	-	-
Phenols (4AAP)	mg/L	0.001			<0.001	<0.002	<0.001	-	-	-	-	-	-	0.001	0.004	0.002	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	62	51	31	14	10	6.8	3.6	6.8	8.1	11	9	14	13
Ammonia as N	mg/L	0.01			1.5	0.62	0.54	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	0.1	0.4	<0.1
Nitrate (as N)	mg/L	0.05		**10**	5.18	0.42	1.4	0.72	0.15	0.06	0.44	<0.06	0.21	0.20	0.64	0.89	0.68
Total Kjeldahl Nitrogen	mg/L	0.1			2.2	1.7	1.1	-	-	-	-	-	-	<0.5	<0.5	0.6	<0.5
Electrical Conductivity (Lab)	µS/cm	1			1,360	1,660	1,420	710	549	468	474	520	679	569	537	558	769
pH (Lab)	-	0.05		**6.5-8.5**	7.63	7.53	7.56	7.98	7.82	7.88	8.25	7.95	8.14	8.06	7.94	7.99	7.94
DO (Field)	mg/L				7.2	4.28	2.97	-	-	-	-	-	-	-	-	-	-
Redox (Field)	mV				29	85	4	-	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C				10	9.7	7.2	-	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				973	671	1,236	-	-	-	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	7.1	6.78	6.81	-	-	-	-	-	-	-	-	-	-

Table 4 - Groundwater Quality Overburden

				Location Code	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW05-2	MW05-2	MW05-2	MW05-2	MW05-2
				Date	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	30 May 2019	26 May 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	<0.2	<0.2	<0.2	0.1	<0.1	<0.1	0.1	0.7	1.4	3.1	4.2	0.9
Barium (filtered)	µg/L	0.02	***351***	**1,000**	87.7	156	90	128	136	160	101	223	***667***	***700***	***910***	***936***	***517***
Boron (filtered)	µg/L	2	***2,520***	**5,000**	34	36	22	34	33	41	24	49	401	427	662	477	273
Calcium (filtered)	µg/L	10			92,900	120,000	90,800	115,000	122,000	121,000	95,100	160,000	281,000	264,000	269,000	245,000	258,000
Chloride	µg/L	200		**250,000**	2,000	34,000	5,000	53,000	26,200	31,400	9,700	92,000	93,000	110,000	172,000	149,000	36,800
Iron (filtered)	µg/L	3	***159***	**300**	<7	<7	<7	11	135	<5	8	***250***	***13,300***	***26,100***	***34,400***	***42,100***	***10,800***
Magnesium (filtered)	µg/L	1			2,200	3,750	2,640	3,240	4,040	3,960	3,000	5,200	27,800	29,000	33,400	26,800	23,300
Manganese (filtered)	µg/L	0.01	***26***	**50**	0.41	0.99	0.73	2.54	20	2	1	***37***	***6,610***	***8,520***	***6,230***	***4,300***	***4,680***
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	580	<100	-	-	-	-	440
Potassium (filtered)	µg/L	2			729	1,560	911	1,280	1,600	2,000	800	2,400	24,400	27,200	41,800	40,700	16,900
Sodium (filtered)	µg/L	10		**200,000**	5,320	24,400	7,430	16,100	16,300	26,000	10,000	41,100	63,600	77,100	117,000	83,800	38,700
Alkalinity (total) as CaCO3	mg/L	2	***391***	**500**	218	287	382	***490***	263	270	226	299	***806***	***780***	***826***	***700***	***679***
Total Dissolved Solids	mg/L	3		**500**	186	374	251	406	308	334	251	470	**934**	**900**	**1,080**	**983**	**752**
Chemical Oxygen Demand	mg/L	5			<8	<8	10	<8	42	13	50	60	47	62	113	160	79
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	322	319	250	422	-	-	**810**	**723**	**741**
Dissolved Organic Carbon (filtered)	mg/L	0.2	***4.2***	**5**	-	-	-	-	3.4	1.7	2.5	0.4	-	-	***14.1***	***10.5***	***14***
Phenols (4AAP)	mg/L	0.001			<0.001	<0.001	0.001	<0.001	<0.002	<0.002	<0.001	<0.001	0.005	0.005	<0.002	<0.002	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	<2	6	4	13	13	10	7	14	9	9	7	9	15
Ammonia as N	mg/L	0.01			<0.1	<0.1	<0.1	<0.1	0.02	0.03	0.01	0.01	11	13.6	26.4	23.2	7.8
Nitrate (as N)	mg/L	0.05		**10**	<0.06	0.45	<0.06	1.49	0.55	0.49	0.16	1.44	0.23	0.07	0.2	0.1	<0.05
Total Kjeldahl Nitrogen	mg/L	0.1			<0.5	<0.5	<0.5	<0.5	0.3	0.5	0.4	0.4	11.8	13.5	30.3	30.4	10
Electrical Conductivity (Lab)	µS/cm	1			320	705	415	680	594	644	485	887	1,600	1,560	1,960	1,790	1,390
pH (Lab)	-	0.05		**6.5-8.5**	7.77	7.93	7.79	7.76	7.8	7.75	7.55	7.78	6.86	7.18	7.67	7.56	7.44
DO (Field)	mg/L				8.6	10.5	-	8.5	9.71	7.53	7.32	5.98	9.6	-	6.67	6.47	4.49
Redox (Field)	mV				-23	134	-	32	145	28	45	-141	101	-	140	121	-37
Temperature (Field)	°C				10.3	10.3	13	10.6	9	9.5	5.8	13	12.1	13.1	9.3	8.5	6.9
Conductivity (field)	µS/cm				295	565	-	458	569	277	412	841	1,236	-	1,962	786	1,294
pH (Field)	-			**6.5-8.5**	7.8	8.1	7.6	7.6	7.53	7.1	7.11	7.13	7	6.7	7.15	6.63	6.62

Table 4 - Groundwater Quality Overburden

				Location Code	MW05-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2
				Date	29 Oct 2024	01 Nov 2011	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	01 Nov 2016	04 Oct 2017
	Unit	EQL	*RUC*	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	***7***	-	-	-	-	-	-	1.4	1.1	0.8	0.6	1.4	1.4
Barium (filtered)	µg/L	0.02	***351***	**1,000**	***1,090***	***458***	***390***	***488***	***360***	***408***	***528***	***432***	***453***	***399***	***403***	***499***	***529***
Boron (filtered)	µg/L	2	***2,520***	**5,000**	692	649	612	772	486	603	754	836	737	551	589	876	688
Calcium (filtered)	µg/L	10			230,000	305,000	304,000	269,000	308,000	285,000	372,000	302,000	354,000	276,000	319,000	271,000	344,000
Chloride	µg/L	200		**250,000**	241,000	98,000	65,000	110,000	75,000	82,000	100,000	120,000	120,000	74,000	62,000	140,000	130,000
Iron (filtered)	µg/L	3	***159***	**300**	***50,200***	***714***	***731***	***2,370***	***645***	***855***	***6,020***	***1,070***	***4,100***	***1,960***	***3,110***	***4,360***	***8,920***
Magnesium (filtered)	µg/L	1			30,100	41,600	46,700	46,300	39,400	39,100	52,700	41,000	46,100	34,100	32,200	43,000	43,400
Manganese (filtered)	µg/L	0.01	***26***	**50**	***3,450***	-	-	-	-	-	-	***8,730***	***12,400***	***6,730***	***6,390***	***7,320***	***10,500***
Phosphorus (filtered)	µg/L	10			<100	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			49,900	-	-	-	-	-	-	54,900	33,900	42,500	36,400	48,400	36,000
Sodium (filtered)	µg/L	10		**200,000**	146,000	88,200	87,800	107,000	83,500	87,300	97,300	103,000	123,000	73,400	76,600	135,000	107,000
Alkalinity (total) as CaCO3	mg/L	2	***391***	**500**	***732***	***860***	***1,030***	***969***	***1,050***	***865***	***1,066***	***1,020***	***1,100***	***938***	***971***	***1,050***	***1,048***
Total Dissolved Solids	mg/L	3		**500**	**1,190**	**1,260**	**1,420**	**1,450**	**1,430**	**1,310**	**1,650**	**1,350**	**1,520**	**1,190**	**1,310**	**1,300**	**1,710**
Chemical Oxygen Demand	mg/L	5			6,130	60	56	71	70	54	102	69	101	58	69	82	99
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	**698**	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***4.2***	**5**	***31***	***14.0***	***26.2***	***28.0***	***28.4***	***30.6***	***48.4***	***36.1***	-	-	-	-	-
Phenols (4AAP)	mg/L	0.001			<0.001	-	-	-	-	-	-	-	0.001	0.003	0.003	0.002	0.005
Sulphate (filtered)	mg/L	0.2		**500**	4	120	120	110	140	130	240	100	140	87	150	55	210
Ammonia as N	mg/L	0.01			39.7	10.0	8.4	16.6	8.3	13.1	20.0	17.1	10.4	21.1	17.0	25.4	18.7
Nitrate (as N)	mg/L	0.05		**10**	<0.4	<0.05	0.30	0.99	<0.06	0.11	<0.06	0.11	<0.06	<0.06	0.10	<0.06	0.08
Total Kjeldahl Nitrogen	mg/L	0.1			104	-	-	-	-	-	-	-	12.7	21.9	17.5	26.2	22.6
Electrical Conductivity (Lab)	µS/cm	1			2,150	1,980	2,090	2,260	2,190	1,980	2,350	2,140	2,070	1,940	2,090	2,170	2,490
pH (Lab)	-	0.05		**6.5-8.5**	7.25	7.76	7.43	7.36	7.50	7.67	7.45	8.00	7.25	7.50	7.47	7.31	7.25
DO (Field)	mg/L				4.22	-	-	-	-	-	-	-	-	-	-	-	-
Redox (Field)	mV				-232	-	-	-	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C				8.9	-	-	-	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				1,615	-	-	-	-	-	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	6.67	-	-	-	-	-	-	-	-	-	-	-	-

Table 4 - Groundwater Quality Overburden

				Location Code	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW07-2	MW07-2	MW07-2
				Date	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	01 Nov 2011	28 May 2012	12 Jun 2013
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	1.6	1.2	0.6	1	2.4	1.7	1.4	3	1.8	1.8	-	-	-
Barium (filtered)	µg/L	0.02	***351***	**1,000**	***685***	***467***	***544***	***401***	***699***	***540***	***502***	***635***	***564***	***626***	290	183	125
Boron (filtered)	µg/L	2	***2,520***	**5,000**	831	753	739	557	1,080	833	625	921	810	904	179	73.3	94.8
Calcium (filtered)	µg/L	10			372,000	322,000	342,000	305,000	310,000	268,000	300,000	248,000	261,000	247,000	158,000	104,000	98,000
Chloride	µg/L	200		**250,000**	80,000	110,000	92,000	140,000	167,000	98,800	34,900	115,000	133,000	131,000	25,000	12,000	38,000
Iron (filtered)	µg/L	3	***159***	**300**	***15,600***	***3,860***	***7,210***	***4,590***	***21,700***	***9,810***	***13,100***	***12,200***	***8,390***	***12,200***	<3	<3	<3
Magnesium (filtered)	µg/L	1			48,000	30,800	42,400	33,100	47,100	35,700	37,300	39,500	35,800	37,300	13,100	6,730	7,590
Manganese (filtered)	µg/L	0.01	***26***	**50**	***8,400***	***5,340***	***8,490***	***6,340***	***8,580***	***7,250***	***7,750***	***6,840***	***6,660***	***5,430***	-	-	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	130	<100	190	<100	-	-	-
Potassium (filtered)	µg/L	2			40,300	33,900	38,400	33,400	51,400	43,700	34,400	49,400	41,200	49,200	-	-	-
Sodium (filtered)	µg/L	10		**200,000**	109,000	101,000	90,800	91,000	158,000	101,000	62,200	125,000	103,000	139,000	35,500	20,700	22,500
Alkalinity (total) as CaCO3	mg/L	2	***391***	**500**	***792***	***951***	***1,090***	***973***	***1,120***	***876***	***825***	***969***	***1,000***	***892***	361	317	278
Total Dissolved Solids	mg/L	3		**500**	**1,010**	**1,240**	**1,370**	**1,200**	**1,350**	**1,100**	**986**	**1,180**	**1,220**	**1,190**	**566**	360	354
Chemical Oxygen Demand	mg/L	5			70	68	102	98	119	73	100	125	108	93	17	<8	14
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	**969**	**817**	**903**	**783**	**800**	**771**	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***4.2***	**5**	-	-	-	-	***22.3***	***17.7***	***20***	***11.1***	***20.2***	***34.3***	2.9	***5.5***	4.0
Phenols (4AAP)	mg/L	0.001			0.006	0.006	0.005	<0.001	<0.002	<0.002	<0.001	0.004	<0.001	<0.001	-	-	-
Sulphate (filtered)	mg/L	0.2		**500**	170	61	150	64	83	65	95	25	50	52	14	9.7	11
Ammonia as N	mg/L	0.01			22.1	23.3	31.8	27	43	28.4	23.1	37	31.5	38.7	<0.1	<0.1	<0.1
Nitrate (as N)	mg/L	0.05		**10**	<0.06	3.72	<0.06	0.14	0.06	<0.05	<0.05	0.25	0.73	<0.4	1.01	0.15	0.15
Total Kjeldahl Nitrogen	mg/L	0.1			22.5	25.4	32.8	28.7	48	30.8	25	44.3	-	38	-	-	-
Electrical Conductivity (Lab)	µS/cm	1			1,640	2,010	2,190	1,940	2,440	1,990	1,800	2,140	2,210	2,150	845	650	628
pH (Lab)	-	0.05		**6.5-8.5**	6.98	7.6	7.25	7.67	7.54	7.64	7.51	7.37	7.6	7.45	7.96	7.72	7.84
DO (Field)	mg/L				3.3	11.8	-	7.4	8.96	8.02	5.44	5.75	5.69	4.4	-	-	-
Redox (Field)	mV				-88	55	-	-72	162	102	-50	-150	-53	-8	-	-	-
Temperature (Field)	°C				11.7	10.9	12.9	10.6	10	9.7	8.7	11.8	11.3	9.7	-	-	-
Conductivity (field)	µS/cm				1,953	832	-	973	2,433	788	1,691	17	1,958	1,594	-	-	-
pH (Field)	-			**6.5-8.5**	6.9	6.7	6.6	7	7.29	6.83	6.68	6.72	6.66	6.87	-	-	-

Table 4 - Groundwater Quality Overburden

				Location Code	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2
				Date	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	<0.2	<0.2	0.2	0.2
Barium (filtered)	µg/L	0.02	***351***	**1,000**	148	114	273	326	248	221	***375***	87.6	211	83.8	183	***416***	***364***
Boron (filtered)	µg/L	2	***2,520***	**5,000**	54.4	36.6	175	254	112	121	260	55	138	46	62	324	294
Calcium (filtered)	µg/L	10			98,200	82,600	151,000	152,000	126,000	129,000	190,000	72,100	130,000	74,600	134,000	200,000	177,000
Chloride	µg/L	200		**250,000**	14,000	10,000	68,000	64,000	36,000	6,000	76,000	6,000	35,000	10,000	53,000	104,000	80,300
Iron (filtered)	µg/L	3	***159***	**300**	<3	<2	5	3	10	40	12	8	<7	<7	16	51	31
Magnesium (filtered)	µg/L	1			4,760	2,980	9,310	15,400	6,440	8,970	16,100	3,710	10,100	3,180	7,130	21,300	16,900
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	-	***217***	***236***	***152***	***159***	1.16	0.92	0.29	0.3	2.94	22	7
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	4,930	7,210	2,880	4,750	8,690	1,330	5,410	631	2,600	10,300	8,200
Sodium (filtered)	µg/L	10		**200,000**	21,400	8,430	24,000	46,400	21,000	26,700	50,200	17,300	29,800	12,600	17,000	82,800	69,900
Alkalinity (total) as CaCO3	mg/L	2	***391***	**500**	273	332	368	***414***	316	356	***530***	191	322	212	***397***	***510***	***474***
Total Dissolved Solids	mg/L	3		**500**	309	380	466	**557**	411	429	**791**	209	451	223	**611**	**659**	**659**
Chemical Oxygen Demand	mg/L	5			<8	9	14	24	10	<8	23	<8	<8	10	<8	33	33
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	**588**	**511**
Dissolved Organic Carbon (filtered)	mg/L	0.2	***4.2***	**5**	3.7	3.5	***7.2***	-	-	-	-	-	-	-	-	***9.1***	***6.7***
Phenols (4AAP)	mg/L	0.001			-	-	-	<0.001	<0.002	0.002	0.001	<0.001	<0.001	0.002	<0.001	<0.002	<0.002
Sulphate (filtered)	mg/L	0.2		**500**	12	16	23	36	14	8	47	11	15	5	19	37	29
Ammonia as N	mg/L	0.01			<0.1	<0.1	0.4	0.4	0.3	0.1	0.4	<0.1	<0.1	<0.1	<0.1	0.39	0.06
Nitrate (as N)	mg/L	0.05		**10**	0.21	0.09	1.41	0.47	0.77	0.09	0.19	0.08	1.36	<0.06	1.62	0.48	4.96
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	0.7
Electrical Conductivity (Lab)	µS/cm	1			578	680	799	952	713	755	1,240	331	691	383	840	1,220	1,220
pH (Lab)	-	0.05		**6.5-8.5**	8.21	7.73	8.06	7.90	7.89	8.09	7.81	7.84	7.92	7.95	7.78	7.72	7.8
DO (Field)	mg/L				-	-	-	-	-	-	-	9.8	9.8	-	10.2	6.88	7.35
Redox (Field)	mV				-	-	-	-	-	-	-	63	86	-	31	132	135
Temperature (Field)	°C				-	-	-	-	-	-	-	11.3	11.1	14.4	9.4	11.1	9
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	370	1,662	-	579	1,048	503
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	7.7	6.7	7.1	8	7.51	6.98

Table 4 - Groundwater Quality Overburden

				Location Code	MW07-2	MW07-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2
				Date	12 Apr 2022	25 Oct 2022	24 May 2012	24 Oct 2012	18 Jun 2013	05 Nov 2013	26 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	31 May 2016	01 Nov 2016	04 Oct 2017
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	0.2	0.2	-	-	-	-	-	0.2	0.3	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***351***	**1,000**	175	***643***	105	117	146	117	135	141	113	***567***	337	***370***	132
Boron (filtered)	µg/L	2	***2,520***	**5,000**	110	550	35.0	28.4	46.8	36.5	43.2	53.7	41.2	30.6	33	43	38
Calcium (filtered)	µg/L	10			106,000	211,000	107,000	110,000	126,000	111,000	110,000	131,000	107,000	307,000	230,000	176,000	118,000
Chloride	µg/L	200		**250,000**	35,200	118,000	40,000	15,000	64,000	36,000	51,000	44,000	40,000	**1,100,000**	110,000	**710,000**	70,000
Iron (filtered)	µg/L	3	***159***	**300**	129	11	6	64	6	<3	6	67	***385***	9	<7	23	71
Magnesium (filtered)	µg/L	1			9,810	27,000	3,440	2,990	4,250	3,440	3,690	3,620	3,480	7,690	5,930	4,510	3,750
Manganese (filtered)	µg/L	0.01	***26***	**50**	***42***	***218***	-	-	-	-	-	5.92	***55.7***	0.69	0.93	4.37	***137***
Phosphorus (filtered)	µg/L	10			190	<100	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			3,900	18,700	-	-	-	-	-	3,800	2,850	5,120	4,270	4,660	3,990
Sodium (filtered)	µg/L	10		**200,000**	36,800	105,000	23,300	16,000	36,200	24,100	27,300	23,200	21,600	**436,000**	**267,000**	**442,000**	38,200
Alkalinity (total) as CaCO3	mg/L	2	***391***	**500**	291	***593***	242	290	289	279	283	312	268	252	261	***393***	285
Total Dissolved Solids	mg/L	3		**500**	372	**871**	410	369	460	400	383	417	403	**2,000**	491	**1,600**	454
Chemical Oxygen Demand	mg/L	5			17	99	29	<8	11	8	<8	<8	<8	39	9	<8	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	304	**639**	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***4.2***	**5**	***5.6***	***5.8***	2.5	<1	3.6	2.9	***4.8***	***4.4***	-	-	-	-	-
Phenols (4AAP)	mg/L	0.001			<0.001	<0.001	-	-	-	-	-	-	<0.001	0.010	0.003	0.001	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	18	38	20	13	26	22	17	16	15	20	17	45	13
Ammonia as N	mg/L	0.01			0.03	2.21	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
Nitrate (as N)	mg/L	0.05		**10**	0.59	**10.9**	0.48	0.67	1.10	1.31	0.57	1.23	0.82	1.20	0.92	2.42	0.52
Total Kjeldahl Nitrogen	mg/L	0.1			0.5	4	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Electrical Conductivity (Lab)	µS/cm	1			717	1,590	636	634	784	696	675	724	632	3,680	895	3,030	774
pH (Lab)	-	0.05		**6.5-8.5**	7.59	7.75	7.87	7.69	7.79	8.10	7.95	8.10	7.94	7.79	7.99	7.60	7.47
DO (Field)	mg/L				9.28	5.43	-	-	-	-	-	-	-	-	-	-	-
Redox (Field)	mV				36	-151	-	-	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C				7.8	11.4	-	-	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				648	1,525	-	-	-	-	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	7.33	6.8	-	-	-	-	-	-	-	-	-	-	-

Table 4 - Groundwater Quality Overburden

				Location Code	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	MW13-2	R1	R1
				Date	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	28 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	18 May 2012	23 Oct 2012
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	0.3	<0.2	<0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	-	-
Barium (filtered)	µg/L	0.02	***351***	**1,000**	137	155	158	113	135	168	190	108	109	116	107	75.0	112
Boron (filtered)	µg/L	2	***2,520***	**5,000**	51	46	49	50	27	46	77	27	24	26	32	15.0	24.5
Calcium (filtered)	µg/L	10			139,000	144,000	149,000	126,000	123,000	143,000	165,000	95,400	95,900	108,000	96,300	89,800	98,200
Chloride	µg/L	200		**250,000**	51,000	58,000	85,000	38,000	70,300	56,700	79,000	31,000	32,900	45,600	26,900	62,000	27,000
Iron (filtered)	µg/L	3	***159***	**300**	27	19	16	46	6	<5	<5	41	125	16	69	17	***174***
Magnesium (filtered)	µg/L	1			4,420	4,680	5,680	3,550	3,930	4,390	6,690	3,020	3,050	3,260	3,420	2,820	4,010
Manganese (filtered)	µg/L	0.01	***26***	**50**	1.44	2.27	1.27	3.28	<1	<1	<1	4	4	<1	***406***	-	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	30	<100	130	<100	120	-	-
Potassium (filtered)	µg/L	2			3,480	3,640	4,010	2,970	3,200	4,500	4,500	2,900	3,300	4,100	3,300	-	-
Sodium (filtered)	µg/L	10		**200,000**	30,000	36,500	46,800	25,600	43,700	36,500	43,600	23,600	21,700	29,900	23,200	35,500	20,100
Alkalinity (total) as CaCO3	mg/L	2	***391***	**500**	230	331	318	314	268	318	345	250	278	268	286	218	239
Total Dissolved Solids	mg/L	3		**500**	329	474	**526**	391	399	436	**527**	311	322	353	325	357	343
Chemical Oxygen Demand	mg/L	5			10	<8	15	10	<5	10	8	46	12	5	25	10	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	324	375	440	251	252	282	255	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***4.2***	**5**	-	-	-	-	3.3	2.7	3.8	1.3	***5***	2.9	***4.3***	<1	1.4
Phenols (4AAP)	mg/L	0.001			0.002	<0.001	0.003	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	0.001	-	-
Sulphate (filtered)	mg/L	0.2		**500**	18	26	22	12	12	23	22	10	12	10	9	4.5	18
Ammonia as N	mg/L	0.01			0.4	<0.1	0.2	<0.1	0.02	0.02	0.16	0.03	<0.05	<0.05	<0.05	<0.1	<0.1
Nitrate (as N)	mg/L	0.05		**10**	0.65	2.36	1.27	1.12	1.71	1.28	2.42	0.4	0.16	0.68	<0.05	0.43	0.74
Total Kjeldahl Nitrogen	mg/L	0.1			0.8	<0.5	<0.5	<0.5	0.2	0.2	0.5	0.5	-	0.2	0.3	-	-
Electrical Conductivity (Lab)	µS/cm	1			569	833	862	666	763	827	989	599	621	680	626	614	597
pH (Lab)	-	0.05		**6.5-8.5**	7.51	7.82	7.41	7.77	7.68	7.72	7.4	7.72	7.46	7.81	7.79	7.93	8.12
DO (Field)	mg/L				7.1	8.7	-	4.8	6.56	2.51	2.45	4.53	10.37	3.22	9.1	-	-
Redox (Field)	mV				129	10	-	38	131	45	39	-142	-25	33	74	-	-
Temperature (Field)	°C				8.9	10.8	16.6	12.6	12.4	10.1	6.5	12	9.9	10.9	10	-	-
Conductivity (field)	µS/cm				292	502	-	485	715	353	859	575	592	509	626	-	-
pH (Field)	-			**6.5-8.5**	7.9	7.6	7.5	7.6	7.23	6.9	6.72	7.24	7.07	7.54	6.82	-	-

Table 4 - Groundwater Quality Overburden

				Location Code	R1	R1	R1	R1	R1	R1	R1	R1	R1	R1	R1	R1
				Date	10 Jun 2013	04 Nov 2013	26 Jun 2014	22 May 2015	19 Nov 2015	30 May 2016	31 Oct 2016	24 Feb 2017	31 May 2017	04 Oct 2017	29 Oct 2019	26 May 2020	18 Nov 2020
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	-	-	<0.2	<0.2	<0.2	0.5	<0.2	<0.2	<0.2	0.5	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***351***	**1,000**	63.3	88.6	78.8	69.0	119	77.5	131	81.6	63.6	92.9	262	76.8	175
Boron (filtered)	µg/L	2	***2,520***	**5,000**	13.4	11.1	12.0	9.9	14.6	13	24	5	13	38	100	13	33
Calcium (filtered)	µg/L	10			89,800	102,000	99,400	95,000	119,000	110,000	134,000	110,000	85,300	107,000	111,000	83,300	131,000
Chloride	µg/L	200		**250,000**	46,000	72,000	57,000	56,000	78,000	72,000	33,000	120,000	50,000	46,000	55,000	58,000	92,000
Iron (filtered)	µg/L	3	***159***	**300**	14	12	28	24	28	16	***1,130***	43	<7	102	***664***	<7	22
Magnesium (filtered)	µg/L	1			2,910	3,270	3,200	3,150	4,200	3,460	6,390	3,550	2,600	3,920	7,540	2,980	4,910
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	-	-	8.23	11.4	6.90	***52.2***	2.37	0.3	***27.1***	***3,270***	0.33	3.43
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	905	1,280	1,170	1,710	756	897	1,460	4,300	870	1,920
Sodium (filtered)	µg/L	10		**200,000**	28,200	35,300	33,200	34,500	39,800	44,900	23,800	63,000	35,900	30,400	31,000	36,000	45,900
Alkalinity (total) as CaCO3	mg/L	2	***391***	**500**	218	242	229	239	275	304	273	212	207	299	273	***1,710***	298
Total Dissolved Solids	mg/L	3		**500**	337	403	300	346	471	357	440	463	326	403	423	337	460
Chemical Oxygen Demand	mg/L	5			<8	<8	<8	14	10	22	20	<8	<8	10	<8	<8	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***4.2***	**5**	3.7	3.0	4.1	3.6	3.2	3.4	***5***	-	2	4	1	3	1
Phenols (4AAP)	mg/L	0.001			-	-	-	<0.002	-	0.002	-	<0.001	<0.002	-	-	<0.002	-
Sulphate (filtered)	mg/L	0.2		**500**	4.1	24	1.8	3	63	4	30	14	5	5	18	4	15
Ammonia as N	mg/L	0.01			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
Nitrate (as N)	mg/L	0.05		**10**	0.84	0.77	0.60	0.25	0.54	0.29	6.02	0.26	0.29	0.68	1.43	0.09	1.78
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	1.0	-	<0.5	-	<0.5	<0.5	-	-	<0.5	-
Electrical Conductivity (Lab)	µS/cm	1			584	735	590	626	800	726	725	817	546	680	721	611	864
pH (Lab)	-	0.05		**6.5-8.5**	7.93	8.21	8.05	7.99	7.69	8.03	7.98	7.90	7.88	7.61	7.93	8.03	8.14
DO (Field)	mg/L				-	-	-	-	-	-	-	-	-	-	-	-	-
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4 - Groundwater Quality Overburden

				Location Code	R1	R1	R1	R1	R1	R1	R1
				Date	28 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025
	Unit	EQL	***RUC***	**ODWQS**							
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	0.3	0.2	0.1	0.2	0.1	0.2	0.1
Barium (filtered)	µg/L	0.02	***351***	**1,000**	165	144	68	226	112	150	203
Boron (filtered)	µg/L	2	***2,520***	**5,000**	20	12	5	34	11	28	31
Calcium (filtered)	µg/L	10			123,000	112,000	80,700	122,000	78,400	112,000	100,000
Chloride	µg/L	200		**250,000**	51,700	70,900	37,200	58,100	37,400	52,400	36,500
Iron (filtered)	µg/L	3	***159***	**300**	***577***	150	44	***202***	20	58	48
Magnesium (filtered)	µg/L	1			4,640	3,750	2,770	5,090	3,240	4,340	5,020
Manganese (filtered)	µg/L	0.01	***26***	**50**	***940***	***726***	***132***	***1,390***	13	***68***	***77***
Phosphorus (filtered)	µg/L	10			-	-	9,480	<100	20	<100	2,270
Potassium (filtered)	µg/L	2			1,500	1,000	400	2,200	1,200	2,000	2,100
Sodium (filtered)	µg/L	10		**200,000**	36,500	45,200	26,600	39,100	9,400	33,000	27,700
Alkalinity (total) as CaCO3	mg/L	2	***391***	**500**	254	259	204	287	273	282	276
Total Dissolved Solids	mg/L	3		**500**	353	382	270	405	329	376	343
Chemical Oxygen Demand	mg/L	5			450	82	342	355	28	257	127
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	327	295	213	326	209	299	272
Dissolved Organic Carbon (filtered)	mg/L	0.2	***4.2***	**5**	3.7	2.8	2.9	2	3.8	3.5	***4.9***
Phenols (4AAP)	mg/L	0.001			<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	10	10	7	13	10	10	12
Ammonia as N	mg/L	0.01			0.08	<0.01	0.07	0.23	<0.05	0.13	<0.05
Nitrate (as N)	mg/L	0.05		**10**	1.58	0.39	0.14	1.7	1.32	0.71	1.98
Total Kjeldahl Nitrogen	mg/L	0.1			1.1	2.4	13.8	15.3	-	5.8	3.2
Electrical Conductivity (Lab)	µS/cm	1			679	732	521	773	634	722	661
pH (Lab)	-	0.05		**6.5-8.5**	7.74	8.03	7.54	7.79	7.5	7.76	7.88
DO (Field)	mg/L				4.89	4.1	4.48	5.97	9.24	4.7	9.1
Redox (Field)	mV				125	8	81	-148	56	-29	5
Temperature (Field)	°C				10.4	9.4	8	11.6	10.1	9.5	10.8
Conductivity (field)	µS/cm				678	319	456	727	407	504	617
pH (Field)	-			**6.5-8.5**	7.18	7.06	7.24	7.06	7.3	7.19	7.23

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1
				Date	01 Nov 2011	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	14 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	01 Nov 2016	31 May 2017	04 Oct 2017
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	-	-	-	-	-	1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	307	287	304	254	250	283	251	281	259	273	271	269	248
Boron (filtered)	µg/L	2	***2,535***	**5,000**	85.5	92.9	101	80.7	80.1	90.3	109	113	82.4	139	149	134	114
Calcium (filtered)	µg/L	10			170,000	154,000	147,000	137,000	139,000	150,000	146,000	156,000	152,000	183,000	159,000	169,000	158,000
Chloride	µg/L	200		**250,000**	170,000	150,000	150,000	170,000	180,000	160,000	160,000	150,000	140,000	160,000	160,000	170,000	170,000
Iron (filtered)	µg/L	3	***153***	**300**	6	7	<3	4	<3	2	<2	<2	<7	<7	<7	14	<7
Magnesium (filtered)	µg/L	1			13,800	15,000	13,600	13,200	13,000	14,000	14,000	16,000	12,300	14,800	14,500	15,600	14,600
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	-	-	-	-	-	0.21	0.29	0.56	0.03	12.9	0.15	6.28
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	-	-	-	6,200	5,230	4,600	5,300	5,780	5,150	4,920
Sodium (filtered)	µg/L	10		**200,000**	79,500	84,000	74,900	80,500	73,600	59,800	79,500	79,600	69,300	83,600	79,100	72,800	68,900
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	298	338	318	283	318	309	338	346	336	338	322	317	302
Total Dissolved Solids	mg/L	3		**500**	**737**	**710**	**771**	**680**	**757**	**700**	**723**	**831**	**711**	**686**	**737**	**771**	**834**
Chemical Oxygen Demand	mg/L	5			<8	<8	10	9	<8	<8	90	11	<8	12	<8	<8	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	2.2	2.6	2.2	2.0	***5.7***	***4.2***	1.3	2.6	2.2	2.3	2	2	2
Phenols (4AAP)	mg/L	0.001			-	-	-	-	-	-	-	0.005	-	0.004	-	<0.002	-
Sulphate (filtered)	mg/L	0.2		**500**	77	78	80	74	73	69	73	83	73	81	81	81	81
Ammonia as N	mg/L	0.01			<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
Nitrate (as N)	mg/L	0.05		**10**	4.34	4.13	4.03	3.66	3.62	3.15	3.10	3.22	3.05	3.02	3.37	2.24	-
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	-	-	-	-	<0.5	-	<0.5	-	<0.5	-
Electrical Conductivity (Lab)	µS/cm	1			1,160	1,250	1,250	1,180	1,250	1,170	1,190	1,250	1,200	1,270	1,300	1,180	1,220
pH (Lab)	-	0.05		**6.5-8.5**	8.03	7.91	7.80	7.87	8.12	7.96	7.99	7.98	7.69	8.15	7.90	7.91	7.69
DO (Field)	mg/L				-	-	-	-	-	-	-	-	-	-	-	-	-
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW03-1	MW03-1
				Date	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	01 Nov 2011	24 May 2012
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	<0.2	<0.2	<0.2	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
Barium (filtered)	µg/L	0.02	***423***	**1,000**	282	278	243	227	233	245	284	301	271	258	233	208	343
Boron (filtered)	µg/L	2	***2,535***	**5,000**	93	105	98	102	73	93	84	84	70	77	80	118	395
Calcium (filtered)	µg/L	10			175,000	178,000	178,000	177,000	165,000	156,000	191,000	185,000	176,000	166,000	147,000	186,000	163,000
Chloride	µg/L	200		**250,000**	180,000	170,000	190,000	180,000	175,000	153,000	216,000	221,000	218,000	232,000	213,000	97,000	75,000
Iron (filtered)	µg/L	3	***153***	**300**	<7	<7.00000	<7	<7	<5	<5	<5	<5	10	<5	<5	10	***5,920***
Magnesium (filtered)	µg/L	1			15,000	14,200	17,500	15,200	13,700	14,900	15,100	14,300	13,000	15,300	14,700	8,420	17,500
Manganese (filtered)	µg/L	0.01	***26***	**50**	0.03	1.85	0.02	1.09	<1	<1	<1	2	1	2	<1	-	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	110	<100	60	<100	360	-	-
Potassium (filtered)	µg/L	2			5,560	5,450	5,000	5,170	4,500	5,600	5,000	5,200	4,800	5,500	5,400	-	-
Sodium (filtered)	µg/L	10		**200,000**	73,000	69,400	87,800	75,500	83,300	83,800	102,000	96,200	85,600	94,600	90,900	54,000	69,800
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	272	261	297	304	313	292	331	333	333	297	293	***414***	***669***
Total Dissolved Solids	mg/L	3		**500**	**711**	**666**	**746**	**737**	**680**	**627**	**798**	**800**	**753**	**777**	**718**	**680**	**870**
Chemical Oxygen Demand	mg/L	5			<8	<8.0	<8	<8	<5	16	9	116	6	31	45	23	26
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	469	451	**540**	**522**	493	478	427	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	-	<1.0	2	2	2.2	1.1	1.6	0.3	3	1.4	2.3	***4.6***	***11.2***
Phenols (4AAP)	mg/L	0.001			0.006	-	<0.002	-	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	0.001	-	-
Sulphate (filtered)	mg/L	0.2		**500**	79	74	90	87	79	63	74	73	66	70	63	34	68
Ammonia as N	mg/L	0.01			<0.1	<0.1000	<0.1	<0.1	0.04	0.06	<0.01	0.03	0.05	0.06	<0.05	1.7	17.6
Nitrate (as N)	mg/L	0.05		**10**	2.29	2.4	2.92	2.84	2.54	1.85	2.52	2.51	2.13	1.73	1.45	0.61	0.12
Total Kjeldahl Nitrogen	mg/L	0.1			<0.5	-	<0.5	-	0.3	-	0.4	2.8	-	0.4	0.6	-	-
Electrical Conductivity (Lab)	µS/cm	1			1,150	1,150	1,210	1,250	1,260	1,170	1,470	1,470	1,390	1,430	1,320	1,110	1,530
pH (Lab)	-	0.05		**6.5-8.5**	7.53	7.98	7.79	7.81	7.73	7.85	7.7	7.59	7.6	7.75	7.91	8.00	7.39
DO (Field)	mg/L				6.4	6.6	-	9.6	5.17	9.03	7.78	8.5	9.9	3.02	7.06	-	-
Redox (Field)	mV				164	75	-	2	151	173	43	-160	27	109	56	-	-
Temperature (Field)	°C				8.9	10.8	16.3	10.7	10.9	10.7	7.5	11.6	12	10.8	12.8	-	-
Conductivity (field)	µS/cm				767	9	-	885	1,216	435	1,240	1,442	1,365	1,033	12	-	-
pH (Field)	-			**6.5-8.5**	7.7	6.5	7.5	7.5	7.04	7.18	6.79	6.79	6.94	6.94	7.19	-	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1
				Date	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	01 Nov 2016	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	-	-	-	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	204	146	129	250	130	83.4	100	105	203	82.9	83.6	118	120
Boron (filtered)	µg/L	2	***2,535***	**5,000**	93.3	118	45.5	262	53.2	46.4	35.5	58	87	33	25	50	107
Calcium (filtered)	µg/L	10			147,000	126,000	121,000	183,000	134,000	100,000	114,000	124,000	205,000	92,600	106,000	137,000	120,000
Chloride	µg/L	200		**250,000**	92,000	50,000	75,000	96,000	73,000	22,000	68,000	43,000	110,000	32,000	24,000	56,000	57,000
Iron (filtered)	µg/L	3	***153***	**300**	15	12	6	5	9	7	<7	14	10	12	<7	<7.00000	8
Magnesium (filtered)	µg/L	1			6,900	6,570	4,300	10,300	4,420	3,520	3,990	4,070	5,780	3,280	2,960	3,350	5,100
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	-	-	-	***120***	0.32	12.4	20.8	***32.8***	6.11	0.24	6.2	21.9
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	-	4,760	3,040	3,580	3,990	4,780	4,170	2,860	3,590	5,120
Sodium (filtered)	µg/L	10		**200,000**	48,900	34,900	27,200	50,900	38,200	14,900	27,200	23,900	57,300	16,500	21,100	43,000	30,400
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	369	381	337	***615***	354	267	***400***	289	***406***	278	248	330	364
Total Dissolved Solids	mg/L	3		**500**	**629**	**534**	**523**	**900**	**506**	351	**703**	394	**849**	394	294	**534**	480
Chemical Oxygen Demand	mg/L	5			14	20	12	33	<8	17	8	<8	8	<8	<8	<8.0	14
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	3.2	***4.9***	3.5	***12.6***	***4.7***	2.6	3.5	2.2	***5***	2	-	2	***6***
Phenols (4AAP)	mg/L	0.001			-	-	-	-	-	0.003	-	0.002	-	-	<0.001	-	<0.002
Sulphate (filtered)	mg/L	0.2		**500**	26	28	23	72	19	10	14	13	39	9	9	20	24
Ammonia as N	mg/L	0.01			1.7	2.3	<0.1	12.6	0.3	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1000	3.1
Nitrate (as N)	mg/L	0.05		**10**	4.79	0.76	0.97	0.08	1.52	1.01	1.06	1.43	2.97	-	1.41	2.51	1.22
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	3.3
Electrical Conductivity (Lab)	µS/cm	1			1,090	962	894	1,480	881	576	1,150	707	1,300	666	526	920	876
pH (Lab)	-	0.05		**6.5-8.5**	7.41	7.67	7.87	7.63	8.12	7.97	7.44	7.96	7.59	7.51	7.34	7.9	7.5
DO (Field)	mg/L				-	-	-	-	-	-	-	-	-	-	3.7	9.5	-
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	-	29	49	-
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	-	11.7	10.9	13.1
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	-	729	621	-
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	-	-	-	7.4	6.7	7

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1
				Date	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	01 Nov 2011	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	0.3	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	105	112	186	88	188	206	55.3	147	135	194	153	198	166
Boron (filtered)	µg/L	2	***2,535***	**5,000**	40	29	54	18	69	100	74.9	47.9	88.8	109	115	150	98.3
Calcium (filtered)	µg/L	10			118,000	132,000	169,000	97,600	165,000	179,000	125,000	123,000	114,000	163,000	134,000	160,000	145,000
Chloride	µg/L	200		**250,000**	43,000	73,800	104,000	27,700	87,100	86,000	52,000	83,000	52,000	87,000	47,000	76,000	88,000
Iron (filtered)	µg/L	3	***153***	**300**	<7	16	<5	<5	***299***	5	8	6	14	42	3	8	3
Magnesium (filtered)	µg/L	1			4,130	4,190	5,140	3,050	6,050	7,750	6,120	4,760	5,730	7,120	6,350	7,180	6,890
Manganese (filtered)	µg/L	0.01	***26***	**50**	3.96	1	4	<1	***175***	-	-	-	-	-	-	***690***	***520***
Phosphorus (filtered)	µg/L	10			-	-	-	40	<100	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			4,750	3,300	5,100	3,200	5,600	-	-	-	-	-	-	9,170	5,820
Sodium (filtered)	µg/L	10		**200,000**	30,200	25,200	59,500	19,600	44,600	52,000	13,700	37,100	36,000	42,300	35,100	44,000	51,000
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	343	266	347	227	361	389	281	286	319	***408***	346	388	368
Total Dissolved Solids	mg/L	3		**500**	451	378	**558**	288	**530**	**609**	460	**529**	449	**617**	470	**543**	**566**
Chemical Oxygen Demand	mg/L	5			<8	<5	11	<5	15	20	<8	<8	10	17	11	11	18
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	347	443	257	438	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	2	2.9	2.5	2.5	1.8	***4.5***	2.1	1.6	***4.1***	***9.2***	***6.4***	***7.5***	***5.0***
Phenols (4AAP)	mg/L	0.001			-	<0.002	<0.002	<0.001	<0.001	-	-	-	-	-	-	-	0.004
Sulphate (filtered)	mg/L	0.2		**500**	14	11	27	7	17	36	25	17	22	33	28	28	23
Ammonia as N	mg/L	0.01			<0.1	<0.01	0.01	0.03	0.03	1.0	0.1	0.1	1.4	1.1	1.4	2.1	1.4
Nitrate (as N)	mg/L	0.05		**10**	1.26	1.48	1.64	1.02	2.02	0.52	<0.05	1.50	1.01	0.90	0.71	0.66	0.70
Total Kjeldahl Nitrogen	mg/L	0.1			-	0.2	0.4	0.3	1	-	-	-	-	-	-	-	1.7
Electrical Conductivity (Lab)	µS/cm	1			772	726	1,040	555	993	1,040	720	857	793	1,050	830	923	964
pH (Lab)	-	0.05		**6.5-8.5**	7.39	7.74	7.68	7.57	7.67	7.99	7.87	7.72	7.74	7.83	7.61	8.11	7.87
DO (Field)	mg/L				4.8	9.56	5.73	7.27	7.39	-	-	-	-	-	-	-	-
Redox (Field)	mV				28	132	69	18	-144	-	-	-	-	-	-	-	-
Temperature (Field)	°C				10.5	10	10.1	7.8	13.7	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				514	653	378	511	5	-	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	7.6	7.84	6.99	7.06	6.9	-	-	-	-	-	-	-	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW05-1
				Date	19 Nov 2015	30 May 2016	01 Nov 2016	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	01 Nov 2011
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	<0.2	0.8	<0.2	<0.2	0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	-
Barium (filtered)	µg/L	0.02	***423***	**1,000**	196	117	114	131	115	193	125	143	124	174	109	154	***473***
Boron (filtered)	µg/L	2	***2,535***	**5,000**	105	103	563	63	69	79	81	49	66	81	60	81	321
Calcium (filtered)	µg/L	10			174,000	123,000	28,600	131,000	118,000	214,000	124,000	157,000	125,000	166,000	113,000	139,000	230,000
Chloride	µg/L	200		**250,000**	87,000	39,000	42,000	75,000	51,000	90,000	47,000	57,000	54,000	96,200	36,000	69,400	140,000
Iron (filtered)	µg/L	3	***153***	**300**	42	<7	<7	21	12	125	50	21	34	<5	65	<5	***21,600***
Magnesium (filtered)	µg/L	1			7,180	5,250	6,610	5,280	4,940	7,480	6,270	5,310	5,530	6,510	4,790	5,920	18,200
Manganese (filtered)	µg/L	0.01	***26***	**50**	***421***	***249***	3.25	***175***	***168***	***69.4***	***212***	***50.9***	***147***	***106***	***63***	21	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	1,160	<100	-
Potassium (filtered)	µg/L	2			6,300	4,950	2,230	5,090	5,640	5,670	4,740	4,750	4,800	5,800	4,400	4,300	-
Sodium (filtered)	µg/L	10		**200,000**	40,800	31,100	146,000	32,100	37,000	49,200	35,100	36,000	31,400	52,800	27,700	39,900	82,400
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	382	302	325	325	291	378	329	390	296	351	279	332	***643***
Total Dissolved Solids	mg/L	3		**500**	**546**	417	463	500	434	**597**	389	469	392	**541**	363	470	**911**
Chemical Oxygen Demand	mg/L	5			8	10	<8	8	<8	<8.0	8	<8	<5	157	35	85	53
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	335	441	302	373	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	***4.1***	2.2	<1	2	-	3	2	2	***4***	2.8	3.1	1.3	***16.7***
Phenols (4AAP)	mg/L	0.001			-	0.004	-	-	0.002	-	<0.002	-	<0.002	<0.002	<0.001	<0.001	-
Sulphate (filtered)	mg/L	0.2		**500**	28	15	31	14	22	42	15	12	15	26	15	17	25
Ammonia as N	mg/L	0.01			0.8	0.5	<0.1	0.6	1.2	0.4	1	0.4	0.8	0.92	0.64	0.19	8.9
Nitrate (as N)	mg/L	0.05		**10**	1.11	1.38	0.12	-	1.19	2.14	1.1	2.65	1.56	0.64	1.44	1.27	<0.05
Total Kjeldahl Nitrogen	mg/L	0.1			-	0.7	-	-	1.1	-	1.2	-	1	-	1.7	1.4	-
Electrical Conductivity (Lab)	µS/cm	1			964	729	798	841	713	1,050	725	862	750	1,010	698	887	1,540
pH (Lab)	-	0.05		**6.5-8.5**	7.71	7.94	8.20	7.44	8.08	7.57	7.52	7.26	7.63	7.58	7.5	7.71	7.65
DO (Field)	mg/L				-	-	-	-	4.1	7.5	-	5.2	4.06	4	3.54	2.64	-
Redox (Field)	mV				-	-	-	-	-9	138	-	-7	140	45	35	-139	-
Temperature (Field)	°C				-	-	-	-	8.5	10	12.9	9.2	8	9	6.6	12.2	-
Conductivity (field)	µS/cm				-	-	-	-	477	723	-	547	735	431	579	832	-
pH (Field)	-			**6.5-8.5**	-	-	-	-	7.6	7.9	7.2	7.5	7.87	6.8	6.88	6.93	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1
				Date	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	01 Nov 2016	04 Oct 2017	30 May 2019	29 Oct 2019
	Unit	EQL	*RUC*	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	-	-	-	-	2.9	2.2	3.4	1.8	3.1	3.2	1.1	3.5
Barium (filtered)	µg/L	0.02	***423***	**1,000**	***543***	***458***	***429***	***507***	***576***	***617***	***453***	***524***	395	***541***	***469***	***434***	***664***
Boron (filtered)	µg/L	2	***2,535***	**5,000**	372	311	250	329	406	483	288	304	258	430	303	213	340
Calcium (filtered)	µg/L	10			235,000	163,000	239,000	226,000	282,000	222,000	204,000	214,000	231,000	223,000	243,000	203,000	249,000
Chloride	µg/L	200		**250,000**	77,000	100,000	77,000	120,000	140,000	120,000	57,000	86,000	72,000	150,000	87,000	29,000	120,000
Iron (filtered)	µg/L	3	***153***	**300**	***24,500***	***16,000***	***20,300***	***15,600***	***21,100***	***21,200***	***19,400***	***22,400***	***14,000***	***23,100***	***21,400***	***11,100***	***32,600***
Magnesium (filtered)	µg/L	1			21,500	15,000	17,600	18,700	22,800	19,200	17,600	18,100	14,700	19,000	20,200	15,500	22,900
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	-	-	-	-	***2,170***	***1,790***	***1,680***	***1,180***	***1,960***	***1,720***	***1,170***	***2,680***
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	-	-	28,900	17,700	20,900	15,500	24,800	19,800	16,100	32,200
Sodium (filtered)	µg/L	10		**200,000**	99,300	64,700	61,700	72,800	83,800	91,300	44,000	61,700	38,400	69,700	58,100	36,500	80,200
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	***715***	***509***	***702***	356	***832***	***713***	***679***	***696***	***606***	***619***	***738***	***536***	***653***
Total Dissolved Solids	mg/L	3		**500**	**950**	**763**	**977**	**940**	**1,070**	**883**	**811**	**843**	**689**	**934**	**1,000**	**574**	**874**
Chemical Oxygen Demand	mg/L	5			60	25	44	50	63	53	45	45	40	40	36	17	47
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	***14.6***	***9.4***	***5.5***	***16.4***	***18.0***	***17.1***	***14.9***	***18.6***	3.2	***14***	***19***	-	***14***
Phenols (4AAP)	mg/L	0.001			-	-	-	-	-	-	0.005	-	0.006	-	-	0.002	-
Sulphate (filtered)	mg/L	0.2		**500**	20	20	26	23	20	17	17	13	14	10	21	12	7
Ammonia as N	mg/L	0.01			7.9	11.8	7.8	10.1	9.3	13.7	7.7	11.5	6.8	14.3	9.7	5.8	14.5
Nitrate (as N)	mg/L	0.05		**10**	0.46	<0.05	<0.06	0.20	<0.06	0.65	0.36	<0.06	0.75	0.62	-	0.71	0.24
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	-	-	-	10.0	-	8.7	-	-	6.2	-
Electrical Conductivity (Lab)	µS/cm	1			1,580	1,350	1,590	1,570	1,820	1,570	1,330	1,450	1,204	1,570	1,660	980	1,510
pH (Lab)	-	0.05		**6.5-8.5**	7.37	7.38	7.42	7.77	7.41	7.93	7.70	7.45	7.69	7.22	7.25	7.44	7.21
DO (Field)	mg/L				-	-	-	-	-	-	-	-	-	-	-	7.2	9
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	-	-	-72	44
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	-	-	10.2	11.3
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	-	-	958	1,124
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	-	-	-	-	7.1	**6.1**

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1
				Date	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	01 Nov 2011	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013
	Unit	EQL	*RUC*	**ODWQS**														
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	0.4	2.1	3	2.3	2.7	1.9	2.6	2.7	3	-	-	-	-	-
Barium (filtered)	µg/L	0.02	***423***	**1,000**	***504***	***512***	***911***	***612***	***749***	***512***	***595***	***664***	***612***	225	223	277	239	256
Boron (filtered)	µg/L	2	***2,535***	**5,000**	276	304	502	359	390	315	337	290	315	103	157	135	121	144
Calcium (filtered)	µg/L	10			230,000	225,000	255,000	215,000	234,000	151,000	166,000	155,000	179,000	152,000	138,000	159,000	150,000	149,000
Chloride	µg/L	200		**250,000**	83,000	110,000	147,000	80,700	57,600	94,900	124,000	106,000	138,000	77,000	70,000	110,000	100,000	97,000
Iron (filtered)	µg/L	3	***153***	**300**	***3,740***	***25,000***	***44,500***	***32,000***	***39,100***	***26,400***	***30,700***	***28,400***	***32,300***	***1,690***	***1,200***	***2,200***	***1,500***	***1,270***
Magnesium (filtered)	µg/L	1			22,700	20,000	26,500	20,000	22,100	15,500	16,200	16,000	18,600	8,790	9,860	9,590	9,190	9,380
Manganese (filtered)	µg/L	0.01	***26***	**50**	***2,590***	***2,000***	***3,120***	***2,310***	***2,980***	***1,990***	***1,980***	***1,770***	***2,060***	-	-	-	-	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	1,510	<100	300	<100	120	-	-	-	-	-
Potassium (filtered)	µg/L	2			21,800	25,100	30,000	25,500	25,300	24,300	23,600	23,600	23,000	-	-	-	-	-
Sodium (filtered)	µg/L	10		**200,000**	55,100	64,300	85,000	57,900	51,800	52,400	58,500	60,300	62,100	46,200	51,400	53,300	56,400	57,500
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	***609***	***661***	***757***	***588***	***674***	***480***	***544***	***465***	***550***	346	387	***401***	388	370
Total Dissolved Solids	mg/L	3		**500**	**711**	**823**	**946**	**761**	**787**	**669**	**751**	**672**	**785**	**563**	**560**	**654**	**609**	**597**
Chemical Oxygen Demand	mg/L	5			39	49	134	80	129	137	66	178	66	20	12	10	25	11
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	**746**	**620**	**676**	442	482	453	**524**	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	***14***	***12***	***13.4***	***10.6***	***13.5***	***4.3***	***12.3***	***12.7***	***12.7***	***3.7***	***5.2***	***4.3***	***10.3***	***5.6***
Phenols (4AAP)	mg/L	0.001			0.005	-	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	0.002	-	-	-	-	-
Sulphate (filtered)	mg/L	0.2		**500**	13	10	8	10	11	9	7	9	9	33	57	45	35	43
Ammonia as N	mg/L	0.01			6.9	11.3	16.4	13.6	14.1	14.5	14.7	14.8	12.6	2.1	3.5	3.1	2.4	3.3
Nitrate (as N)	mg/L	0.05		**10**	0.24	0.53	0.09	0.12	<0.05	0.09	0.09	<0.05	<0.05	0.10	0.26	0.32	0.89	0.21
Total Kjeldahl Nitrogen	mg/L	0.1			6.4	-	21.5	-	18.3	19.6	-	18.4	16.5	-	-	-	-	-
Electrical Conductivity (Lab)	µS/cm	1			1,200	1,470	1,730	1,400	1,450	1,240	1,380	1,240	1,440	953	967	1,180	1,090	1,070
pH (Lab)	-	0.05		**6.5-8.5**	7.48	7.31	7.35	7.38	7.23	7.3	7.39	7.39	7.46	8.04	7.57	7.53	7.76	7.86
DO (Field)	mg/L				-	5.2	1.58	4.76	2.09	3.51	5.16	1.35	11.78	-	-	-	-	-
Redox (Field)	mV				-	-66	96	123	-90	-152	-67	-40	-50	-	-	-	-	-
Temperature (Field)	°C				12.8	9.1	9	8.6	8.1	10.3	9.9	9.2	9.8	-	-	-	-	-
Conductivity (field)	µS/cm				-	973	1,747	600	1,352	1,175	1,361	947	1,408	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	6.9	7.4	7.08	6.55	6.57	6.75	6.68	6.62	6.93	-	-	-	-	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1
				Date	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	01 Nov 2016	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	0.5	0.3	0.3	0.3	0.6	0.4	0.2	0.4	0.3	0.4	0.3	0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	301	279	283	231	219	331	268	402	337	330	278	233	262
Boron (filtered)	µg/L	2	***2,535***	**5,000**	190	193	225	144	192	263	198	246	227	207	176	87	79
Calcium (filtered)	µg/L	10			164,000	164,000	164,000	139,000	148,000	191,000	151,000	198,000	217,000	172,000	172,000	151,000	189,000
Chloride	µg/L	200		**250,000**	97,000	100,000	88,000	79,000	78,000	120,000	94,000	130,000	120,000	92,000	120,000	124,000	167,000
Iron (filtered)	µg/L	3	***153***	**300**	***1,490***	***2,300***	***949***	***679***	***759***	***2,320***	***1,320***	***684***	***1,340***	***410***	***1,630***	***717***	***1,100***
Magnesium (filtered)	µg/L	1			10,500	9,070	11,100	8,090	8,300	12,100	10,100	13,800	11,000	13,900	11,500	8,040	8,340
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	***1,440***	***1,270***	***1,030***	***338***	***1,270***	***1,150***	***1,530***	***1,460***	***1,720***	***1,380***	***698***	***721***
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	11,900	11,900	9,690	10,500	15,000	12,000	18,300	16,400	16,800	14,600	8,600	8,300
Sodium (filtered)	µg/L	10		**200,000**	55,200	59,500	63,500	45,600	49,800	68,300	62,200	71,400	60,900	75,100	63,500	64,200	74,300
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	***453***	***412***	***473***	382	***413***	***485***	***490***	***468***	***429***	***470***	***454***	342	347
Total Dissolved Solids	mg/L	3		**500**	**640**	**634**	**703**	**571**	**609**	**754**	**654**	**749**	**671**	**617**	**749**	**544**	**694**
Chemical Oxygen Demand	mg/L	5			19	<8	21	20	10	17	17	25	11	16	19	31	51
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	411	**508**
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	***9.2***	***5.8***	***6.5***	***4.4***	***5.4***	***8***	***6***	-	***6***	***7***	***5***	***4.1***	1.6
Phenols (4AAP)	mg/L	0.001			-	-	0.003	-	0.004	-	-	0.006	-	<0.002	-	<0.002	<0.002
Sulphate (filtered)	mg/L	0.2		**500**	42	43	43	34	36	49	37	44	43	37	33	29	47
Ammonia as N	mg/L	0.01			3.7	3.3	3.5	3.5	3.2	4.4	4.5	6.6	9	7.3	6.7	2.84	3.19
Nitrate (as N)	mg/L	0.05		**10**	<0.06	0.66	0.37	0.08	0.81	0.26	-	0.65	0.5	<0.06	0.12	1.5	1.55
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	3.7	-	3.2	-	-	6.6	-	6.8	-	4.7	-
Electrical Conductivity (Lab)	µS/cm	1			1,150	1,100	1,160	977	1,058	1,350	1,180	1,260	1,210	1,130	1,300	1,020	1,280
pH (Lab)	-	0.05		**6.5-8.5**	7.57	8.01	7.81	7.70	7.85	7.63	7.45	7.21	7.94	7.6	7.49	7.59	7.62
DO (Field)	mg/L				-	-	-	-	-	-	-	4.2	10.1	-	5.3	4.72	3.61
Redox (Field)	mV				-	-	-	-	-	-	-	-60	-	-	-20	143	83
Temperature (Field)	°C				-	-	-	-	-	-	-	11.2	10.8	13.8	9.8	10.2	9.4
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	918	919	-	1,407	1,023	553
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	7.2	6.9	7	7.5	6.97	6.78

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1
				Date	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	01 Nov 2011	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015
	Unit	EQL	***RUC***	**ODWQS**														
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	0.3	0.4	0.3	0.3	0.4	-	-	-	-	-	-	0.9	0.7	0.9
Barium (filtered)	µg/L	0.02	***423***	**1,000**	215	286	218	289	260	105	95.7	108	101	113	117	119	111	128
Boron (filtered)	µg/L	2	***2,535***	**5,000**	122	227	100	106	134	519	566	564	491	476	553	621	556	435
Calcium (filtered)	µg/L	10			125,000	140,000	126,000	188,000	156,000	32,600	29,600	26,000	26,100	27,600	29,200	28,800	28,900	32,000
Chloride	µg/L	200		**250,000**	84,000	86,100	94,600	183,000	138,000	42,000	42,000	42,000	46,000	44,000	45,000	45,000	44,000	42,000
Iron (filtered)	µg/L	3	***153***	**300**	***424***	***2,110***	***1,190***	***1,380***	***1,490***	3	8	7	6	3	4	4	<2	16
Magnesium (filtered)	µg/L	1			8,230	11,500	7,740	9,990	9,940	8,220	7,120	6,650	6,680	6,910	7,060	6,930	7,340	7,210
Manganese (filtered)	µg/L	0.01	***26***	**50**	***767***	***1,400***	***932***	***936***	***936***	-	-	-	-	-	-	8.02	1.45	13.3
Phosphorus (filtered)	µg/L	10			800	<100	600	200	4,390	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			11,200	16,900	9,700	10,400	11,200	-	-	-	-	-	-	2,660	2,170	2,250
Sodium (filtered)	µg/L	10		**200,000**	59,700	63,600	48,900	84,200	67,100	152,000	136,000	143,000	160,000	93,500	134,000	139,000	150,000	130,000
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	307	392	390	***417***	***405***	312	334	311	284	313	330	335	342	320
Total Dissolved Solids	mg/L	3		**500**	496	**575**	**563**	**763**	**672**	454	**530**	469	483	457	490	469	474	466
Chemical Oxygen Demand	mg/L	5			104	368	222	23	993	<8	22	<8	<8	<8	<8	<8	9	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	346	396	347	**510**	432	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	2.9	3.1	***5.4***	***5.8***	***5.4***	1.4	1.7	2.0	2.3	1.9	3.1	2.4	1.4	1.2
Phenols (4AAP)	mg/L	0.001			<0.001	<0.001	<0.001	0.009	0.005	-	-	-	-	-	-	-	<0.002	-
Sulphate (filtered)	mg/L	0.2		**500**	26	40	32	26	46	33	33	34	33	32	30	30	32	29
Ammonia as N	mg/L	0.01			4.01	6.86	6.1	3.69	6.22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (as N)	mg/L	0.05		**10**	0.53	0.2	0.16	0.81	0.1	<0.05	0.24	0.13	0.10	<0.06	0.12	0.19	0.11	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			6	27.7	-	4.5	31.4	-	-	-	-	-	-	-	<0.5	-
Electrical Conductivity (Lab)	µS/cm	1			934	1,070	1,050	1,400	1,240	780	801	810	808	795	790	782	797	773
pH (Lab)	-	0.05		**6.5-8.5**	7.55	7.44	7.55	7.54	7.61	8.37	8.13	8.22	8.10	8.42	8.20	8.42	8.29	8.26
DO (Field)	mg/L				5.5	5.47	5.56	1.64	4.05	-	-	-	-	-	-	-	-	-
Redox (Field)	mV				-2	-149	-48	-91	13	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C				9.5	11.2	10.5	9.9	10.9	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				838	1,000	962	1,032	1,230	-	-	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	6.89	7.02	6.96	6.74	**6.35**	-	-	-	-	-	-	-	-	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW08-2	MW08-2
				Date	30 May 2016	01 Nov 2016	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	18 May 2012	09 Oct 2012
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	0.7	<0.2	0.8	0.5	0.8	0.6	0.7	0.5	1.1	0.5	0.3	-	-
Barium (filtered)	µg/L	0.02	***423***	**1,000**	111	148	119	136	128	133	130	162	24	182	213	122	197
Boron (filtered)	µg/L	2	***2,535***	**5,000**	600	79	483	516	445	482	432	533	571	526	519	15.3	35.7
Calcium (filtered)	µg/L	10			31,700	153,000	32,000	34,000	40,100	32,300	35,400	36,900	34,500	48,100	45,000	98,000	131,000
Chloride	µg/L	200		**250,000**	42,000	100,000	46,000	47,000	45,000	51,000	48,000	53,600	53,100	51,600	49,200	48,000	110,000
Iron (filtered)	µg/L	3	***153***	**300**	24	12	108	7	9	<7	<7	88	<5	***292***	***614***	18	<3
Magnesium (filtered)	µg/L	1			7,440	5,520	7,020	7,590	7,520	8,370	7,820	8,900	9,390	10,300	10,900	3,410	5,020
Manganese (filtered)	µg/L	0.01	***26***	**50**	0.22	8.70	24.9	0.76	8.31	0.21	2.71	6	1	21	***49***	-	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	1,790	<100	-	-
Potassium (filtered)	µg/L	2			2,310	3,910	2,240	2,250	2,550	2,160	2,290	2,300	2,900	2,300	3,200	-	-
Sodium (filtered)	µg/L	10		**200,000**	159,000	47,800	141,000	151,000	152,000	163,000	143,000	157,000	163,000	140,000	129,000	28,800	50,700
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	330	322	337	370	328	359	367	336	316	299	310	258	279
Total Dissolved Solids	mg/L	3		**500**	457	**569**	489	474	469	489	466	421	433	422	412	363	**529**
Chemical Oxygen Demand	mg/L	5			<8	<8	<8	65	<8	<8	<8	125	76	75	182	15	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	129	125	163	157	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	1.5	3	2	-	2	1	1	***4.5***	2.4	2.2	1.8	2.4	1.4
Phenols (4AAP)	mg/L	0.001			0.004	-	-	0.002	-	0.003	-	<0.002	<0.002	<0.001	<0.001	-	-
Sulphate (filtered)	mg/L	0.2		**500**	30	17	31	34	33	32	29	31	30	29	29	10	19
Ammonia as N	mg/L	0.01			<0.1	<0.1	0.1	<0.1	0.1	<0.1	<0.1	0.04	0.06	0.03	0.05	<0.1	0.2
Nitrate (as N)	mg/L	0.05		**10**	<0.06	1.67	-	0.13	0.25	0.17	0.23	0.19	0.19	0.32	0.16	0.44	1.22
Total Kjeldahl Nitrogen	mg/L	0.1			<0.5	-	-	<0.5	-	<0.5	-	1.3	-	1.8	1.9	-	-
Electrical Conductivity (Lab)	µS/cm	1			791	979	816	808	844	790	808	802	822	804	785	657	929
pH (Lab)	-	0.05		**6.5-8.5**	8.28	7.75	8.27	7.92	8.12	8.08	8.08	8.16	8.16	8.19	7.98	7.87	8.07
DO (Field)	mg/L				-	-	-	6	10.6	-	5.4	9.94	6.7	11.6	6.41	-	-
Redox (Field)	mV				-	-	-	56	51	-	22	138	121	8	-152	-	-
Temperature (Field)	°C				-	-	-	10.1	10.3	12.8	9.4	11.1	9.3	8.4	10.8	-	-
Conductivity (field)	µS/cm				-	-	-	590	597	-	524	800	354	706	751	-	-
pH (Field)	-			**6.5-8.5**	-	-	-	8	7.3	7.4	8.1	**8.71**	7.73	7.88	7.68	-	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2
				Date	10 Jun 2013	05 Nov 2013	26 Jun 2014	06 Nov 2014	22 May 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	-	-	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	107	161	116	184	88.0	113	197	87.5	148	53.1	158	81.1	162
Boron (filtered)	µg/L	2	***2,535***	**5,000**	11.1	27.4	13.8	29.6	10.0	18	32	20	31	14	50	26	23
Calcium (filtered)	µg/L	10			85,100	113,000	97,500	125,000	84,100	116,000	156,000	81,900	118,000	103,000	127,000	80,100	145,000
Chloride	µg/L	200		**250,000**	56,000	69,000	38,000	74,000	24,000	55,000	150,000	45,000	68,000	3,000	69,000	9,000	120,000
Iron (filtered)	µg/L	3	***153***	**300**	20	12	6	15	20	8	26	<7	<7	7	10	24	15
Magnesium (filtered)	µg/L	1			2,680	4,140	3,260	4,620	2,950	3,430	5,410	2,620	4,140	2,820	3,820	2,680	5,280
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	-	-	9.10	3.25	0.82	4.47	1.75	1.89	0.74	4.33	4.34	0.97
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	2,220	1,000	979	1,710	817	1,370	472	1,400	738	1,210
Sodium (filtered)	µg/L	10		**200,000**	29,500	35,900	23,900	43,200	23,500	28,700	60,700	30,500	36,500	3,740	36,800	23,500	29,400
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	226	267	208	305	254	261	285	221	300	235	272	235	283
Total Dissolved Solids	mg/L	3		**500**	366	423	354	491	294	380	**629**	297	443	257	434	240	480
Chemical Oxygen Demand	mg/L	5			14	10	8	<8	10	<8	16	<8	<8	<8	<8	16	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	***4.7***	***5.3***	***3.9***	2.5	-	-	-	-	-	-	-	-	-
Phenols (4AAP)	mg/L	0.001			-	-	-	-	<0.001	0.002	0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	1.3	21	6.8	16	8	8	17	3	10	7	12	6	10
Ammonia as N	mg/L	0.01			<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
Nitrate (as N)	mg/L	0.05		**10**	0.10	0.35	0.24	0.53	0.16	0.46	1.33	<0.06	0.35	<0.06	0.66	0.15	0.67
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Electrical Conductivity (Lab)	µS/cm	1			604	757	615	807	559	700	1,040	535	781	429	748	452	838
pH (Lab)	-	0.05		**6.5-8.5**	7.91	8.23	8.29	8.10	7.93	8.08	7.86	7.88	7.63	7.66	8.12	7.85	7.81
DO (Field)	mg/L				-	-	-	-	-	-	-	-	-	3.4	8.8	-	11.3
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	196	79	-	135
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	8.5	13.4	16.4	6.2
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	419	803	-	486
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	-	-	7.7	**6.1**	8.1	**8.6**

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2
				Date	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	25 Oct 2023	29 Oct 2024	15 Oct 2025	18 May 2012	09 Oct 2012	10 Jun 2013	05 Nov 2013	02 Jul 2014	22 May 2015	30 May 2016
	Unit	EQL	***RUC***	**ODWQS**														
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	-	-	-	-	-	0.3	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	135	168	95	181	183	153	136	259	***803***	***856***	***470***	232	178	109
Boron (filtered)	µg/L	2	***2,535***	**5,000**	15	28	6	27	22	25	23	53.2	442	513	139	119	28.7	62
Calcium (filtered)	µg/L	10			114,000	119,000	85,300	123,000	141,000	115,000	106,000	97,400	49,400	43,700	96,700	58,000	96,100	57,500
Chloride	µg/L	200		**250,000**	65,500	67,500	35,700	69,900	75,700	67,300	64,900	51,000	17,000	13,000	59,000	46,000	58,000	50,000
Iron (filtered)	µg/L	3	***153***	**300**	19	<5	<5	<5	6	<5	7	***203***	35	<3	***192***	***294***	***177***	***234***
Magnesium (filtered)	µg/L	1			4,060	4,140	2,880	4,600	4,720	4,410	4,210	4,780	18,300	19,500	7,760	6,210	4,290	3,510
Manganese (filtered)	µg/L	0.01	***26***	**50**	4	2	<1	3	1	4	2	-	-	-	-	-	23.3	***35.2***
Phosphorus (filtered)	µg/L	10			-	-	50	<100	<100	<100	20	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			1,000	1,800	700	1,600	1,400	1,500	1,400	-	-	-	-	-	2,330	3,000
Sodium (filtered)	µg/L	10		**200,000**	38,300	44,000	26,800	44,100	38,900	40,300	28,400	35,900	48,000	44,300	40,700	41,600	37,900	45,500
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	276	275	215	277	289	281	271	253	255	263	278	222	260	280
Total Dissolved Solids	mg/L	3		**500**	364	389	283	428	407	400	377	374	394	380	414	346	371	383
Chemical Oxygen Demand	mg/L	5			7	10	<5	12	9	26	14	11	36	35	14	14	<8	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	302	316	225	326	372	307	284	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	***3.7***	2.7	3	0.9	3.3	3.4	***5***	2.4	<1	1.8	1.5	1.7	-	-
Phenols (4AAP)	mg/L	0.001			<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	-	-	<0.001	0.002
Sulphate (filtered)	mg/L	0.2		**500**	9	10	5	<10	11	10	9	13	6.3	32	22	8.6	12	8
Ammonia as N	mg/L	0.01			<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.1	0.6	0.7	<0.1	0.2	<0.1	<0.1
Nitrate (as N)	mg/L	0.05		**10**	0.74	0.41	0.05	0.62	0.64	0.23	0.56	0.11	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			0.4	0.3	0.2	0.3	-	0.4	0.2	-	-	-	-	-	<0.5	<0.5
Electrical Conductivity (Lab)	µS/cm	1			700	744	547	814	777	765	724	665	617	591	756	573	666	767
pH (Lab)	-	0.05		**6.5-8.5**	7.94	8.27	7.57	7.93	7.76	7.83	7.8	7.92	8.17	8.19	8.18	8.00	7.86	8.21
DO (Field)	mg/L				13.26	2.49	7.65	6.06	4.12	7.44	4.82	-	-	-	-	-	-	-
Redox (Field)	mV				140	-73	-54	-140	243	28	158	-	-	-	-	-	-	-
Temperature (Field)	°C				9.3	9.2	8.8	13	12.7	10.0	10.4	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				652	334	473	722	841	54	696	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	**8.78**	7.27	7.35	7.21	6.94	7.45	7.19	-	-	-	-	-	-	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2
				Date	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	28 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025
	Unit	EQL	***RUC***	**ODWQS**														
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	0.2	0.3	0.3	<0.2	0.4	<0.2	0.2	0.1	<0.1	<0.1	<0.1	0.1	0.1
Barium (filtered)	µg/L	0.02	***423***	**1,000**	204	117	258	158	184	285	176	210	203	***846***	229	207	193	172
Boron (filtered)	µg/L	2	***2,535***	**5,000**	44	26	84	26	65	143	39	40	45	567	47	48	38	39
Calcium (filtered)	µg/L	10			133,000	83,700	107,000	105,000	121,000	80,800	126,000	124,000	119,000	51,100	122,000	110,000	120,000	104,000
Chloride	µg/L	200		**250,000**	98,000	35,000	70,000	66,000	73,000	50,000	77,000	88,500	70,500	15,100	79,700	76,900	79,200	65,200
Iron (filtered)	µg/L	3	***153***	**300**	27	87	***205***	***293***	38	***302***	15	87	43	13	26	17	13	15
Magnesium (filtered)	µg/L	1			4,530	3,120	5,780	3,890	3,820	8,760	4,270	4,640	4,550	21,900	4,730	4,390	4,320	4,140
Manganese (filtered)	µg/L	0.01	***26***	**50**	7.39	22	15.9	***29.1***	4.64	***33.2***	3.31	3	3	***47***	2	2	2	2
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	40	<100	60	<100	<10
Potassium (filtered)	µg/L	2			2,410	1,910	2,600	2,160	2,570	2,740	2,650	2,300	2,700	5,300	2,600	2,300	2,600	2,400
Sodium (filtered)	µg/L	10		**200,000**	54,600	32,600	45,700	42,900	46,500	44,400	44,600	55,600	48,200	51,300	57,700	45,600	52,200	43,400
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	238	226	274	241	260	233	295	271	280	249	278	306	302	284
Total Dissolved Solids	mg/L	3		**500**	417	314	420	214	414	311	437	432	409	316	425	432	445	400
Chemical Oxygen Demand	mg/L	5			10	<8	10	<8	<8	<8	<8	<5	11	38	7	<5	7	8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	329	315	218	324	293	318	277
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	-	-	-	-	-	-	-	3.3	2.4	2.4	0.7	***3.8***	3.6	***4.6***
Phenols (4AAP)	mg/L	0.001			0.002	0.006	<0.001	0.003	<0.001	<0.001	<0.001	<0.002	<0.002	0.048	<0.001	<0.001	<0.001	0.001
Sulphate (filtered)	mg/L	0.2		**500**	20	20	14	16	11	10	10	13	13	37	14	15	13	12
Ammonia as N	mg/L	0.01			<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.03	0.03	0.69	0.02	<0.05	<0.05	<0.05
Nitrate (as N)	mg/L	0.05		**10**	1.12	0.1	0.37	<0.06	0.93	<0.06	1.17	1.21	0.73	<0.05	1	1.29	0.76	1.04
Total Kjeldahl Nitrogen	mg/L	0.1			<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	0.2	0.2	0.7	0.2	-	0.2	0.1
Electrical Conductivity (Lab)	µS/cm	1			762	560	719	653	737	591	791	821	780	609	809	821	844	764
pH (Lab)	-	0.05		**6.5-8.5**	7.77	7.75	7.57	8	8.11	7.9	7.91	7.69	7.66	7.7	7.71	7.46	7.9	7.78
DO (Field)	mg/L				-	-	-	3.6	4.1	-	5	2.63	2.91	2.32	5.39	3.09	1.31	3.68
Redox (Field)	mV				-	-	-	-125	-86	-	60	160	30	-36	-140	-51	-139	132
Temperature (Field)	°C				-	-	-	10.3	14.1	1.7	7.4	10.7	9.8	7.4	13.7	9.2	10.7	11.3
Conductivity (field)	µS/cm				-	-	-	404	655	-	471	792	332	496	801	771	613	716
pH (Field)	-			**6.5-8.5**	-	-	-	7.7	7.4	7.6	8	7.08	7.01	7.01	7.06	6.75	7.07	7.17

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2
				Date	18 May 2012	09 Oct 2012	10 Jun 2013	05 Nov 2013	26 Jun 2014	22 May 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	***923***	***710***	***620***	***587***	***587***	***524***	***476***	***501***	***459***	***506***	***626***	***580***	***491***
Boron (filtered)	µg/L	2	***2,535***	**5,000**	147	141	119	130	116	100	121	122	123	131	118	145	106
Calcium (filtered)	µg/L	10			95,300	93,600	99,800	96,500	99,500	106,000	113,000	107,000	91,200	104,000	117,000	129,000	98,500
Chloride	µg/L	200		**250,000**	45,000	45,000	55,000	50,000	59,000	57,000	52,000	49,000	48,000	51,000	48,000	48,000	54,000
Iron (filtered)	µg/L	3	***153***	**300**	***9,270***	***6,760***	***4,190***	***4,380***	***6,210***	***3,160***	***533***	***3,580***	***3,340***	***3,370***	***6,910***	***4,030***	***886***
Magnesium (filtered)	µg/L	1			13,600	12,700	11,500	11,000	11,900	11,900	11,200	10,100	11,300	11,000	11,200	10,900	12,700
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	-	-	-	-	***92.4***	***29.8***	***49.7***	***97.3***	***60.1***	***171***	***54.4***	***95.1***
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	-	-	2,340	2,370	2,140	2,580	2,600	2,420	2,690	2,460
Sodium (filtered)	µg/L	10		**200,000**	8,870	7,070	6,180	5,160	7,250	6,690	7,750	5,520	8,990	6,070	7,470	5,540	9,830
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	238	225	240	226	299	254	245	240	171	233	243	245	243
Total Dissolved Solids	mg/L	3		**500**	351	366	446	377	423	411	389	394	269	406	334	354	389
Chemical Oxygen Demand	mg/L	5			10	<8	8	<8	<8	10	<8	<8	<8	<8	<8	<8	8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	***3.8***	<1	2.0	1.5	1.9	-	-	-	-	-	-	-	-
Phenols (4AAP)	mg/L	0.001			-	-	-	-	-	<0.001	0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	13	9.7	15	8.8	13	11	140	8	12	9	8	7	10
Ammonia as N	mg/L	0.01			0.1	0.7	0.5	1.0	0.9	0.6	0.3	1.0	0.5	1	0.8	1.1	0.9
Nitrate (as N)	mg/L	0.05		**10**	<0.05	<0.05	<0.06	<0.06	0.07	<0.06	0.21	<0.06	0.08	<0.06	0.08	0.08	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	-	-	1.2	<0.5	1.0	0.8	1.1	0.7	1.1	0.8
Electrical Conductivity (Lab)	µS/cm	1			613	615	667	619	686	645	639	633	483	631	599	621	618
pH (Lab)	-	0.05		**6.5-8.5**	7.91	8.13	7.89	8.15	8.13	7.94	8.13	7.95	7.92	7.67	7.54	8.03	7.83
DO (Field)	mg/L				-	-	-	-	-	-	-	-	-	-	3.6	4	-
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	-	-109	-115	-
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	-	10.6	13.8	15.1
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	-	442	518	-
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	-	-	-	7.6	7.6	7.7

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2
				Date	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	18 May 2012	09 Oct 2012	10 Jun 2013	05 Nov 2013	26 Jun 2014	22 May 2015
	Unit	EQL	***RUC***	**ODWQS**														
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	416	***510***	***574***	***542***	***603***	***511***	***450***	***516***	***495***	376	416	***469***	***437***	***473***
Boron (filtered)	µg/L	2	***2,535***	**5,000**	96	109	125	95	135	118	130	128	185	237	161	113	150	115
Calcium (filtered)	µg/L	10			99,900	118,000	119,000	118,000	112,000	102,000	96,900	101,000	95,600	71,600	81,200	100,000	85,700	98,400
Chloride	µg/L	200		**250,000**	53,000	59,600	56,700	54,700	50,300	48,400	49,600	51,200	38,000	14,000	34,000	21,000	27,000	36,000
Iron (filtered)	µg/L	3	***153***	**300**	***3,290***	<5	***5,280***	***3,750***	***4,080***	***3,630***	***858***	***3,780***	***1,920***	***536***	***1,430***	***2,090***	***1,200***	***2,630***
Magnesium (filtered)	µg/L	1			10,400	11,400	11,300	11,300	11,000	9,950	11,300	10,800	11,700	13,600	9,740	10,400	10,700	10,200
Manganese (filtered)	µg/L	0.01	***26***	**50**	***58***	***38***	***42***	***39***	***28***	***32***	***44***	***30***	-	-	-	-	-	***30.7***
Phosphorus (filtered)	µg/L	10			-	-	-	420	<100	110	<100	40	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			2,600	2,000	2,500	1,900	2,400	2,200	2,500	2,400	-	-	-	-	-	2,410
Sodium (filtered)	µg/L	10		**200,000**	6,930	6,100	6,500	6,100	5,900	4,900	6,900	5,400	10,600	9,300	10,900	5,540	12,000	8,180
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	258	260	250	222	254	272	250	262	249	239	232	225	250	258
Total Dissolved Solids	mg/L	3		**500**	351	343	351	336	341	337	332	332	380	363	391	311	340	366
Chemical Oxygen Demand	mg/L	5			<8	53	9	7	11	7	5	5	9	<8	<8	<8	<8	17
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	342	343	341	326	296	289	298	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	-	2.8	2.6	3	0.9	***4.9***	2.5	***3.8***	1.6	<1	2.1	1.4	***3.7***	-
Phenols (4AAP)	mg/L	0.001			0.001	<0.002	0.013	<0.001	<0.001	<0.001	<0.001	0.001	-	-	-	-	-	0.001
Sulphate (filtered)	mg/L	0.2		**500**	6	10	9	11	7	5	2	4	21	15	16	20	14	10
Ammonia as N	mg/L	0.01			1	0.93	1.04	0.8	1.04	0.95	1.04	0.94	0.8	0.7	0.7	0.7	0.8	0.6
Nitrate (as N)	mg/L	0.05		**10**	<0.06	0.07	<0.05	0.4	0.18	0.67	0.08	0.11	<0.05	<0.05	<0.06	<0.06	0.60	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			1	1	1.1	1.2	1.2	-	1.1	1.1	-	-	-	-	-	1.1
Electrical Conductivity (Lab)	µS/cm	1			623	660	675	647	657	649	640	639	618	603	602	550	560	599
pH (Lab)	-	0.05		**6.5-8.5**	7.79	7.83	7.68	7.48	7.85	7.54	7.9	7.95	7.98	8.06	7.94	8.19	7.67	7.95
DO (Field)	mg/L				4.2	2.87	2.81	2.44	1.62	2.75	2.92	3.98	-	-	-	-	-	-
Redox (Field)	mV				-148	-15	19	-117	-143	-85	-216	-114	-	-	-	-	-	-
Temperature (Field)	°C				6.7	9	10.3	7.9	13.3	9.9	9.9	11.9	-	-	-	-	-	-
Conductivity (field)	µS/cm				364	665	297	615	630	33	476	7	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	7.9	8.45	7.38	7.18	7.22	**6.29**	7.19	6.91	-	-	-	-	-	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2
				Date	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	<0.2	<0.2	<0.2	<0.2	0.7	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Barium (filtered)	µg/L	0.02	***423***	**1,000**	407	***433***	419	***449***	381	40.8	***504***	358	***528***	***528***	***466***	***632***	***539***
Boron (filtered)	µg/L	2	***2,535***	**5,000**	208	146	515	123	85	176	150	164	127	143	219	169	113
Calcium (filtered)	µg/L	10			91,900	97,900	90,100	93,800	96,600	147,000	102,000	93,400	117,000	113,000	90,600	110,000	105,000
Chloride	µg/L	200		**250,000**	25,000	34,000	26,000	36,000	14,000	33,000	21,000	43,000	52,000	41,000	25,300	28,200	49,700
Iron (filtered)	µg/L	3	***153***	**300**	***1,190***	***1,890***	11	***2,130***	***1,550***	124	***2,130***	***1,060***	***3,030***	***2,750***	***1,670***	***2,150***	***2,910***
Magnesium (filtered)	µg/L	1			12,900	10,100	25,200	8,590	7,400	22,100	12,700	12,300	11,300	11,100	14,000	12,400	9,800
Manganese (filtered)	µg/L	0.01	***26***	**50**	22.7	***29.2***	***84.2***	***29.6***	24.5	14.7	***31.4***	19.8	***35***	***33***	***35***	***33***	***31***
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	40	<100	90
Potassium (filtered)	µg/L	2			3,770	2,530	4,710	2,280	1,990	7,590	2,860	3,720	2,300	2,800	3,600	3,100	2,300
Sodium (filtered)	µg/L	10		**200,000**	11,800	8,290	15,400	5,300	6,300	76,700	8,390	6,200	7,300	6,700	8,400	6,800	6,000
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	246	258	265	255	224	242	227	242	271	250	233	244	286
Total Dissolved Solids	mg/L	3		**500**	303	371	400	391	274	320	274	343	342	329	300	294	349
Chemical Oxygen Demand	mg/L	5			<8	<8	<8	8	<8	<8	13	<8	<5	8	11	<5	9
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	339	329	284	326	303
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	-	-	<1	-	-	-	-	-	***4.4***	2.2	3.1	1.3	***4.7***
Phenols (4AAP)	mg/L	0.001			0.001	0.001	<0.002	<0.001	<0.001	<0.001	0.002	0.001	<0.002	<0.002	<0.001	<0.001	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	19	10	63	7	6	10	17	9	11	10	15	11	10
Ammonia as N	mg/L	0.01			0.8	0.9	0.9	0.9	0.5	0.9	0.7	0.9	0.95	0.96	0.7	0.99	0.99
Nitrate (as N)	mg/L	0.05		**10**	<0.06	0.06	<0.06	<0.06	<0.06	0.18	0.13	<0.06	0.07	<0.05	<0.05	<0.05	<0.05
Total Kjeldahl Nitrogen	mg/L	0.1			0.9	0.9	1.1	0.9	<0.5	1	0.6	0.8	1	1.1	1	1.1	-
Electrical Conductivity (Lab)	µS/cm	1			560	628	658	603	465	584	520	547	659	633	578	568	672
pH (Lab)	-	0.05		**6.5-8.5**	8.09	7.99	7.91	7.63	8.09	8.1	7.76	7.77	7.81	7.8	7.56	7.87	7.58
DO (Field)	mg/L				-	-	-	-	4	5.7	-	6.4	1.55	7.98	5.38	8.75	2.77
Redox (Field)	mV				-	-	-	-	-93	-122	-	-60	136	15	114	-148	-80
Temperature (Field)	°C				-	-	-	-	9.1	12.5	15.1	4.9	7.7	9	9.1	13.7	8.5
Conductivity (field)	µS/cm				-	-	-	-	345	528	-	350	672	286	527	644	23
pH (Field)	-			**6.5-8.5**	-	-	-	-	7.8	7.7	7.6	8.3	7.26	7.37	7.13	7.33	**6.47**

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW11-2	MW11-2	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1
				Date	29 Oct 2024	15 Oct 2025	24 May 2012	24 Oct 2012	18 Jun 2013	05 Nov 2013	26 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	31 May 2016	01 Nov 2016	04 Oct 2017
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.1	<0.1	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	***566***	***532***	***565***	***729***	***574***	***739***	***597***	***869***	***664***	***801***	***569***	***723***	152
Boron (filtered)	µg/L	2	***2,535***	**5,000**	128	125	118	133	91.6	116	99.4	180	110	136	128	153	83
Calcium (filtered)	µg/L	10			113,000	105,000	112,000	90,100	113,000	89,800	113,000	96,900	99,700	87,200	109,000	102,000	122,000
Chloride	µg/L	200		**250,000**	39,800	40,700	49,000	39,000	50,000	30,000	50,000	33,000	39,000	42,000	53,000	42,000	54,000
Iron (filtered)	µg/L	3	***153***	**300**	***3,010***	***2,850***	<3	3	8	4	4	<2	<2	11	11	20	18
Magnesium (filtered)	µg/L	1			10,500	10,400	11,500	12,100	11,000	11,900	11,700	12,600	12,200	12,700	12,600	11,800	6,760
Manganese (filtered)	µg/L	0.01	***26***	**50**	***32***	***31***	-	-	-	-	-	3.63	3.29	6.36	4.53	4.94	15.6
Phosphorus (filtered)	µg/L	10			<100	20	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			2,700	2,600	-	-	-	-	-	3,700	3,080	3,240	3,410	3,290	2,100
Sodium (filtered)	µg/L	10		**200,000**	7,000	7,200	9,970	8,330	11,100	8,290	11,300	8,740	10,600	8,640	10,600	11,200	12,300
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	258	265	264	227	262	233	273	255	271	262	272	250	283
Total Dissolved Solids	mg/L	3		**500**	329	325	430	343	423	337	354	343	420	357	363	360	460
Chemical Oxygen Demand	mg/L	5			<5	6	<8	12	12	17	<8	12	13	12	8	9	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	326	304	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	2.8	***4.3***	1.4	1.6	1.4	<1	2.7	***3.7***	-	-	-	-	-
Phenols (4AAP)	mg/L	0.001			<0.001	0.001	-	-	-	-	-	-	0.002	<0.002	0.002	<0.001	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	7	7	23	15	24	21	21	23	22	25	19	20	24
Ammonia as N	mg/L	0.01			0.98	0.85	0.2	0.2	0.2	<0.1	0.3	0.1	0.1	0.2	0.1	0.1	0.1
Nitrate (as N)	mg/L	0.05		**10**	<0.05	<0.05	<0.05	<0.05	0.17	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.18	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			1	1	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Electrical Conductivity (Lab)	µS/cm	1			633	626	680	590	692	592	692	589	618	608	695	616	710
pH (Lab)	-	0.05		**6.5-8.5**	7.88	7.92	7.85	7.86	7.92	8.23	7.98	8.13	7.99	7.97	8.04	7.86	7.8
DO (Field)	mg/L				1.48	3.85	-	-	-	-	-	-	-	-	-	-	-
Redox (Field)	mV				-110	-111	-	-	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C				10.2	10.9	-	-	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				498	676	-	-	-	-	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	7.14	7	-	-	-	-	-	-	-	-	-	-	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW13-1	MW13-1
				Date	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	24 May 2012	24 Oct 2012
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	0.8	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-
Barium (filtered)	µg/L	0.02	***423***	**1,000**	***713***	230	***621***	311	***743***	***994***	***694***	***1,080***	***1,010***	***1,050***	***850***	118	122
Boron (filtered)	µg/L	2	***2,535***	**5,000**	104	99	106	110	121	156	118	167	151	170	160	16.7	28.7
Calcium (filtered)	µg/L	10			126,000	117,000	115,000	113,000	116,000	106,000	109,000	93,500	87,900	92,800	87,800	115,000	105,000
Chloride	µg/L	200		**250,000**	51,000	44,000	55,000	44,000	40,700	39,400	41,300	37,500	36,300	39,100	35,000	120,000	71,000
Iron (filtered)	µg/L	3	***153***	**300**	10	19	20	24	<5	<5	<5	15	<5	27	8	<3	<3
Magnesium (filtered)	µg/L	1			11,500	7,580	12,900	9,820	13,400	14,300	12,400	15,200	13,900	15,700	14,100	3,500	3,210
Manganese (filtered)	µg/L	0.01	***26***	**50**	3.52	20.1	5.18	16.4	3	3	3	10	3	4	2	-	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	30	<100	50	<100	<10	-	-
Potassium (filtered)	µg/L	2			3,280	2,250	3,340	2,780	3,100	3,500	3,300	3,400	3,200	3,800	3,400	-	-
Sodium (filtered)	µg/L	10		**200,000**	13,700	12,000	16,900	11,200	11,700	10,600	13,600	9,500	7,700	9,100	9,200	62,200	49,200
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	284	265	278	253	271	241	254	241	254	237	248	274	267
Total Dissolved Solids	mg/L	3		**500**	403	403	397	351	338	336	353	321	320	325	320	**620**	483
Chemical Oxygen Demand	mg/L	5			<8	<8	<8	<8	7	13	6	8	9	8	9	25	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	345	325	323	296	277	297	278	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	-	-	-	-	2.2	1.9	2.3	0.7	2.8	1.9	3.1	2.4	1.4
Phenols (4AAP)	mg/L	0.001			<0.001	<0.001	0.002	<0.001	0.004	0.006	0.002	<0.001	<0.001	<0.001	0.003	-	-
Sulphate (filtered)	mg/L	0.2		**500**	22	28	23	25	20	26	23	25	28	27	28	9.8	21
Ammonia as N	mg/L	0.01			0.1	<0.1	<0.1	0.1	0.14	0.16	0.14	0.16	0.16	0.19	0.15	<0.1	<0.1
Nitrate (as N)	mg/L	0.05		**10**	<0.06	<0.06	<0.06	<0.06	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	1.09	1.31
Total Kjeldahl Nitrogen	mg/L	0.1			<0.5	<0.5	<0.5	<0.5	0.2	0.2	0.2	0.2	-	0.3	0.2	-	-
Electrical Conductivity (Lab)	µS/cm	1			675	649	684	595	650	647	680	618	617	627	616	1,000	801
pH (Lab)	-	0.05		**6.5-8.5**	7.42	7.92	7.71	7.91	7.85	7.91	7.56	7.76	7.38	7.8	7.8	7.79	7.86
DO (Field)	mg/L				3	5.9	-	6.5	2.83	3.6	2.29	2.96	2.91	1.31	4.92	-	-
Redox (Field)	mV				-92	-149	-	-128	-38	11	175	-141	-163	-263	156	-	-
Temperature (Field)	°C				8.5	9.9	14.4	8.6	9.4	9.4	7.2	10.8	9.4	9.9	9.4	-	-
Conductivity (field)	µS/cm				457	477	-	388	651	280	589	586	584	451	536	-	-
pH (Field)	-			**6.5-8.5**	7.6	7.6	7.3	8.1	7.2	7.45	7.08	7.37	6.97	7.33	6.87	-	-

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1
				Date	18 Jun 2013	05 Nov 2013	26 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	31 May 2016	01 Nov 2016	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	92.1	77.8	118	80.5	119	83.9	84.2	138	147	118	82.4	110	71.6
Boron (filtered)	µg/L	2	***2,535***	**5,000**	18.6	15.5	19.0	42.3	20.7	28.3	21	42	42	21	19	17	23
Calcium (filtered)	µg/L	10			98,300	81,700	110,000	88,800	114,000	88,300	91,700	119,000	117,000	132,000	96,500	108,000	79,100
Chloride	µg/L	200		**250,000**	63,000	21,000	100,000	15,000	110,000	18,000	86,000	100,000	140,000	57,000	21,000	140,000	21,000
Iron (filtered)	µg/L	3	***153***	**300**	6	<3	<2	<2	***283***	7	<7	<7	<7	<7	<7.00000	<7	<7
Magnesium (filtered)	µg/L	1			2,710	2,340	3,040	2,480	3,190	2,550	2,600	3,440	3,340	3,110	2,590	3,020	2,220
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	-	-	0.16	3.15	0.21	0.08	0.06	0.1	0.15	0.13	0.07	0.12
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	2,130	2,020	1,740	1,970	2,700	3,000	1,880	2,240	2,510	2,160
Sodium (filtered)	µg/L	10		**200,000**	29,600	17,800	51,200	21,100	67,300	21,400	33,000	74,900	87,600	38,200	28,400	70,300	34,000
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	235	246	267	257	272	262	270	276	290	249	250	251	245
Total Dissolved Solids	mg/L	3		**500**	374	283	469	283	**517**	320	463	491	**566**	394	286	**503**	294
Chemical Oxygen Demand	mg/L	5			<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8.0	8	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	2.1	2.1	3.1	***3.9***	1.5	2.5	2.0	<1	3	-	1	2	1
Phenols (4AAP)	mg/L	0.001			-	-	-	-	<0.002	-	0.003	-	-	0.003	-	<0.002	-
Sulphate (filtered)	mg/L	0.2		**500**	9.3	6.0	7.8	6.4	11	8	9	19	21	10	8	10	7
Ammonia as N	mg/L	0.01			<0.1	<0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1000	<0.1	<0.1
Nitrate (as N)	mg/L	0.05		**10**	1.81	0.37	0.63	0.27	1.56	0.24	1.12	1.56	-	2.42	0.26	<0.06	0.35
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	-	<0.5	-	<0.5	-	-	<0.5	-	<0.5	-
Electrical Conductivity (Lab)	µS/cm	1			682	521	878	516	884	558	859	917	1,020	628	534	884	517
pH (Lab)	-	0.05		**6.5-8.5**	7.95	8.20	8.02	8.18	7.99	8.04	7.99	7.96	7.83	8.1	7.89	7.77	7.76
DO (Field)	mg/L				-	-	-	-	-	-	-	-	-	9.9	10.3	-	8.2
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	158	13	-	28
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	9.1	9.6	12.8	12.8
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	385	652	-	370
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	-	-	7.9	7.8	7.3	7.6

Table 5 - Groundwater Quality - Shallow Bedrock

				Location Code	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1
				Date	28 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025
	Unit	EQL	***RUC***	**ODWQS**							
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.1
Barium (filtered)	µg/L	0.02	***423***	**1,000**	132	138	117	121	121	126	107
Boron (filtered)	µg/L	2	***2,535***	**5,000**	20	23	13	24	26	34	36
Calcium (filtered)	µg/L	10			114,000	125,000	124,000	104,000	103,000	115,000	96,400
Chloride	µg/L	200		**250,000**	124,000	115,000	105,000	102,000	102,000	123,000	76,200
Iron (filtered)	µg/L	3	***153***	**300**	<5	<5	<5	<5	<5	6	<5
Magnesium (filtered)	µg/L	1			3,270	3,500	3,640	3,410	2,910	3,540	3,130
Manganese (filtered)	µg/L	0.01	***26***	**50**	<1	<1	<1	1	<1	<1	<1
Phosphorus (filtered)	µg/L	10			-	-	30	<100	70	<100	22,000
Potassium (filtered)	µg/L	2			2,600	2,600	1,900	2,900	2,300	2,700	2,400
Sodium (filtered)	µg/L	10		**200,000**	91,500	87,000	53,900	84,700	70,500	82,900	57,900
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	262	309	243	277	315	290	273
Total Dissolved Solids	mg/L	3		**500**	484	**532**	463	474	486	**515**	407
Chemical Oxygen Demand	mg/L	5			17	56	<5	5	<5	9	13
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	298	328	325	274	269	303	254
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	2.4	2	1.6	0.4	3.3	2.6	***4***
Phenols (4AAP)	mg/L	0.001			<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	0.002
Sulphate (filtered)	mg/L	0.2		**500**	11	11	12	15	16	12	12
Ammonia as N	mg/L	0.01			<0.01	<0.01	<0.01	0.03	<0.05	<0.05	<0.05
Nitrate (as N)	mg/L	0.05		**10**	0.9	2.55	3.35	1.42	1.92	1.8	2.32
Total Kjeldahl Nitrogen	mg/L	0.1			0.2	-	0.2	0.2	-	0.2	0.3
Electrical Conductivity (Lab)	µS/cm	1			913	998	875	895	916	967	776
pH (Lab)	-	0.05		**6.5-8.5**	7.73	7.64	7.53	7.68	7.49	7.87	7.89
DO (Field)	mg/L				7.01	5.2	8.75	5.93	8.76	4.01	9.11
Redox (Field)	mV				135	57	48	-142	-29	54	86
Temperature (Field)	°C				10.1	10.6	6.7	11.7	9.1	10.9	10.3
Conductivity (field)	µS/cm				848	412	765	337	858	714	756
pH (Field)	-			**6.5-8.5**	7.23	7	7	7.27	7.04	7.23	6.84

Table 6 - Groundwater Quality Deep Bedrock

				Location Code	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1
				Date	18 May 2012	09 Oct 2012	10 Jun 2013	05 Nov 2013	26 Jun 2014	06 Nov 2014	22 May 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	-	-	-	-	0.3	<0.2	3.5	0.9	2.1	0.6	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	118	112	103	110	107	103	101	110	97.8	122	105	106	106
Boron (filtered)	µg/L	2	***2,535***	**5,000**	92.1	86.6	92.7	80.4	92.6	76.0	82.0	128	91	116	105	114	102
Calcium (filtered)	µg/L	10			112,000	108,000	94,300	103,000	100,000	106,000	103,000	118,000	110,000	115,000	108,000	125,000	121,000
Chloride	µg/L	200		**250,000**	65,000	69,000	74,000	71,000	75,000	75,000	71,000	71,000	70,000	78,000	79,000	83,000	78,000
Iron (filtered)	µg/L	3	***153***	**300**	41	***531***	***1,200***	***250***	***3,030***	***184***	28	***3,890***	***1,040***	***3,820***	***881***	16	18
Magnesium (filtered)	µg/L	1			9,260	9,150	9,240	9,030	11,300	9,620	9,820	10,500	10,100	11,600	11,200	11,700	11,300
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	-	-	-	-	***30.6***	9.63	***190***	***97.7***	***188***	***156***	5.23	***83.7***
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	-	-	3,840	3,200	3,490	3,220	3,810	3,410	3,770	3,640
Sodium (filtered)	µg/L	10		**200,000**	43,800	42,600	39,400	42,000	45,100	46,600	44,500	48,400	43,800	45,500	44,200	48,400	45,900
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	298	290	281	274	309	309	304	314	299	313	294	284	274
Total Dissolved Solids	mg/L	3		**500**	454	471	426	434	440	457	440	437	457	454	460	489	454
Chemical Oxygen Demand	mg/L	5			13	9	<8	<8	<8	<8	13	9	<8	<8	8	<8	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	1.8	1.5	2.5	3.1	2.7	2.8	<1	2.0	***4***	1	2	-	<1
Phenols (4AAP)	mg/L	0.001			-	-	-	-	-	-	<0.002	0.004	-	0.006	-	0.001	-
Sulphate (filtered)	mg/L	0.2		**500**	16	17	16	18	15	16	17	15	13	15	16	18	19
Ammonia as N	mg/L	0.01			<0.1	<0.1	<0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.2
Nitrate (as N)	mg/L	0.05		**10**	0.26	0.08	0.16	0.06	0.09	<0.06	0.25	0.08	0.13	<0.06	-	<0.06	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	-	-	-	<0.5	<0.5	-	0.5	-	<0.5	-
Electrical Conductivity (Lab)	µS/cm	1			784	820	784	771	793	791	788	816	824	792	814	795	801
pH (Lab)	-	0.05		**6.5-8.5**	7.89	8.02	7.96	8.16	7.50	8.09	7.92	8.07	7.99	7.83	7.83	7.53	7.94
DO (Field)	mg/L				-	-	-	-	-	-	-	-	-	-	-	4.8	3.7
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	-	-	198	21
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	-	-	9.2	12.2
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	-	-	570	695
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	-	-	-	-	7.7	**6.4**

Table 6 - Groundwater Quality Deep Bedrock

				Location Code	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW09-1	MW09-1	MW09-1	MW09-1
				Date	26 May 2020	18 Nov 2020	28 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	18 May 2012	09 Oct 2012	10 Jun 2013	05 Nov 2013
	Unit	EQL	*RUC*	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	<0.2	0.4	0.3	0.3	0.3	0.2	0.2	0.3	-	-	-	-
Barium (filtered)	µg/L	0.02	***423***	**1,000**	94.8	97.6	109	119	109	153	168	146	128	***985***	***1,010***	192	***936***
Boron (filtered)	µg/L	2	***2,535***	**5,000**	101	99	79	63	43	42	53	36	39	558	523	29.0	472
Calcium (filtered)	µg/L	10			105,000	111,000	115,000	118,000	106,000	117,000	109,000	116,000	106,000	48,300	49,900	83,600	49,600
Chloride	µg/L	200		**250,000**	86,000	85,000	84,100	72,100	69,400	73,700	81,500	77,600	67,500	12,000	12,000	49,000	13,000
Iron (filtered)	µg/L	3	***153***	**300**	17	19	10	***885***	30	52	***222***	<5	9	<3	<3	***372***	<3
Magnesium (filtered)	µg/L	1			12,000	11,400	10,200	8,050	6,100	5,670	5,410	4,570	4,760	21,600	21,200	3,840	19,900
Manganese (filtered)	µg/L	0.01	***26***	**50**	4.05	***56.4***	17	***260***	11	21	***85***	5	6	-	-	-	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	180	<100	70	<100	<10	-	-	-	-
Potassium (filtered)	µg/L	2			3,150	3,580	3,000	2,900	2,300	2,200	2,000	2,200	2,000	-	-	-	-
Sodium (filtered)	µg/L	10		**200,000**	52,100	48,500	53,400	49,700	46,100	51,300	45,300	52,500	44,300	49,100	47,000	29,600	43,700
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	290	287	273	277	271	283	314	298	297	274	282	240	266
Total Dissolved Solids	mg/L	3		**500**	451	440	433	408	405	417	445	442	407	346	357	337	383
Chemical Oxygen Demand	mg/L	5			<8	<8	<5	16	13	6	<5	9	10	41	51	10	41
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	329	328	290	315	295	309	285	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	2	1	2.8	2.2	2.9	0.8	***3.9***	2.5	***4.5***	<1	<1	3.5	1.8
Phenols (4AAP)	mg/L	0.001			<0.002	-	<0.002	<0.002	<0.001	<0.001	0.003	<0.001	<0.001	-	-	-	-
Sulphate (filtered)	mg/L	0.2		**500**	19	18	20	12	13	14	15	13	13	7.2	3.6	8.6	9.4
Ammonia as N	mg/L	0.01			<0.1	<0.1	0.02	0.01	0.03	0.04	<0.05	<0.05	<0.05	0.7	0.7	<0.1	0.6
Nitrate (as N)	mg/L	0.05		**10**	<0.06	<0.06	0.22	0.46	0.23	0.32	1.09	0.83	0.85	<0.05	<0.05	<0.06	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			<0.5	-	0.2	-	0.4	0.3	-	0.2	0.2	-	-	-	-
Electrical Conductivity (Lab)	µS/cm	1			794	791	822	778	774	795	843	839	776	608	606	617	602
pH (Lab)	-	0.05		**6.5-8.5**	7.84	7.73	7.77	7.92	7.61	7.8	7.45	7.87	7.79	8.02	8.41	7.92	8.21
DO (Field)	mg/L				-	7.7	3.15	2.3	3.23	1.88	8.61	2.1	4.17	-	-	-	-
Redox (Field)	mV				-	119	221	-72	-70	-135	-38	47	140	-	-	-	-
Temperature (Field)	°C				15.2	5.8	11.1	9	9.8	11	9.5	9.7	10.2	-	-	-	-
Conductivity (field)	µS/cm				-	460	792	335	626	776	783	596	713	-	-	-	-
pH (Field)	-			**6.5-8.5**	7.7	8.4	7.04	7.24	7.12	7.09	7	6.96	7.11	-	-	-	-

Table 6 - Groundwater Quality Deep Bedrock

Location Code					MW09-1	MW09-1	MW09-1	MW09-1	MW09-1	MW09-1	MW09-1	MW09-1	MW09-1	MW09-1	MW09-1	MW09-1	MW09-1
Date					02 Jul 2014	22 May 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	28 Jun 2021	11 Nov 2021	12 Apr 2022
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	0.1
Barium (filtered)	µg/L	0.02	***423***	**1,000**	***875***	***742***	177	***708***	***662***	***772***	***688***	***570***	***689***	***612***	***768***	***897***	141
Boron (filtered)	µg/L	2	***2,535***	**5,000**	492	526	541	533	571	549	590	491	531	468	571	569	19
Calcium (filtered)	µg/L	10			46,200	46,100	40,900	49,700	54,600	56,900	58,700	55,700	53,000	57,500	51,600	53,700	90,900
Chloride	µg/L	200		**250,000**	13,000	24,000	17,000	24,000	18,000	28,000	16,000	18,000	16,000	15,000	15,200	16,200	20,500
Iron (filtered)	µg/L	3	***153***	**300**	4	<2	33	8	16	9	<7	8	15	<7	40	<5	37
Magnesium (filtered)	µg/L	1			20,600	21,500	18,500	20,600	20,600	22,000	22,700	18,900	24,400	20,800	22,900	22,100	3,430
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	***92.6***	***66.3***	***83.0***	***91.6***	***90.4***	***82***	***70***	***69.9***	***58.3***	***64***	***41***	2
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	10
Potassium (filtered)	µg/L	2			-	5,290	4,870	5,170	5,410	5,380	6,170	5,320	5,330	5,420	5,400	5,600	1,800
Sodium (filtered)	µg/L	10		**200,000**	49,500	50,000	46,500	50,200	48,100	50,000	51,700	42,600	56,200	47,000	54,400	52,500	32,200
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	252	280	252	276	278	292	271	241	258	335	236	239	250
Total Dissolved Solids	mg/L	3		**500**	386	366	363	369	354	366	391	323	337	320	315	326	296
Chemical Oxygen Demand	mg/L	5			33	37	8	16	34	34	34	24	37	35	33	35	<5
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	223	225	241
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	1.0	<1	1.5	3	1	2	-	<1	1	1	2.6	1.8	3.5
Phenols (4AAP)	mg/L	0.001			-	<0.002	0.004	-	<0.002	-	<0.001	-	0.003	-	0.009	0.013	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	38	23	66	47	39	53	41	42	63	66	55	46	7
Ammonia as N	mg/L	0.01			1.0	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.6	0.7	0.65	0.64	<0.01
Nitrate (as N)	mg/L	0.05		**10**	0.18	0.06	0.46	<0.06	<0.06	-	<0.06	<0.06	<0.06	<0.06	<0.05	<0.05	0.17
Total Kjeldahl Nitrogen	mg/L	0.1			-	0.9	0.6	-	0.6	-	0.5	-	0.6	-	0.7	-	0.2
Electrical Conductivity (Lab)	µS/cm	1			590	593	617	619	622	617	605	561	592	598	607	628	571
pH (Lab)	-	0.05		**6.5-8.5**	8.00	8.19	8.17	8.17	7.97	8.02	7.41	7.23	7.73	8.24	7.84	7.82	7.46
DO (Field)	mg/L				-	-	-	-	-	-	3.7	2.8	-	3.7	6.1	3.33	1.25
Redox (Field)	mV				-	-	-	-	-	-	-195	-220	-	-288	119	-96	-
Temperature (Field)	°C				-	-	-	-	-	-	10.5	13.2	14.8	7.3	10.8	9.4	6.8
Conductivity (field)	µS/cm				-	-	-	-	-	-	420	533	-	361	622	271	498
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	7.9	7.6	7.5	7.7	7.83	7.82	7.46

Table 6 - Groundwater Quality Deep Bedrock

				Location Code	MW09-1	MW09-1	MW09-1	MW09-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1
				Date	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	18 May 2012	09 Oct 2012	10 Jun 2013	05 Nov 2013	26 Jun 2014	22 May 2015	30 May 2016	31 Oct 2016	31 May 2017
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	***914***	***652***	***579***	***913***	***986***	***917***	***838***	***802***	***749***	***725***	***798***	***768***	***825***
Boron (filtered)	µg/L	2	***2,535***	**5,000**	615	470	583	620	143	158	177	182	179	219	278	277	227
Calcium (filtered)	µg/L	10			50,800	39,400	47,600	45,400	102,000	100,000	85,600	82,500	84,300	83,900	87,600	83,900	95,500
Chloride	µg/L	200		**250,000**	14,900	15,100	16,300	16,300	48,000	46,000	51,000	47,000	49,000	50,000	47,000	47,000	48,000
Iron (filtered)	µg/L	3	***153***	**300**	<5	15	19	5	36	7	8	5	20	***380***	***369***	19	30
Magnesium (filtered)	µg/L	1			22,500	17,900	22,600	23,700	14,100	16,000	15,100	17,700	18,500	19,500	20,700	21,200	18,100
Manganese (filtered)	µg/L	0.01	***26***	**50**	***50***	***69***	***46***	***46***	-	-	-	-	-	***102***	***116***	***127***	***138***
Phosphorus (filtered)	µg/L	10			<100	60	<100	<10	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			5,700	4,400	5,700	5,800	-	-	-	-	-	3,890	4,390	4,080	3,890
Sodium (filtered)	µg/L	10		**200,000**	55,700	39,000	52,300	53,000	9,600	10,100	10,800	11,300	11,800	12,000	14,200	13,600	11,400
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	268	238	257	276	237	234	234	227	243	243	222	238	243
Total Dissolved Solids	mg/L	3		**500**	322	304	328	328	389	389	420	354	349	389	391	369	369
Chemical Oxygen Demand	mg/L	5			57	50	49	39	12	12	<8	11	<8	13	<8	<8	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	220	172	212	211	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	0.9	3.3	2.1	3.4	1.0	<1	2.7	<1	1.8	1.7	1.3	3	<1
Phenols (4AAP)	mg/L	0.001			0.016	0.032	0.028	0.01	-	-	-	-	-	<0.002	0.006	-	<0.002
Sulphate (filtered)	mg/L	0.2		**500**	44	64	53	46	18	19	18	19	17	20	26	24	23
Ammonia as N	mg/L	0.01			0.63	0.6	0.7	0.66	0.2	0.2	0.2	0.1	0.2	<0.1	<0.1	0.2	0.2
Nitrate (as N)	mg/L	0.05		**10**	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.06	<0.06	0.18	<0.06	<0.06	<0.06	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			0.8	-	0.8	0.7	-	-	-	-	-	<0.5	<0.5	-	<0.5
Electrical Conductivity (Lab)	µS/cm	1			621	587	631	632	633	653	638	610	625	629	624	629	617
pH (Lab)	-	0.05		**6.5-8.5**	7.98	7.41	8.01	7.95	7.96	8.13	7.97	8.33	7.69	8.02	8.16	7.99	7.84
DO (Field)	mg/L				5.57	1.31	5.75	4.75	-	-	-	-	-	-	-	-	-
Redox (Field)	mV				-139	-241	-233	-248	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C				13.6	8.5	9.9	10.6	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				560	585	441	584	-	-	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	7.87	7.19	7.75	7.66	-	-	-	-	-	-	-	-	-

Table 6 - Groundwater Quality Deep Bedrock

				Location Code	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW11-1
				Date	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	18 May 2012
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Barium (filtered)	µg/L	0.02	***423***	**1,000**	***823***	***839***	***803***	***848***	***662***	***944***	***888***	***980***	***929***	***984***	***1,070***	***991***	***915***
Boron (filtered)	µg/L	2	***2,535***	**5,000**	217	260	273	221	201	184	193	150	169	158	179	172	589
Calcium (filtered)	µg/L	10			98,400	103,000	91,900	90,900	96,300	105,000	98,500	103,000	86,900	96,500	101,000	91,500	70,400
Chloride	µg/L	200		**250,000**	53,000	51,000	49,000	53,000	51,000	54,200	48,400	45,100	38,000	47,700	48,000	47,900	26,000
Iron (filtered)	µg/L	3	***153***	**300**	10	85	14	48	23	18	17	26	<5	<5	9	<5	22
Magnesium (filtered)	µg/L	1			18,300	20,700	20,500	21,500	20,100	17,700	17,400	14,500	12,100	13,400	14,900	14,200	32,000
Manganese (filtered)	µg/L	0.01	***26***	**50**	***137***	***173***	***136***	***119***	***124***	***62***	***102***	26	10	13	15	9	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	<10	<100	60	<100	<10	-
Potassium (filtered)	µg/L	2			4,000	4,690	4,590	3,870	4,460	3,500	3,700	2,900	2,900	3,000	3,500	3,300	-
Sodium (filtered)	µg/L	10		**200,000**	11,600	13,200	13,000	14,100	12,900	11,200	11,500	9,200	7,900	7,800	9,700	9,100	19,900
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	223	245	232	233	241	251	236	238	241	262	241	254	288
Total Dissolved Solids	mg/L	3		**500**	414	400	334	377	351	336	337	339	320	336	335	336	406
Chemical Oxygen Demand	mg/L	5			8	<8	<8	<8	<8	<5	10	<5	8	10	15	8	14
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	335	317	317	267	296	314	287	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	1	-	<1	1	1	2.8	1.4	2	1.1	***4.1***	2	3.5	1.6
Phenols (4AAP)	mg/L	0.001			-	0.002	-	<0.002	-	<0.002	0.002	0.003	0.003	<0.001	<0.001	0.003	-
Sulphate (filtered)	mg/L	0.2		**500**	31	25	23	25	25	23	20	19	20	21	21	21	36
Ammonia as N	mg/L	0.01			0.3	0.2	0.2	0.2	0.3	0.15	0.18	0.15	0.18	0.17	0.2	0.16	0.9
Nitrate (as N)	mg/L	0.05		**10**	-	<0.06	<0.06	<0.06	<0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Kjeldahl Nitrogen	mg/L	0.1			-	<0.5	-	<0.5	-	0.1	-	0.2	0.3	-	0.4	0.2	-
Electrical Conductivity (Lab)	µS/cm	1			643	616	608	623	631	648	649	653	616	647	646	648	674
pH (Lab)	-	0.05		**6.5-8.5**	7.77	7.74	8.16	7.8	7.91	7.76	7.8	7.54	7.85	7.37	8.05	7.87	8.14
DO (Field)	mg/L				-	4	3.6	-	3.4	2.59	2.07	2	1.06	3.44	2.93	5.08	-
Redox (Field)	mV				-	-70	-126	-	-238	-118	15	-172	-146	-99	-59	-152	-
Temperature (Field)	°C				-	10.2	13.2	14.1	6.6	8.9	9.4	9.1	12	9.4	11.0	10.9	-
Conductivity (field)	µS/cm				-	447	556	-	373	648	284	564	545	42	465	647	-
pH (Field)	-			**6.5-8.5**	-	7.8	7.5	7.7	8.1	8.15	7.32	6.98	7.37	**6.14**	7.55	**6.48**	-

Table 6 - Groundwater Quality Deep Bedrock

				Location Code	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1
				Date	09 Oct 2012	10 Jun 2013	05 Nov 2013	26 Jun 2014	22 May 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	***592***	349	***452***	***1,160***	***473***	199	***430***	***452***	***434***	***460***	***446***	***683***	***1,740***
Boron (filtered)	µg/L	2	***2,535***	**5,000**	568	484	404	603	547	655	715	145	511	362	396	331	438
Calcium (filtered)	µg/L	10			70,600	71,200	72,700	68,600	71,800	77,500	69,900	105,000	99,900	101,000	90,600	90,300	101,000
Chloride	µg/L	200		**250,000**	29,000	30,000	32,000	25,000	31,000	30,000	38,000	28,000	33,000	29,000	35,000	34,000	28,000
Iron (filtered)	µg/L	3	***153***	**300**	18	14	9	4	<2	30	<7	***3,840***	16	42	19	14	<7
Magnesium (filtered)	µg/L	1			31,100	28,100	26,800	34,100	30,000	30,100	34,700	10,500	25,800	19,400	20,700	22,800	27,300
Manganese (filtered)	µg/L	0.01	***26***	**50**	-	-	-	-	***103***	***103***	***86.3***	***40.4***	***86.4***	***62.9***	***85.3***	***68***	***64.3***
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	-	5,110	5,350	5,530	2,670	4,600	4,260	4,230	3,880	5,000
Sodium (filtered)	µg/L	10		**200,000**	18,200	16,800	15,200	20,200	17,600	18,800	20,400	10,400	14,600	12,600	12,300	14,700	15,900
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	262	247	254	245	265	268	294	261	263	260	248	241	290
Total Dissolved Solids	mg/L	3		**500**	409	409	371	417	411	426	391	349	409	400	334	391	346
Chemical Oxygen Demand	mg/L	5			<8	8	16	32	19	<8	13	<8	10	9	11	11	10
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	1.1	2.2	1.1	2.3	1.4	2.1	3	-	2	-	<1	2	<1
Phenols (4AAP)	mg/L	0.001			-	-	-	-	<0.002	0.003	-	0.002	-	<0.001	-	<0.002	-
Sulphate (filtered)	mg/L	0.2		**500**	47	45	45	28	53	65	69	10	54	37	29	43	64
Ammonia as N	mg/L	0.01			1.0	0.9	1.1	1.2	0.8	0.9	1.1	0.6	1	0.7	0.9	0.8	0.8
Nitrate (as N)	mg/L	0.05		**10**	<0.05	<0.06	<0.06	1.56	<0.06	0.20	0.07	<0.06	-	<0.06	<0.06	<0.06	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	-	1.5	0.9	-	0.8	-	0.5	-	0.9	-
Electrical Conductivity (Lab)	µS/cm	1			684	661	669	655	663	674	690	565	663	643	598	607	657
pH (Lab)	-	0.05		**6.5-8.5**	8.15	8.00	8.16	8.01	8.02	8.03	8.13	7.96	7.84	7.78	8.22	7.83	8.09
DO (Field)	mg/L				-	-	-	-	-	-	-	-	-	3.8	4.4	-	3.6
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	-95	-125	-	-235
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	9.5	12.9	14.5	6.2
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	435	589	-	386
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	-	-	7.8	7.7	7.7	8

Table 6 - Groundwater Quality Deep Bedrock

				Location Code	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2
				Date	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	24 May 2012	24 Oct 2012	18 Jun 2013	05 Nov 2013	26 Jun 2014	11 Nov 2014
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	***570***	***748***	***498***	***587***	***720***	***642***	***673***	261	288	275	234	268	276
Boron (filtered)	µg/L	2	***2,535***	**5,000**	610	442	446	395	413	360	370	401	414	403	288	430	494
Calcium (filtered)	µg/L	10			79,200	91,900	90,300	93,200	80,200	91,800	87,400	89,500	86,500	89,500	91,700	90,600	92,500
Chloride	µg/L	200		**250,000**	27,900	35,700	35,200	36,000	38,100	40,700	40,300	38,000	39,000	38,000	41,000	40,000	38,000
Iron (filtered)	µg/L	3	***153***	**300**	116	48	***232***	***172***	58	132	62	4	4	20	25	6	8
Magnesium (filtered)	µg/L	1			34,400	25,600	26,300	22,700	24,300	23,200	23,000	19,400	19,700	21,200	17,000	21,200	20,800
Manganese (filtered)	µg/L	0.01	***26***	**50**	***86***	***55***	***80***	***71***	***72***	***74***	***63***	-	-	-	-	-	***166***
Phosphorus (filtered)	µg/L	10			-	-	190	<100	130	<100	100	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			5,400	4,500	4,500	4,300	4,300	4,500	4,200	-	-	-	-	-	3,750
Sodium (filtered)	µg/L	10		**200,000**	19,800	15,800	16,100	14,300	13,000	13,500	13,400	29,300	30,300	32,900	26,300	35,600	33,000
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	271	243	253	260	279	257	265	276	258	273	267	270	283
Total Dissolved Solids	mg/L	3		**500**	346	360	369	353	361	360	359	420	420	403	431	440	440
Chemical Oxygen Demand	mg/L	5			65	58	45	19	28	20	32	26	15	14	11	10	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	339	335	334	326	300	325	313	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	3	2.3	2.5	1.4	***4.1***	2.6	***4.3***	1.4	<1	1.5	<1	1.9	***4.1***
Phenols (4AAP)	mg/L	0.001			<0.002	0.008	<0.001	<0.001	<0.001	0.001	0.002	-	-	-	-	-	-
Sulphate (filtered)	mg/L	0.2		**500**	62	49	51	41	47	43	46	46	53	53	47	58	66
Ammonia as N	mg/L	0.01			0.88	1.03	0.82	0.89	0.83	0.84	0.67	0.2	0.3	0.3	0.5	0.4	0.2
Nitrate (as N)	mg/L	0.05		**10**	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			1.6	-	1.4	1.4	-	1.1	1.1	-	-	-	-	-	-
Electrical Conductivity (Lab)	µS/cm	1			666	693	710	679	695	694	692	708	730	710	726	734	738
pH (Lab)	-	0.05		**6.5-8.5**	7.91	7.69	7.9	7.96	7.64	7.91	8	7.87	7.84	7.96	8.30	8.00	8.18
DO (Field)	mg/L				12.42	9.36	7.05	9.19	10.98	4.01	7.71	-	-	-	-	-	-
Redox (Field)	mV				5	15	-93	-149	132	-206	-137	-	-	-	-	-	-
Temperature (Field)	°C				8.3	9	9.4	14.4	7.2	9.6	10	-	-	-	-	-	-
Conductivity (field)	µS/cm				655	294	615	649	-	496	702	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	**8.76**	7.8	7.25	7.62	6.92	7.33	7.25	-	-	-	-	-	-

Table 6 - Groundwater Quality Deep Bedrock

				Location Code	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2
				Date	22 May 2015	19 Nov 2015	31 May 2016	01 Nov 2016	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.6	4.8	0.7	1.5
Barium (filtered)	µg/L	0.02	***423***	**1,000**	291	263	260	209	183	252	204	195	180	195	130	115	94
Boron (filtered)	µg/L	2	***2,535***	**5,000**	584	392	593	514	429	609	548	621	566	674	175	119	99
Calcium (filtered)	µg/L	10			86,300	84,500	95,100	91,600	96,100	111,000	115,000	82,300	86,000	78,000	102,000	100,000	104,000
Chloride	µg/L	200		**250,000**	37,000	42,000	37,000	39,000	41,000	38,000	37,000	34,000	32,000	32,200	43,200	39,500	43,800
Iron (filtered)	µg/L	3	***153***	**300**	<2	7	19	54	33	143	7	38	15	<5	***917***	12	***565***
Magnesium (filtered)	µg/L	1			24,100	22,100	22,700	20,900	21,500	24,700	26,800	31,200	27,000	29,100	18,800	15,800	13,500
Manganese (filtered)	µg/L	0.01	***26***	**50**	***147***	***146***	***127***	***181***	***164***	***139***	***148***	***110***	***96.81***	***114***	***292***	***214***	***269***
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	170	<100
Potassium (filtered)	µg/L	2			3,440	3,430	3,600	3,520	3,200	3,750	4,160	3,560	3,700	3,500	2,000	1,200	1,100
Sodium (filtered)	µg/L	10		**200,000**	35,000	33,200	38,100	37,000	36,700	41,400	45,700	47,900	39,000	46,800	45,700	32,000	25,600
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	291	276	284	270	264	294	285	303	291	300	284	263	273
Total Dissolved Solids	mg/L	3		**500**	460	429	414	440	457	463	417	394	431	399	390	371	365
Chemical Oxygen Demand	mg/L	5			8	13	<8	<8	<8	8	18	23	<8	16	98	11	80
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	-	-	-	-	315	331	315	316
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	1.1	1.2	1.5	<1	1	-	<1	1	1	***3.9***	1.6	2.3	0.9
Phenols (4AAP)	mg/L	0.001			<0.002	-	0.002	-	-	0.001	-	<0.002	-	<0.002	<0.002	<0.001	<0.001
Sulphate (filtered)	mg/L	0.2		**500**	64	61	68	72	71	72	78	75	80	79	33	42	25
Ammonia as N	mg/L	0.01			0.3	0.2	0.2	0.1	0.3	0.3	0.4	0.4	0.4	0.44	0.31	0.11	0.19
Nitrate (as N)	mg/L	0.05		**10**	0.06	<0.06	<0.06	0.10	-	<0.06	<0.06	<0.06	<0.06	0.06	<0.05	<0.05	0.23
Total Kjeldahl Nitrogen	mg/L	0.1			<0.5	-	<0.5	-	-	<0.5	-	<0.5	-	0.6	-	0.3	0.6
Electrical Conductivity (Lab)	µS/cm	1			736	742	746	758	750	740	730	732	708	763	746	714	703
pH (Lab)	-	0.05		**6.5-8.5**	8.01	8.04	7.49	7.85	8.03	7.62	7.95	7.73	7.79	7.92	7.93	7.69	7.81
DO (Field)	mg/L				-	-	-	-	-	4.1	6.5	-	5.4	6.76	5.98	8.49	9.05
Redox (Field)	mV				-	-	-	-	-	-55	-106	-	-151	-4	43	38	-139
Temperature (Field)	°C				-	-	-	-	-	9.1	9.2	12.9	10.3	8.1	8.9	6.8	10.2
Conductivity (field)	µS/cm				-	-	-	-	-	501	576	-	486	748	331	606	655
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	7.7	7.5	7.3	7.6	7.87	7.2	7.09	7.25

Table 6 - Groundwater Quality Deep Bedrock

				Location Code	MW12-2	MW12-2	MW12-2	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3
				Date	23 Oct 2023	29 Oct 2024	15 Oct 2025	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013	26 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	31 May 2016	01 Nov 2016
	Unit	EQL	***RUC***	**ODWQS**													
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	0.5	0.4	0.3	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02	***423***	**1,000**	83	69	59	115	45.4	44.7	41.6	93.6	33.8	35.0	48.2	55.0	48.6
Boron (filtered)	µg/L	2	***2,535***	**5,000**	78	87	85	39.8	74.4	71.0	62.3	76.4	126	136	84.9	101	108
Calcium (filtered)	µg/L	10			99,200	104,000	97,300	104,000	124,000	120,000	123,000	127,000	133,000	127,000	125,000	137,000	129,000
Chloride	µg/L	200		**250,000**	48,300	44,200	51,200	13,000	57,000	59,000	56,000	53,000	54,000	50,000	50,000	50,000	52,000
Iron (filtered)	µg/L	3	***153***	**300**	12	30	<5	3	***188***	6	***239***	14	78	4	***767***	<7	***368***
Magnesium (filtered)	µg/L	1			12,600	12,600	11,900	3,380	5,630	5,580	5,480	5,710	5,460	5,620	5,200	5,620	5,720
Manganese (filtered)	µg/L	0.01	***26***	**50**	***80***	***30***	8	-	-	-	-	-	***78.0***	9.02	***75.5***	0.65	***83.1***
Phosphorus (filtered)	µg/L	10			110	<100	80	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			1,000	1,200	1,100	-	-	-	-	-	1,930	1,710	1,640	1,780	1,850
Sodium (filtered)	µg/L	10		**200,000**	20,300	20,900	18,600	11,000	13,700	14,800	12,900	14,100	14,500	13,700	13,200	14,700	14,400
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	283	273	281	276	267	276	246	288	288	288	275	271	276
Total Dissolved Solids	mg/L	3		**500**	368	365	375	330	423	457	443	440	417	489	406	411	443
Chemical Oxygen Demand	mg/L	5			6	47	32	17	11	<8	<8	<8	<8	16	<8	<8	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	300	312	292	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	***3.7***	2.5	3.4	1.6	1.4	1.9	2.4	1.3	***4.5***	2.4	1.4	1.5	<1
Phenols (4AAP)	mg/L	0.001			<0.001	<0.001	0.002	-	-	-	-	-	-	<0.002	-	0.002	-
Sulphate (filtered)	mg/L	0.2		**500**	31	26	26	12	24	31	24	24	24	26	23	82	21
Ammonia as N	mg/L	0.01			<0.05	0.09	0.18	<0.1	0.3	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (as N)	mg/L	0.05		**10**	0.11	<0.05	<0.05	0.14	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.27
Total Kjeldahl Nitrogen	mg/L	0.1			-	0.3	0.2	-	-	-	-	-	-	<0.5	-	<0.5	-
Electrical Conductivity (Lab)	µS/cm	1			709	702	720	537	738	719	690	722	716	704	703	723	729
pH (Lab)	-	0.05		**6.5-8.5**	7.53	7.82	7.87	7.91	7.73	7.73	8.12	7.85	8.11	8.03	7.91	7.86	7.88
DO (Field)	mg/L				8.8	5.81	8.29	-	-	-	-	-	-	-	-	-	-
Redox (Field)	mV				-16	-57	126	-	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C				10.1	10.6	10.7	-	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				662	505	692	-	-	-	-	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	7.11	7.29	6.89	-	-	-	-	-	-	-	-	-	-

Table 6 - Groundwater Quality Deep Bedrock

				Location Code	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3	MW12-3
				Date	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025
	Unit	EQL	***RUC***	**ODWQS**												
Arsenic (filtered)	µg/L	0.1	***6.4***	**25**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Barium (filtered)	µg/L	0.02	***423***	**1,000**	29.1	39.9	66.4	34	29.2	31	30	33	58	32	28	47
Boron (filtered)	µg/L	2	***2,535***	**5,000**	79	90	143	77	69	83	83	87	88	72	82	88
Calcium (filtered)	µg/L	10			134,000	162,000	140,000	127,000	134,000	133,000	127,000	129,000	122,000	116,000	119,000	109,000
Chloride	µg/L	200		**250,000**	60,000	55,000	51,000	52,000	47,000	48,600	44,500	43,800	42,700	48,700	44,900	60,600
Iron (filtered)	µg/L	3	***153***	**300**	13	54	99	<7	56	19	44	21	<5	45	26	8
Magnesium (filtered)	µg/L	1			5,500	6,180	8,910	5,490	5,370	5,830	5,430	5,430	5,600	4,990	5,380	5,920
Manganese (filtered)	µg/L	0.01	***26***	**50**	11.1	14.5	***50.23***	***62.7***	19.3	***34***	24	***38***	9	16	9	4
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	100	<100	90	<100	40
Potassium (filtered)	µg/L	2			1,710	1,940	2,060	1,650	1,660	1,600	1,800	1,600	1,700	1,500	1,800	2,000
Sodium (filtered)	µg/L	10		**200,000**	14,400	15,700	18,800	16,100	13,200	16,000	16,200	16,900	15,600	13,200	15,200	15,400
Alkalinity (total) as CaCO3	mg/L	2	***395***	**500**	277	290	272	296	334	283	263	264	271	287	265	270
Total Dissolved Solids	mg/L	3		**500**	486	443	391	403	394	362	361	363	357	363	356	378
Chemical Oxygen Demand	mg/L	5			<8	<8	<8	<8	<8	<5	32	17	9	10	16	26
Hardness as (CaCO3) (filtered)	mg/L	0.02		**500**	-	-	-	-	-	356	340	345	328	311	321	296
Dissolved Organic Carbon (filtered)	mg/L	0.2	***3.6***	**5**	1	-	1	1	1	3.5	1.6	3.1	0.9	***5.3***	2.5	3.3
Phenols (4AAP)	mg/L	0.001			-	0.001	-	<0.002	-	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	0.001
Sulphate (filtered)	mg/L	0.2		**500**	25	26	24	23	21	23	23	22	23	22	21	25
Ammonia as N	mg/L	0.01			<0.1	<0.1	<0.1000	<0.1	<0.1	0.02	0.05	0.02	0.02	<0.05	<0.05	<0.05
Nitrate (as N)	mg/L	0.05		**10**	-	<0.06	<0.060000	<0.06	<0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Kjeldahl Nitrogen	mg/L	0.1			-	<0.5	-	<0.5	-	0.2	-	0.3	0.1	-	0.2	0.3
Electrical Conductivity (Lab)	µS/cm	1			737	711	694	681	663	696	694	699	687	698	686	726
pH (Lab)	-	0.05		**6.5-8.5**	7.77	8.06	7.75	7.68	7.7	7.75	7.72	7.54	7.71	7.38	7.79	7.76
DO (Field)	mg/L				-	5.7	10.8	-	4.5	3.52	2.63	1.99	2.07	2.61	1.17	3.48
Redox (Field)	mV				-	147	-51	-	-59	-5	12	-50	-139	-41	-210	-78
Temperature (Field)	°C				-	10.1	9.5	14.1	9.6	7.2	8.7	7.3	10.6	8.5	8.6	8.2
Conductivity (field)	µS/cm				-	510	572	-	446	694	300	610	564	664	477	762
pH (Field)	-			**6.5-8.5**	-	7.7	7.7	7.4	7.5	7.48	7.15	**6.34**	7.12	6.92	6.85	6.77

Table 7 - Groundwater Quality - VOCs

			Location Code	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-1	MW01-2	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1
			Date	22 May 2015	30 May 2016	31 May 2017	26 May 2020	24 Jun 2021	12 Apr 2022	12 Apr 2022	01 Nov 2011	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015
	Unit	EQL	ODWQS															
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.91	<0.5	<0.5	1.9	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	-	<0.2	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	-	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	-	<5	-	-	-	-	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	µg/L	2		<5	-	<5	-	-	-	-	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		<0.2	-	<0.2	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	-	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	-	<5	-	-	-	-	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-1	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2
			Date	19 Nov 2015	30 May 2016	01 Nov 2016	04 Oct 2017	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	01 Nov 2011	24 May 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014
	Unit	EQL	ODWQS																
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.68	<0.5	<0.5	<0.5	1.8	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1.1	<1.1	<1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	30		-	-	-	-	-	-	-	<30	<30	<30	-	-	-	-	-	-
Bromoform	µg/L	0.5		0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	<5	<5	<5	<5	<5	<3	<3	<3	<3	<5	<5	<5	<5	<5	<5
Chloroform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	µg/L	2		<5	<5	<5	<5	<5	<5	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	<2	<2	<2	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	-	<5	<5	<5	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	<20	<20	<20	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	<20	<20	<20	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	<2	<2	<2	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW03-2	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1
			Date	22 May 2015	19 Nov 2015	30 May 2016	26 May 2020	18 Nov 2020	11 Nov 2021	12 Apr 2022	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015
	Unit	EQL	ODWQS															
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.85	<0.5	<0.5	1.2	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	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
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	<0.5	<0.5	<0.5	<1.1	<1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	30		-	-	-	-	-	<30	<30	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	<5	<5	<5	<5	<3	<3	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	µg/L	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
Chloromethane	µg/L	2		<5	<5	<5	<5	<5	<2	<2	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	<2	<2	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	<0.5	<0.5	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	<5	<5	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	<20	<20	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	<20	<20	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	<2	<2	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	<0.1	<0.1	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-1	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2
			Date	30 May 2016	01 Nov 2016	04 Oct 2017	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	12 Jun 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	04 Oct 2017
	Unit	EQL	ODWQS																
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	0.6	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1.1	<1.1	<1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	30		-	-	-	-	-	-	<30	<30	<30	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	<5	<5	<5	<5	<3	<3	<3	<3	<5	<5	<5	<5	<5	<5	<5
Chloroform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	µg/L	2		<5	<5	<5	<5	<5	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	<2	<2	<2	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	<0.5
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	<5	<5	<5	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	<20	<20	<20	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	<20	<20	<20	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	<2	<2	<2	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW04-2	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1
			Date	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	01 Nov 2011	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015
	Unit	EQL	ODWQS															
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.61	<0.5	0.54	<0.5	<0.5	<0.5	0.6	<0.5	0.6
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	<0.5	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	µg/L	0.5		<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	-	<1.1	<1.1	<1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	30		-	-	-	<30	<30	<30	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<0.5	<0.5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	0.96	0.77	0.75	0.6	0.5	<0.5	<0.5	0.7	0.8
Chloroethane	µg/L	3		<5	<5	<3	<3	<3	<3	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	µg/L	0.5		<0.5	<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	µg/L	2		<5	<5	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	<2	<2	<2	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.68	<0.5	0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	<5	<5	<5	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	<20	<20	<20	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	<20	<20	<20	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	<2	<2	<2	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-1	MW05-2	MW05-2	MW05-2	MW05-2	MW06-1	MW06-1
			Date	30 May 2016	01 Nov 2016	04 Oct 2017	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	26 May 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	01 Nov 2011	24 May 2012
	Unit	EQL	ODWQS															
Benzene	µg/L	0.5	1	<0.5	0.5	0.6	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<1	<0.5	-	<1	<1	<0.5	<0.5
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1.1	<1.1	<1.1	<0.5	-	<1.1	<1.1	<0.5	<0.5
Acetone	µg/L	30		-	-	-	-	-	-	<30	<30	<30	-	-	<30	<30	-	-
Bromoform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<5	<0.5	<5	<5	<5	<0.5	<0.5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	<2	<0.5	<2	<2	<2	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	0.5	<0.5	0.8	<0.5	0.7	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	<5	<5	<5	<5	<3	<3	<3	<3	<5	<3	<3	<3	<5	<5
Chloroform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<0.5	<1	<1	<1	<0.5	<0.5
Chloromethane	µg/L	2		<5	<5	<5	<5	<5	<2	<2	<2	<2	<5	<2	<2	<2	<5	<5
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	<2	<0.5	<2	<2	<2	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	<2	<2	<2	-	-	<2	<2	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	<0.5	<0.5	<0.5	-	-	-	-	<0.5	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<5	<0.5	<5	<5	<5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	<5	<5	<5	-	-	<5	<5	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	<20	<20	<20	-	-	<20	<20	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	<20	<20	<20	-	-	<20	<20	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	<2	<2	<2	-	-	<2	<2	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	<0.1	<0.1	<0.1	-	-	<0.1	<0.1	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1	MW06-1
			Date	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	01 Nov 2016	04 Oct 2017	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022
	Unit	EQL	ODWQS																
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	1.3	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<1
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1.1	<1.1	<1.1
Acetone	µg/L	30		-	-	-	-	-	-	-	-	-	-	-	-	-	<30	<30	<30
Bromoform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	<2
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<3	<3	<3	<3
Chloroform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1
Chloromethane	µg/L	2		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2	<2	<2	<2
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	<2
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2	<2
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	-	-	<5	<5	<5
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	<20	<20	<20
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	<20	<20	<20
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2	<2
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2	MW06-2
			Date	01 Nov 2011	24 May 2012	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	01 Nov 2016	04 Oct 2017	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021
	Unit	EQL	ODWQS																
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1.1
Acetone	µg/L	30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<30
Bromoform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
Chloroethane	µg/L	3		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<3	<3
Chloroform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1
Chloromethane	µg/L	2		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2	<2
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<20
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW06-2	MW06-2	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1	MW07-1
			Date	12 Apr 2022	25 Oct 2022	01 Nov 2011	24 Oct 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	01 Nov 2016	04 Oct 2017	26 May 2020	18 Nov 2020	24 Jun 2021
	Unit	EQL	ODWQS																
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.6	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
Xylene (m & p)	µg/L	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	<0.5	<0.5	-
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
Xylene Total	µg/L	0.5	90	<1.1	<1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
Acetone	µg/L	30		<30	<30	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<3	<3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<3
Chloroform	µg/L	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	<0.5	<0.5	<1
Chloromethane	µg/L	2		<2	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2
Dibromochloromethane	µg/L	0.5		<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	<0.5
Dichloromethane	µg/L	0.5	50	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		<5	<5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		<20	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		<20	<20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		<2	<2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW07-1	MW07-1	MW07-1	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2	MW07-2
			Date	11 Nov 2021	12 Apr 2022	25 Oct 2022	01 Nov 2011	28 May 2012	12 Jun 2013	05 Nov 2013	25 Jun 2014	11 Nov 2014	22 May 2015	19 Nov 2015	30 May 2016	04 Oct 2017	26 May 2020	18 Nov 2020
	Unit	EQL	ODWQS															
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<1.1	<1.1	<1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	30		<30	<30	<30	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<3	<3	<3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	µg/L	0.5		<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	µg/L	2		<2	<2	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	µg/L	0.5		<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-
Dichloromethane	µg/L	0.5	50	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		<20	<20	<20	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		<20	<20	<20	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW07-2	MW07-2	MW07-2	MW07-2	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-1	MW08-2	MW08-2	MW08-2	MW08-2	MW09-1
			Date	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	22 May 2015	30 May 2016	31 May 2017	26 May 2020	28 Jun 2021	12 Apr 2022	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	22 May 2015
	Unit	EQL	ODWQS															
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Xylene (m & p)	µg/L	0.5		-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-
Xylene (o)	µg/L	0.5		-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Xylene Total	µg/L	0.5	90	-	<1.1	<1.1	<1.1	-	-	-	-	-	-	-	-	-	-	-
Acetone	µg/L	30		-	<30	<30	<30	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<5	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	0.5		<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	µg/L	0.2	80	<0.5	0.5	<0.5	<0.5	-	-	-	-	<0.5	<0.5	-	<0.5	<0.5	-	-
Chloroethane	µg/L	3		<3	<3	<3	<3	-	-	-	-	-	-	-	-	-	-	-
Chloroform	µg/L	0.5		<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	µg/L	2		<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	µg/L	0.5		<2	<2	<2	<2	-	-	<0.5	-	-	-	-	-	-	-	-
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	-	-	<0.5	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloromethane	µg/L	0.5	50	<5	<5	<5	<5	<0.5	<0.5	-	<0.5	<5	<5	<5	<5	<5	<5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Hexane	µg/L	5		-	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	<20	<20	<20	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	<20	<20	<20	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW09-1	MW09-1	MW09-1	MW09-1	MW09-1	MW09-2	MW09-2	MW09-2	MW09-2	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1	MW10-1
			Date	30 May 2016	31 May 2017	26 May 2020	28 Jun 2021	12 Apr 2022	28 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	22 May 2015	30 May 2016	31 May 2017	26 May 2020	24 Jun 2021	12 Apr 2022
	Unit	EQL	ODWQS															
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene (m & p)	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene (o)	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene Total	µg/L	0.5	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	µg/L	30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	µg/L	0.2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	µg/L	0.2	80	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	<0.5
Chloroethane	µg/L	3		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	µg/L	0.5		-	<0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
Dibromoethane,1,2-	µg/L	0.2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,2-	µg/L	0.5	200	-	<0.5	-	-	-	-	-	-	-	-	-	<0.5	-	-	-
Dichlorobenzene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,2-	µg/L	0.5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, 1,1-	µg/L	0.5	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, 1,2-cis-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, 1,2-trans-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloromethane	µg/L	0.5	50	<0.5	-	<0.5	<5	<5	<5	<5	<5	<5	<0.5	<0.5	-	<0.5	<5	<5
Dichloropropane, 1,2-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- trans	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/L	0.5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	µg/L	0.5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethane, 1,1,1-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethane, 1,1,2-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW10-2	MW10-2	MW10-2	MW10-2	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1
			Date	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	18 May 2012	09 Oct 2012	10 Jun 2013	05 Nov 2013	26 Jun 2014	22 May 2015	19 Nov 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	26 May 2020
	Unit	EQL	ODWQS																
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<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
Ethylbenzene	µg/L	0.5	140	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		-	-	-	-	0.55	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	-	-	-	-	0.90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		-	-	-	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	µg/L	2		-	-	-	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichloroethane, 1,1-	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-
Dichloromethane	µg/L	0.5	50	<5	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		-	-	-	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW11-1	MW11-1	MW11-1	MW11-1	MW11-1	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2
			Date	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	18 May 2012	10 Jun 2013	26 Jun 2014	22 May 2015	19 Nov 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	26 May 2020	18 Nov 2020
	Unit	EQL	ODWQS																
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	-	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	µg/L	0.5		<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	-	<1.1	<1.1	<1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	30		-	-	<30	<30	<30	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<0.5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	<3	<3	<3	<3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.5
Chloroform	µg/L	0.5		<0.5	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	µg/L	2		<5	<2	<2	<2	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<0.5
Dibromochloromethane	µg/L	0.5		<0.5	<2	<2	<2	<2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5
Dichlorodifluoromethane	µg/L	2		-	-	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			<0.5	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
Dichloromethane	µg/L	0.5	50	<0.5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	<20	<20	<20	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	<20	<20	<20	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5

Table 7 - Groundwater Quality - VOCs

			Location Code	MW11-2	MW11-2	MW11-2	MW11-2	MW12-1	MW12-1	MW12-1	MW12-1	MW12-2	MW12-2	MW12-2	MW12-2	MW12-2	MW12-3	MW12-3
			Date	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	22 May 2015	31 May 2016	26 May 2020	24 Jun 2021	12 Apr 2022	22 May 2015	31 May 2016
	Unit	EQL	ODWQS															
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Xylene (m & p)	µg/L	0.5		-	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-
Xylene (o)	µg/L	0.5		-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Xylene Total	µg/L	0.5	90	-	<1.1	<1.1	<1.1	-	-	-	-	-	-	-	-	-	-	-
Acetone	µg/L	30		-	<30	<30	<30	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<5	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/L	0.5		<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene	µg/L	0.2	80	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	<0.5	-	-
Chloroethane	µg/L	3		<3	<3	<3	<3	-	-	-	-	-	-	-	-	-	-	-
Chloroform	µg/L	0.5		<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	-
Chloromethane	µg/L	2		<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	µg/L	0.5		<2	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloromethane	µg/L	0.5	50	<5	<5	<5	<5	<5	<5	<5	<5	<0.5	<0.5	<0.5	<5	<5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		-	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Hexane	µg/L	5		-	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	<20	<20	<20	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	<20	<20	<20	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	<2	<2	<2	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	-	-	-	-	-	-	-	-	-	-	-
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	MW12-3	MW12-3	MW12-3	MW13-1	MW13-1	MW13-1	MW13-1	MW13-1	MW13-2	MW13-2	MW13-2	MW13-2	R1	R1	R1
			Date	26 May 2020	24 Jun 2021	12 Apr 2022	22 May 2015	31 May 2016	26 May 2020	28 Jun 2021	12 Apr 2022	28 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	18 May 2012	23 Oct 2012	10 Jun 2013
	Unit	EQL	ODWQS															
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Xylene (o)	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Acetone	µg/L	30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	-	<0.5	<0.5	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		-	-	-	-	-	-	-	-	-	-	-	-	<5	<5	<5
Chloroform	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Chloromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	<5	<5	<5
Dibromochloromethane	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		-	-	-	-	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<5	<5	<0.5	<0.5	<0.5	<5	<5	<5	<5	<5	<5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	-	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	R1	R1	R1	R1	R1	R1	R1	R1	R1	R1	R1	R1	R1	R1	R2
			Date	04 Nov 2013	26 Jun 2014	22 May 2015	19 Nov 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	26 May 2020	18 Nov 2020	28 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	18 May 2012
	Unit	EQL	ODWQS															
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1	<1	<1	<0.5
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1.1	<1.1	<1.1	<0.5
Acetone	µg/L	30		-	-	-	-	-	-	-	-	-	-	-	<30	<30	<30	-
Bromoform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<5	<0.5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	<2	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<3	<3	<3	<3	<5
Chloroform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<1	<0.5
Chloromethane	µg/L	2		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2	<2	<2	<2	<5
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2	<2	<0.5
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	<2	<2	<2	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5	<5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	<5	<5	<5	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	<20	<20	<20	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	<20	<20	<20	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	<2	<2	<2	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	R2	R2	R2	R2	R2	R2	R2	R2	R2	R2	R2	R2	R3	R3	R3	R3
			Date	23 Oct 2012	10 Jun 2013	04 Nov 2013	26 Jun 2014	22 May 2015	19 Nov 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	26 May 2020	18 Nov 2020	18 May 2012	23 Oct 2012	10 Jun 2013	04 Nov 2013
	Unit	EQL	ODWQS																
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	µg/L	2		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R4	R4	R4	R4	R4	R4
			Date	26 Jun 2014	22 May 2015	19 Nov 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	02 Jul 2019	26 May 2020	18 Nov 2020	18 May 2012	23 Oct 2012	10 Jun 2013	25 Nov 2013	26 Jun 2014	22 May 2015
	Unit	EQL	ODWQS																
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Acetone	µg/L	30		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloromethane	µg/L	2		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromoethene, 1,2-trans-	ug/L			-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 7 - Groundwater Quality - VOCs

			Location Code	R4	R4	R4	R4	R4	R4	R4	R4	R4	R4
			Date	19 Nov 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	26 May 2020	18 Nov 2020	28 Jun 2021	11 Nov 2021	12 Apr 2022
	Unit	EQL	ODWQS										
Benzene	µg/L	0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	µg/L	0.5	60	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	µg/L	0.5	140	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5
Xylene (m & p)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1	<1
Xylene (o)	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5
Xylene Total	µg/L	0.5	90	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<1.1	<1.1
Acetone	µg/L	30		-	-	-	-	-	-	-	-	<30	<30
Bromoform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5
Bromomethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2
Carbon tetrachloride	µg/L	0.2	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	µg/L	0.2	80	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroethane	µg/L	3		<5	<5	<5	<5	<5	<5	<5	<3	<3	<3
Chloroform	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1
Chloromethane	µg/L	2		<5	<5	<5	<5	<5	<5	<5	<2	<2	<2
Dibromochloromethane	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<2	<2
Dibromoethane,1,2-	µg/L	0.2		<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Dichlorobenzene, 1,2-	µg/L	0.5	200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,3-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorobenzene, 1,4-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	µg/L	2		-	-	-	-	-	-	-	-	<2	<2
Dibromoethene, 1,2-trans-	ug/L			-	-	-	<0.5	<0.5	<0.5	<0.5	-	-	-
Dichloroethane, 1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethane, 1,2-	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,1-	µg/L	0.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-cis-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloroethene, 1,2-trans-	µg/L	0.5		<0.5	<0.5	<0.5	-	-	-	-	<0.5	<0.5	<0.5
Dichloromethane	µg/L	0.5	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<5	<5
Dichloropropane, 1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3-	µg/L	0.5		-	-	-	-	-	-	-	<0.5	<0.5	<0.5
Dichloropropene, 1,3- cis	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dichloropropene, 1,3- trans	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Hexane	µg/L	5		-	-	-	-	-	-	-	-	<5	<5
Methyl Ethyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	<20	<20
Methyl Iso-Butyl Ketone	µg/L	20		-	-	-	-	-	-	-	-	<20	<20
Methyl tert-butyl ether	µg/L	2		-	-	-	-	-	-	-	-	<2	<2
Styrene	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	µg/L	0.5	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethane, 1,1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5
Tetrachloroethane, 1,1,2,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	µg/L	0.5	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,1-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethane, 1,1,2-	µg/L	0.5		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	µg/L	5		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trimethylbenzene, 1,3,5-	µg/L	0.1		-	-	-	-	-	-	-	-	<0.1	<0.1
Vinyl chloride	µg/L	0.2	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Table 8 - Groundwater Quality PWQO

				Location Code	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2
				Date	18 May 2012	09 Oct 2012	10 Jun 2013	05 Nov 2013	26 Jun 2014	06 Nov 2014	22 May 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019
	Unit	EQL	Other	PWQO													
Arsenic (filtered)	µg/L	0.1		5	-	-	-	-	-	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02			122	197	107	161	116	184	88.0	113	197	87.5	148	53.1	158
Boron (filtered)	µg/L	2	1,500 #1	200	15.3	35.7	11.1	27.4	13.8	29.6	10.0	18	32	20	31	14	50
Calcium (filtered)	µg/L	10			98,000	131,000	85,100	113,000	97,500	125,000	84,100	116,000	156,000	81,900	118,000	103,000	127,000
Chloride	µg/L	200	120,000 #2		48,000	110,000	56,000	69,000	38,000	74,000	24,000	55,000	150,000	45,000	68,000	3,000	69,000
Iron (filtered)	µg/L	3	350 #3	300	18	<3	20	12	6	15	20	8	26	<7	<7	7	10
Magnesium (filtered)	µg/L	1			3,410	5,020	2,680	4,140	3,260	4,620	2,950	3,430	5,410	2,620	4,140	2,820	3,820
Manganese (filtered)	µg/L	0.01			-	-	-	-	-	9.10	3.25	0.82	4.47	1.75	1.89	0.74	4.33
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	-	-	2,220	1,000	979	1,710	817	1,370	472	1,400
Sodium (filtered)	µg/L	10			28,800	50,700	29,500	35,900	23,900	43,200	23,500	28,700	60,700	30,500	36,500	3,740	36,800
Alkalinity (total) as CaCO3	mg/L	2			258	279	226	267	208	305	254	261	285	221	300	235	272
Total Dissolved Solids	mg/L	3			363	529	366	423	354	491	294	380	629	297	443	257	434
Chemical Oxygen Demand	mg/L	5			15	<8	14	10	8	<8	10	<8	16	<8	<8	<8	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02			-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2			2.4	1.4	4.7	5.3	3.9	2.5	-	-	-	-	-	-	-
Phenols (4AAP)	mg/L	0.001		0.001	-	-	-	-	-	-	<0.001	0.002	0.001	<0.001	<0.001	0.002	<0.001
Sulphate (filtered)	mg/L	0.2	128..429 #4		10	19	1.3	21	6.8	16	8	8	17	3	10	7	12
Ammonia as N	mg/L	0.01			<0.1	0.2	<0.1	<0.1	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (as N)	mg/L	0.05	3 #5		0.44	1.22	0.10	0.35	0.24	0.53	0.16	0.46	1.33	<0.06	0.35	<0.06	0.66
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Electrical Conductivity (Lab)	µS/cm	1			657	929	604	757	615	807	559	700	1,040	535	781	429	748
pH (Lab)	-	0.05		6.5-8.5	7.87	8.07	7.91	8.23	8.29	8.10	7.93	8.08	7.86	7.88	7.63	7.66	8.12
DO (Field)	mg/L			5	-	-	-	-	-	-	-	-	-	-	-	3.4	8.8
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	-	-	196	79
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	-	-	8.5	13.4
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	-	-	419	803
pH (Field)	-			6.5-8.5	-	-	-	-	-	-	-	-	-	-	-	7.7	6.1

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 8 - Groundwater Quality PWQO

				Location Code	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW08-2	MW09-2	MW09-2	MW09-2	MW09-2
				Date	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	25 Oct 2023	29 Oct 2024	15 Oct 2025	18 May 2012	09 Oct 2012	10 Jun 2013	05 Nov 2013
	Unit	EQL	Other	PWQO													
Arsenic (filtered)	µg/L	0.1		5	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	-	-	-	-
Barium (filtered)	µg/L	0.02			81.1	162	135	168	95	181	183	153	136	259	803	856	470
Boron (filtered)	µg/L	2	1,500 #1	200	26	23	15	28	6	27	22	25	23	53.2	**442**	**513**	139
Calcium (filtered)	µg/L	10			80,100	145,000	114,000	119,000	85,300	123,000	141,000	115,000	106,000	97,400	49,400	43,700	96,700
Chloride	µg/L	200	120,000 #2		9,000	120,000	65,500	67,500	35,700	69,900	75,700	67,300	64,900	51,000	17,000	13,000	59,000
Iron (filtered)	µg/L	3	350 #3	300	24	15	19	<5	<5	<5	6	<5	7	203	35	<3	192
Magnesium (filtered)	µg/L	1			2,680	5,280	4,060	4,140	2,880	4,600	4,720	4,410	4,210	4,780	18,300	19,500	7,760
Manganese (filtered)	µg/L	0.01			4.34	0.97	4	2	<1	3	1	4	2	-	-	-	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	50	<100	<100	<100	20	-	-	-	-
Potassium (filtered)	µg/L	2			738	1,210	1,000	1,800	700	1,600	1,400	1,500	1,400	-	-	-	-
Sodium (filtered)	µg/L	10			23,500	29,400	38,300	44,000	26,800	44,100	38,900	40,300	28,400	35,900	48,000	44,300	40,700
Alkalinity (total) as CaCO3	mg/L	2			235	283	276	275	215	277	289	281	271	253	255	263	278
Total Dissolved Solids	mg/L	3			240	480	364	389	283	428	407	400	377	374	394	380	414
Chemical Oxygen Demand	mg/L	5			16	<8	7	10	<5	12	9	26	14	11	36	35	14
Hardness as (CaCO3) (filtered)	mg/L	0.02			-	-	302	316	225	326	372	307	284	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2			-	-	3.7	2.7	3	0.9	3.3	3.4	5	2.4	<1	1.8	1.5
Phenols (4AAP)	mg/L	0.001		**0.001**	<0.001	<0.001	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	-	-	-	-
Sulphate (filtered)	mg/L	0.2	128..429 #4		6	10	9	10	5	<10	11	10	9	13	6.3	32	22
Ammonia as N	mg/L	0.01			<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.1	0.6	0.7	<0.1
Nitrate (as N)	mg/L	0.05	3 #5		0.15	0.67	0.74	0.41	0.05	0.62	0.64	0.23	0.56	0.11	<0.05	<0.06	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			<0.5	<0.5	0.4	0.3	0.2	0.3	-	0.4	0.2	-	-	-	-
Electrical Conductivity (Lab)	µS/cm	1			452	838	700	744	547	814	777	765	724	665	617	591	756
pH (Lab)	-	0.05		**6.5-8.5**	7.85	7.81	7.94	8.27	7.57	7.93	7.76	7.83	7.8	7.92	8.17	8.19	8.18
DO (Field)	mg/L			**5**	-	11.3	13.26	**2.49**	7.65	6.06	**4.12**	7.44	**4.82**	-	-	-	-
Redox (Field)	mV				-	135	140	-73	-54	-140	243	28	158	-	-	-	-
Temperature (Field)	°C				16.4	6.2	9.3	9.2	8.8	13	12.7	10.0	10.4	-	-	-	-
Conductivity (field)	µS/cm				-	486	652	334	473	722	841	54	696	-	-	-	-
pH (Field)	-			**6.5-8.5**	8.1	**8.6**	**8.78**	7.27	7.35	7.21	6.94	7.45	7.19	-	-	-	-

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 8 - Groundwater Quality PWQO

				Location Code	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2	MW09-2
				Date	02 Jul 2014	22 May 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	28 Jun 2021	11 Nov 2021	12 Apr 2022
	Unit	EQL	Other	PWQO													
Arsenic (filtered)	µg/L	0.1		**5**	-	0.3	<0.2	<0.2	0.2	0.3	0.3	<0.2	0.4	<0.2	0.2	0.1	<0.1
Barium (filtered)	µg/L	0.02			232	178	109	204	117	258	158	184	285	176	210	203	846
Boron (filtered)	µg/L	2	1,500 #1	**200**	119	28.7	62	44	26	84	26	65	143	39	40	45	**567**
Calcium (filtered)	µg/L	10			58,000	96,100	57,500	133,000	83,700	107,000	105,000	121,000	80,800	126,000	124,000	119,000	51,100
Chloride	µg/L	200	120,000 #2		46,000	58,000	50,000	98,000	35,000	70,000	66,000	73,000	50,000	77,000	88,500	70,500	15,100
Iron (filtered)	µg/L	3	350 #3	**300**	294	177	234	27	87	205	293	38	**302**	15	87	43	13
Magnesium (filtered)	µg/L	1			6,210	4,290	3,510	4,530	3,120	5,780	3,890	3,820	8,760	4,270	4,640	4,550	21,900
Manganese (filtered)	µg/L	0.01			-	23.3	35.2	7.39	22	15.9	29.1	4.64	33.2	3.31	3	3	47
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	40
Potassium (filtered)	µg/L	2			-	2,330	3,000	2,410	1,910	2,600	2,160	2,570	2,740	2,650	2,300	2,700	5,300
Sodium (filtered)	µg/L	10			41,600	37,900	45,500	54,600	32,600	45,700	42,900	46,500	44,400	44,600	55,600	48,200	51,300
Alkalinity (total) as CaCO3	mg/L	2			222	260	280	238	226	274	241	260	233	295	271	280	249
Total Dissolved Solids	mg/L	3			346	371	383	417	314	420	214	414	311	437	432	409	316
Chemical Oxygen Demand	mg/L	5			14	<8	<8	10	<8	10	<8	<8	<8	<8	<5	11	38
Hardness as (CaCO3) (filtered)	mg/L	0.02			-	-	-	-	-	-	-	-	-	-	329	315	218
Dissolved Organic Carbon (filtered)	mg/L	0.2			1.7	-	-	-	-	-	-	-	-	-	3.3	2.4	2.4
Phenols (4AAP)	mg/L	0.001		**0.001**	-	<0.001	**0.002**	**0.002**	**0.006**	<0.001	**0.003**	<0.001	<0.001	<0.001	<0.002	<0.002	**0.048**
Sulphate (filtered)	mg/L	0.2	128..429 #4		8.6	12	8	20	20	14	16	11	10	10	13	13	37
Ammonia as N	mg/L	0.01			0.2	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.03	0.03	0.69
Nitrate (as N)	mg/L	0.05	3 #5		<0.06	<0.06	<0.06	1.12	0.1	0.37	<0.06	0.93	<0.06	1.17	1.21	0.73	<0.05
Total Kjeldahl Nitrogen	mg/L	0.1			-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	0.2	0.2	0.7
Electrical Conductivity (Lab)	µS/cm	1			573	666	767	762	560	719	653	737	591	791	821	780	609
pH (Lab)	-	0.05		**6.5-8.5**	8.00	7.86	8.21	7.77	7.75	7.57	8	8.11	7.9	7.91	7.69	7.66	7.7
DO (Field)	mg/L			**5**	-	-	-	-	-	-	**3.6**	**4.1**	-	5	**2.63**	**2.91**	**2.32**
Redox (Field)	mV				-	-	-	-	-	-	-125	-86	-	60	160	30	-36
Temperature (Field)	°C				-	-	-	-	-	-	10.3	14.1	1.7	7.4	10.7	9.8	7.4
Conductivity (field)	µS/cm				-	-	-	-	-	-	404	655	-	471	792	332	496
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	7.7	7.4	7.6	8	7.08	7.01	7.01

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 8 - Groundwater Quality PWQO

				Location Code	MW09-2	MW09-2	MW09-2	MW09-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2
				Date	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	18 May 2012	09 Oct 2012	10 Jun 2013	05 Nov 2013	26 Jun 2014	22 May 2015	30 May 2016	31 Oct 2016	31 May 2017
	Unit	EQL	Other	PWQO													
Arsenic (filtered)	µg/L	0.1		5	<0.1	<0.1	0.1	0.1	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2
Barium (filtered)	µg/L	0.02			229	207	193	172	923	710	620	587	587	524	476	501	459
Boron (filtered)	µg/L	2	1,500 #1	200	47	48	38	39	147	141	119	130	116	100	121	122	123
Calcium (filtered)	µg/L	10			122,000	110,000	120,000	104,000	95,300	93,600	99,800	96,500	99,500	106,000	113,000	107,000	91,200
Chloride	µg/L	200	120,000 #2		79,700	76,900	79,200	65,200	45,000	45,000	55,000	50,000	59,000	57,000	52,000	49,000	48,000
Iron (filtered)	µg/L	3	350 #3	300	26	17	13	15	9,270	6,760	4,190	4,380	6,210	3,160	533	3,580	3,340
Magnesium (filtered)	µg/L	1			4,730	4,390	4,320	4,140	13,600	12,700	11,500	11,000	11,900	11,900	11,200	10,100	11,300
Manganese (filtered)	µg/L	0.01			2	2	2	2	-	-	-	-	-	92.4	29.8	49.7	97.3
Phosphorus (filtered)	µg/L	10			<100	60	<100	<10	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			2,600	2,300	2,600	2,400	-	-	-	-	-	2,340	2,370	2,140	2,580
Sodium (filtered)	µg/L	10			57,700	45,600	52,200	43,400	8,870	7,070	6,180	5,160	7,250	6,690	7,750	5,520	8,990
Alkalinity (total) as CaCO3	mg/L	2			278	306	302	284	238	225	240	226	299	254	245	240	171
Total Dissolved Solids	mg/L	3			425	432	445	400	351	366	446	377	423	411	389	394	269
Chemical Oxygen Demand	mg/L	5			7	<5	7	8	10	<8	8	<8	<8	10	<8	<8	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02			324	293	318	277	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2			0.7	3.8	3.6	4.6	3.8	<1	2.0	1.5	1.9	-	-	-	-
Phenols (4AAP)	mg/L	0.001		0.001	<0.001	<0.001	<0.001	0.001	-	-	-	-	-	<0.001	0.001	<0.001	0.004
Sulphate (filtered)	mg/L	0.2	128..429 #4		14	15	13	12	13	9.7	15	8.8	13	11	140	8	12
Ammonia as N	mg/L	0.01			0.02	<0.05	<0.05	<0.05	0.1	0.7	0.5	1.0	0.9	0.6	0.3	1.0	0.5
Nitrate (as N)	mg/L	0.05	3 #5		1	1.29	0.76	1.04	<0.05	<0.05	<0.06	<0.06	0.07	<0.06	0.21	<0.06	0.08
Total Kjeldahl Nitrogen	mg/L	0.1			0.2	-	0.2	0.1	-	-	-	-	-	1.2	<0.5	1.0	0.8
Electrical Conductivity (Lab)	µS/cm	1			809	821	844	764	613	615	667	619	686	645	639	633	483
pH (Lab)	-	0.05		6.5-8.5	7.71	7.46	7.9	7.78	7.91	8.13	7.89	8.15	8.13	7.94	8.13	7.95	7.92
DO (Field)	mg/L			5	5.39	3.09	1.31	3.68	-	-	-	-	-	-	-	-	-
Redox (Field)	mV				-140	-51	-139	132	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C				13.7	9.2	10.7	11.3	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm				801	771	613	716	-	-	-	-	-	-	-	-	-
pH (Field)	-			6.5-8.5	7.06	6.75	7.07	7.17	-	-	-	-	-	-	-	-	-

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 8 - Groundwater Quality PWQO

				Location Code	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW10-2	MW11-2
				Date	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	18 May 2012
	Unit	EQL	Other	PWQO													
Arsenic (filtered)	µg/L	0.1		5	<0.2	0.2	<0.2	<0.2	<0.2	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Barium (filtered)	µg/L	0.02			506	626	580	491	416	510	574	542	603	511	450	516	495
Boron (filtered)	µg/L	2	1,500 #1	200	131	118	145	106	96	109	125	95	135	118	130	128	185
Calcium (filtered)	µg/L	10			104,000	117,000	129,000	98,500	99,900	118,000	119,000	118,000	112,000	102,000	96,900	101,000	95,600
Chloride	µg/L	200	120,000 #2		51,000	48,000	48,000	54,000	53,000	59,600	56,700	54,700	50,300	48,400	49,600	51,200	38,000
Iron (filtered)	µg/L	3	350 #3	300	3,370	6,910	4,030	886	3,290	<5	5,280	3,750	4,080	3,630	858	3,780	1,920
Magnesium (filtered)	µg/L	1			11,000	11,200	10,900	12,700	10,400	11,400	11,300	11,300	11,000	9,950	11,300	10,800	11,700
Manganese (filtered)	µg/L	0.01			60.1	171	54.4	95.1	58	38	42	39	28	32	44	30	-
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	420	<100	110	<100	40	-
Potassium (filtered)	µg/L	2			2,600	2,420	2,690	2,460	2,600	2,000	2,500	1,900	2,400	2,200	2,500	2,400	-
Sodium (filtered)	µg/L	10			6,070	7,470	5,540	9,830	6,930	6,100	6,500	6,100	5,900	4,900	6,900	5,400	10,600
Alkalinity (total) as CaCO3	mg/L	2			233	243	245	243	258	260	250	222	254	272	250	262	249
Total Dissolved Solids	mg/L	3			406	334	354	389	351	343	351	336	341	337	332	332	380
Chemical Oxygen Demand	mg/L	5			<8	<8	<8	8	<8	53	9	7	11	7	5	5	9
Hardness as (CaCO3) (filtered)	mg/L	0.02			-	-	-	-	-	342	343	341	326	296	289	298	-
Dissolved Organic Carbon (filtered)	mg/L	0.2			-	-	-	-	-	2.8	2.6	3	0.9	4.9	2.5	3.8	1.6
Phenols (4AAP)	mg/L	0.001		0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.002	0.013	<0.001	<0.001	<0.001	<0.001	0.001	-
Sulphate (filtered)	mg/L	0.2	128..429 #4		9	8	7	10	6	10	9	11	7	5	2	4	21
Ammonia as N	mg/L	0.01			1	0.8	1.1	0.9	1	0.93	1.04	0.8	1.04	0.95	1.04	0.94	0.8
Nitrate (as N)	mg/L	0.05	3 #5		<0.06	0.08	0.08	<0.06	<0.06	0.07	<0.05	0.4	0.18	0.67	0.08	0.11	<0.05
Total Kjeldahl Nitrogen	mg/L	0.1			1.1	0.7	1.1	0.8	1	1	1.1	1.2	1.2	-	1.1	1.1	-
Electrical Conductivity (Lab)	µS/cm	1			631	599	621	618	623	660	675	647	657	649	640	639	618
pH (Lab)	-	0.05		6.5-8.5	7.67	7.54	8.03	7.83	7.79	7.83	7.68	7.48	7.85	7.54	7.9	7.95	7.98
DO (Field)	mg/L			5	-	3.6	4	-	4.2	2.87	2.81	2.44	1.62	2.75	2.92	3.98	-
Redox (Field)	mV				-	-109	-115	-	-148	-15	19	-117	-143	-85	-216	-114	-
Temperature (Field)	°C				-	10.6	13.8	15.1	6.7	9	10.3	7.9	13.3	9.9	9.9	11.9	-
Conductivity (field)	µS/cm				-	442	518	-	364	665	297	615	630	33	476	7	-
pH (Field)	-			6.5-8.5	-	7.6	7.6	7.7	7.9	8.45	7.38	7.18	7.22	6.29	7.19	6.91	-

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 8 - Groundwater Quality PWQO

				Location Code	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2
				Date	09 Oct 2012	10 Jun 2013	05 Nov 2013	26 Jun 2014	22 May 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020
	Unit	EQL	Other	PWQO													
Arsenic (filtered)	µg/L	0.1		**5**	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.7	<0.2	<0.2
Barium (filtered)	µg/L	0.02			376	416	469	437	473	407	433	419	449	381	40.8	504	358
Boron (filtered)	µg/L	2	1,500 #1	**200**	**237**	161	113	150	115	**208**	146	**515**	123	85	176	150	164
Calcium (filtered)	µg/L	10			71,600	81,200	100,000	85,700	98,400	91,900	97,900	90,100	93,800	96,600	147,000	102,000	93,400
Chloride	µg/L	200	120,000 #2		14,000	34,000	21,000	27,000	36,000	25,000	34,000	26,000	36,000	14,000	33,000	21,000	43,000
Iron (filtered)	µg/L	3	350 #3	**300**	**536**	**1,430**	**2,090**	**1,200**	**2,630**	**1,190**	**1,890**	11	**2,130**	**1,550**	124	**2,130**	**1,060**
Magnesium (filtered)	µg/L	1			13,600	9,740	10,400	10,700	10,200	12,900	10,100	25,200	8,590	7,400	22,100	12,700	12,300
Manganese (filtered)	µg/L	0.01			-	-	-	-	30.7	22.7	29.2	84.2	29.6	24.5	14.7	31.4	19.8
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			-	-	-	-	2,410	3,770	2,530	4,710	2,280	1,990	7,590	2,860	3,720
Sodium (filtered)	µg/L	10			9,300	10,900	5,540	12,000	8,180	11,800	8,290	15,400	5,300	6,300	76,700	8,390	6,200
Alkalinity (total) as CaCO3	mg/L	2			239	232	225	250	258	246	258	265	255	224	242	227	242
Total Dissolved Solids	mg/L	3			363	391	311	340	366	303	371	400	391	274	320	274	343
Chemical Oxygen Demand	mg/L	5			<8	<8	<8	<8	17	<8	<8	<8	8	<8	<8	13	<8
Hardness as (CaCO3) (filtered)	mg/L	0.02			-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2			<1	2.1	1.4	3.7	-	-	-	<1	-	-	-	-	-
Phenols (4AAP)	mg/L	0.001		**0.001**	-	-	-	-	0.001	0.001	0.001	<0.002	<0.001	<0.001	<0.001	**0.002**	0.001
Sulphate (filtered)	mg/L	0.2	128..429 #4		15	16	20	14	10	19	10	63	7	6	10	17	9
Ammonia as N	mg/L	0.01			0.7	0.7	0.7	0.8	0.6	0.8	0.9	0.9	0.9	0.5	0.9	0.7	0.9
Nitrate (as N)	mg/L	0.05	3 #5		<0.05	<0.06	<0.06	0.60	<0.06	<0.06	0.06	<0.06	<0.06	<0.06	0.18	0.13	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			-	-	-	-	1.1	0.9	0.9	1.1	0.9	<0.5	1	0.6	0.8
Electrical Conductivity (Lab)	µS/cm	1			603	602	550	560	599	560	628	658	603	465	584	520	547
pH (Lab)	-	0.05		**6.5-8.5**	8.06	7.94	8.19	7.67	7.95	8.09	7.99	7.91	7.63	8.09	8.1	7.76	7.77
DO (Field)	mg/L			**5**	-	-	-	-	-	-	-	-	-	**4**	5.7	-	6.4
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	-93	-122	-	-60
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	9.1	12.5	15.1	4.9
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	345	528	-	350
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	-	-	-	-	7.8	7.7	7.6	8.3

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 8 - Groundwater Quality PWQO

				Location Code	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW11-2	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1
				Date	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022	23 Oct 2023	29 Oct 2024	15 Oct 2025	24 May 2012	24 Oct 2012	18 Jun 2013	05 Nov 2013	26 Jun 2014	11 Nov 2014
	Unit	EQL	Other	PWQO													
Arsenic (filtered)	µg/L	0.1		5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	<0.2
Barium (filtered)	µg/L	0.02			528	528	466	632	539	566	532	565	729	574	739	597	869
Boron (filtered)	µg/L	2	1,500 #1	200	127	143	**219**	169	113	128	125	118	133	91.6	116	99.4	180
Calcium (filtered)	µg/L	10			117,000	113,000	90,600	110,000	105,000	113,000	105,000	112,000	90,100	113,000	89,800	113,000	96,900
Chloride	µg/L	200	120,000 #2		52,000	41,000	25,300	28,200	49,700	39,800	40,700	49,000	39,000	50,000	30,000	50,000	33,000
Iron (filtered)	µg/L	3	350 #3	300	**3,030**	**2,750**	**1,670**	**2,150**	**2,910**	**3,010**	**2,850**	<3	3	8	4	4	<2
Magnesium (filtered)	µg/L	1			11,300	11,100	14,000	12,400	9,800	10,500	10,400	11,500	12,100	11,000	11,900	11,700	12,600
Manganese (filtered)	µg/L	0.01			35	33	35	33	31	32	31	-	-	-	-	-	3.63
Phosphorus (filtered)	µg/L	10			-	-	40	<100	90	<100	20	-	-	-	-	-	-
Potassium (filtered)	µg/L	2			2,300	2,800	3,600	3,100	2,300	2,700	2,600	-	-	-	-	-	3,700
Sodium (filtered)	µg/L	10			7,300	6,700	8,400	6,800	6,000	7,000	7,200	9,970	8,330	11,100	8,290	11,300	8,740
Alkalinity (total) as CaCO3	mg/L	2			271	250	233	244	286	258	265	264	227	262	233	273	255
Total Dissolved Solids	mg/L	3			342	329	300	294	349	329	325	430	343	423	337	354	343
Chemical Oxygen Demand	mg/L	5			<5	8	11	<5	9	<5	6	<8	12	12	17	<8	12
Hardness as (CaCO3) (filtered)	mg/L	0.02			339	329	284	326	303	326	304	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2			4.4	2.2	3.1	1.3	4.7	2.8	4.3	1.4	1.6	1.4	<1	2.7	3.7
Phenols (4AAP)	mg/L	0.001		**0.001**	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	0.001	-	-	-	-	-	-
Sulphate (filtered)	mg/L	0.2	128..429 #4		11	10	15	11	10	7	7	23	15	24	21	21	23
Ammonia as N	mg/L	0.01			0.95	0.96	0.7	0.99	0.99	0.98	0.85	0.2	0.2	0.2	<0.1	0.3	0.1
Nitrate (as N)	mg/L	0.05	3 #5		0.07	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.17	<0.06	<0.06	<0.06
Total Kjeldahl Nitrogen	mg/L	0.1			1	1.1	1	1.1	-	1	1	-	-	-	-	-	-
Electrical Conductivity (Lab)	µS/cm	1			659	633	578	568	672	633	626	680	590	692	592	692	589
pH (Lab)	-	0.05		**6.5-8.5**	7.81	7.8	7.56	7.87	7.58	7.88	7.92	7.85	7.86	7.92	8.23	7.98	8.13
DO (Field)	mg/L			**5**	**1.55**	7.98	5.38	8.75	**2.77**	**1.48**	**3.85**	-	-	-	-	-	-
Redox (Field)	mV				136	15	114	-148	-80	-110	-111	-	-	-	-	-	-
Temperature (Field)	°C				7.7	9	9.1	13.7	8.5	10.2	10.9	-	-	-	-	-	-
Conductivity (field)	µS/cm				672	286	527	644	23	498	676	-	-	-	-	-	-
pH (Field)	-			**6.5-8.5**	7.26	7.37	7.13	7.33	**6.47**	7.14	7	-	-	-	-	-	-

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 8 - Groundwater Quality PWQO

				Location Code	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1	MW12-1
				Date	22 May 2015	19 Nov 2015	31 May 2016	01 Nov 2016	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	24 Jun 2021	11 Nov 2021	12 Apr 2022	25 Oct 2022
	Unit	EQL	Other	PWQO													
Arsenic (filtered)	µg/L	0.1		**5**	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.8	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1
Barium (filtered)	µg/L	0.02			664	801	569	723	152	713	230	621	311	743	994	694	1,080
Boron (filtered)	µg/L	2	1,500 #1	**200**	110	136	128	153	83	104	99	106	110	121	156	118	167
Calcium (filtered)	µg/L	10			99,700	87,200	109,000	102,000	122,000	126,000	117,000	115,000	113,000	116,000	106,000	109,000	93,500
Chloride	µg/L	200	120,000 #2		39,000	42,000	53,000	42,000	54,000	51,000	44,000	55,000	44,000	40,700	39,400	41,300	37,500
Iron (filtered)	µg/L	3	350 #3	**300**	<2	11	11	20	18	10	19	20	24	<5	<5	<5	15
Magnesium (filtered)	µg/L	1			12,200	12,700	12,600	11,800	6,760	11,500	7,580	12,900	9,820	13,400	14,300	12,400	15,200
Manganese (filtered)	µg/L	0.01			3.29	6.36	4.53	4.94	15.6	3.52	20.1	5.18	16.4	3	3	3	10
Phosphorus (filtered)	µg/L	10			-	-	-	-	-	-	-	-	-	-	-	30	<100
Potassium (filtered)	µg/L	2			3,080	3,240	3,410	3,290	2,100	3,280	2,250	3,340	2,780	3,100	3,500	3,300	3,400
Sodium (filtered)	µg/L	10			10,600	8,640	10,600	11,200	12,300	13,700	12,000	16,900	11,200	11,700	10,600	13,600	9,500
Alkalinity (total) as CaCO3	mg/L	2			271	262	272	250	283	284	265	278	253	271	241	254	241
Total Dissolved Solids	mg/L	3			420	357	363	360	460	403	403	397	351	338	336	353	321
Chemical Oxygen Demand	mg/L	5			13	12	8	9	<8	<8	<8	<8	<8	7	13	6	8
Hardness as (CaCO3) (filtered)	mg/L	0.02			-	-	-	-	-	-	-	-	-	345	325	323	296
Dissolved Organic Carbon (filtered)	mg/L	0.2			-	-	-	-	-	-	-	-	-	2.2	1.9	2.3	0.7
Phenols (4AAP)	mg/L	0.001		**0.001**	**0.002**	<0.002	**0.002**	<0.001	<0.001	<0.001	<0.001	**0.002**	<0.001	**0.004**	**0.006**	**0.002**	<0.001
Sulphate (filtered)	mg/L	0.2	128..429 #4		22	25	19	20	24	22	28	23	25	20	26	23	25
Ammonia as N	mg/L	0.01			0.1	0.2	0.1	0.1	0.1	0.1	<0.1	<0.1	0.1	0.14	0.16	0.14	0.16
Nitrate (as N)	mg/L	0.05	3 #5		<0.06	<0.06	<0.06	0.18	<0.06	<0.06	<0.06	<0.06	<0.06	0.08	<0.05	<0.05	<0.05
Total Kjeldahl Nitrogen	mg/L	0.1			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	0.2	0.2	0.2
Electrical Conductivity (Lab)	µS/cm	1			618	608	695	616	710	675	649	684	595	650	647	680	618
pH (Lab)	-	0.05		**6.5-8.5**	7.99	7.97	8.04	7.86	7.8	7.42	7.92	7.71	7.91	7.85	7.91	7.56	7.76
DO (Field)	mg/L			**5**	-	-	-	-	-	**3**	5.9	-	6.5	**2.83**	**3.6**	**2.29**	**2.96**
Redox (Field)	mV				-	-	-	-	-	-92	-149	-	-128	-38	11	175	-141
Temperature (Field)	°C				-	-	-	-	-	8.5	9.9	14.4	8.6	9.4	9.4	7.2	10.8
Conductivity (field)	µS/cm				-	-	-	-	-	457	477	-	388	651	280	589	586
pH (Field)	-			**6.5-8.5**	-	-	-	-	-	7.6	7.6	7.3	8.1	7.2	7.45	7.08	7.37

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 8 - Groundwater Quality PWQO

				Location Code	MW12-1	MW12-1
				Date	23 Oct 2023	29 Oct 2024
	Unit	EQL	Other	PWQO		
Arsenic (filtered)	µg/L	0.1		**5**	<0.1	<0.1
Barium (filtered)	µg/L	0.02			1,010	1,050
Boron (filtered)	µg/L	2	**1,500** [#1]	**200**	151	170
Calcium (filtered)	µg/L	10			87,900	92,800
Chloride	µg/L	200	**120,000** [#2]		36,300	39,100
Iron (filtered)	µg/L	3	**350** [#3]	**300**	<5	27
Magnesium (filtered)	µg/L	1			13,900	15,700
Manganese (filtered)	µg/L	0.01			3	4
Phosphorus (filtered)	µg/L	10			50	<100
Potassium (filtered)	µg/L	2			3,200	3,800
Sodium (filtered)	µg/L	10			7,700	9,100
Alkalinity (total) as CaCO3	mg/L	2			254	237
Total Dissolved Solids	mg/L	3			320	325
Chemical Oxygen Demand	mg/L	5			9	8
Hardness as (CaCO3) (filtered)	mg/L	0.02			277	297
Dissolved Organic Carbon (filtered)	mg/L	0.2			2.8	1.9
Phenols (4AAP)	mg/L	0.001		**0.001**	<0.001	<0.001
Sulphate (filtered)	mg/L	0.2	**128..429** [#4]		28	27
Ammonia as N	mg/L	0.01			0.16	0.19
Nitrate (as N)	mg/L	0.05	**3** [#5]		<0.05	<0.05
Total Kjeldahl Nitrogen	mg/L	0.1			-	0.3
Electrical Conductivity (Lab)	µS/cm	1			617	627
pH (Lab)	-	0.05		**6.5-8.5**	7.38	7.8
DO (Field)	mg/L			**5**	**2.91**	**1.31**
Redox (Field)	mV				-163	-263
Temperature (Field)	°C				9.4	9.9
Conductivity (field)	µS/cm				584	451
pH (Field)	-			**6.5-8.5**	6.97	7.33

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 9 - Residential Well Quality

			Location Code	R2	R2	R2	R2	R2	R2	R2	R2	R2	R2	R2	R2	R2	R2
			Date	18 May 2012	23 Oct 2012	10 Jun 2013	04 Nov 2013	26 Jun 2014	22 May 2015	19 Nov 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020
	Unit	EQL	ODWQS														
Arsenic	µg/L	0.1	**25**	-	-	-	-	-	<0.2	<0.2	<0.2	6.4	<0.2	<0.2	<0.2	<0.2	0.2
Barium	µg/L	0.02	**1,000**	83.2	104	94.6	70.8	85.0	89.7	103	83.9	91.5	102	87.3	95.3	98.3	87.7
Boron	µg/L	2	**5,000**	11.7	42.2	11.7	17.2	11.7	9.0	9.2	12	211	12	22	9	25	11
Calcium	µg/L	10		107,000	121,000	120,000	97,700	109,000	116,000	119,000	121,000	129,000	125,000	105,000	126,000	125,000	114,000
Chloride	µg/L	200	**250,000**	54,000	84,000	86,000	58,000	48,000	60,000	83,000	60,000	85,000	78,000	48,000	62,000	70,000	59,000
Iron	µg/L	3	**300**	59	115	6	**694**	9	13	29	28	**1,020**	<7	22	<7	10	<7
Magnesium	µg/L	1		2,830	4,440	3,290	3,550	2,830	3,250	3,630	3,170	4,130	3,360	3,780	3,240	3,320	2,910
Manganese	µg/L	0.01	**50**	-	-	-	-	-	0.25	0.80	1.28	8.44	0.12	0.59	0.22	0.32	0.07
Phosphorus total (P2O5)	µg/L	10		-	-	-	-	-	<30	-	<30	-	<30	-	-	-	<3
Potassium	µg/L	2		-	-	-	-	-	722	880	781	1,000	1,070	1,080	1,340	1,140	869
Sodium	µg/L	10	**200,000**	23,300	43,700	26,700	34,200	24,100	25,600	39,400	27,500	42,900	27,700	31,700	21,300	38,300	26,300
Alkalinity (total) as CaCO3	mg/L	2	**500**	255	280	251	276	267	276	268	248	286	246	276	272	291	254
Total Dissolved Solids	mg/L	3	**500**	411	466	**514**	406	371	460	477	394	**570**	469	426	403	454	397
Chemical Oxygen Demand	mg/L	5		<8	<8	<8	8	<8	<8	9	<8	<8	<8	8	<8	<8	9
Hardness as (CaCO3)	mg/L	0.02	**500**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	**5**	1.4	1.1	1.9	1.9	2.3	<1	2.1	2.7	4	1	2	1	<1	1
Phenols (4AAP)	mg/L	0.001		-	-	-	-	-	<0.002	-	0.002	-	<0.002	-	<0.002	-	<0.002
Sulphate (filtered)	mg/L	0.2	**500**	7.5	19	13	16	5.4	10	22	8	12	14	8	17	11	9
Ammonia as N	mg/L	0.01		<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	<0.1
Nitrate (as N)	mg/L	0.05	**10**	0.91	1.44	3.61	0.49	0.66	1.86	0.71	1.02	<0.06	3.41	0.8	3.97	1.14	1.77
Total Kjeldahl Nitrogen	mg/L	0.1		-	-	-	-	-	<0.5	-	<0.5	-	<0.5	-	<0.5	-	<0.5
Electrical Conductivity (Lab)	µS/cm	1		698	833	775	711	645	714	821	671	950	752	692	695	777	702
pH (Lab)	-	0.05	**6.5-8.5**	7.94	7.98	7.82	8.08	8.28	8.03	7.79	7.50	7.84	7.88	7.99	7.54	7.79	7.96
DO (Field)	mg/L			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Redox (Field)	mV			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm			-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH (Field)	-		**6.5-8.5**	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 9 - Residential Well Quality

			Location Code	R2	R2	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3	R3
			Date	18 Nov 2020	23 Oct 2023	18 May 2012	23 Oct 2012	10 Jun 2013	04 Nov 2013	26 Jun 2014	22 May 2015	19 Nov 2015	30 May 2016	31 Oct 2016	31 May 2017	04 Oct 2017	30 May 2019
	Unit	EQL	ODWQS														
Arsenic	µg/L	0.1	**25**	<0.2	<0.1	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Barium	µg/L	0.02	**1,000**	103	100	74.0	107	68.8	70.1	1.6	0.56	2.96	34.3	12.0	30.3	32.7	37.7
Boron	µg/L	2	**5,000**	29	15	15.8	124	8.9	11.3	18.7	10.2	18.5	14	39	17	25	10
Calcium	µg/L	10		139,000	116,000	103,000	112,000	84,300	81,700	1,450	670	3,560	83,700	14,400	37,200	46,300	56,200
Chloride	µg/L	200	**250,000**	140,000	89,900	16,000	81,000	49,000	11,000	92,000	57,000	72,000	41,000	110,000	19,000	87,000	32,000
Iron	µg/L	3	**300**	13	113	46	6	<3	3	4	3	8	<7	11	<7	<7	<7
Magnesium	µg/L	1		3,970	3,900	3,290	3,850	2,400	2,580	39	18	121	3,230	427	1,060	1,580	1,580
Manganese	µg/L	0.01	**50**	0.38	2	-	-	-	-	-	0.26	2.00	1.88	0.28	0.84	6.74	0.56
Phosphorus total (P2O5)	µg/L	10		-	1,010	-	-	-	-	-	<30	-	50	-	<30	-	-
Potassium	µg/L	2		1,000	1,200	-	-	-	-	-	348	202,000	27,900	267,000	119,000	1,810	1,420
Sodium	µg/L	10	**200,000**	61,000	38,400	11,700	44,100	15,100	16,300	168,000	157,000	50,400	9,640	25,600	11,900	93,900	70,400
Alkalinity (total) as CaCO3	mg/L	2	**500**	270	288	258	266	223	228	270	274	291	264	268	239	223	243
Total Dissolved Solids	mg/L	3	**500**	**529**	443	369	437	320	283	437	400	**569**	471	**660**	329	457	343
Chemical Oxygen Demand	mg/L	5		<8	<5	<8	<8	<8	<8	<8	<8	<8	10	<8	8	15	<8
Hardness as (CaCO3)	mg/L	0.02	**500**	-	306	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	**5**	2	3.3	1.4	4.0	1.8	<1	4.1	4.6	3.2	3.1	4	4	5	3
Phenols (4AAP)	mg/L	0.001		-	<0.001	-	-	-	-	-	<0.002	-	0.002	-	<0.002	-	<0.002
Sulphate (filtered)	mg/L	0.2	**500**	21	12	6.9	10	6.5	5.1	7.9	9	10	9	16	7	<2	<2
Ammonia as N	mg/L	0.01		<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
Nitrate (as N)	mg/L	0.05	**10**	0.54	0.53	1.06	0.43	0.47	0.57	0.53	0.99	0.31	0.86	3.92	1.61	0.43	0.62
Total Kjeldahl Nitrogen	mg/L	0.1		-	-	-	-	-	-	-	<0.5	-	<0.5	-	<0.5	-	<0.5
Electrical Conductivity (Lab)	µS/cm	1		941	841	633	780	524	490	792	692	933	846	1,050	534	707	552
pH (Lab)	-	0.05	**6.5-8.5**	7.6	7.48	7.93	8.06	7.88	8.30	7.82	8.02	7.73	8.14	7.90	7.98	7.69	7.95
DO (Field)	mg/L			-	6.94	-	-	-	-	-	-	-	-	-	-	-	-
Redox (Field)	mV			-	57	-	-	-	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C			-	11.9	-	-	-	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm			-	772	-	-	-	-	-	-	-	-	-	-	-	-
pH (Field)	-		**6.5-8.5**	-	6.96	-	-	-	-	-	-	-	-	-	-	-	-

Table 9 - Residential Well Quality

			Location Code	R3	R3	R3	R3	R3	R4	R4	R4	R4	R4	R4	R4	R4	R4
			Date	02 Jul 2019	29 Oct 2019	26 May 2020	18 Nov 2020	15 Oct 2025	18 May 2012	23 Oct 2012	10 Jun 2013	25 Nov 2013	26 Jun 2014	22 May 2015	19 Nov 2015	30 May 2016	31 Oct 2016
	Unit	EQL	ODWQS														
Arsenic	µg/L	0.1	**25**	<0.2	<0.2	<0.2	<0.2	0.2	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2
Barium	µg/L	0.02	**1,000**	37.7	49.5	27.9	91.5	1	144	163	115	123	178	112	119	140	180
Boron	µg/L	2	**5,000**	10	48	26	21	31	19.7	34.1	21.0	22.9	23.9	19.9	47.5	20	24
Calcium	µg/L	10		56,200	56,900	27,200	117,000	990	128,000	132,000	108,000	111,000	140,000	114,000	114,000	148,000	161,000
Chloride	µg/L	200	**250,000**	32,000	92,000	41,000	81,000	71,600	180,000	**270,000**	130,000	55,000	**300,000**	44,000	130,000	250,000	**380,000**
Iron	µg/L	3	**300**	<7	**591**	9	17	32	48	22	12	77	9	4	<7	23	25
Magnesium	µg/L	1		1,580	1,840	1,160	3,650	<20	4,170	4,180	3,560	3,600	4,420	3,830	3,310	4,270	4,500
Manganese	µg/L	0.01	**50**	0.56	**263**	**73.4**	3.18	<1	-	-	-	-	-	0.20	0.79	0.88	0.85
Phosphorus total (P2O5)	µg/L	10		<30	-	<30	-	30	-	-	-	-	-	40	-	60	-
Potassium	µg/L	2		1,420	793	700	1,570	200	-	-	-	-	-	6,810	3,130	3,230	2,970
Sodium	µg/L	10	**200,000**	70,400	123,000	124,000	49,100	185,000	105,000	180,000	64,600	49,100	143,000	25,800	110,000	121,000	**261,000**
Alkalinity (total) as CaCO3	mg/L	2	**500**	243	257	237	277	281	284	337	185	98	316	298	361	285	348
Total Dissolved Solids	mg/L	3	**500**	343	480	331	434	408	**606**	**846**	**526**	**734**	**854**	403	**637**	**731**	**1,050**
Chemical Oxygen Demand	mg/L	5		<8	<8	<8	<8	27	16	<8	<8	<8	<8	10	<8	8	<8
Hardness as (CaCO3)	mg/L	0.02	**500**	-	-	-	-	2.49	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (filtered)	mg/L	0.2	**5**	3	2	3	2	**7.7**	2.1	2.3	2.8	3.7	3.2	3.1	2.4	2.5	5
Phenols (4AAP)	mg/L	0.001		<0.002	-	<0.002	-	<0.001	-	-	-	-	-	<0.002	-	0.004	-
Sulphate (filtered)	mg/L	0.2	**500**	<2	19	8	8	10	11	19	9.8	12	13	11	24	130	20
Ammonia as N	mg/L	0.01		<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrate (as N)	mg/L	0.05	**10**	0.62	3.56	2.16	0.81	2.22	0.49	3.46	0.78	1.57	0.68	1.11	5.12	0.62	3.50
Total Kjeldahl Nitrogen	mg/L	0.1		<0.5	-	<0.5	-	0.2	-	-	-	-	-	<0.5	-	<0.5	-
Electrical Conductivity (Lab)	µS/cm	1		552	825	530	776	778	1,110	1,570	908	993	1,500	699	1,100	1,261	1,960
pH (Lab)	-	0.05	**6.5-8.5**	7.95	7.72	7.96	7.67	7.98	7.99	8.06	8.03	6.88	7.98	7.99	7.69	7.98	7.83
DO (Field)	mg/L			-	-	-	-	6.05	-	-	-	-	-	-	-	-	-
Redox (Field)	mV			-	-	-	-	54	-	-	-	-	-	-	-	-	-
Temperature (Field)	°C			-	-	-	-	15.7	-	-	-	-	-	-	-	-	-
Conductivity (field)	µS/cm			-	-	-	-	740	-	-	-	-	-	-	-	-	-
pH (Field)	-		**6.5-8.5**	-	-	-	-	7.49	-	-	-	-	-	-	-	-	-

Table 9 - Residential Well Quality

			Location Code	R4	R4	R4	R4	R4	R4	R4	R4	R4	R4	R4
			Date	31 May 2017	04 Oct 2017	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020	28 Jun 2021	11 Nov 2021	12 Apr 2022	23 Oct 2023	15 Oct 2025
	Unit	EQL	ODWQS											
Arsenic	µg/L	0.1	**25**	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	0.1	0.2	0.2	0.1	0.1
Barium	µg/L	0.02	**1,000**	118	152	117	141	114	125	128	122	126	179	175
Boron	µg/L	2	**5,000**	18	32	16	29	16	31	20	26	12	19	26
Calcium	µg/L	10		109,000	133,000	128,000	120,000	116,000	126,000	127,000	113,000	120,000	149,000	139,000
Chloride	µg/L	200	**250,000**	50,000	**280,000**	52,000	210,000	210,000	220,000	183,000	126,000	85,200	**292,000**	**326,000**
Iron	µg/L	3	**300**	<7	19	<7	14	11	8	6	<5	<5	7	<5
Magnesium	µg/L	1		2,840	4,200	3,290	3,290	3,750	3,290	3,870	3,200	3,280	4,390	4,590
Manganese	µg/L	0.01	**50**	0.07	0.73	0.1	0.61	0.42	0.22	<1	<1	<1	1	<1
Phosphorus total (P2O5)	µg/L	10		<30	-	-	-	<30	-	10	30	40	80	20
Potassium	µg/L	2		4,840	3,120	3,260	3,220	2,950	3,160	2,800	2,700	4,300	3,400	3,800
Sodium	µg/L	10	**200,000**	28,900	186,000	34,600	153,000	138,000	165,000	121,000	123,000	54,500	160,000	176,000
Alkalinity (total) as CaCO3	mg/L	2	**500**	259	403	288	336	304	347	267	338	251	370	318
Total Dissolved Solids	mg/L	3	**500**	406	**880**	411	**726**	**629**	**797**	**605**	**563**	429	**931**	**882**
Chemical Oxygen Demand	mg/L	5		<8	9	25	<8	<8	18	<5	8	7	<5	15
Hardness as (CaCO3)	mg/L	0.02	**500**	-	-	-	-	-	-	333	294	313	391	366
Dissolved Organic Carbon (filtered)	mg/L	0.2	**5**	4	3	5	1	2	4	2	2.1	2.5	2	3.3
Phenols (4AAP)	mg/L	0.001		0.002	-	<0.002	-	0.002	-	<0.002	<0.002	<0.001	<0.001	<0.001
Sulphate (filtered)	mg/L	0.2	**500**	17	18	13	17	10	14	12	10	13	15	15
Ammonia as N	mg/L	0.01		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.05	<0.05
Nitrate (as N)	mg/L	0.05	**10**	1.93	0.61	3.15	1.59	0.56	2.12	1.38	0.97	3.6	0.86	2.33
Total Kjeldahl Nitrogen	mg/L	0.1		<0.5	-	<0.5	-	<0.5	-	0.2	0.2	0.3	-	0.5
Electrical Conductivity (Lab)	µS/cm	1		666	1,610	743	1,290	1,130	1,340	1,130	1,050	815	1,700	1,610
pH (Lab)	-	0.05	**6.5-8.5**	7.79	7.39	8.01	7.75	7.72	7.85	7.87	8.21	7.69	7.63	7.89
DO (Field)	mg/L			-	-	-	-	-	-	8.86	8.16	2.15	11.04	9.74
Redox (Field)	mV			-	-	-	-	-	-	145	17	139	42	76
Temperature (Field)	°C			-	-	-	-	-	-	13.4	19.1	21.1	10.3	9.7
Conductivity (field)	µS/cm			-	-	-	-	-	-	1,046	425	714	1,582	1,627
pH (Field)	-		**6.5-8.5**	-	-	-	-	-	-	7.36	7.22	7.12	7.13	6.88

Table 10 - Surface Water Quality

				Location Code	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1
				Date	01 Nov 2011	18 May 2012	10 Jun 2013	04 Nov 2013	26 Jun 2014	06 Nov 2014	22 May 2015	19 Nov 2015	16 May 2016	30 May 2019	29 Oct 2019	26 May 2020	18 Nov 2020
	Unit	EQL	Other	PWQO													
Arsenic	µg/L	0.1		5	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	-	<0.2
Barium	µg/L	0.02			-	-	-	-	-	137	82.2	137	78.7	76.4	115	-	132
Boron	µg/L	2	1,500 [#1]	200	-	-	-	-	-	20.0	14.8	23.0	13	17	25	-	52
Cadmium	µg/L	0.003		0.1..0.5 [#7]	-	-	-	-	-	0.008	0.006	0.010	0.005	0.005	0.03	-	0.008
Chloride	µg/L	200	120,000 [#2]		75,000	52,000	48,000	50,000	50,000	72,000	59,000	64,000	61,000	56,000	33,000	-	63,000
Chromium (III+VI)	µg/L	0.03		1 [#8]	-	-	-	-	-	<0.03	0.06	0.20	0.53	0.16	0.16	-	0.46
Copper	µg/L	0.02		1..5 [#7]	-	-	-	-	-	0.58	0.68	**1.12**	0.58	0.7	**3.9**	-	0.9
Iron	µg/L	3	1,000 [#3]	300	36	42	5	9	<2	12	43	26	23	10	42	-	68
Lead	µg/L	0.01		1..5 [#7]	-	-	-	-	-	0.05	0.01	0.07	0.04	<0.01	0.29	-	0.07
Magnesium	µg/L	1			-	-	-	-	-	-	3,350	4,300	3,490	3,270	3,850	-	4,590
Manganese	µg/L	0.01			-	-	-	-	-	-	0.80	1.07	0.74	3.06	29.9	-	13
Mercury (filtered)	µg/L	0.01		0.2	-	-	-	-	-	<0.01	<0.01	<0.01	<0.01	<10	<10	-	<10
Phosphorus total (P2O5)	µg/L	3		30	**90**	<30	**80**	<30	<30	**60**	12	<30	<30	6	**48**	-	9
Potassium	µg/L	2			-	-	-	-	-	-	941	1,660	1,010	1,510	2,290	-	1,730
Zinc	µg/L	2		20	-	-	-	-	-	2	4	3	5	3	12	-	3
Alkalinity (total) as CaCO3	mg/L	2			262	231	225	218	271	288	253	273	225	240	245	-	267
Total Dissolved Solids	mg/L	3			474	337	360	329	360	440	374	431	383	366	354	-	406
Chemical Oxygen Demand	mg/L	5			11	<8	<8	8	<8	12	9	10	<8	<8	16	-	<8
Hardness as (CaCO3)	mg/L	0.02			-	-	-	-	-	-	-	-	-	-	-	-	-
Total Suspended Solids	mg/L	2			<2	6	2	<2	<2	<2	4	<2	<2	5	2	-	4
Biochemical Oxygen Demand	mg/L	2			<2	<4	<4	<4	<2	<4	<4	<4	<4	<4	16	-	<4
Dissolved Organic Carbon (filtered)	mg/L	0.2			-	-	-	-	-	-	-	-	-	-	-	-	-
Phenols (4AAP)	mg/L	0.001		0.001	<0.001	**0.002**	<0.001	<0.001	**0.002**	<0.001	<0.001	0.001	<0.001	**0.004**	**0.01**	-	<0.001
Sulphate (filtered)	mg/L	0.2	128..429 [#4]		30	5.2	3.1	23	2.9	16	<1	15	6	4	17	-	17
Ammonia as N	mg/L	0.01			0.3	<0.1	0.3	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Nitrate (as N)	mg/L	0.05	3 [#5]		1.00	0.48	0.59	0.34	0.82	0.64	0.32	0.54	0.44	0.18	1	-	2.24
Nitrite (as N)	mg/L	0.05	0.06 [#6]		<0.06	<0.06	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	-	<0.03
Total Kjeldahl Nitrogen	mg/L	0.1			1.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Ammonia, Unionized	mg/L	0.01		0.02	-	-	-	-	-	-	-	-	-	<0.005	<0.005	<0.005	<0.005
Electrical Conductivity (Lab)	µS/cm	1			774	601	595	625	656	749	642	746	651	603	587	-	717
pH (Lab)	-	0.05		6.5-8.5	8.06	8.00	7.91	8.19	8.08	8.00	7.92	7.79	8.10	8.09	7.85	-	7.61
DO (Field)	mg/L			5	-	-	-	-	-	-	-	-	-	5.9	5.71	8.29	10.2
Redox (Field)	mV				-	-	-	-	-	-	-	-	-	-	180	145	120
Temperature (Field)	°C				-	-	-	-	-	-	-	-	-	13.8	12.2	18	2.7
Conductivity (field)	µS/cm				-	-	-	-	-	-	-	-	-	505	441	517	375
pH (Field)	-			6.5-8.5	-	-	-	-	-	-	-	-	-	7.75	7.92	7.55	**8.81**

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 10 - Surface Water Quality

				Location Code	S1	S1	S1	S1	S1	S1	S2	S2	S2	S2	S2	S2	S2
				Date	01 Nov 2011	11 Nov 2021	12 Apr 2022	12 Apr 2023	15 Apr 2024	07 Apr 2025	06 Nov 2014	22 May 2015	19 Nov 2015	16 May 2016	30 May 2019	29 Oct 2019	26 May 2020
	Unit	EQL	Other	PWQO													
Arsenic	µg/L	0.1		**5**	-	0.1	0.1	0.1	0.1	0.2	0.5	<0.2	0.6	0.2	<0.2	0.5	-
Barium	µg/L	0.02			-	94	67	59	66	62	110	108	109	91.5	59.3	115	-
Boron	µg/L	2	**1,500** [#1]	**200**	-	24	<5	11	6	10	19.7	17.9	16.5	16	13	30	-
Cadmium	µg/L	0.003		**0.1..0.5** [#7]	-	<0.015	<0.015	<0.015	<0.015	<0.015	0.015	0.006	0.022	0.006	0.003	0.071	-
Chloride	µg/L	200	**120,000** [#2]		75,000	71,800	38,300	32,000	41,200	41,000	98,000	34,000	84,000	29,000	67,000	36,000	-
Chromium (III+VI)	µg/L	0.03		**1** [#8]	-	<1	<1	<1	<1	<1	<0.03	0.05	0.15	0.48	0.12	0.32	-
Copper	µg/L	0.02		**1..5** [#7]	-	0.6	0.5	0.9	0.6	0.7	0.69	**1.02**	**1.65**	**1.40**	0.7	**4.4**	-
Iron	µg/L	3	**1,000** [#3]	**300**	36	27	32	217	24	64	30	42	51	44	20	25	-
Lead	µg/L	0.01		**1..5** [#7]	-	0.03	0.03	0.56	0.03	0.11	0.06	<0.01	0.08	0.07	<0.01	0.17	-
Magnesium	µg/L	1			-	-	-	-	2,760	2,640	-	3,830	4,030	3,480	2,900	4,670	-
Manganese	µg/L	0.01			-	-	-	-	4	15	-	15.2	30.8	7.05	14.3	28.6	-
Mercury (filtered)	µg/L	0.01		**0.2**	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<10	<10	-
Phosphorus total (P2O5)	µg/L	3		**30**	**90**	20	20	**70**	20	**120**	**50**	21	<30	<30	8	**404**	-
Potassium	µg/L	2			-	-	-	-	1,100	1,100	-	2,330	2,690	1,940	1,070	6,100	-
Zinc	µg/L	2		**20**	-	<5	<5	6	<5	7	4	5	8	7	3	9	-
Alkalinity (total) as CaCO3	mg/L	2			262	277	202	171	200	164	257	269	251	222	235	168	-
Total Dissolved Solids	mg/L	3			474	385	257	221	264	236	483	351	446	346	363	489	-
Chemical Oxygen Demand	mg/L	5			11	13	23	21	9	7	38	9	18	<8	11	60	-
Hardness as (CaCO3)	mg/L	0.02			-	275	211	169	199	197	-	-	-	-	-	-	-
Total Suspended Solids	mg/L	2			<2	<3	14	18	<3	11	6	<2	3	2	<2	28	-
Biochemical Oxygen Demand	mg/L	2			<2	<3	<3	<3	<3	<3	4	<4	<4	<4	<4	23	-
Dissolved Organic Carbon (filtered)	mg/L	0.2			-	-	-	-	7.4	5.3	-	-	-	-	-	-	-
Phenols (4AAP)	mg/L	0.001		**0.001**	<0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001	**0.002**	0.001	**0.003**	**0.011**	-
Sulphate (filtered)	mg/L	0.2	**128..429** [#4]		30	8	6	8	7	5	42	2	26	9	7	89	-
Ammonia as N	mg/L	0.01			0.3	0.01	<0.01	0.03	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	-
Nitrate (as N)	mg/L	0.05	**3** [#5]		1.00	0.23	<0.05	0.05	<0.05	0.09	<0.06	<0.06	0.13	0.21	<0.06	**10.3**	-
Nitrite (as N)	mg/L	0.05	**0.06** [#6]		<0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.03	<0.03	<0.03	<0.03	<0.03	**1.16**	-
Total Kjeldahl Nitrogen	mg/L	0.1			1.5	0.3	0.3	0.6	0.2	0.7	0.7	<0.5	<0.5	<0.5	<0.5	1.1	-
Ammonia, Unionized	mg/L	0.01		**0.02**	-	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	-	-	<0.005	<0.005	<0.005
Electrical Conductivity (Lab)	µS/cm	1			774	738	496	437	510	456	793	591	779	551	638	675	-
pH (Lab)	-	0.05		**6.5-8.5**	8.06	7.99	7.96	8.07	8.06	7.52	8.07	7.98	7.88	8.24	7.7	7.72	-
DO (Field)	mg/L			**5**	-	6.58	10.57	9.41	10.26	9.78	-	-	-	-	7.3	5.06	6.04
Redox (Field)	mV				-	10	87	-66	229	134	-	-	-	-	-	190	151
Temperature (Field)	°C				-	8.8	12.5	11.1	12.6	7.4	-	-	-	-	14.9	13.9	18.1
Conductivity (field)	µS/cm				-	324	456	417	506	489	-	-	-	-	555	648	498
pH (Field)	-			**6.5-8.5**	-	7.22	7.45	7.53	7.6	7	-	-	-	-	7.52	7.74	7.5

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

#4 Depends on hardness. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife, & Agriculture (BCMOE, 2016)

#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 10 - Surface Water Quality

				Location Code	S1	S2	S2	S2	S2	S3	S3
				Date	01 Nov 2011	18 Nov 2020	12 Apr 2023	15 Apr 2024	07 Apr 2025	12 Apr 2023	07 Apr 2025
	Unit	EQL	Other	PWQO							
Arsenic	µg/L	0.1		**5**	-	0.8	0.2	<0.1	<0.1	0.1	0.2
Barium	µg/L	0.02			-	106	84	59	32	57	61
Boron	µg/L	2	1,500 #1	**200**	-	52	11	8	6	15	18
Cadmium	µg/L	0.003		**0.1..0.5** #7	-	**0.111**	0.028	0.041	<0.015	0.021	0.019
Chloride	µg/L	200	120,000 #2		75,000	33,000	24,000	46,700	43,800	16,300	24,100
Chromium (III+VI)	µg/L	0.03		**1** #8	-	0.65	<1	<1	<1	<1	<1
Copper	µg/L	0.02		**1..5** #7	-	**5**	0.5	1.9	0.5	0.6	0.6
Iron	µg/L	3	1,000 #3	**300**	36	**316**	23	42	26	26	53
Lead	µg/L	0.01		**1..5** #7	-	0.48	0.02	0.17	0.06	0.05	0.14
Magnesium	µg/L	1			-	4,800	-	2,690	1,970	-	2,960
Manganese	µg/L	0.01			-	63.5	-	52	11	-	8
Mercury (filtered)	µg/L	0.01		**0.2**	-	<10	<0.02	<0.02	<0.02	<0.02	<0.02
Phosphorus total (P2O5)	µg/L	3		**30**	**90**	**136**	**60**	30	**40**	**50**	30
Potassium	µg/L	2			-	7,130	-	1,000	1,300	-	2,100
Zinc	µg/L	2		**20**	-	15	<5	18	5	<5	8
Alkalinity (total) as CaCO3	mg/L	2			262	220	215	201	138	138	136
Total Dissolved Solids	mg/L	3			474	423	248	272	214	165	182
Chemical Oxygen Demand	mg/L	5			11	58	12	13	14	21	14
Hardness as (CaCO3)	mg/L	0.02			-	-	206	212	146	142	163
Total Suspended Solids	mg/L	2			<2	34	<3	<3	6	<3	9
Biochemical Oxygen Demand	mg/L	2			<2	10	<3	<3	<3	<3	<3
Dissolved Organic Carbon (filtered)	mg/L	0.2			-	-	-	7.3	6.4	-	8.3
Phenols (4AAP)	mg/L	0.001		**0.001**	<0.001	**0.002**	<0.001	<0.001	<0.001	<0.001	**0.002**
Sulphate (filtered)	mg/L	0.2	128..429 #4		30	54	10	7	5	8	6
Ammonia as N	mg/L	0.01			0.3	<0.1	0.03	<0.05	<0.05	0.04	<0.05
Nitrate (as N)	mg/L	0.05	3 #5		1.00	0.49	0.07	<0.05	0.09	0.16	0.1
Nitrite (as N)	mg/L	0.05	0.06 #6		<0.06	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Total Kjeldahl Nitrogen	mg/L	0.1			1.5	0.7	0.4	0.3	0.3	0.5	0.5
Ammonia, Unionized	mg/L	0.01		**0.02**	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01
Electrical Conductivity (Lab)	µS/cm	1			774	604	491	525	415	327	354
pH (Lab)	-	0.05		**6.5-8.5**	8.06	7.72	7.95	8.15	7.21	7.86	7.1
DO (Field)	mg/L			**5**	-	10.5	8.67	7.84	9.62	7.6	8.47
Redox (Field)	mV				-	100	-72	183	197	-76	136
Temperature (Field)	°C				-	0.4	16.5	15.6	7.3	10.3	1.8
Conductivity (field)	µS/cm				-	305	478	517	465	313	396
pH (Field)	-			**6.5-8.5**	-	**9.36**	7.31	7.47	7.27	7.39	6.84

Comments

#1 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Boron (CCME, 2009)

#2 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Chloride (CCME, 2011)

#3 British Columbia Approved Water Quality Guidelines, Aquatic Life, Wildlife, & Agriculture (BCMOE, 2008)

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#5 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate (CCME, 2012)

#6 Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrite (CCME, 1987)

#7 Depends on Hardness

#8 PWQO value for Total Chromium based on more stringent Chromium VI criteria.

Table 11 - Landfill Gas Measurements

Well ID	Top of Screen Elevation (m)	Water Elevation (mASL)	Screen Saturated	6/24 and 28/2021		11-Nov-21		12-Apr-22		25-Oct-22		23-Oct-23		29-Oct-24	
				CH4 (% vol)	H2S (ppm)	CH4 (% vol)	H2S (ppm)	CH4 (% vol)	H2S (ppm)	CH4 (% vol)	H2S (ppm)	CH4 (% vol)	H2S (ppm)	CH4 (% vol)	H2S (ppm)
MW01-1	265.12	267.99	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	2.4	<0.05	<0.1
MW01-2	270.02	-	-	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW02-1	268.68	-	-	<0.05	<0.1	1.03	<0.1	<0.05	<0.1	1.90	<0.1	0.50	<0.1	5.03	<0.1
MW02-2	278.60	-	-	<0.05	<0.1	17	<0.1	<0.05	<0.1	5.00	<0.1	1.00	<0.1	5.03	<0.1
MW03-1	265.24	267.05	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW03-2	269.03	267.95	no	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW04-1	264.18	265.99	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW04-2	266.81	266.16	no	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW05-1	265.19	266.41	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW05-2	268.49	267.72	no	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW06-1	264.68	266.07	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW06-2	267.40	267.44	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW07-1	263.57	265.84	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW07-2	267.18	266.39	no	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	0.05	<0.1	<0.05	<0.1
MW08-1	260.95	265.50	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW08-2	264.56	264.73	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW09-1	258.85	266.03	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	0.09	<0.1	<0.05	<0.1	<0.05	16
MW09-2	262.61	265.48	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW10-1	259.60	265.56	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW10-2	262.84	265.54	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW11-1	260.06	265.52	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW11-2	263.28	265.49	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW12-1	262.68	266.03	yes	<0.05	<0.1	0.05	<0.1	<0.05	<0.1	0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW12-2	259.31	266.10	yes	<0.05	<0.1	0.85	<0.1	<0.05	<0.1	0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW12-3	256.43	266.15	yes	<0.05	<0.1	0.05	<0.1	<0.05	<0.1	0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW13-1	265.55	267.89	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1
MW13-2	267.72	267.83	yes	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1	<0.05	<0.1

Table 11 - Landfill Gas Measurements

Well ID	Top of Screen Elevation (m)	Water Elevation (mASL)	Screen Saturated	7-Apr-25		15-Oct-25	
				CH4 (% vol)	H2S (ppm)	CH4 (% vol)	H2S (ppm)
MW01-1	265.12	267.99	yes	-	-	<0.005	<0.1
MW01-2	270.02	-	-	-	-	<0.005	<0.1
MW02-1	268.68	-	-	0.25	<0.1	<0.005	<0.1
MW02-2	278.60	-	-	5.00	8.5	<0.005	<0.1
MW03-1	265.24	267.05	yes	<0.005	<0.1	<0.005	<0.1
MW03-2	269.03	267.95	no	<0.005	<0.1	<0.005	<0.1
MW04-1	264.18	265.99	yes	<0.005	<0.1	<0.005	<0.1
MW04-2	266.81	266.16	no	<0.005	<0.1	<0.005	<0.1
MW05-1	265.19	266.41	yes	<0.005	<0.1	<0.005	<0.1
MW05-2	268.49	267.72	no	<0.005	<0.1	<0.005	<0.1
MW06-1	264.68	266.07	yes	<0.005	<0.1	<0.005	<0.1
MW06-2	267.40	267.44	yes	<0.005	<0.1	<0.005	<0.1
MW07-1	263.57	265.84	yes	<0.005	<0.1	<0.005	<0.1
MW07-2	267.18	266.39	no	<0.005	<0.1	<0.005	<0.1
MW08-1	260.95	265.50	yes	<0.005	<0.1	<0.005	<0.1
MW08-2	264.56	264.73	yes	<0.005	<0.1	<0.005	<0.1
MW09-1	258.85	266.03	yes	<0.005	<0.1	<0.005	<0.1
MW09-2	262.61	265.48	yes	<0.005	<0.1	<0.005	<0.1
MW10-1	259.60	265.56	yes	<0.005	<0.1	<0.005	<0.1
MW10-2	262.84	265.54	yes	<0.005	<0.1	<0.005	<0.1
MW11-1	260.06	265.52	yes	<0.005	<0.1	<0.005	<0.1
MW11-2	263.28	265.49	yes	<0.005	<0.1	<0.005	<0.1
MW12-1	262.68	266.03	yes	<0.005	32	<0.005	<0.1
MW12-2	259.31	266.10	yes	<0.005	<0.1	<0.005	<0.1
MW12-3	256.43	266.15	yes	<0.005	<0.1	<0.005	<0.1
MW13-1	265.55	267.89	yes	<0.005	<0.1	<0.005	<0.1
MW13-2	267.72	267.83	yes	<0.005	<0.1	<0.005	<0.1

Table 12 - Monthly Summary of Accepted Materials

	Waste (tonnes)	C&D Materials (tonnes)	Blue Box Containers/Fibres (tonnes)	Alcohol Containers (Units)	CFC Appliances (Units)	MHSW (tonnes)	Organics (tonnes)	Scrap Metal (tonnes)	Tires (Units)	WEEE (tonnes)	Wood Waste (tonnes)
January	200.6	-	3.53	70	-	-	2.67	1.16	1	-	-
February		-	4.17	-	-	-	1.98	-	-	-	-
March		-	2.66	-	3	-	0.98	-	2	2.02	1.98
April	257.8	-	3.57	-	-	-	1.48	0.99	42	-	2.86
May		2.24	4.58	260	3	2.42	1.92	-	99	-	9.18
June		-	5.48	340	5	-	1.81	3.81	44	2.20	9.05
July	292.1	3.84	8.05	580	3	-	5.11	-	5	-	7.71
August		2.23	6.17	565	5	4.51	4.43	2.28	35	1.71	3.80
September		1.68	6.81	400	5	-	3.29	-	89	-	10.63
October	240.8	-	4.82	670	1	-	4.42	2.93	5	-	9.09
November		1.01	4.08	-	9	-	1.85	3.11	7	-	5.54
December		-	4.36	-	2	-	1.21	-	-	2.47	4.93
Total	**991.30**	**11.00**	**58.28**	**2885**	**36**	**6.93**	**31.14**	**14.28**	**329**	**8.40**	**64.77**

Appendices

Appendices

The following appendices are available in Part II – Appendices.

Appendix A **Monitoring and Screening Checklist**

Appendix B **Provisional Compliance Approval No. A341004**

Appendix C **Field and Precipitation Data**

Appendix D **Laboratory Certificates of Analysis**

Appendix E **Photographs**

Appendix F **Borehole Logs**

Appendix G **Ministry Well Records**

Fully accessible appendices available upon request.

2025 Annual Report, Hall's Glen Waste Transfer Station

Part II - Appendices

Environmental Compliance Approval No. A341004

March 27, 2026

Prepared for:
The Township of Douro-Dummer

Cambium Reference: 12987-002

CAMBIUM INC.

866.217.7900

cambium-inc.com

Appendix A Monitoring and Screening Checklist

Appendix D-Monitoring and Screening Checklist
General Information and Instructions

General Information: The checklist is to be completed, and submitted with the Monitoring Report.
Instructions: A complete checklist consists of:
(a) a completed and signed checklist, including any additional pages of information which can be attached as needed to provide further details where indicated.
(b) completed contact information for the Competent Environmental Practitioner (CEP)
(c) self-declaration that CEP(s) meet(s) the qualifications as set out below and in Section 1.2 of the Technical Guidance Document.

Definition of Groundwater CEP:
For groundwater, the CEP must have expertise in hydrogeology and meet one of the following:
(a) the person holds a licence, limited licence or temporary licence under the *Professional Engineers Act*; or
(b) the person holds a certificate of registration under the *Professional Geoscientists Act, 2000* and is a practicing member, temporary, member or limited member of the Association of Professional Geoscientists of Ontario. O. Reg. 66/08, s. 2..
Definition of Surface water CEP:
A CEP for surface water assessments is a scientist, professional engineer or professional geoscientist as described in (a) and (b) above with demonstrated experience and post-secondary education, either a diploma or degree, in hydrology, aquatic ecology, limnology, aquatic biology, physical geography with specialization in surface water, and/or water resource management.

The type of scientific work that a CEP performs must be consistent with that person's education and experience. If an individual has appropriate training and credentials in both groundwater and surface water and is responsible for both areas of expertise, the CEP may then complete and validate both sections of the checklist.

Monitoring Report and Site Information	
Waste Disposal Site (WDS) Name	Hall's Glen Waste Transfer Station
Location (e.g. street address, lot, concession)	Lot 25, Concession 84 geographic Township of Dummer, 1951 County Road 6
GPS Location (taken within the property boundary at front gate/ front entry)	Zone 17, 727911 m east, 4933207 m north, North American Datum (NAD) 83
Municipality	Township of Douro-Dummer
Client and/or Site Owner	The Corporation of the Township of Douro-Dummer
Monitoring Period (Year)	2025
This Monitoring Report is being submitted under the following:	
Environmental Compliance Approval (ECA) Number (formerly "Certificate of Approval" (C of A)) :	A341004
Director's Order No.:	
Provincial Officer's Order No.:	

Other:			
Report Submission Frequency	◉ **Annual** ○ **Other**		
The site is: **(Operation Status)**	○ **Open** ○ **Inactive** ○ **Closed**		
Is there an active waste transfer station at the site?	◉ **Yes** ○ **No**		
Does this WDS have a Closure Plan?	○ **Not yet submitted** ○ **Submitted and under review** ◉ **Submitted and approved**		
Total Approved Capacity		*Units*	Cubic Metres
Maximum Approved Fill Rate		*Units*	Cubic Metres
Total Waste Received within Monitoring Period (Year)		*Units*	Cubic Metres
Total Waste Received within Monitoring Period (Year) *Describe the methodology used to determine this quantity*	Weighed		
Estimated Remaining Capacity		*Units*	Cubic Metres
Estimated Remaining Capacity *Describe the methodology used to determine this quantity*			
Estimated Remaining Capacity *Date Last Determined*			
Non-Hazardous Approved Waste Types	☒ Domestic ☐ Industrial, Commercial & Institutional (IC&I) ☒ Source Separated Organics (Green Bin) ☐ Tires	☐ Contaminated Soil ☐ Wood Waste ☒ Blue Box Material ☐ Processed Organics ☐ Leaf and Yard Waste	☐ Food Processing/Preparation Operations Waste ☐ Hauled Sewage Other: MHSW, WEEE
Subject Waste Approved Waste Classes: Hazardous & Liquid Industrial *(separate waste classes by comma)*	Municipal Special and Hazardous Wastes (MHSW) including Waste Class Nos. 112, 121, 122, 145, 146, 147, 148, 212, 213, 221, 242, 252, 261, 263, 269, 312, and 331 used by residents to transport MHSW		

Year Site Opened *(enter the Calendar Year only)*	1977	**Current ECA Issue Date**	22/08/16

Is your Site required to submit Financial Assurance?	○ **Yes** ◉ **No**
Describe how your WDS is designed.	◉ Natural Attenuation only ○ Fully engineered Facility ○ Partially engineered Facility
Does your Site have an approved Contaminant Attenuation Zone?	○ **Yes** ◉ **No**
If closed, specify ECA, control or authorizing document closure date:	15/05/02

Has the nature of the operations at the site changed during this monitoring period?	○ **Yes** ◉ **No**
If yes, provide details:	

Have any measurements been taken since the last reporting period that indicate landfill gas volumes have exceeded the MOE limits for subsurface or adjacent buildings? (i.e. exceeded the LEL for methane)	○ Yes ◉ No

Groundwater WDS Verification:

Based on all available information about the site and site knowledge, it is my opinion that:

Sampling and Monitoring Program Status:

1) The monitoring program continues to effectively characterize site conditions and any groundwater discharges from the site. All monitoring wells are confirmed to be in good condition and are secure:	○ **Yes** ◉ **No**	A blockage in monitoring well MW02-1 was reported preventing water level and sample collection. Since no samples have been collected from either MW02-1 or MW02-2 (Nest wells), it was recommended that these well be removed from the monitoring program and decommissioned.
2) All groundwater, leachate and landfill gas sampling and monitoring for the monitoring period being reported on was successfully completed as required by ECA or other relevant authorizing/ control document(s):	◉ **Yes** ○ **No** ○ **Not Applicable**	If no, list exceptions below or attach information.

Groundwater Sampling Location	**Description/Explanation for change (change in name or location, additions, deletions)**	**Date**

3) a) Some or all groundwater, leachate and landfill gas sampling and monitoring requirements have been established or defined outside of a ministry ECA, authorizing, or control document.	○ **Yes** ◉ **No** ○ **Not Applicable**	
b) If yes, the sampling and monitoring identified under 3(a) for the monitoring period being reported on was successfully completed in accordance with established protocols, frequencies, locations, and parameters developed as per the Technical Guidance Document:	○ **Yes** ○ **No** ◉ **Not Applicable**	If no, list exceptions below or attach additional information.

Groundwater Sampling Location	**Description/Explanation for change (change in name or location, additions, deletions)**	**Date**

4) All field work for groundwater investigations was done in accordance with Standard Operating Procedures (SOP) as established/outlined per the Technical Guidance Document (including internal/external QA/QC requirements) (Note: A SOP can be from a published source, developed internally by the site owner's consultant, or adopted by the consultant from another organization):	(●) **Yes** ( ) **No**	
Sampling and Monitoring Program Results/WDS Conditions and Assessment:		
5) The site has an adequate buffer, Contaminant Attenuation Zone (CAZ) and/ or contingency plan in place. Design and operational measures, including the size and configuration of any CAZ, are adequate to prevent potential human health impacts and impairment of the environment.	(●) **Yes** ( ) **No**	
6) The site meets compliance and assessment criteria.	( ) **Yes** (●) **No**	Refer to Section 4.2.6 of the AMR.
7) The site continues to perform as anticipated. There have been no unusual trends/ changes in measured leachate and groundwater levels or concentrations.	(●) **Yes** ( ) **No**	

1) Is one or more of the following risk reduction practices in place at the site: ***(a)*** **There is minimal reliance on natural attenuation of leachate due to the presence of an effective waste liner and active leachate collection/ treatment; or** ***(b)*** **There is a predictive monitoring program in-place (modeled indicator concentrations projected over time for key locations); or** ***(c)*** **The site meets the following two conditions (typically achieved after 15 years or longer of site operation):** ***i.*** **The site has developed stable leachate mound(s) and stable leachate plume geometry/ concentrations; and** ***ii.*** **Seasonal and annual water levels and water quality fluctuations are well understood.**	◉ **Yes** ○ **No**	**Note which practice(s):**	☐ **(a)** ☐ **(b)** ☒ **(c)**
9) Have trigger values for contingency plans or site remedial actions been exceeded (where they exist):	○ **Yes** ○ **No** ◉ **Not Applicable**		

Groundwater CEP Declaration:

I am a licensed professional Engineer or a registered professional geoscientist in Ontario with expertise in hydrogeology, as defined in Appendix D under Instructions. Where additional expertise was needed to evaluate the site monitoring data, I have relied on individuals who I believe to be experts in the relevant discipline, who have co-signed the compliance monitoring report or monitoring program status report, and who have provided evidence to me of their credentials.

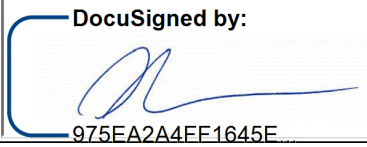
I have examined the applicable Environmental Compliance Approval and any other environmental authorizing or control documents that apply to the site. I have read and followed the Monitoring and Reporting for Waste Disposal Sites Groundwater and Surface Water Technical Guidance Document (MOE, 2010, or as amended), and associated monitoring and sampling guidance documents, as amended from time to time. I have reviewed all of the data collected for the above-referenced site for the monitoring period(s) identified in this checklist. Except as otherwise agreed with the ministry for certain parameters, all of the analytical work has been undertaken by a laboratory which is accredited for the parameters analysed to *ISO/IEC 17025:2005 (E)- General requirements for the competence of testing and calibration laboratories,* or as amended from time to time by the ministry.

If any exceptions or potential concerns have been noted in the questions in the checklist attached to this declaration, it is my opinion that these exceptions and concerns are minor in nature and will be rectified for the next monitoring/reporting period. Where this is not the case, the circumstances concerning the exception or potential concern and my client's proposed action have been documented in writing to the Ministry of the Environment District Manager in a letter from me dated:

Recommendations:

Based on my technical review of the monitoring results for the waste disposal site:

○ **No changes to the monitoring program are recommended**	Field staff reported a blockage in well MW02-1. Historically, no samples have been collected from either locations at nest well MW02 due to limited sample volumes. It is recommended that these monitors be removed from the monitoring program and decommissioned. The reporting frequency should be reduced from annually to biennially.
◉ **The following change(s) to the monitoring program is/ are recommended:**	
◉ **No Changes to site design and operation are recommended**	
○ **The following change(s) to the site design and operation is/are recommended:**	
Name:	Stephanie Reeder, P. Geo., C.E.T. DS
Seal:	PROFESSIONAL GEOSCIENTIST STEPHANIE REEDER PRACTISING MEMBER 2516 ONTARIO 2026-03-27

Signature:	DocuSigned by:  975EA2A4FF1645E...	**Date:**	2026-03-27
CEP Contact Information:	Stephanie Reeder, P. Geo., C.E.T.		
Company:	Cambium Inc.		
Address:	194 Sophia Street Peterborough, Ontario K9H 1E5		
Telephone No.:	705-872-8797	Fax No. :	705-742-7907
E-mail Address:	stephanie.reeder@cambium-inc.com		
Co-signers for additional expertise provided:			
Signature:		**Date:**	
Signature:		**Date:**	

Surface Water WDS Verification:

Provide the name of surface water body/bodies potentially receiving the WDS effluent and the approximate distance to the waterbody (including the nearest surface water body/bodies to the site):	
Name (s)	unevaluated wetlands

Distance(s)	on-site

Based on all available information and site knowledge, it is my opinion that:

Sampling and Monitoring Program Status:

1) The current surface water monitoring program continues to effectively characterize the surface water conditions, and includes data that relates upstream/background and downstream receiving water conditions:	◉ **Yes** ○ **No**	
2) All surface water sampling for the monitoring period being reported was successfully completed in accordance with the ECA or relevant authorizing/control document(s) (if applicable):	◉ **Yes** ○ **No** ○ **Not applicable**	If no, specify below or provide details in an attachment.

Surface Water Sampling Location	**Description/Explanation for change (change in name or location, additions, deletions)**	**Date**

3) a) Some or all surface water sampling and monitoring program requirements for the monitoring period have been established outside of a ministry ECA or authorizing/control document.	○ **Yes** ◉ **No** ○ **Not Applicable**	
b) If yes, all surface water sampling and monitoring identified under 3 (a) was successfully completed in accordance with the established program from the site, including sampling protocols, frequencies, locations and parameters) as developed per the Technical Guidance Document:	○ **Yes** ○ **No** ◉ **Not Applicable**	If no, specify below or provide details in an attachment.

Surface Water Sampling Location	Description/Explanation for change (change in name or location, additions, deletions)	Date

4) All field work for surface water investigations was done in accordance with SOP, including internal/external QA/QC requirements, as established/outlined as per the Technical Guidance Document, MOE 2010, or as amended. (Note: A SOP can be from a published source, developed internally by the site owner's consultant, or adopted by the consultant from another organization):	(●) Yes ( ) No	

Sampling and Monitoring Program Results/WDS Conditions and Assessment:

5) The receiving water body meets surface water-related compliance criteria and assessment criteria: i.e., there are no exceedances of criteria, based on MOE legislation, regulations, Water Management Policies, Guidelines and Provincial Water Quality Objectives and other assessment criteria (e.g., CWQGs, APVs), as noted in Table A or Table B in the Technical Guidance Document (Section 4.6):	( ) Yes (●) No

If no, list parameters that exceed criteria outlined above and the amount/percentage of the exceedance as per the table on the following page or provide details in an attachment:

Parameter	Compliance or Assessment Criteria or Background	Amount by which Compliance or Assessment Criteria or Background Exceeded
e.g. Nickel	e.g. ECA limit, PWQO, background	e.g. X% above PWQO
No exccedances reported	PWQO	Refer to Table 11
6) In my opinion, any exceedances listed in Question 5 are the result of non-WDS related influences (such as background, road salting, sampling site conditions)?	(●) **Yes** ( ) **No**	Refer to Section 4.4 of the AMR.

7) All monitoring program surface water parameter concentrations fall within a stable or decreasing trend. The site is not characterized by historical ranges of concentrations above assessment and compliance criteria.	○ **Yes** ◉ **No**	
8) For the monitoring program parameters, does the water quality in the groundwater zones adjacent to surface water receivers exceed assessment or compliance criteria (e.g. , PWQOs, CWQGs, or toxicity values for aquatic biota (APVs)):	◉ Yes ○ No ○ Not Known ○ Not Applicable	See Section 4.2.5 of the AMR for details.
9) Have trigger values for contingency plans or site remedial actions been exceeded (where they exist):	○ **Yes** ○ **No** ◉ **Not Applicable**	

Surface Water CEP Declaration:

I, the undersigned hereby declare that I am a Competent Environmental Practitioner as defined in Appendix D under Instructions, holding the necessary level of experience and education to design surface water monitoring and sampling programs, conduct appropriate surface water investigations and interpret the related data as it pertains to the site for this monitoring period.

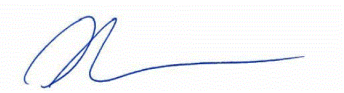
I have examined the applicable Environmental Compliance Approval and any other environmental authorizing or control documents that apply to the site. I have read and followed the Monitoring and Reporting for Waste Disposal Sites Groundwater and Surface Water Technical Guidance Document (MOE, 2010, or as amended) and associated monitoring and sampling guidance documents, as amended from time to time. I have reviewed all of the data collected for the above-referenced site for the monitoring period(s) identified in this checklist. Except as otherwise agreed with the ministry for certain parameters, all of the analytical work has been undertaken by a laboratory which is accredited for the parameters analysed to *ISO/IEC 17025:2005 (E)- General requirements for the competence of testing and calibration laboratories,* or as amended from time to time by the ministry.

If any exceptions or potential concerns have been noted in the questions in the checklist attached to this declaration, it is my opinion that these exceptions and concerns are minor in nature or will be rectified for future monitoring events. Where this is not the case, the circumstances concerning the exception or potential concern and my client's proposed action have been documented in writing to the Ministry of the Environment District Manager in a letter from me dated:

Recommendations:

Based on my technical review of the monitoring results for the waste disposal site:

(●) **No Changes to the monitoring program are recommended** ( ) **The following change(s) to the monitoring program is/are recommended:**	The reporting frequency should be reduced from annually to biennially.
(●) **No changes to the site design and operation are recommended** ( ) **The following change(s) to the site design and operation is/ are recommended:**	

CEP Signature	DocuSigned by:  975EA2A4FF1645E...
Relevant Discipline	Physical Geography
Date:	2026-03-27
CEP Contact Information:	Stephanie Reeder, P. Geo., C.E.T.
Company:	Cambium Inc.
Address:	194 Sophia Street Peterborough, Ontario K9H 1E5
Telephone No.:	(705) 872-8797
Fax No. :	(705) 742-7907
E-mail Address:	stephanie.reeder@cambium-inc.com

Appendix B Provisional Compliance Approval No. A341004

Ontario

Ministry of the Environment and Climate Change
Ministère de l'Environnement et de l'Action en matière de changement climatique

AMENDMENT TO ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER A341004
Notice No. 1
Issue Date: August 22, 2016

The Corporation of the Township of Douro-Dummer
894 South St P.O. Box 92
Post Office Box, No. 92
Warsaw, Ontario
K0L 3A0

Site Location: Hall's Glen Closed Landfill Site and Transfer Station
1951 County Road 6
Lot 25, Concession 4, Dummer Ward
Douro-Dummer Township, County of Peterborough

You are hereby notified that I have amended Approval No. A341004 issued on May 26, 2011 for a waste transfer station and a household hazardous waste depot at the closed Hall's Glen landfill site , as follows:

I. For the purposes of this Approval, the following definitions are hereby added:

"Household Hazardous Waste Collection Facility" or *"MHSW"* means the 20 feet by 40 feet area of the *Site* used for the transfer of hazardous and liquid industrial wastes listed under this Approval;

"MHSW Operator" means the County of Peterborough authorized by the *Owner* as having charge, management or control of any aspect of the *MHSW* ;

"Waste Transfer Site" or *"TS"* means the area of the *Site* used for the transfer of municipal waste, including solid non-hazardous commercial and industrial waste and recyclable materials as listed in Schedules 1 and 2 of Ontario Regulation 101/94, as well as waste categories 251, 252, 253 and 254 as described in the New Ontario Waste Classes, dated January, 1986, limited to waste oil of domestic origin only

II. Conditions 16, 24 (a), 40, 53 (a) and 54 of this Approval are hereby revoked and replaced by:

16. The TS shall only operate as follows:

(a) Summer (May 1st to October 31st) - Mondays, Wednesdays, Fridays and Saturdays: 10:00 a.m. to 2:00 p.m. ; Sundays: 10:00 a.m. to 6 p.m.

(b) Winter (November 1st to April 30) - Wednesdays, Saturdays and Sundays: 10 a.m. to 2 p.m.

24. (a) The amount of waste oil stored at the *Site* at any one time shall not exceed two thousand two hundred and seventy litres (2,270 L).

40. (1) (a) The *Site* shall only accept waste for bulking and temporary storage pending transfer to

an approved carrier disposal elsewhere, the following household hazardous wastes: Waste Class no. 112, 121, 122, 145, 146, 147, 148, 212, 213, 221, 242, 252, 261, 263, 269, 312 and 331 as described in the Ministry document "New Ontario Waste Classes" dated January 1986.

(b) The *Owner* shall accept the wastes listed under Conditions 40 (1) (a) and 58 during the hours of operation specified in Condition 16 of this Approval.

(2) The *Owner* is approved to hold *County* environmental day event(s), as operated by the *MHSW Operator* , to accept the wastes listed under Conditions 40 (1) (a) and 58. The *MHSW Operator* shall notify the *Owner* and the *District Manager* , in writing, fifteen (15) days in advance of the details of such an event. The event(s) shall be held subject to the terms and conditions of this Approval, and in accordance with the documents identified in Schedule "A".

53. (a) The *MHSW* Depot shall be operated and maintained in accordance with the updated MHSW Site Plan and Operational Manual identified in Appendix C of Item 20 of Schedule "A", as well as previous plans and specifications contained in Items 18 and 19 of Schedule "A", subject to the Conditions of this Approval.

54. Waste received at the *MHSW* Depot shall be stored in accordance with the updated MHSW Site Plan and Operational Manual identified in Appendix C of Item 20 of Schedule "A", as well as previous documentation submitted under Items 18 and 19 of Schedule "A" in a manner such that:

(a) all liquid wastes shall be stored in secondary containment that meets the requirements of the *Ministry* document entitled "Guidelines for Environmental Protection Measures at Chemical and Waste Storage Facilities" dated May 2007, as amended;

(b) containers and/or storage areas containing flammable and/or ignitable materials shall be adequately grounded;

(c) storage containers shall be clearly labelled indicating the type and nature of the hazardous waste stored as required by applicable legislation;

(d) all batteries shall be stored in a manner which prevents leakage;

(e) incompatible waste types shall be segregated during storage;

(f) all waste being transported from the Depot shall be transported in accordance with Ontario Regulation 347 and the Environmental Protection Act.

III. The following Item is hereby added to Schedule "A":

20. Letter by GHD Limited, dated January 7, 2016 and signed by Steven Gagne and Nyle McIlveen, including all appendices and attached documentation.

IV. The reasons for this amendment to the Approval are as follows:

1. The reason for Conditions 16 and 24 (a) is to change the hours of operation of the *Site* , and waste oil storage limit, as requested by The Corporation of the Township of Douro-Dummer

2. The reason for Conditions 40, 53 and 54 is to recognize changes to the *Household Hazardous Waste Collection Facility* , as requested by The Township of the Douro-Dummer and the County of

Peterborough.

This Notice shall constitute part of the approval issued under Approval No. A341004 dated May 26, 2011

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Director appointed for the
purposes of Part II.1 of the
Environmental Protection Act
Ministry of the Environment and
Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 22nd day of August, 2016

Dale Gable, P.Eng.
Director
appointed for the purposes of Part II.1 of
the *Environmental Protection Act*

MT/

c: District Manager, MOECC Peterborough
Nyle McIlveen, GHD, The Corporation of the Township of Douro-Dummer

Ontario

Ministry of the Environment
Ministère de l'Environnement

AMENDED PROVISIONAL CERTIFICATE OF APPROVAL
WASTE DISPOSAL SITE
NUMBER A341004
Issue Date: May 26, 2011

The Corporation of the Township of Douro-Dummer
894 South St
Post Office Box, No. 92
Warsaw, Ontario
K0L 3A0

Site Location: Hall's Glen Waste Transfer Station
1951 County Road 6
Lot 25, Concession 4, Dummer Ward
Douro-Dummer Township, County of Peterborough

You have applied in accordance with Section 27 of the Environmental Protection Act for approval of:

for the use and operation of a waste transfer station and a household hazardous waste depot at the closed Hall's Glen landfill site with a total site area of 48.5 hectares.

For the purpose of this Certificate of Approval and the terms and conditions specified below, the following definitions apply:

1.
"*Certificate*" means this entire *Provisional Certificate of Approval* document, issued in accordance with section 39 of the *EPA*, and includes any schedules to it, the application and the supporting documentation listed in Schedule "A";

"County" means the County of Peterborough.

"*Director*" means any *Ministry* employee appointed in writing by the *Minister* pursuant to section 5 of the *EPA* as a Director for the purposes of Part V of the *EPA*;

"*District Manager*" means the *District Manager* of the local district office of the *Ministry* in which the *Site* is geographically located;

"*EPA*" means *Environmental Protection Act*, R.S.O. 1990, c. E. 19, as amended;

"*Ministry*" means the Ministry of the Environment;

"*Operator*" means any person, other than the Owner's employees, authorized by the *Owner* as having the charge, management or control of any aspect of the site;

"*Owner*" means any person that is responsible for the establishment or operation of the site being approved by this *Certificate*, and includes Township of Douro-Dummer, and its successors and assigns;

"*OWRA*" means the *Ontario Water Resources Act*, R.S.O. 1990, c. O-40, as amended from time to time;

"*PA*" means the *Pesticides Act*, R.S.O. 1990, c. P-11, as amend from time to time;

"*Provincial Officer*" means any person designated in writing by the Minister as a Provincial Officer pursuant to section 5 of the *OWRA* or section 5 of the *EPA* or section 17 of *PA*.

"*Regional Director*" means the Regional Director of the local Regional Office of the *Ministry* in which the *Site* is located;

"*Reg. 347*" means Regulation 347, R.R.O. 1990, made under the *EPA*, as amended from time to time;

"*Site*" means the closed Landfill Site, Transfer Station and Household Hazardous Waste Collection operations being approved under this Certificate of Approval, at the Hall's Glen landfill site located on Part Lot 25, Concession 4, Township of Douro-Dummer, County of Peterborough.

"Township" means the Corporation of the Township of Douro-Dummer.

"Trained personnel" means knowledgeable in the following through instruction and/or practice:
i.. relevant waste management legislation, regulations and guidelines;
ii. major environmental concerns pertaining to the waste to be handled;
iii. occupational health and safety concerns pertaining to the processes and wastes to be handled;
iv. management procedures including the use and operation of equipment for the processes and wastes to be handled;
v. emergency response procedures;
vi. specific written procedures for the control of nuisance conditions;
vii. specific written procedures for refusal of unacceptable waste loads;
viii. the requirements of this *Certificate*.

"Waste electrical and electronic equipment (WEEE)" means devices listed in Schedules 1 through 7 of *Ontario Regulation 393/04.*

You are hereby notified that this approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

GENERAL

Compliance

2. The *Owner* and *Operator* shall ensure compliance with all the conditions of this *Certificate* and shall ensure that any person authorized to carry out work on or operate any aspect of the *Site* is notified of this *Certificate* and the conditions herein and shall take all reasonable measures to ensure any such person complies with the same.

3. Any person authorized to carry out work on or operate any aspect of the *Site* shall comply with the conditions of this *Certificate*.

Build, etc. in Accordance

4. Except as otherwise provided by this *Certificate*, the *Site* shall be designed, developed, built, operated and maintained in accordance with the applications for this *Certificate* and all supporting documentation listed in Schedule "A".

Interpretation

5. Where there is a conflict between a provision of any document, including the application, referred to in this *Certificate*, and the conditions of this *Certificate,* the conditions in this *Certificate* shall take precedence.

6. Where there is a conflict between the application and a provision in any documents listed in Schedule "A", the application shall take precedence, unless it is clear that the purpose of the document was to amend the application and that the *Ministry* approved the amendment.

7. Where there is a conflict between any two documents listed in Schedule "A", other than the application, the document bearing the most recent date shall take precedence.

8. The requirements of this *Certificate* are severable. If any requirement of this *Certificate*, or the application of any requirement of this *Certificate* to any circumstance, is held invalid or unenforceable, the application of such requirement to

other circumstances and the remainder of this *Certificate* shall not be affected thereby.

Other Legal Obligations

9. The issuance of, and compliance with the conditions of, this *Certificate* does not:
a. relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement; or
b. limit in any way the authority of the *Ministry* to require certain steps be taken or to require the *Owner* and *Operator* to furnish any further information related to compliance with this *Certificate*;

Adverse Effects

10. The *Owner* and *Operator* shall take steps to minimize and ameliorate immediately any adverse effect on the natural environment or impairment of water quality resulting from the *Site*, including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.

11. Despite an *Owner*, *Operator* or any other person fulfilling any obligations imposed by this *Certificate,* the person remains responsible for any contravention of any other condition of this *Certificate* or any applicable statute, regulation, or other legal requirement resulting from any act or omission that caused the adverse effect to the natural environment or impairment of water quality.

Change of Owner

12. The *Owner* shall notify the *Director* in writing, and forward a copy of the notification to the *District Manager,* within 30 days of the occurrence of any changes:
a. the ownership of the *Site*
b. the *Operator* of the *Site;*
c. the address of the *Owner* or *Operator*;
d. the partners, where the *Owner* is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act,* R.S.O. 1990, c. B-17 shall be included in the notification;
e. the name of the corporation where the *Owner* is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act*, R.S.O. 1990, C-39 shall be included in the notification; or

13. No portion of this *Site* shall be transferred or encumbered prior to or after closing of the *Site* unless the *Director* is notified in advance and sufficient financial assurance is deposited with the *Ministry* to ensure that these conditions will be carried out. In the event of any change in *Ownership* of the *Site*, other than change to a successor municipality, the *Owner* shall notify the successor of and provide the successor with a copy of this *Certificate*, and the Owner shall provide a copy of the notification to the *District Manager* and the *Director.*

<u>Waste Transfer Site (TS)</u>

14. Only waste from households within the Township of Douro-Dummer, the Township of North Kawartha, and the Township of Havelock-Belmont-Methuen shall be accepted at this Waste Transfer Site.

15. The TS shall not receive or transfer more than 250 cubic metres of waste per day.

16. The TS shall only operate as follows:

(a) from Canada Day to Labour Day, the TS will operate on Sundays, Mondays and Fridays from 2:00 p.m. until 6:00 p.m., on Saturdays and Wednesdays from 9:00 a.m. to 6:00 p.m. and on holiday weekends (Sunday or Monday) may remain open until 8:00 p.m.;

(b) from Labour Day to Thanksgiving Day, the TS will operate on Sundays, Mondays, Wednesdays, Fridays and Saturdays from 2:00 p.m. until 6:00 p.m.;

(c) from Thanksgiving Day to Victoria Day, the TS will operate on Sundays, Wednesdays and Saturdays from 2:00 p.m.

until 5:00 p.m.; and

(d) from Victoria Day to Canada Day, the TS will operate on Sundays, Mondays, Wednesdays, Fridays and Saturdays from 2:00 p.m. until 6:00 p.m.

where the Owner may change operational hours of the Site, if he is granted written approval by the District Manager.

17. All wastes transferred off the site may only be handled by parties who bear proper licensing and a valid Certificate of Approval from the Ministry of Environment to do so.

18. All wastes stored by the transfer station shall be segregated into solid non-hazardous waste, polystyrene recyclables, cardboard recyclables, multi-material recyclables, white goods, tires, brush, metals, and construction and demolition materials.

19. All solid, non-hazardous waste and recyclables must be stored in bins that are clearly marked and segregated.

20. For solid, non-hazardous waste, the following stipulations apply:

(a) At no time shall there be more than 125 cubic metres of solid, non-hazardous waste stored at the TS;

(b) No solid, non-hazardous waste may be stored outside of the designated bin;

(c) All solid, non-hazardous wastes may only be stored at the TS for a maximum of Thirty (30) days or until the 125 cubic metre storage maximum is reached.

21. For all recyclable materials, the following stipulations apply:

(a) At no time shall there be more than 120 cubic metres of recyclable materials stored at the TS;

(b) No recyclable materials may be stored outside of their designated bins;

(c) All recyclable materials may only be stored at the TS for a maximum of Thirty (30) days or until the 120 cubic metre storage maximum is reached.

22. For all other wastes, the following stipulations apply:

(a) At no time shall there be more than 200 cubic metres of tire waste stored at the TS;

(b) At no time shall there be more than 300 cubic metres of brush and wood waste stored at the TS;

(c) At no time shall there be more than 300 cubic metres of metal waste stored at the TS;

(d) At no time shall there be more than 300 cubic metres of white goods stored at the TS;

(e) At no time shall there be more than 300 cubic metres of construction and demolition waste at the TS.

23. No waste oil shall be stored in containers which do not indicate the type of waste stored therein, or which are not suitable in design or construction.

24. (a) The amount of waste oil stored at the Site at any one time shall not exceed two thousand (2000) litres.

(b) At least once per year all accumulated waste oil shall be removed from the Site.

25. All waste oil transferred from the Site must be done so by a company with a valid Certificate of Approval for a Waste Management System.

26. No waste oil shall be deposited at the Site unless an authorized attendant is on duty.

27. The Township shall ensure that trained staff are on duty at all times when the Site is open to ensure proper supervision of all activities.

28. Prior to being accepted at the Site, all incoming waste shall be inspected by the Township, and shall only be permitted to enter the Site if the Site is approved to accept that type of waste.

29. If any Unacceptable Waste is discovered on-site, that waste shall immediately be disposed of in accordance with Ontario Regulation 347, R.R.O. 1990, as amended from time to time.

Staff Training

30. All operators of the Site shall be trained with respect to the following:

(a) the terms, conditions and operating requirements of this Certificate;

(b) operation and management of the TS, or areas within the TS, as per the specific job requirements of each individual operator, and which may include procedures for receiving, screening, refusal, and handling of waste;

(c) shipping and manifesting procedures, if such functions fall within the job requirements of the individual operator;

(d) the Site plan and location of relevant equipment, including that for emergencies and spills;

(e) an outline of the responsibilities of Site personnel including roles and responsibilities during emergencies and spills;

(f) Spill Emergency and Contingency Plan equipment and procedures;

(g) any environmental and occupational health and safety concerns pertaining to the waste to be processed;

(h) emergency first-aid information;

(i) relevant waste management legislation and regulations, including the *EPA* and *Ontario Regulation 347*;

(j) information recording procedures;

(k) Equipment and Site Inspection procedures; and

(l) procedures for recording and responding to public complaints.

31. The Owner shall maintain a written record at the Site which shall include (as a minimum) the following:

(a) the date of training;

(b) the name and signature of the person who has been trained; and

(c) a description of the training provided.

Equipment and site inspection

32. The Township shall conduct regular inspections of the equipment, buildings, facilities and security fencing and barriers to ensure that all are maintained in good working order and secure at all times. Any deficiencies detected during these regular inspections shall be promptly corrected. A written record shall be maintained at the Site, which includes the following:

(a) name and signature of trained personnel conducting the inspection;

(b) date and time of the inspection;

(c) list of equipment inspected and all deficiencies observed;

(d) a detailed description of the maintenance activity;

(e) date and time of maintenance activity; and

(f) recommendations for remedial action and actions undertaken.

Nuisance impact control

33. The Owner shall routinely conduct visual inspections of the Site to ensure that no off-site impacts such as vermin, vectors, odour, dust, and litter, result from the operation of the Site. A written record shall be maintained at the Site, which includes the following:

(a) name and signature of trained personnel conducting the inspection;

(b) date and time of the inspection;

(c) list of any nuisance impacts observed;

(d) date, time and detailed description of remedial action taken in order to control the nuisance; and

(e) recommendations for any preventative measures that can be taken to prevent future reoccurrences.

Record Keeping

34. The Owner shall maintain a written record at the Site containing (as a minimum) the following information:

(a) the date of record;

(b) the quantity and types of waste received;

(c) the receiving Site for product shipped from the Site;

(d) the quantity and type of any rejected wastes;

(e) the Equipment and Site inspection report;

(f) details on any complaints regarding Site operations, including (as a minimum) the following information:

(i) the nature of the complaint;

(ii) the date and time of the complaint;

(iii) the name, address and telephone number of the complainant; and

(iv) any resulting contacts and remedial action taken;

(g) details on all spills, fires, upsets or other problems encountered during the operation of the Site, and all actions taken to remediate the problem; and

(h) records of staff training.

Spills and emergency responses

35. All spills, upsets and fires shall be immediately reported to the **Ministry's Spills Action Centre at 1-800-268-6060** and a written record shall be made as to the nature of the spill or upset, and the action taken for clean-up, correction and prevention of future occurrences.

36. The Owner shall immediately take all measures necessary to contain and clean up any spill or leak which may result from the operation at this Site.

Site Closure

37. Upon commissioning of the TS, the Township must begin implementing a detailed closure plan of the existing landfill disposal area, all in accordance with the report submitted to the MOEE Peterborough District Office listed in Schedule "A".

38. Within ten (10) days after closure of the Site, the Company shall notify the Director, in writing, that the Site has been closed in accordance with the approved Closure Plan.

39. At a time when the Township is prepared to terminate the use of this facility as a transfer station, the Township must begin implementing a closure plan, all in accordance with the items listed in Schedule "A".

HOUSEHOLD HAZARDOUS WASTE COLLECTION FACILITY (MHSW)

40. The Site shall only accept waste for bulking and temporary storage pending transfer to an approved carrier for disposal elsewhere, the following household hazardous wastes: Waste Class Nos. 112, 121, 122, 145, 146, 147, 148, 212, 213, 221, 242, 252, 261, 263, 269, 312 and 331 as described in the Ministry document "New Ontario Waste Classes" dated January, 1986.

41. (a) The MHSW depot shall not receive more than 20 cubic metres of MHSW per day; and

(b) The MHSW depot shall not store in excess of 50 cubic metres of MHSW on site.

42. MHSW shall not be stored at the Site for longer than one hundred eighty (180) days, unless the consent of the District Manager has been obtained.

43. All household hazardous waste received and stored must be managed in accordance with Ontario Regulation 347, R.R.O. 1990, as amended, and with the Ministry of Environment document entitled "Household Hazardous Waste Collection and Facility Guidelines" dated May 1993.

44. All storage of liquid wastes shall be in accordance with this Ministry's publication "Guidelines of Environmental Protection Measures at Chemical Storage Facilities", dated October 1978 as amended.

45. All MHSW shall be stored in secondary containment that is adequate to contain any spills or leaks. Segregated secondary containment shall be provided for incompatible types of waste.

46. Incoming MHSW shall be inspected by Competent personnel, prior to being accepted at the Site, to ensure that the Site is approved to accept that type of waste.

47. All containers shall be clearly labeled indicating the type and nature of the hazardous waste stored as required by regulation. All points of access to the Site shall be posted to warn that the area contains hazardous materials.

48. No radioactive wastes shall be accepted at this Site.

49. Oil and oil-based paints which have been manufactured prior to 1972; or whose manufacturing date cannot be determined, may contain PCBs and shall be handled as follows:

(a) The oil and oil-based paints shall not be mixed (bulked) with other paints prior to testing. Paints which are lab-packed are not considered to be mixed under this Certificate;

(b) The oil and oil-based paints shall be tested by a certified laboratory for PCB content and shall be handled in the manner outlined in Condition 49(c) if found to contain PCBs;

(c) If the oil and oil-based paints are found to have PCBs at or above levels identified in Condition 49(d), it shall be

forthwith reported to the District Manager and shall be managed in accordance with Regulation 362 and stored or removed from the Site to an approved PCB storage site, in accordance with written instructions from the District Manager; and

(d) The oil and oil-based paints shall not be distributed for reuse if they have any measurable PCB content. The oil and oil-based paint is considered to be a PCB waste, if measured levels are equal to or greater than 50 parts per million.

50. Except for oil based paints that become classified as PCB Waste, paints may be offered for reuse to the public. Records shall be kept of the type, volume and recipient of paint returned to the public.

51. The County shall maintain, at the Site, a log book which records daily, the following information:

(a) date of record;
(b) types, quantities and source of MHSW received;
(c) quantities of MHSW stored at the Site;
(d) quantities and destination of MHSW shipped from the Site; and
(e) quantities of waste returned to the public as noted in Condition 55.

52. In this Notice, the term "waste generators" means those households within the County of Peterborough.

53. (a) The MHSW Depot shall be operated and maintained in accordance with the plans and specifications

contained in the documents listed in this Certificate, including Items 18 and 19 in Schedule "A", subject to the Conditions of this Certificate.

(b) Incidental waste which does not conform to Condition 53(a) above shall either be:

(i) returned to the generator; or
(ii) in the absence of a known generator, characterized and managed in accordance with Ontario Regulation 347.

(c) A detailed record shall be made of any incidental waste discovered at the Facilities, including but not limited to:

(i) the date;
(ii) the type of waste;
(iii) the amount of waste;
(iv) the condition of the container; and
(v) how the waste was managed.

(d) All biomedical waste (waste class 312) received at the Site shall be managed in accordance with the Operator's "Operations Manual for Handling and Storage of Biohazard Sharps or Needles" prepared in accordance with the Ministry document entitled "Guideline C-4: The Management of Biomedical Waste in Ontario" dated November 2009, as amended. This waste shall be limited to waste generated by residents of the County of Peterborough from households only.

54. Waste received at the Depot shall be stored in accordance with the "County of Peterborough Municipal Hazardous or Special Waste (MHSW) Facility Operations Manual update 28 May, 2010", submitted under Items 18 and 19 of Schedule "A" in such a manner that:

(a) all liquid wastes shall be stored in secondary containment that meets the requirements of the Ministry document entitled "Guidelines for Environmental Protection Measures at Chemical and Waste Storage Facilities" dated May 2007, as amended;
(b) containers and/or storage areas containing flammable and/or ignitable materials shall be adequately grounded;
(c) storage containers shall be clearly labelled indicating the type and nature of the hazardous waste stored as required by applicable legislation;
(d) incompatible waste types shall be segregated during storage;
(e) all waste being transported from the Depot shall be transported in accordance with Ontario Regulation 347 and the

Environmental Protection Act.

55. The Operator shall not offer household hazardous waste for reuse unless:

(a) the waste is in its original packaging, and the label on the package is legible;
(b) the waste has been inspected by trained personnel to ensure the waste meets the requirements for reuse for that specific waste type; and
(c) the waste is one of the following:

(i) household cleaners, wheel and tire cleaners, other than bleach or ammonia;
(ii) varsol, turpentine, thinners, linseed oil;
(iii) polishes and waxes;
(iv) adhesives (tile and wood), glue (contact cement);
(v) caulking, grout, mortar (cement), drywall compound;
(vi) citronella (liquid or wax), lamp oil;
(vii) aerosols (hairspray, air fresheners, cleaners);
(viii) motor oil (auto marine, lawnmower), provided the original container has never been opened;
(ix) antifreeze, provided the original container has never been opened;
(x) barbeque starting fluid, windshield washer fluid and CLR
(xi) other items as determined by the Operator provided they comply with the conditions of this Certificate.
(xi) waste paint, subject to the requirements of Condition 56 below;

56. The Operator shall only offer waste paint for reuse provided that the following conditions are met:

(a) the waste paint is contained in the original manufacturer's container;
(b) the original manufacturer's label containing product information use and product hazards is clearly legible;
(c) the original manufacturer's container is in an undamaged state such that the material may be transported without risk of leaks or spills; and
(d) the Operator does not suspect the paint to have been manufactured prior to 1972.

57. The Operator shall only accept hazardous waste under the following restrictions:

(a) no waste shall be received from waste generators where the generator's activities include waste management;
(b) the Operator may only receive up to 60 kg of hazardous waste per visit;
(c) the Operator may only receive up to a maximum of 300 litres of liquid industrial waste per visit;
(d) no hazardous waste shall be received in containers greater than 25 litres in size;
(e) no liquid industrial waste shall be received in containers greater than 25 litres in size;
(f) all containers shall be closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of waste;
(g) no broken or leaking containers, or containers otherwise unsuitable for the type of waste they contain, shall be accepted at the MHSW Depot;

58. An area for the acceptance, storage and preparation for transport for recycling, of waste electrical and electronic equipment (WEEE), and subsequent transfer of such wastes by an approved carrier for disposal elsewhere shall be operated in accordance with the following:

(a) the materials shall be stored: in a roll-off bin (covered), a trailer or other suitable shelter; in an orderly fashion, to avoid breakage (broken materials shall be placed in containers), such that WEEE is sheltered from rain and snow, and as provided under the contractual agreement with the MOE approved program plan administrators.
(b) maximum storage volume is 40 cubic yards;
(c) the Site Plan submitted annually shall show the location of the storage area;
(d) a log shall be kept of the firm used for the transportation and the destination where the waste will be consolidated for recycling, re-use, refurbishment or disposal as per the WEEE Program Plan and in accordance with the Conditions of this Certificate.

ORGANICS COLLECTION SYSTEM

59. The *County* shall operate the organics collection waste system in accordance with Items 14 through 17 listed in Schedule "A".

60. The *County* shall retain a record of the following information at the Site the following information:

(i) dates the collection system are emptied;
(ii) approximate volume transferred to the collection truck per load; and; and
(iii) record of any spills that occur during emptying and a description outlining any remediation measures that were implemented.

61. The organics collection program shall be operated and maintained in such a manner that does not pose a danger or health risk to the environment or public.

ANNUAL REPORT

62. By March 31, 2012 and on an annual basis thereafter, a written report shall be prepared for the previous calendar year ("*Annual Report*"). The Annual Report shall be submitted to the *District Manager* on March 31 of each year and retained at *Site* and shall include, at a minimum, the following information:
a. a detailed monthly summary of the type and quantity of all incoming and outgoing wastes and the destination of all outgoing wastes;
b. any environmental and operational problems, that could negatively impact the environment, encountered during the operation and during the facility inspections and any mitigative actions taken;
c. any changes to the Emergency Response (Contingency) Plan,
d. any changes to the Design and Operation Report (Manual) that have been approved by the *Director* since the last *Annual Report;* and
e. any recommendations to minimize environmental impacts from the operation and to improve *Site* operations and monitoring programs in this regard.

Schedule "A"

This Schedule "A" forms part of Provisional Certificate of Approval No. A341004.

1. Letter (with attachments) dated January 15, 2001, from M. Cant of Totten Sims Hubicki Associates to M. Williams of MOE Re: Township of Douro-Dummer Hall's Landfill Site Certificate of Approval # A341004.

2. Letter (with attachments) dated February 27, 2001, from M. Cant of Totten Sims Hubicki Associates to E. Zaltsberg of MOE Re: Township of Douro-Dummer Hall's Glen Landfill Site MOE Reference #7347-4TMUP.

3. Application for a Provisional Certificate of Approval for a Waste Disposal Site. Cover letter dated June 25, 2002, sent from Mr. Michael Cant of Totten Sims Hubicki Associates to M. Williams, MOEE.

4. "Hall's Glen Landfill Site: Closure Report" dated May 15, 2002, sent from Mr. Michael Cant of Totten Sims Hubicki Associates to Mr. David Clifford of the Township of Douro-Dummer.

5. Hall's Glen Landfill Site Transfer Station: Design, Operation, Maintenance and Closure Report" dated June 24, 2002, sent from Mr. Michael Cant of Totten Sims Hubicki Associates to Mr. David Clifford of the Township of Douro-Dummer.

6. Application for a Provisional Certificate of Approval for a Waste Disposal Site dated May 14, 2003 and signed by Mr. David Clifford, CAO, Corporation of the Township of Douro-Dummer including all attached supporting information.

7. Application for a Provisional Certificate of Approval for a Waste Disposal Site dated September 1, 2005 and signed by Mr. David Clifford, CAO, The Corporation of the Township of Douro-Dummer including all attached supporting information and documentation.

8. Document entitled "*County of Peterborough: Household Hazardous Waste (MHSW) Facility Operations Manual*" dated August 10, 2005.

9. Letter dated August 30, 2005 to Mr. James O'Mara, Director, Environmental Assessment and Approvals Branch, Ministry of Environment from Mr. Michael Cant, Manager, Solid Waste, Totten Sims Hubicki Associates. Re: Amendment for Certificate of Approval No. A341004 including all attachments.

10. Letter dated October 11, 2005 to Mr. Matthew Chisholm, Application Processor, Ministry of Environment, from Mr. Michael Cant, Manager, Solid Waste, Totten Sims Hubicki Associates. Re: Application for Approval of a Waste Disposal Site, MOE Reference No. 2960-6FTPZG.

11. Letter dated January 24, 2006 to Mr. David Lee, Waste Evaluator, Ministry of Environment, from Mr. Michael Cant, TSH Associates, Re: Draft Notice of Amendment for Certificate of Approval No. A341004.

12. Application for a Provisional Certificate of Approval for a Waste Disposal Site for the Hall's Glen Landfill Site dated November 14, 2006 .

13. Figure 1 entitled "Revised Site Plan" dated November 2006, prepared by Totten Sims Hubicki Associates Limited.

14. Letter dated March 20, 2007 to Dale I. Gable, Senior Review Engineer, Ministry of the Enviornment from David Clifford, CAO, The Corporation of the Township of Douro-Dummer.

15. Letter dated March 30, 2007 to Dale I. Gable, Senior Review Engineer, Ministry of the Enviornment from Sherry Arcaro, Manager of Environmental Services, County of Peterborough.

16. Letter dated June 12, 2007 to David Clifford, CAO, The Corporation of the Township of Douro-Dummer from David Lee, Waste Evaluator, Ministry of the Environment.

17. Letter dated August 10, 2007 to David Lee, Waste Evaluator, Ministry of the Environment from Sherry Acaro, Manager of Environmental Services, County of Peterborough including attached site plan, and description of organic collection system entitled "*County of Peterborough Depot Organics Collection System Description*".

18. Application for a Provisional Certificate of Approval for a Waste Disposal Site dated June14, 2010, signed by David Clifford, Chief Administrative Officer, The Corporation of the Township of Douro-Dummer, including all documents attached to this application.

19. E-mail dated June 18, 2010, including all attachments to the e-mail, from Laurie Westaway, County of Peterborough (Project Technical Information Contact) to Nihar Bhatt, Ontario Ministry of the Environment, providing electronic copies of the appendices to the Operations Manual for the Site.

The reasons for the imposition of these terms and conditions are as follows:

1. The reason for Condition 1 is to simplify the wording of the subsequent conditions and define the specific meaning of terms as used in this Provisional Certificate of Approval.

2. The reasons for Conditions 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 13 are to clarify the legal rights and responsibilities of the Owner and Operator.

3. The reason for Conditions 14 through 22 is to ensure that the types and amounts of waste received at the Site, the storage locations and disposal of the waste are in accordance with that considered by the Director and approved under this Certificate.

4. The reason for the conditions 23 through 39 is to ensure that the waste transfer station are managed in a manner that protects the environment and the health and safety of the public.

5. The reason for Conditions 40 through 48 is to ensure that the Household Hazardous Waste Depot is operated in a manner which does not result in a nuisance or a hazard to the health and safety of the environment or pubic.

6. The reason for Condition 49, 50 and 51 to ensure PCB waste is handled in an environmentally acceptable manner in accordance with Ontario Regulation 363. This ensures protection of the natural environment and public health and safety.

7. The reason for Conditions 14 and 52 is to define the generators from which waste will be accepted.

9. The reason for Conditions 53,55, 56 and 57 is to ensure that only acceptable waste is received at the Household Hazardous Waste Depot, and to ensure all waste received is handled in an appropriate manner.

10. The reason for Conditions 54 is to ensure that all waste is handled in an appropriate manner, and that any spills are handled in an appropriate manner.

11. The reason for Condition 59, 60 and 61 is to ensure that the organic collection system is operated in a manner which does not result in a hazard or nuisance to the natural environment or any person.

12. The reasons for Condition 62 is to ensure that regular review of site development, operations and monitoring data is documented and any possible improvements to site design, operations or monitoring programs are identified. An annual report is an important tool used in reviewing site activities and for determining the effectiveness of site design.

This Provisional Certificate of Approval revokes and replaces Certificate(s) of Approval No. A341004 issued on October 8, 1980.

In accordance with Section 139 of the Environmental Protection Act, R.S.O. 1990, Chapter E-19, as amended, you may by written notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act, provides that the Notice requiring the hearing shall state:

1. The portions of the approval or each term or condition in the approval in respect of which the hearing is required, and;
2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The Certificate of Approval number;
6. The date of the Certificate of Approval;
7. The name of the Director;
8. The municipality within which the waste disposal site is located;

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, Ontario
M5G 1E5

AND

The Director
Section 39, *Environmental Protection Act*
Ministry of the Environment
2 St. Clair Avenue West, Floor 12A
Toronto, Ontario
M4V 1L5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 314-4600, Fax: (416) 314-4506 or www.ert.gov.on.ca**

The above noted waste disposal site is approved under Section 39 of the Environmental Protection Act.

DATED AT TORONTO this 26th day of May, 2011

Tesfaye Gebrezghi, P.Eng.
Director
Section 39, *Environmental Protection Act*

AT/
c: District Manager, MOE Peterborough
Laurie Westaway, County of Peterborough

Appendix C Field and Precipitation Data

LOCATION: Halls Glen WDS

DATE: April 7, 2025

WEATHER (SAMPLE DAY): -3°C Sun 6°C

PROJECT NUMBER: 12987-002

SAMPLED BY: D. Fleming, Z. Lehman and V. Montes

WEATHER (PREVIOUS DAY): 10°C Sun

FIELD SHEET – GROUNDWATER ELEVATION MONITORING

Sample Location	Water Level	B.H. Depth (m)	B.H. Dia. (mm)	Stick – Up (m)	Purge Volumes (L)		Temp (°C)	pH (units)	Cond. (µS/cm)	DO (mg/L)	ORP (mV)	CH4 (%lel)	H2S (ppm)	Observations				
					Needed	Actual								Clarity	Colour	Odour	Sheen	Other
MW01-1	-	7.65	50.8	0.82	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW01-2	-	2.74	38.1	0.82	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW02-1	-	15.33	50.8	0.22	-	-	-	-	-	-	-	5	<0.1	-	-	-	-	Blockage at 7.89m
MW02-2	Dry	5.45	50.8	0.21	-	-	-	-	-	-	-	100	8.5	-	-	-	-	
MW03-1	0.76	5.51	50.8	0.66	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW03-2	0.62	2.39	38.1	0.49	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW04-1	1.60	5.62	50.8	0.92	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW04-2	1.15	2.99	38.1	0.85	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW05-1	4.19	7.68	50.8	0.00	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW05-2	2.24	4.38	38.1	0.22	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW06-1	4.20	7.85	50.8	0.61	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW06-2	1.94	5.13	38.1	0.60	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW07-1	1.50	6.98	50.8	0.79	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW07-2	1.67	3.37	50.8	0.74	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW08-1	4.40	11.31	50.8	0.69	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW08-2	4.30	7.70	50.8	0.70	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	

Eagle II Calibrated on April 7, 2025 at 6:00h by D. Fleming

LOCATION: Halls Glen WDS

DATE: April 7, 2025

WEATHER (SAMPLE DAY): -3°C Sun 6°C

PROJECT NUMBER: 12987-002

SAMPLED BY: D. Fleming, Z. Lehman and V. Montes

WEATHER (PREVIOUS DAY): 10°C Sun

FIELD SHEET – GROUNDWATER DEVELOPMENT & SAMPLING

Sample Location	Water Level	B.H. Depth (m)	B.H. Dia. (mm)	Stick – Up (m)	Purge Volumes (L)		Temp (°C)	pH (units)	Cond. (µS/cm)	DO (mg/L)	ORP (mV)	CH4 (%lel)	H2S (ppm)	Observations				
					Needed	Actual								Clarity	Colour	Odour	Sheen	Other
MW09-1	0.28	9.92	50.8	0.68	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW09-2	0.55	6.16	50.8	0.68	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW10-1	1.60	9.89	50.8	0.74	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW10-2	1.38	6.65	50.8	0.73	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW11-1	1.99	9.96	50.8	0.70	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW11-2	1.92	6.74	50.8	0.72	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW12-1	1.27	6.84	50.8	0.89	-	-	-	-	-	-	-	<0.1	32	-	-	-	-	
MW12-2	0.50	10.21	50.8	0.91	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW12-3	1.10	13.09	50.8	0.90	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW13-1	1.00	6.04	50.8	0.86	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW13-2	1.39	3.76	50.8	0.86	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	

Eagle II Calibrated on April 7, 2025 at 6:00h by D. Fleming

LOCATION: Halls Glen WDS

DATE: October 15, 2025

WEATHER (SAMPLE DAY): 2°C Overcast 14°C

PROJECT NUMBER: 12987-002

SAMPLED BY: N. Morin, T. Boisclair & June

WEATHER (PREVIOUS DAY): 21°C Sun

FIELD SHEET – GROUNDWATER DEVELOPMENT & SAMPLING

Sample Location	Water Level	B.H. Depth (m)	B.H. Dia. (mm)	Stick – Up (m)	Purge Volumes (L)		Temp (°C)	pH (units)	Cond. (µS/cm)	DO (mg/L)	ORP (mV)	CH4 (%lel)	H2S (ppm)	Observations				
					Needed	Actual								Clarity	Colour	Odour	Sheen	Other
MW01-1	4.68	7.65	50.8	0.82	19	19	12.8	7.19	12	7.06	56	<0.1	<0.1	Clear	None	None	None	
MW01-2	Dry	2.74	38.1	0.82	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW02-1	-	15.33	50.8	0.22	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	Blockage at 8.06m
MW02-2	Dry	5.45	50.8	0.21	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW03-1	2.95	5.51	50.8	0.66	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	Water Level Only
MW03-2	Dry	2.39	38.1	0.49	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	Water Level Only
MW04-1	3.03	5.62	50.8	0.92	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	Water Level Only
MW04-2	2.87	2.99	38.1	0.85	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	Water Level Only
MW05-1	5.78	8.71	50.8	0.00	18	Dry x 1 10	9.8	6.93	1408	11.78	-50	<0.1	<0.1	Opaque	Yellow	Swampy	None	
MW05-2	Dry	4.38	50.8	0.82	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW06-1	5.82	7.85	38.1	0.82	13	13	10.9	6.35	1230	4.05	13	<0.1	<0.1	Clear	None	None	None	
MW06-2	Dry	5.13	50.8	0.22	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	
MW07-1	3.49	6.98	50.8	0.21	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	Water Level Only
MW07-2	Dry	3.37	50.8	0.66	-	-	-	-	-	-	-	<0.1	<0.1	-	-	-	-	Water Level Only
MW08-1	5.94	11.31	38.1	0.49	33	33	10.2	7.11	713	4.17	140	<0.1	<0.1	Clear	None	None	None	QA/QC #1
MW08-2	6.81	7.70	50.8	0.92	6.00	Dry x 1 2.00	10.4	7.19	696	4.82	158	<0.1	<0.1	Clear	None	None	None	

Water Quality Meters Calibrated on October 15, 2025 at 6:45h by N. Morin

RKI Eagle II Calibrated on October 15, 2025 at 6:45h by N. Morin

LOCATION: Halls Glen WDS

DATE: October 15, 2025

WEATHER (SAMPLE DAY): 2°C Overcast 14°C

PROJECT NUMBER: 12987-002

SAMPLED BY: N. Morin, T. Boisclair & June

WEATHER (PREVIOUS DAY): 21°C Sun

FIELD SHEET – GROUNDWATER DEVELOPMENT & SAMPLING

Sample Location	Water Level	B.H. Depth (m)	B.H. Dia. (mm)	Stick – Up (m)	Purge Volumes (L)		Temp (°C)	pH (units)	Cond. (µS/cm)	DO (mg/L)	ORP (mV)	CH4 (ppm)	H2S (ppm)	Observations				
					Needed	Actual								Clarity	Colour	Odour	Sheen	Other
MW09-1	1.91	9.92	50.8	0.68	49	Dry x 1 18	10.6	7.66	584	4.75	-248	<0.1	<0.1	Clear	None	Sulphur	None	
MW09-2	2.48	6.16	50.8	0.68	23	23	11.3	7.17	716	3.68	132	<0.1	<0.1	Clear	None	None	None	
MW10-1	3.02	9.89	50.8	0.74	42	42	10.9	6.48	647	5.08	-152	<0.1	<0.1	Clear	None	Sulphur	None	
MW10-2	2.96	6.65	50.8	0.73	23	23	11.9	6.91	7	3.98	-114	<0.1	<0.1	Clear	None	None	None	
MW11-1	3.45	9.96	50.8	0.70	40	40	10.0	7.25	702	7.71	-137	<0.1	<0.1	Clear	None	Sulphur	None	
MW11-2	3.48	6.74	50.8	0.72	20	20	10.9	7.00	676	3.85	-111	<0.1	<0.1	Clear	None	Sulphur	None	
MW12-1	2.67	6.84	50.8	0.89	26	26	9.4	6.87	536	4.92	156	<0.1	<0.1	Clear	None	Sulphur	None	
MW12-2	2.63	10.21	50.8	0.91	47	Dry x 1 16	10.7	6.89	692	8.29	126	<0.1	<0.1	Cloudy	Grey	Swampy	None	QA/QC #2
MW12-3	2.63	13.09	50.8	0.90	64	Dry x 1 61	8.2	6.77	762	3.48	-78	<0.1	<0.1	Clear	None	Sulphur	None	
MW13-1	3.09	6.04	50.8	0.86	18	18	10.3	6.84	756	9.11	86	<0.1	<0.1	Clear	None	None	None	
MW13-2	2.98	3.76	50.8	0.86	4.75	4.75	10.0	6.82	626	9.10	74	<0.1	<0.1	Opaque	Grey	None	None	
R1	-	5.65	-	1.00	-	Dry x 1 4.25	10.8	7.23	617	9.10	5	-	-	Opaque	Grey	None	None	
R2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Resident not home.
R3	-	-	-	-	20	20	15.7	7.49	740	6.05	54	-	-	Clear	None	None	None	
R4	-	-	-	-	20	20	9.7	6.88	1627	9.74	76	-	-	Clear	None	None	None	

Water Quality Meters Calibrated on October 15, 2025 at 6:45h by N. Morin

RKI Eagle II Calibrated on October 15, 2025 at 6:45h by N. Morin

LOCATION: Halls Glen WDS

DATE: April 7, 2025

WEATHER (SAMPLE DAY): -3°C Sun 6°C

PROJECT NUMBER: 12987-002

SAMPLED BY: D. Fleming, Z. Lehman and V. Montes

WEATHER (PREVIOUS DAY): 10°C Sun

FIELD SHEET – SURFACE WATER SAMPLING

Sample Location	Depth (m)	Width (m)	Velocity (m/s)	Discharge (m^3/s)	Temp (°C)	pH (units)	Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Observations				
										Clarity	Colour	Odour	Sheen	Other
S1	0.10	Ponded - No Observable Flow			7.4	7.00	489	9.78	134	Clear	None	None	None	
S2	0.30	Ponded - No Observable Flow			7.3	7.27	465	9.62	197	Clear	None	None	None	Area Flooded
S3	0.30	Ponded - No Observable Flow			1.8	6.84	396	8.47	136	Clear	None	None	None	Area Flooded QA/QC

Water Quality Meters Calibrated on April 7, 2025 at 6:00h by D. Fleming

LOCATION: Halls Glen WDS

DATE: October 15, 2025

WEATHER (SAMPLE DAY): 2°C Overcast 14°C

PROJECT NUMBER: 12987-002

SAMPLED BY: N. Morin, T. Boisclair & June

WEATHER (PREVIOUS DAY): 21°C Sun

FIELD SHEET – SURFACE WATER SAMPLING

Sample Location	Depth (m)	Width (m)	Velocity (m/s)	Discharge (m^3/s)	Temp (°C)	pH (units)	Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Observations				
										Clarity	Colour	Odour	Sheen	Other
S1	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
S2	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry
S3	-	-	-	-	-	-	-	-	-	-	-	-	-	Dry

Water Quality Meters Calibrated on October 15, 2025 at 645h by N. Morin

CERTIFICATE OF CALIBRATION

The RKI Instrument listed below has been inspected and calibrated following the Manufacturer's specifications and methods.

Instrument Model: **RKI Eagle 2** *Serial Number:* **E2A531** *Calibration Date:* **March 27, 2025**

SENSOR	CALIBRATION GAS STANDARD	CALIBRATION GAS CONCENTRATION	READING PRIOR TO ADJUSTMENT	INSTRUMENT SPAN SETTINGS	ALARM LEVEL SETTING
VOC	Isobutylene LOT# 23-1314	100 PPM	100 PPM	100 PPM	400 & 1000 PPM
Combustible	Methane LOT# 23-1447	50% LEL	50% LEL	50% LEL	10 & 50% LEL OFF
Oxygen	Oxygen LOT# 23-1447	12% VOL.	12% VOL.	12% VOL.	19.5% & 23.0 % VOL.
Hydrogen Sulphide	Hydrogen Sulphide LOT# 23-1447	25 PPM	25 PPM	25 PPM	10 & 15 PPM OFF
Carbon Monoxide	Carbon Monoxide LOT# 23-1447	50 PPM	50 PPM	50 PPM	25 & 100 PPM OFF
Carbon Dioxide	Carbon Dioxide LOT# 24-21-07	0.5% VOL.	0.5% VOL.	0.5% VOL.	5000 PPM

The calibration gas standard used is considered to be a certified standard and is traceable to the National Institute of Standards and Technology (NIST). Certificate of Analysis is available upon request.

The instrument indicated above is now certified to be operating within the Manufacturer's specifications. This does not eliminate the requirement for regular maintenance and pre-use sensor response checks in order to ensure continued complete and accurate operating condition.

Certified By: Derrick Patrick

MAXIM Environmental and Safety Inc.

sales@maximenvironmental.com
www.maximenvironmental.com

9 - 170 Ambassador Dr., Mississauga, ON L5T 2H9
(905)670-1304 | Toll Free (888)285-2324

9 - 148 Colonnade Rd., Ottawa, ON K2E 7R4
(613)224-4747 | Toll Free (888)285-2324

CERTIFICATE OF CALIBRATION

The RKI Instrument listed below has been inspected and calibrated following the Manufacturer's specifications and methods.

Instrument Model: **RKI Eagle 2** *Serial Number:* **E2K142** *Calibration Date:* **October 1, 2025**

SENSOR	CALIBRATION GAS STANDARD	CALIBRATION GAS CONCENTRATION	READING PRIOR TO ADJUSTMENT	INSTRUMENT SPAN SETTINGS	ALARM LEVEL SETTING
VOC	Isobutylene LOT# 24-2659	100 PPM	100 PPM	100 PPM	400 & 1000 PPM
Combustible	Methane LOT# 23-1447	50% LEL	50% LEL	50% LEL	10 & 50% LEL
Oxygen	Oxygen LOT# 23-1447	12% VOL.	12% VOL.	12% VOL.	19.5% & 23.0 % VOL.
Hydrogen Sulphide	Hydrogen Sulphide LOT# 23-1447	25 PPM	25 PPM	25 PPM	10 & 15 PPM
Carbon Monoxide	Carbon Monoxide LOT# 23-1447	50 PPM	50 PPM	50 PPM	25 & 100 PPM OFF
Carbon Dioxide	Carbon Dioxide LOT# 24-21-07	0.5% VOL.	0.5% VOL.	0.5% VOL.	5000 PPM

The calibration gas standard used is considered to be a certified standard and is traceable to the National Institute of Standards and Technology (NIST). Certificate of Analysis is available upon request.

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Daily Data Report for April 2025

PETERBOROUGH TRENTU FARM
ONTARIO

Latitude:	44°21'14.000" N	**Longitude:**	78°16'42.000" W	**Elevation:**	225.00 m
Climate ID:	6166457	**WMO ID:**	73180	**TC ID:**	OTU

DAY	Max Temp °C	Min Temp °C	Mean Temp °C	Heat Deg Days	Cool Deg Days	Total Rain mm	Total Snow cm	Total Precip mm	Snow on Grnd cm	Dir of Max Gust 10's deg	Spd of Max Gust km/h
01	2.8	-3.3	-0.3	18.3	0.0			0.0		1	31
02	2.2	-4.9	-1.4	19.4	0.0			21.5		7	41
03	18.0	1.4	9.7	8.3	0.0			15.2		22	53
04	11.7	-0.1	5.8	12.2	0.0			0.0			
05	9.3	3.3	6.3	11.7	0.0			7.6			
06	6.1	-2.0	2.0	16.0	0.0			0.0		31	33
07	6.9	-5.6	0.6	17.4	0.0			0.8		28	39
08	-3.2	-9.3	-6.2	24.2	0.0			0.4		32	47
09	2.9	-9.5	-3.3	21.3	0.0			0.0			
10	M	M	M	M	M			M		M	M
11	3.9	0.3	2.1	15.9	0.0			4.6			
12	M	M	M	M	M			M		M	M
13	15.8	-1.4	7.2	10.8	0.0			0.0			
14	15.3	-0.1	7.6	10.4	0.0			0.0		12	32
15	9.3	0.1	4.7	13.3	0.0			1.6		25	48
16	6.1	-0.8	2.7	15.3	0.0			0.0		30	42
17	12.2	-2.2	5.0	13.0	0.0			0.0			
18	16.7	-1.6	7.5	10.5	0.0			6.6		22	32
19	21.2	4.2	12.7	5.3	0.0			4.8		28	41
20	12.1	1.4	6.8	11.2	0.0			0.0			
21	12.0	1.9	7.0	11.0	0.0			3.4		8	39
22	11.1	0.3	5.7	12.3	0.0			0.0		29	40
23	17.6	-0.6	8.5	9.5	0.0			0.0			
24	17.9	5.1	11.5	6.5	0.0			4.1			
25	17.9	7.4	12.7	5.3	0.0			0.0			
26	12.2	4.5	8.3	9.7	0.0			0.8		32	53
27	19.0	4.5	11.7	6.3	0.0			0.0		32	42
28	20.1	0.8	10.5	7.5	0.0			0.0			
29	24.0	3.8	13.9	4.1	0.0			4.8		20	60
30	13.1	-0.4	6.3	11.7	0.0			0.0		31	38
Sum				338.4^	0.0^			76.2^			
Avg	11.9^	-0.1^	5.9^								
Xtrm	24.0^	-9.5^				M	M	21.5^		20^	60^

Summary, average and extreme values are based on the data above.

Legend

- A = Accumulated
- C = Precipitation occurred, amount uncertain
- E = Estimated
- F = Accumulated and estimated
- L = Precipitation may or may not have occurred
- M = Missing
- N = Temperature missing but known to be > 0
- S = More than one occurrence
- T = Trace
- Y = Temperature missing but known to be < 0
- [empty] = Indicates an unobserved value
- ^ = The value displayed is based on incomplete data
- † = Data that is not subject to review by the National Climate Archives

Date modified:
2025-10-15

Government of Canada / Gouvernement du Canada

Daily Data Report for October 2025

PETERBOROUGH TRENTU FARM
ONTARIO

Latitude:	44°21'14.000" N	**Longitude:**	78°16'42.000" W	**Elevation:**	225.00 m
Climate ID:	6166457	**WMO ID:**	73180	**TC ID:**	OTU

DAY	Max Temp °C	Min Temp °C	Mean Temp °C	Heat Deg Days	Cool Deg Days	Total Rain mm	Total Snow cm	Total Precip mm	Snow on Grnd cm	Dir of Max Gust 10's deg	Spd of Max Gust km/h
01	18.5	3.4	11.0	7.0	0.0			0.0			
02	19.0	1.6	10.3	7.7	0.0			0.0			
03	24.8	2.1	13.4	4.6	0.0			0.0			
04	27.5	9.6	18.5	0.0	0.5			0.0			
05	27.8	9.4	18.6	0.0	0.6			0.0			
06	26.9	8.7	17.8	0.2	0.0			0.0		21	37
07	20.9	10.9	15.9	2.1	0.0			2.8			
08	14.7	0.2	7.4	10.6	0.0			0.0		31	31
09	11.9	-2.4	4.8	13.2	0.0			0.0			
10	15.9	-2.8	6.6	11.4	0.0			1.8		20	33
11	14.9	7.6	11.3	6.7	0.0			2.4			
12	19.2	4.3	11.7	6.3	0.0			0.0			
13	20.9	4.2	12.6	5.4	0.0			0.0			
14	21.6	3.4	12.5	5.5	0.0			0.0			
15	13.6	0.9	7.2	10.8	0.0			0.0			
16	14.4	-0.9	6.8	11.2	0.0			0.0			
17	10.7	-1.3	4.7	13.3	0.0			3.3			
18	18.7	9.2	14.0	4.0	0.0			0.0		12	35
19	20.7	12.4	16.6	1.4	0.0			4.0		14	44
20	13.9	1.6	7.8	10.2	0.0			9.9		32	45
21	15.4	-0.5	7.4	10.6	0.0			0.3			
22	12.3	0.9	6.6	11.4	0.0			3.2			
23	12.4	-0.1	6.2	11.8	0.0			0.0			
24	9.9	-0.8	4.5	13.5	0.0			0.0			
25	11.7	-2.2	4.7	13.3	0.0			0.0			
26	9.3	-3.8	2.8	15.2	0.0			0.0			
27	10.7	-4.2	3.2	14.8	0.0			0.0			
28	13.0	-3.3	4.9	13.1	0.0			0.0		5	31
29	12.6	-2.2	5.2	12.8	0.0			0.0			
30	6.7	-0.8	2.9	15.1	0.0			16.3		5	32
31	5.4	0.7	3.0	15.0	0.0			17.0		30	45
Sum				278.2	1.1			61.0			
Avg	16.0	2.1	9.1								
Xtrm	27.8	-4.2				M	M	17.0		30^	45^S

Summary, average and extreme values are based on the data above.

Legend

- A = Accumulated
- C = Precipitation occurred, amount uncertain
- E = Estimated
- F = Accumulated and estimated
- L = Precipitation may or may not have occurred
- M = Missing
- N = Temperature missing but known to be > 0
- S = More than one occurrence
- T = Trace
- Y = Temperature missing but known to be < 0
- [empty] = Indicates an unobserved value
- ^ = The value displayed is based on incomplete data
- † = Data that is not subject to review by the National Climate Archives

Date modified:
2025-10-15

Appendix D Laboratory Certificates of Analysis

CADUCEON ENVIRONMENTAL LABORATORIES

Client committed. Quality assured. Proudly Canadian.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G135546 **REPORT No: 25-032040 - Rev. 0**

Report To:
Cambium Environmental - Peterborough
194 Sophia St
Peterborough, ON K9H 1E5

CADUCEON Environmental Laboratories
285 Dalton Ave
Kingston, ON K7K 6Z1

Attention: Mike Pion

DATE RECEIVED: 2025-Oct-17
DATE REPORTED: 2025-Oct-28
SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Halls Glen WDS
P.O. NUMBER: 12987-002

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	18	OTTAWA	PCURIEL	2025-Oct-23	A-IC-01	SM 4110B
COD (Liquid)	18	KINGSTON	MWILSON	2025-Oct-21	COD-001	SM 5220D
Cond/pH/Alk Auto (Liquid)	18	OTTAWA	SBOUDREAU	2025-Oct-21	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
DOC (Liquid)	18	OTTAWA	LMACGREGOR	2025-Oct-24	C-OC-01	EPA 415.2
ICP/MS (Liquid)	18	OTTAWA	GFENTON	2025-Oct-23	D-ICPMS-01	EPA 200.8
ICP/OES (Liquid)	18	OTTAWA	NSAUNDERS	2025-Oct-22	D-ICP-01	SM 3120B
Ammonia (Liquid)	18	KINGSTON	VHAMMOND	2025-Oct-27	NH3-001	SM 4500NH3
Phenols (Liquid)	18	KINGSTON	MCLOSS	2025-Oct-24	PHEN-01	MECP E3179
TP & TKN (Liquid)	18	KINGSTON	YLIEN	2025-Oct-23	TPTKN-001	MECP E3516.2

R.L. = Reporting Limit
NC = Not Calculated
Test methods may be modified from specified reference method unless indicated by an *

Michelle Dubien
Data Specialist

Parameter	Units	R.L.	Client I.D.	MW01-1	MW05-1	MW06-1	MW12-3	GW-QAQC2
			Sample I.D.	25-032040-1	25-032040-2	25-032040-3	25-032040-4	25-032040-5
			Date Collected	2025-10-15	2025-10-15	2025-10-15	2025-10-15	2025-10-15
				-	-	-	-	-
Alkalinity(CaCO3) to pH4.5	mg/L	5		293	550	405	270	282
TDS (Calc. from Cond.) (Calculated)	mg/L	3		718	785	672	378	372
Conductivity @25°C	uS/cm	1		1320	1440	1240	726	717
pH @25°C	pH units	-		7.91	7.46	7.61	7.76	7.87
Chloride	mg/L	0.5		213	138	138	60.6	51.0
Nitrate (N)	mg/L	0.05		1.45	<0.05	0.10	<0.05	<0.05
Sulphate	mg/L	1		63	9	46	25	26
Phosphorus (Total)	mg/L	0.01		0.36	0.12	4.39	0.04	0.09
Total Kjeldahl Nitrogen	mg/L	0.1		0.6	16.5	31.4	0.3	0.2
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05		<0.05	12.6	6.22	<0.05	<0.05
Dissolved Organic Carbon	mg/L	0.8		2.3	12.7	5.4	3.3	4.1
Phenolics	mg/L	0.001		0.001	0.002	0.005	0.001	0.002
COD	mg/L	5		45	66	993	26	25
Hardness (as CaCO3)	mg/L	0.02		427	524	432	296	294
Barium	mg/L	0.001		0.233	0.612	0.260	0.047	0.060
Boron	mg/L	0.005		0.080	0.315	0.134	0.088	0.085
Calcium	mg/L	0.02		147	179	156	109	98.3
Iron	mg/L	0.005		<0.005	32.3	1.49	0.008	<0.005
Magnesium	mg/L	0.02		14.7	18.6	9.94	5.92	11.9
Manganese	mg/L	0.001		<0.001	2.06	0.936	0.004	0.008
Potassium	mg/L	0.1		5.4	23.0	11.2	2.0	1.1

Michelle Dubien
Data Specialist

			Client I.D.	MW01-1	MW05-1	MW06-1	MW12-3	GW-QAQC2
			Sample I.D.	25-032040-1	25-032040-2	25-032040-3	25-032040-4	25-032040-5
			Date Collected	2025-10-15	2025-10-15	2025-10-15	2025-10-15	2025-10-15
Parameter	**Units**	**R.L.**		-	-	-	-	-
Sodium	mg/L	0.2		90.9	62.1	67.1	15.4	18.6
Arsenic	mg/L	0.0001		<0.0001	0.0030	0.0004	<0.0001	0.0003

Michelle Dubien
Data Specialist

Parameter	Units	R.L.	Client I.D.	MW13-1	MW13-2	MW12-2	MW12-1	MW10-1
			Sample I.D.	25-032040-6	25-032040-7	25-032040-8	25-032040-9	25-032040-10
			Date Collected	2025-10-15	2025-10-15	2025-10-15	2025-10-15	2025-10-15
				-	-	-	-	-
Alkalinity(CaCO3) to pH4.5	mg/L	5		273	286	281	248	254
TDS (Calc. from Cond.) (Calculated)	mg/L	3		407	325	375	320	336
Conductivity @25°C	uS/cm	1		776	626	720	616	648
pH @25°C	pH units	-		7.89	7.79	7.87	7.80	7.87
Chloride	mg/L	0.5		76.2	26.9	51.2	35.0	47.9
Nitrate (N)	mg/L	0.05		2.32	<0.05	<0.05	<0.05	<0.05
Sulphate	mg/L	1		12	9	26	28	21
Phosphorus (Total)	mg/L	0.01		0.22	0.12	0.08	<0.01	<0.01
Total Kjeldahl Nitrogen	mg/L	0.1		0.3	0.3	0.2	0.2	0.2
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05		<0.05	<0.05	0.18	0.15	0.16
Dissolved Organic Carbon	mg/L	0.8		4.0	4.3	3.4	3.1	3.5
Phenolics	mg/L	0.001		0.002	0.001	0.002	0.003	0.003
COD	mg/L	5		13	25	32	9	8
Hardness (as CaCO3)	mg/L	0.02		254	255	292	278	287
Barium	mg/L	0.001		0.107	0.107	0.059	0.850	0.991
Boron	mg/L	0.005		0.036	0.032	0.085	0.160	0.172
Calcium	mg/L	0.02		96.4	96.3	97.3	87.8	91.5
Iron	mg/L	0.005		<0.005	0.069	<0.005	0.008	<0.005
Magnesium	mg/L	0.02		3.13	3.42	11.9	14.1	14.2
Manganese	mg/L	0.001		<0.001	0.406	0.008	0.002	0.009
Potassium	mg/L	0.1		2.4	3.3	1.1	3.4	3.3

Michelle Dubien
Data Specialist

			Client I.D.	MW13-1	MW13-2	MW12-2	MW12-1	MW10-1
			Sample I.D.	25-032040-6	25-032040-7	25-032040-8	25-032040-9	25-032040-10
			Date Collected	2025-10-15	2025-10-15	2025-10-15	2025-10-15	2025-10-15
Parameter	**Units**	**R.L.**		-	-	-	-	-
Sodium	mg/L	0.2		57.9	23.2	18.6	9.2	9.1
Arsenic	mg/L	0.0001		0.0001	0.0002	0.0003	<0.0001	<0.0001

Michelle Dubien
Data Specialist

			Client I.D.	MW10-2	MW08-1	GW-QAQC1	MW08-2	MW09-2
			Sample I.D.	25-032040-11	25-032040-12	25-032040-13	25-032040-14	25-032040-15
			Date Collected	2025-10-15	2025-10-15	2025-10-15	2025-10-15	2025-10-15
Parameter	**Units**	**R.L.**		-	-	-	-	-
Alkalinity(CaCO3) to pH4.5	mg/L	5		262	297	297	271	284
TDS (Calc. from Cond.) (Calculated)	mg/L	3		332	407	407	377	400
Conductivity @25°C	uS/cm	1		639	776	777	724	764
pH @25°C	pH units	-		7.95	7.79	7.80	7.80	7.78
Chloride	mg/L	0.5		51.2	67.5	68.1	64.9	65.2
Nitrate (N)	mg/L	0.05		0.11	0.85	0.81	0.56	1.04
Sulphate	mg/L	1		4	13	13	9	12
Phosphorus (Total)	mg/L	0.01		0.04	<0.01	<0.01	0.02	<0.01
Total Kjeldahl Nitrogen	mg/L	0.1		1.1	0.2	0.1	0.2	0.1
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05		0.94	<0.05	<0.05	<0.05	<0.05
Dissolved Organic Carbon	mg/L	0.8		3.8	4.5	4.5	5.0	4.6
Phenolics	mg/L	0.001		0.001	<0.001	<0.001	<0.001	0.001
COD	mg/L	5		5	10	7	14	8
Hardness (as CaCO3)	mg/L	0.02		298	285	282	284	277
Barium	mg/L	0.001		0.516	0.128	0.127	0.136	0.172
Boron	mg/L	0.005		0.128	0.039	0.040	0.023	0.039
Calcium	mg/L	0.02		101	106	105	106	104
Iron	mg/L	0.005		3.78	0.009	0.007	0.007	0.015
Magnesium	mg/L	0.02		10.8	4.76	4.77	4.21	4.14
Manganese	mg/L	0.001		0.030	0.006	0.006	0.002	0.002
Potassium	mg/L	0.1		2.4	2.0	2.1	1.4	2.4

Michelle Dubien
Data Specialist

			Client I.D.	MW10-2	MW08-1	GW-QAQC1	MW08-2	MW09-2
			Sample I.D.	25-032040-11	25-032040-12	25-032040-13	25-032040-14	25-032040-15
			Date Collected	2025-10-15	2025-10-15	2025-10-15	2025-10-15	2025-10-15
Parameter	**Units**	**R.L.**		-	-	-	-	-
Sodium	mg/L	0.2		5.4	44.3	44.7	28.4	43.4
Arsenic	mg/L	0.0001		<0.0001	0.0003	0.0003	0.0001	0.0001

Michelle Dubien
Data Specialist

			Client I.D.	MW09-1	MW11-1	MW11-2
			Sample I.D.	25-032040-16	25-032040-17	25-032040-18
			Date Collected	2025-10-15	2025-10-15	2025-10-15
Parameter	**Units**	**R.L.**		-	-	-
Alkalinity(CaCO3) to pH4.5	mg/L	5		276	265	265
TDS (Calc. from Cond.) (Calculated)	mg/L	3		328	359	325
Conductivity @25°C	uS/cm	1		632	692	626
pH @25°C	pH units	-		7.95	8.00	7.92
Chloride	mg/L	0.5		16.3	40.3	40.7
Nitrate (N)	mg/L	0.05		<0.05	<0.05	<0.05
Sulphate	mg/L	1		46	46	7
Phosphorus (Total)	mg/L	0.01		<0.01	0.10	0.02
Total Kjeldahl Nitrogen	mg/L	0.1		0.7	1.1	1.0
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05		0.66	0.67	0.85
Dissolved Organic Carbon	mg/L	0.8		3.4	4.3	4.3
Phenolics	mg/L	0.001		0.010	0.002	0.001
COD	mg/L	5		39	32	6
Hardness (as CaCO3)	mg/L	0.02		211	313	304
Barium	mg/L	0.001		0.913	0.673	0.532
Boron	mg/L	0.005		0.620	0.370	0.125
Calcium	mg/L	0.02		45.4	87.4	105
Iron	mg/L	0.005		0.005	0.062	2.85
Magnesium	mg/L	0.02		23.7	23.0	10.4
Manganese	mg/L	0.001		0.046	0.063	0.031
Potassium	mg/L	0.1		5.8	4.2	2.6

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Data Specialist

			Client I.D.	MW09-1	MW11-1	MW11-2
			Sample I.D.	25-032040-16	25-032040-17	25-032040-18
			Date Collected	2025-10-15	2025-10-15	2025-10-15
Parameter	**Units**	**R.L.**		-	-	-
Sodium	mg/L	0.2		53.0	13.4	7.2
Arsenic	mg/L	0.0001		<0.0001	<0.0001	<0.0001

Michelle Dubien
Data Specialist

CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G135550 **REPORT No: 25-032044 - Rev. 0**

Report To:
Cambium Environmental - Peterborough
194 Sophia St
Peterborough, ON K9H 1E5

CADUCEON Environmental Laboratories
285 Dalton Ave
Kingston, ON K7K 6Z1

Attention: Mike Pion

DATE RECEIVED: 2025-Oct-17
DATE REPORTED: 2025-Oct-28
SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Halls Glen WDS
P.O. NUMBER: 12987-002

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	PCURIEL	2025-Oct-23	A-IC-01	SM 4110B
COD (Liquid)	1	KINGSTON	MWILSON	2025-Oct-21	COD-001	SM 5220D
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	SBOUDREAU	2025-Oct-21	COND-02/PH-02/ALK-02	SM 2510B/4500H/2320B
DOC (Liquid)	1	OTTAWA	MMACMILLAN	2025-Oct-23	C-OC-01	EPA 415.2
ICP/MS (Liquid)	1	OTTAWA	TPRICE	2025-Oct-21	D-ICPMS-01	EPA 200.8
ICP/OES (Liquid)	1	OTTAWA	NSAUNDERS	2025-Oct-21	D-ICP-01	SM 3120B
Ammonia (Liquid)	1	KINGSTON	VHAMMOND	2025-Oct-27	NH3-001	SM 4500NH3
Phenols (Liquid)	1	KINGSTON	EHINCH	2025-Oct-27	PHEN-01	MECP E3179
TP & TKN (Liquid)	1	KINGSTON	YLIEN	2025-Oct-23	TPTKN-001	MECP E3516.2

R.L. = Reporting Limit
NC = Not Calculated
Test methods may be modified from specified reference method unless indicated by an *

Michelle Dubien
Data Specialist

			Client I.D.	R1
			Sample I.D.	25-032044-1
			Date Collected	2025-10-15
Parameter	Units	R.L.		-
Alkalinity(CaCO3) to pH4.5	mg/L	5		276
TDS (Calc. from Cond.) (Calculated)	mg/L	3		343
Conductivity @25°C	uS/cm	1		661
pH @25°C	pH units	-		7.88
Chloride	mg/L	0.5		36.5
Nitrate (N)	mg/L	0.05		1.98
Sulphate	mg/L	1		12
Phosphorus (Total)	mg/L	0.01		2.27
Total Kjeldahl Nitrogen	mg/L	0.1		3.2
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05		<0.05
Dissolved Organic Carbon	mg/L	0.8		4.9
Phenolics	mg/L	0.001		<0.001
COD	mg/L	5		127
Hardness (as CaCO3)	mg/L	0.02		272
Barium	mg/L	0.001		0.203
Boron	mg/L	0.005		0.031
Calcium	mg/L	0.02		100
Iron	mg/L	0.005		0.048
Magnesium	mg/L	0.02		5.02
Manganese	mg/L	0.001		0.077
Potassium	mg/L	0.1		2.1

Michelle Dubien
Data Specialist

Parameter	Units	R.L.	Client I.D.: R1 Sample I.D.: 25-032044-1 Date Collected: 2025-10-15 -
Sodium	mg/L	0.2	27.7
Arsenic	mg/L	0.0001	0.0001

Michelle Dubien
Data Specialist

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G135546 **REPORT No: 25-032046 - Rev. 0**

Report To:
Cambium Environmental - Peterborough
194 Sophia St
Peterborough, ON K9H 1E5

CADUCEON Environmental Laboratories
285 Dalton Ave
Kingston, ON K7K 6Z1

Attention: Mike Pion

DATE RECEIVED: 2025-Oct-17
DATE REPORTED: 2025-Oct-28
SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Halls Glen WDS
P.O. NUMBER: 12987-002

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	PCURIEL	2025-Oct-23	A-IC-01	SM 4110B
COD (Liquid)	1	KINGSTON	MWILSON	2025-Oct-22	COD-001	SM 5220D
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	SBOUDREAU	2025-Oct-21	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
DOC (Liquid)	1	OTTAWA	MMACMILLAN	2025-Oct-23	C-OC-01	EPA 415.2
ICP/MS (Liquid)	1	OTTAWA	TPRICE	2025-Oct-21	D-ICPMS-01	EPA 200.8
ICP/OES (Liquid)	1	OTTAWA	NSAUNDERS	2025-Oct-21	D-ICP-01	SM 3120B
Ammonia (Liquid)	1	KINGSTON	VHAMMOND	2025-Oct-27	NH3-001	SM 4500NH3
Phenols (Liquid)	1	KINGSTON	EHINCH	2025-Oct-27	PHEN-01	MECP E3179
TP & TKN (Liquid)	1	KINGSTON	YLIEN	2025-Oct-23	TPTKN-001	MECP E3516.2

R.L. = Reporting Limit
NC = Not Calculated
Test methods may be modified from specified reference method unless indicated by an *

Michelle Dubien
Data Specialist

		Client I.D.	R3
		Sample I.D.	25-032046-1
		Date Collected	2025-10-15
Parameter	**Units**	**R.L.**	-
Alkalinity(CaCO3) to pH4.5	mg/L	5	281
TDS (Calc. from Cond.) (Calculated)	mg/L	3	408
Conductivity @25°C	uS/cm	1	778
pH @25°C	pH units	-	7.98
Chloride	mg/L	0.5	71.6
Nitrate (N)	mg/L	0.05	2.22
Sulphate	mg/L	1	10
Phosphorus (Total)	mg/L	0.01	0.03
Total Kjeldahl Nitrogen	mg/L	0.1	0.2
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	<0.05
Dissolved Organic Carbon	mg/L	0.8	7.7
Phenolics	mg/L	0.001	<0.001
COD	mg/L	5	27
Hardness (as CaCO3)	mg/L	0.02	2.49
Barium	mg/L	0.001	0.001
Boron	mg/L	0.005	0.031
Calcium	mg/L	0.02	0.99
Iron	mg/L	0.005	0.032
Magnesium	mg/L	0.02	<0.02
Manganese	mg/L	0.001	<0.001
Potassium	mg/L	0.1	0.2

Michelle Dubien
Data Specialist

Parameter	Units	R.L.	Client I.D.: R3 Sample I.D.: 25-032046-1 Date Collected: 2025-10-15 -
Sodium	mg/L	0.2	185
Arsenic	mg/L	0.0001	0.0002

Michelle Dubien
Data Specialist

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G135546 **REPORT No: 25-032050 - Rev. 0**

Report To:
Cambium Environmental - Peterborough
194 Sophia St
Peterborough, ON K9H 1E5

CADUCEON Environmental Laboratories
285 Dalton Ave
Kingston, ON K7K 6Z1

Attention: Mike Pion

DATE RECEIVED: 2025-Oct-17
DATE REPORTED: 2025-Oct-29
SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: Halls Glen WDS
P.O. NUMBER: 12987-002

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	1	OTTAWA	LMACGREGOR	2025-Oct-24	A-IC-01	SM 4110B
COD (Liquid)	1	KINGSTON	MWILSON	2025-Oct-22	COD-001	SM 5220D
Cond/pH/Alk Auto (Liquid)	1	OTTAWA	SBOUDREAU	2025-Oct-21	COND-02/PH-02/ALK-02	SM 2510B/4500H/2320B
DOC (Liquid)	1	OTTAWA	MMACMILLAN	2025-Oct-23	C-OC-01	EPA 415.2
ICP/MS (Liquid)	1	OTTAWA	TPRICE	2025-Oct-21	D-ICPMS-01	EPA 200.8
ICP/OES (Liquid)	1	OTTAWA	NSAUNDERS	2025-Oct-21	D-ICP-01	SM 3120B
Ammonia (Liquid)	1	KINGSTON	VHAMMOND	2025-Oct-27	NH3-001	SM 4500NH3
Phenols (Liquid)	1	KINGSTON	EHINCH	2025-Oct-27	PHEN-01	MECP E3179
TP & TKN (Liquid)	1	KINGSTON	YLIEN	2025-Oct-23	TPTKN-001	MECP E3516.2

R.L. = Reporting Limit
NC = Not Calculated
Test methods may be modified from specified reference method unless indicated by an *

Michelle Dubien
Data Specialist

Parameter	Units	R.L.	Client I.D.: R4	Sample I.D.: 25-032050-1	Date Collected: 2025-10-15
			-		
Alkalinity(CaCO3) to pH4.5	mg/L	5	318		
TDS (Calc. from Cond.) (Calculated)	mg/L	3	882		
Conductivity @25°C	uS/cm	1	1610		
pH @25°C	pH units	-	7.89		
Chloride	mg/L	0.5	326		
Nitrate (N)	mg/L	0.05	2.33		
Sulphate	mg/L	1	15		
Phosphorus (Total)	mg/L	0.01	0.02		
Total Kjeldahl Nitrogen	mg/L	0.1	0.5		
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	<0.05		
Dissolved Organic Carbon	mg/L	0.8	3.3		
Phenolics	mg/L	0.001	<0.001		
COD	mg/L	5	15		
Hardness (as CaCO3)	mg/L	0.02	366		
Barium	mg/L	0.001	0.175		
Boron	mg/L	0.005	0.026		
Calcium	mg/L	0.02	139		
Iron	mg/L	0.005	<0.005		
Magnesium	mg/L	0.02	4.59		
Manganese	mg/L	0.001	<0.001		
Potassium	mg/L	0.1	3.8		

Michelle Dubien
Data Specialist

Parameter	Units	R.L.	Client I.D.: R4	Sample I.D.: 25-032050-1	Date Collected: 2025-10-15
			-		
Sodium	mg/L	0.2	176		
Arsenic	mg/L	0.0001	0.0001		

Michelle Dubien
Data Specialist

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G131459 **REPORT No: 25-009146 - Rev. 0**

Report To:
Cambium Environmental - Peterborough
194 Sophia St
Peterborough, ON K9H 1E5

CADUCEON Environmental Laboratories
285 Dalton Ave
Kingston, ON K7K 6Z1

Attention: Mike Pion

DATE RECEIVED: 2025-Apr-09
DATE REPORTED: 2025-Apr-22
SAMPLE MATRIX: Surface Water

CUSTOMER PROJECT: Halls Glen WDS
P.O. NUMBER: 12987-002

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	4	OTTAWA	PCURIEL	2025-Apr-10	A-IC-01	SM 4110B
BOD5 (Liquid)	4	KINGSTON	JWOLFE2	2025-Apr-10	BOD-001	SM 5210B
COD (Liquid)	4	KINGSTON	EHINCH	2025-Apr-10	COD-001	SM 5220D
Cond/pH/Alk Auto (Liquid)	4	OTTAWA	SBOUDREAU	2025-Apr-10	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
DOC (Liquid)	4	OTTAWA	LMACGREGOR	2025-Apr-18	C-OC-01	EPA 415.2
ICP/MS Total (Liquid)	4	OTTAWA	TPRICE	2025-Apr-11	D-ICPMS-01	EPA 6020
ICP/OES Total (Liquid)	4	OTTAWA	ASCHNEIDER	2025-Apr-15	D-ICP-01	SM 3120B
Mercury (Liquid) Lab Filtered	4	OTTAWA	TBENNETT	2025-Apr-11	D-HG-02	SM 3112B
Ammonia & o-Phosphate (Liquid)	4	KINGSTON	DCASSIDY	2025-Apr-11	NH3-001	SM 4500NH3
Phenols (Liquid)	4	KINGSTON	EHINCH	2025-Apr-10	PHEN-01	MECP E3179
TP & TKN (Liquid)	4	KINGSTON	YLIEN	2025-Apr-21	TPTKN-001	MECP E3516.2
TSS (Liquid)	4	KINGSTON	MCLOSS	2025-Apr-15	TSS-001	SM 2540D

R.L. = Reporting Limit
NC = Not Calculated
Test methods may be modified from specified reference method unless indicated by an *

Michelle Dubien
Data Specialist

	Client I.D.		SW1	SW3	QAQC-SW	SW2
	Sample I.D.		25-009146-1	25-009146-2	25-009146-3	25-009146-4
	Date Collected		2025-04-07	2025-04-07	2025-04-07	2025-04-07
Parameter	**Units**	**R.L.**	-	-	-	-
Alkalinity(CaCO3) to pH4.5	mg/L	5	164	136	136	138
TDS (Calc. from Cond.)	mg/L	3	236	182	183	214
Conductivity @25°C	uS/cm	1	456	354	355	415
pH @25°C	pH units	-	7.52	7.10	7.17	7.21
Chloride	mg/L	0.5	41.0	24.1	24.4	43.8
Nitrate (N)	mg/L	0.05	0.09	0.10	<0.05	0.09
Nitrite (N)	mg/L	0.05	<0.05	<0.05	<0.05	<0.05
Sulphate	mg/L	1	5	6	6	5
BOD5	mg/L	3	<3	<3	<3	<3
Total Suspended Solids	mg/L	3	11	9	11	6
Phosphorus (Total)	mg/L	0.01	0.12	0.03	0.03	0.04
Total Kjeldahl Nitrogen	mg/L	0.1	0.7	0.5	0.4	0.3
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	<0.05	<0.05	<0.05	<0.05
Ammonia (N)-unionized	mg/L	0.01	<0.01	<0.01	<0.01	<0.01
Dissolved Organic Carbon	mg/L	0.8	5.3	8.3	8.7	6.4
Phenolics	mg/L	0.001	0.001	0.002	0.002	<0.001
COD	mg/L	5	7	14	20	14
Hardness (as CaCO3)	mg/L	0.02	197	163	169	146
Barium (Total)	mg/L	0.001	0.062	0.061	0.063	0.032
Boron (Total)	mg/L	0.005	0.010	0.018	0.017	0.006
Calcium (Total)	mg/L	0.02	74.5	60.3	62.5	55.1

Michelle Dubien
Data Specialist

			Client I.D.	SW1	SW3	QAQC-SW	SW2
			Sample I.D.	25-009146-1	25-009146-2	25-009146-3	25-009146-4
			Date Collected	2025-04-07	2025-04-07	2025-04-07	2025-04-07
Parameter	**Units**	**R.L.**		-	-	-	-
Iron (Total)	mg/L	0.005		0.064	0.053	0.074	0.026
Magnesium (Total)	mg/L	0.02		2.64	2.96	3.10	1.97
Manganese (Total)	mg/L	0.001		0.015	0.008	0.009	0.011
Potassium (Total)	mg/L	0.1		1.1	2.1	2.2	1.3
Zinc (Total)	mg/L	0.005		0.007	0.008	0.011	0.005
Arsenic (Total)	mg/L	0.0001		0.0002	0.0002	0.0001	<0.0001
Cadmium (Total)	mg/L	0.000015		<0.000015	0.000019	0.000020	<0.000015
Chromium (Total)	mg/L	0.001		<0.001	<0.001	<0.001	<0.001
Copper (Total)	mg/L	0.0001		0.0007	0.0006	0.0006	0.0005
Lead (Total)	mg/L	0.00002		0.00011	0.00014	0.00014	0.00006
Mercury (Filtered)	mg/L	0.00002		<0.00002	<0.00002	<0.00002	<0.00002
pH (Client Data)	pH units	-		7.00	6.84	6.84	7.27
Temperature (Client Data)	°C	-		7.4	1.8	1.8	7.3

Michelle Dubien
Data Specialist

Appendix E Photographs

Photograph 1: Monitors MW01-1 & MW01-2, October 2025

Photograph 2: Monitors MW02-1 & MW02-2, October 2025

Photograph 3: Monitors MW03-1 & MW03-2, April 2025

Photograph 4: Monitors MW04-1 & MW04-2, October 2024

Photograph 5: Monitors MW05-1 & MW05-2, October 2025

Photograph 6: Monitors MW06-1 & MW06-2, April 2025

Photograph 7: Monitors MW07-1 & MW07-2, October 2025

Photograph 8: Monitors MW08-1 & MW08-2, April 2025

Photograph 9: Monitors MW09-1 & MW09-2, October 2025

Photograph 10: Monitors MW10-1 & MW10-2, April 2025

Photograph 11: Monitors MW11-1 & MW11-2, October 2024

Photograph 12: Monitors MW12-1, MW12-2, & MW12-3, October 2024

Photograph 13: Monitors MW13-1 & MW13-2, April 2025

Photograph 14: Residential well R1, October 2025

Photograph 15: Surface water monitoring station S1, April 2025

Photograph 16: Dry - Surface water monitoring station S1, October 2025

Photograph 17: Surface water monitoring station S2, April 2025

Photograph 18: Dry - Surface water monitoring station S2, October 2025

Photograph 19: Surface water monitoring station S3, April 2025

Photograph 20: Dry - Surface water monitoring station S3, October 2025

Photograph 21: Main Gate, October 2025

Photograph 22: Scale house and scale, October 2025

Photograph 23: Organics bins, October 2025

Photograph 24: Donation center & storage shed, October 2025

Photograph 25: Waste Bins, October 2025

Photograph 26: Recycling bins, October 2025

Photograph 27: MHSW, October 2025

Photograph 28: Propane tanks & MHSW, October 2025

Photograph 29: Tires, October 2024

Photograph 30: White goods, October 2024

Photograph 31:Brush pile, October 2024

Photograph 32: Waste mound, April 2024

Appendix F Borehole Logs

TOWNSHIP OF DUMMER

HALL'S GLEN LANDFILL STUDY

BOREHOLE LOGS

June 27 - July 9, 1991

BOREHOLE	DEPTH INTERVAL (metres below ground)	DRILLER'S DESCRIPTION
1-91	0 - 0.61	Brown CLAY, GRAVEL, hard
	0.61 - 1.98	Grey GRAVEL, dry
	1.98 - 6.10	Grey LIMESTONE
	6.10 - 6.71	Brown SHALE
	Water-bearing zone reported at 6.10 metres	
2-91	0 - 1.22	Brown FILL
	1.22 - 3.05	REFUSE
	3.05 - 4.88	Brown SAND, COBBLES
	4.88 - 5.49	Grey GRAVEL
	5.49 - 6.71	Brown SHALE, wet
	6.71 - 8.53	Grey LIMESTONE
	8.53 - 9.14	Brown SHALE
	Water-bearing zone reported at 8.53 metres	
3-91	0 - 0.91	Brown SAND, CLAY
	0.91 - 1.52	Brown GRAVEL, COBBLES, CLAY, hard
	1.52 - 4.27	Grey LIMESTONE
	Water-bearing zone reported at 3.66 metres	
4-91	0 - 2.74	Grey GRAVEL, BOULDERS
	2.74 - 3.66	Grey LIMESTONE
	3.66 - 4.88	Brown SHALE
	Water-bearing zone reported at 3.66 metres	
5-91	0 - 1.83	Brown SAND, CLAY
	1.83 - 3.20	Brown SAND, GRAVEL
	3.20 - 3.66	Brown SAND, CLAY
	3.66 - 7.01	Grey LIMESTONE
	Water-bearing zone reported at 6.40 metres	

TOWNSHIP OF DUMMER

HALL'S GLEN LANDFILL STUDY

BOREHOLE LOGS

June 27 - July 9, 1991

BOREHOLE	DEPTH INTERVAL (metres below ground)	DRILLER'S DESCRIPTION
6-91	0 - 0.61	Brown SAND
	0.61 - 2.74	Brown SAND, GRAVEL
	2.74 - 5.18	Grey LIMESTONE
	5.18 - 5.79	Brown SHALE

Water-bearing zone reported at 5.18 metres

MONITOR DETAILS

BOREHOLE		MONITOR					SCREENED INTERVAL (mbgl)	SAND FILTER PACK (mbgl)	BENTONITE SEAL (mbgl)	STEEL CASING (mbgl)
NO	Diameter (mm)	NO	Type	Diameter (mm)	Stick-up (m)	Elevation (t.o.p.m.)				
1-91	150	I	P	50	0.98	271.27	6.71 - 5.18	6.71 - 5.33	5.33 - 4.72	0.91 - 10.88
1-91		II	S	38			1.98 - 0.46	1.98 - 0.46	0.46 - 0.00	
2-91	150	I	P	50	1.07	275.79	9.14 - 7.62	9.14 -6.70	6.70 - 5.79	0.91 - 11.07
2-91		II	S	38			5.49 - 3.96	5.49 - 0.61	0.61 - 0.00	
3-91	150	I	P	50	1.11	269.23	4.27 - 2.74	4.27 - 2.13	2.13 - 1.52	0.91 - 11.11
3-91		II	S	38			1.52 - 0.00	1.52 - 0.31	0.31 - 0.00	
4-91	150	I	P	50	1.01	268.28	4.88 - 3.35	4.88 - 3.66	3.66 - 3.05	0.91 - 11.04
4-91		II	S	38			3.05 - 1.52	3.05 - 0.61	0.61 - 0.00	
5-91	150	I	P	50	1.00	271.32	7.01 - 5.49	7.01 - 4.27	4.27 - 3.66	0.91 - 11.00
5-91		II	S	38			3.66 - 2.13	3.66 - 0.16	0.61 - 0.00	
6-91	150	I	P	50	1.02	269.83	5.79 - 4.26	5.79 - 3.35	3.35 - 2.74	0.91 - 11.02
6-91		II	S	38			2.74 - 1.22	2.74 - 0.61	0.61 - 0.00	

INTERPRETATION

P = Piezometer mbgl = metres below

Geo-Logic Inc.
Plate B-3

Ministry of Environment and Energy
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable

County or District	Township/Borough/City/Town/Village	Con	Block	Tract	Survey	Lot
Peterborough	Dummer Twp., Hall Glen Landfill	Con.4				24
Owner's surname / Full name	Address	Date completed				
Township of Dummer	C/O Totten Sims Hubicki Assoc. 300 Water St., Whitby, Ont. L1N 9J2		18	03	97	

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	To
Black	Topsoil	stones	soft	0	1
Brown	Gravelly Clay	stones	soft-caving	1	9
Brown	Shale		soft	9	14
Gray	Limestone		hard	14	18
Brown	Limestone		very hard	18	22
		* Finished depth @ 22 ft.			

WATER RECORD

Water found at - feet	Kind of water
9	Fresh / Salty / Sulphur / Mineral / Gas
18	Fresh / Salty / Sulphur / Mineral / Gas
	Fresh / Salty / Sulphur / Mineral / Gas
	Fresh / Salty / Sulphur / Mineral / Gas
	Fresh / Salty / Sulphur / Mineral / Gas

CASING & OPEN HOLE RECORD

Inside diam. inches	Material	Wall thickness inches	Depth - feet From	To
6¼	Steel / Galvanized / Concrete / Open hole / Plastic	.188	+ 2	3
2	Steel / Galvanized / Concrete / Open hole / Plastic	Plast	+ 2	16
2	Steel / Galvanized / Concrete / Open hole / Plastic	Plast	+ 2	4

SCREEN

Screw or opening (Slot No.)	Diameter inches	Length feet
10	2	2 5

Material and type: PVC — Depth at top of screen: 4 ft 6 in

PLUGGING & SEALING RECORD

Annular space / Abandonment

Depth set at - feet From	To	Material and type (Cement grout, bentonite, etc.)
0	3	Bentonite
4	11½	Gravel
11½	21	Bentonite
21	22½	Gravel
22½		Bentonite

PUMPING TEST

Pumping test method: Pump / Bailer — Pumping rate: 10 GPM — Duration of pumping: 30 Hours

Static level	Water level end of pumping	Water levels during: Pumping / Recovery			
6 feet	11 feet	10 minutes: 11 feet	20 minutes: 11 feet	30 minutes: 11 feet	40 minutes: 11 feet

Pumping rate GPM — Pump intake set at — Water at end of test: Clear / Cloudy

Recommended pump type: Shallow / Deep — Recommended pump setting — Recommended pump rate GPM

FINAL STATUS OF WELL

Water supply / Observation well / Test hole / Recharge well — Abandoned, insufficient supply / Abandoned, poor quality / Abandoned (Other) / Dewatering — Unfinished / Abandonment well

WATER USE

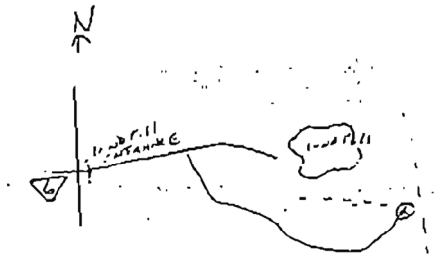
Domestic / Stock / Irrigation / Industrial — Commercial / Municipal / Public supply / Cooling & air conditioning — Not used / Other: Piezometer

METHOD OF CONSTRUCTION

Cable tool / Rotary (conventional) / Rotary (reverse) / Rotary (air) — Air percussion / Boring / Diamond / Jetting — Driving / Digging / Other

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



174284

Name of Well Contractor	Well Contractor's Licence No.
C.Hart & Sons Well Drilling Ltd.	2662
Address	
Box 850, Fenelon Falls, Ontario	
Name of Well Technician (Last, First)	Well Technician's Licence No.
Greg Bullock	T-7108
Signature of Technician/Contractor	Submission Date

MINISTRY USE ONLY

3 - OWNER'S COPY

M.O.E. WATER WELL RECORD

MW-7

Geo-Logic Inc.

Plate B-4

Ontario Ministry of the Environment

WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

County or District	Township, Borough, City, Town or Village (BH-8)	Con. Lot	Lot
Peterborough	Dummer Twp., Halls Glen-Landfill	Con. 4	26
Owner's surname / First name	Address c/o Totten Sims Hubicki Assoc.	Date completed	1 11 01
Township of Dummer	300 Water St., Whitby, ON L1N 9J2		day month year

Form ☐ Bearing ☐ Easting ☐

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	To
Black	Topsoil			0	1
Brown	Gravel	sand		1	9
Brown	Gravel	stones		9	15
Brown	Rock		broken	15	17
Gray	Limestone			17	35

WATER RECORD

Water found at - feet	Kind of water
19	☐ Fresh ☐ Sulphur ☐ Salty ☐ Mineral ☐ Gas
28	☐ Fresh ☐ Sulphur ☐ Salty ☐ Mineral ☐ Gas
	☐ Fresh ☐ Sulphur ☐ Salty ☐ Mineral ☐ Gas
	☐ Fresh ☐ Sulphur ☐ Salty ☐ Mineral ☐ Gas
	☐ Fresh ☐ Sulphur ☐ Salty ☐ Mineral ☐ Gas

CASING & OPEN HOLE RECORD

Inside diameter	Material	Wall thickness	Depth - feet From	To
6¼	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	.188	+2½	17
2	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	Plexo	+2½	30
2	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	Plexo	+2½	17½

SCREEN

Make	Diameter	Length
	2 inches	2 x 5 feet
Material and type: PVC	Depth set (feet - inches): 30, 17½	

PLUGGING & SEALING RECORD

☐ Annular space ☐ Abandonment

Depth set at - feet From	To	Material and type (Cement grout, bentonite, etc.)
0	17	Bentonite & Mudslurry

PUMPING TEST

☐ Pump ☐ Bailer — Pumping rate: 8-10 gpm — Duration of pumping: hours 30 min

Static level	Pumping level (and after hours of pumping)	If flowing give rate	Recommended pump depth
15 feet			

Pumping rate (gpm) | 10 min | 20 min | 30 min | 40 min | 50 min | 60 min
Feet | | | | | |

Final water level | Water after 1 hour pumping: ☐ Clear ☐ Cloudy
Pump intake set at | Recommended pump depth
Pump type: ☐ Submersible ☐ Jet | Recommended pump rate | Recommended pump setting

FINAL STATUS OF WELL

☐ Water supply ☐ Replacement well ☐ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Municipal ☐ Public supply ☐ Cooling & air conditioning
☐ Observation and monitoring hole ☐ Alteration (construction) ☐ Abandoned, insufficient supply ☐ Abandoned, poor quality ☐ Abandoned (Other) ☐ Dewatering ☐ Other
☐ Test hole ☐ Recharge well

WATER USE

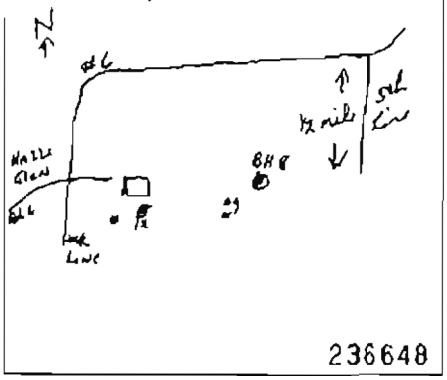
☐ Domestic ☐ Stock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Public supply ☐ Cooling & air conditioning ☐ Not used ☐ Other

METHOD OF CONSTRUCTION

☐ Cable tool ☐ Rotary (conventional) ☐ Rotary (reverse) ☐ Rotary (air) ☐ Air percussion ☐ Boring ☐ Diamond ☐ Jetting ☐ Digging ☐ Driving ☐ Other

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



236648

Name of Well Contractor	Well Contractor's Licence No.
C. Hart & Sons Well Drilling Ltd	2662
Address: Box 850, Fenelon Falls, Ontario	
Name of Well Technician: Jim Lamb	Well Technician's Licence No.: T-0546
Signature of Technician/Contractor	Submission date: day mo. yr.

MINISTRY USE ONLY

1 - CONTRACTOR'S COPY

M.O.E. WATER WELL RECORD

MW-8

Ontario Ministry of the Environment

WATER WELL RECORD

County or District: Peterborough	Township, Borough, City, Town or Village (Block/Tract): Dummer Twp. Hallm Glen-Land(1)1	Lot: 26
Owner's surname: Township of Dummer	Address: c/o Foxlen Sims Rubicki Assoc. 300 Water St., Whitby, Ont. L1N 9J2	Date completed: 30 10 01

LOG OF OVERBURDEN AND BEDROCK MATERIALS

General Colour	Most common material	Other materials	General description	Depth - feet From	To
Black	Topsoil			0	1
Brown	Gravel			1	10
Brown	Rock		broken	10	12
Gray	Limestone			12	30

WATER RECORD

Water found at Feet	Kind of water
12	Fresh
26	Fresh

CASING & SCREEN RECORD

Kind	Material	Wall thickness	Depth - feet From	To
6"		.188	+2'	12
2"		Pleso	+2'	25
2"		Pleso	+2'	13

BORE HOLE

Diameter	Depth
10 inches	2 x 5 feet

Material and type: PVC

SEALING RECORD

From	To	Material and type
0	12	Bentonite

PUMPING TEST

Pumping rate: 8 GPM
Duration of pumping: 1 hrs
Pumping began: A.M.
Pumping ended: A.M.
Final water level: 8 feet
Recommended pump rate: GPM
Recommended pump depth: feet

FINAL STATUS OF WELL

Water supply / Observation well / Test hole / Recharge well / Dewatering well / Monitoring hole / Abandoned

WATER USE

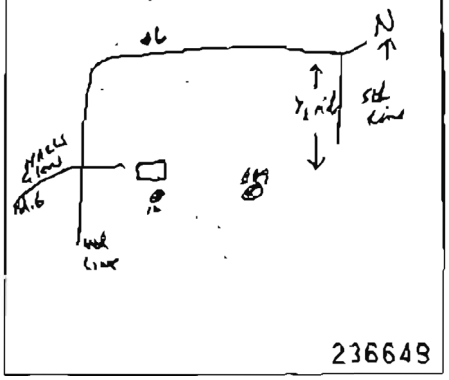
Domestic / Commercial / Municipal / Public supply / Industrial / Irrigation / Cooling & air conditioning / Not used / Other

METHOD OF CONSTRUCTION

Cable tool / Rotary (conventional) / Air percussion / Boring / Diamond / Driving / Digging / Other

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



236649

Name of Well Contractor: G. Hart & Sons Well Drilling Ltd
Well Contractor's Licence No.: 2667
Address: Box 850, Foxlen Falls, Ontario
Name of Well Technician: Jim Lash
Well Technician's Licence No.: T-0546
Signature of Technician or Contractor:
Submission date:

MINISTRY USE ONLY

1 - CONTRACTOR'S COPY

M.O.E. WATER WELL RECORD

MW-9

Geo-Logic Inc.

PLATE B-6

Ontario Ministry of the Environment

The Ontario Water Resources Act

WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a check mark, where applicable.

County or District	Township/Municipality/Village (OR - LOT)	Con. block, tract, survey, etc.	Lot
Peterborough	Dummer Twp., Halls Glen-Landfill	Con. 4	26
Owner's surname / First Name: Township of Dummer	Address: c/o Totten Sims Hubicki Assoc., 300 Water St., Whitby, ON L1N 9J2	Date completed: day 2, month 11, year 01	

Form ☐ Casing ☐ Screen ☐

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth: Feet	Depth: To
Black	Topsoil			0	1
Brown	Gravel			1	9
Brown	Gravel	broken rock		9	15
Gray	Limestone			15	30

WATER RECORD

Water found at - Feet	Kind of water
13	Fresh ☐ Salty ☐ Sulphur ☐ Mineral ☐ Gas ☐
26	Fresh ☐ Salty ☐ Sulphur ☐ Mineral ☐ Gas ☐
	Fresh ☐ Salty ☐ Sulphur ☐ Mineral ☐ Gas ☐
	Fresh ☐ Salty ☐ Sulphur ☐ Mineral ☐ Gas ☐
	Fresh ☐ Salty ☐ Sulphur ☐ Mineral ☐ Gas ☐

CASING & OPEN HOLE RECORD

Depth set - Feet	Material	Wall thickness (inches)	Diameter - Feet: From	Diameter - Feet: To
6½	Steel ☐ Galvanized Steel ☐ Concrete ☐ Open hole ☐ Plastic ☐	.188	+2½	13
2	Steel ☐ Galvanized Steel ☐ Concrete ☐ Open hole ☐ Plastic ☐	Plexo	+2½	25
2	Steel ☐ Galvanized Steel ☐ Concrete ☐ Open hole ☐ Plastic ☐	Plexo	+2½	14.3

BORE HOLE

Size of opening (Feet Inches)	Diameter	Length
10	2 inches	2x 5 feet
Material and type: PVC	Depth set at (feet) inches: 25.14.3	

PLUGGING & SEALING RECORD

Depth set at - Feet: From	To	Material and type (Cement grout, bentonite, etc.)
0	13	Holeplug (outside 6")
13	20½	Sand
~~20½~~	~~22~~	~~Holeplug~~
22	30	Sand

PUMPING TEST

Pumping test method: ☐ Pumping ☐ Bailer
Pumping rate: 3-0 GPM
Duration of pumping: ____ Hours 30 Minutes
Static level: 8.5 Feet
Water level end of pumping: Feet
Water levels during pumping: ☐ Pumping ☐ Recovery
Recovery: 1 min. Feet; 2 min. Feet; 3 min. Feet; 4 min. Feet
Pumping rate: GPM
Water at end of test: ☐ Clear ☐ Cloudy
Recommended pumping rate: GPM
Recommended pump setting: Feet
Pump intake set at: Feet
Duration of pumping: Hours Minutes
Final water level: Feet
Pump type: ☐ Shallow ☐ Deep

FINAL STATUS OF WELL

☐ Water supply ☐ Abandoned, insufficient supply ☐ Dewatering well
☐ Observation well ☐ Abandoned, poor quality ☐ Recharge well
☐ Test hole ☐ Abandoned (Other)
☐ Recharge well ☐ Dewatering

WATER USE

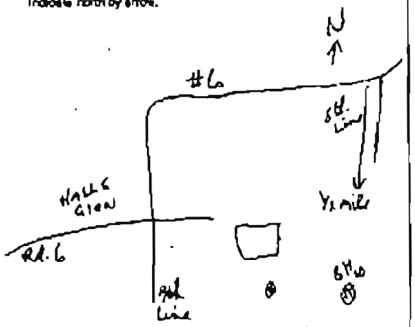
☐ Domestic ☐ Commercial ☐ Dewatering well
☐ Stock ☐ Municipal ☐ Observation well
☐ Irrigation ☐ Public supply ☐ Other, specify: Monitor
☐ Industrial ☐ Cooling & air conditioning

METHOD OF CONSTRUCTION

☐ Cable tool ☐ Air percussion ☐ Digging
☐ Rotary (conventional) ☐ Auger ☐ Boring
☐ Rotary (reverse) ☐ Diamond ☐ Other, specify: .....
☐ Jetting

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



236643

Name of Well Contractor	Well Contractor's Licence No.
G.Hart & Sons Well Drilling Ltd	2662
Address: Box 850, Fenelon Falls, ONtario	
Name of Well Technician: Jim Lean	Well Technician's Licence No.: T-0546
Signature of Technician/Contractor	Submission date: day, month, year

MINISTRY USE ONLY

1 - CONTRACTOR'S COPY

M.O.E. WATER WELL RECORD

MW-10

Geo-Logic Inc.

PLATE B-7

Ontario Ministry of the Environment

WATER WELL RECORD

Print only in spaces provided.
Fill clearly with a ballpoint pen or print.

County or District: Peterborough	Township, Borough, City, Town or Village (BK-11) Dummer Twp., Hallo Glen-Landfill	Concession: Con. 4	Lot: 26
Owner's surname: Township of Dummer	First name:	Address: c/o Tatten Sims Kubicki Assoc. 300 Water St., Whitby, ON L1N 9J2	Date completed: 5 11 01 (day, month, year)

Elev. | Easting | Northing

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth (ft) From	Depth (ft) To
Black	Topsoil			0	1
Brown	Gravel			1	.5
Brown	Gravel	boulder		5	10
Brown	Broken Rock			10	12
Gray	Limestone			12	30

WATER RECORD

Water found at ft.	Kind of water
19	Fresh / Salty / Sulphur / Mineral / Gas
29	Fresh / Salty / Sulphur / Mineral / Gas

CASING & OPEN HOLE RECORD

Inside diameter	Material	Wall thickness	Depth From	Depth To
6¼	Plastic / Galvanized / Concrete / Open hole / Other	.188	+2½	12
2	Plastic / Galvanized / Concrete / Open hole / Other	Plain	+2½	25
2	Plastic / Galvanized / Concrete / Open hole / Other	Plain	+2½	13

SCREEN: Make — PVC; Slot no. — 10; Length — 2ft 5 in; Depth set at — 25.13

PLUGGING & SEALING RECORD

Depth set at (ft) From	To	Material and type (Bentonite grout, bentonite chips, etc.)
0	12	Holeplug (outside accd.)
11	20	Sand
20	22	Holeplug
22	30	Sand

PUMPING TEST

Pumping rate (gpm) — Duration of pumping: 2-3 hrs — 30 min

Static level: 9 ft

Final level after pumping: — ft

Recommended pump rate: — gpm

Recommended pump setting: — ft

Recommended pump intake: — ft

Recommended pump type: — Shallow / Deep

Recommended pump capacity: — gpm

WELL STATUS OF WELL

New supply / Replacement / Test hole / Recharge well / Observation and monitoring hole / Alteration (construction) / Abandoned, insufficient supply / Abandoned, poor quality / Abandoned (other) / Commercial / Municipal / Public utility / Dewatering / Observation and monitoring / Other

WATER USE

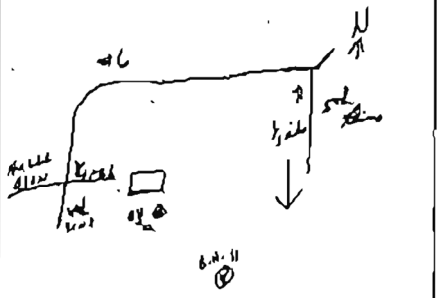
Domestic / Stock / Irrigation / Industrial / Commercial / Municipal / Public utility / Cooling & air conditioning / Other

METHOD OF CONSTRUCTION

Cable tool / Rotary (conventional) / Rotary (reverse) / Rotary (air) / Boring / Diamond / Jetting / Driving / Digging / Other

LOCATION OF WELL

In geographic township, show clearly the part of lot that is to be shown. Indicate north by arrow.



236642

Name of well contractor: G. HART & Sons Well Drilling Ltd — Well contractor's licence no.: 2661

Business address: Box 850, Fenelon Falls, Ontario

Name of well technician: Jim Lean — Well technician's licence no.: T-0546

Signature of technician or contractor:

Date submitted:

MINISTRY USE ONLY

1 - CONTRACTOR'S COPY

M.O.E. WATER WELL RECORD

MW-11

Ontario Ministry of the Environment

The Ontario Water Resources Act

WATER WELL RECORD

Print only in the spaces provided. Mark correct box with a checkmark, where applicable.

County or District	Township, Lot, Concession (RR-12)	Con.	Lot
Peterborough	Dummer Twp., Hells Glen - Landfill	Con. 4	26
Owner's surname / First Name	Address c/o Torrem Sims Hubicki Assoc.	Date completed	7 11 01
Township of Dummer	300 Water St., Whitby, ON L1N 9J2		day month year

Use Code

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	To
Black	Topsoil			0	1
Brown	Gravel			1	8
Brown	Gravel	broken rock		8	13
Gray	Limestone			13	29
Gray	Limestone		soft	29	30
Gray	Limestone			30	40

WATER RECORD

Water found ft - feet	Kind of water
13	Fresh, Salty, Sulphur, Mineral, Gas, Other
29	Fresh, Salty, Sulphur, Mineral, Gas, Other
	Fresh, Salty, Sulphur, Mineral, Gas, Other
	Fresh, Salty, Sulphur, Mineral, Gas, Other
	Fresh, Salty, Sulphur, Mineral, Gas, Other

CASING & OPEN HOLE RECORD

Casing open hole	Material	Wall thickness inches	Depth - feet From	To
6½	Steel, Galvanized, Concrete, Open hole, Other	.188	+3	33
2	Steel, Galvanized, Concrete, Open hole, Other	Plast	+3	35
2	Steel, Galvanized, Concrete, Open hole, Other	Plast	+3	25½
2	Steel, Galvanized, Concrete, Open hole, Other	Plast	+3	14½

Screen: Diameter 2 inches; Length 3x 5 feet; Material PVC; Depth set at feet 35.25.3 14.5

PLUGGING & SEALING RECORD

Annular space: Abandoned

Depth set at - feet From	To	Material and type (Cement grout, bentonite, etc.)
0	13	Bentonite (outside)
40	31	Sand (inside)
31	30	Holeplug, drilled & Cont'd

PUMPING TEST

Pumping test method: Pump, Bailer. Pumping rate: 10 - 15GPM. Duration of pumping: hours minutes.

Water level: Before test; End of pumping. Water levels during: Pumping, Recovery.

1 min	2 min	3 min	5 min	10 min	15 min	20 min	25 min	30 min	40 min	50 min	60 min
4											

If flowing give rate: GPM. Pump intake set at: feet. Water at end of test: Clear, Cloudy.

Recommended pumping type: Shallow, Deep. Recommended pump setting: feet. Recommended pump rate: GPM.

FINAL STATUS OF WELL

Water supply; Observation well; Test hole; Recharge well; Dewatering; Abandoned, Insufficient Supply; Abandoned, Poor Quality; Abandoned, Other; Unfinished; Replacement well

WATER USE

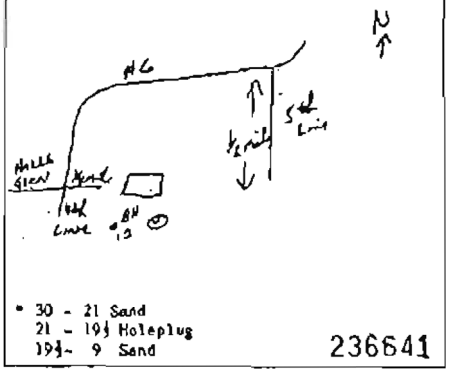
Domestic; Commercial; Municipal; Public supply; Cooling & A/C; Not used; Other: MONITOR

METHOD OF CONSTRUCTION

Cable tool; Rotary (conventional); Rotary (reverse); Rotary (air); Air percussion; Boring; Diamond; Jetting; Driving; Digging; Other

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



- 30 - 21 Sand
- 21 - 19½ Holeplug
- 19½ - 9 Sand

236641

Name of Well Contractor	Well Contractor's Licence No.
G. Hart & Sons Well Drilling Ltd.	2662
Address: Box 850, Fenelon Falls, Ontario	
Name of Well Technician: Jim Lean	Well Technician's Licence No. T-0546
Signature of Technician and/or Contractor	Submission date: day month year

MINISTRY USE ONLY

1 - CONTRACTOR'S COPY

M.O.E. WATER WELL RECORD

MW-12

Geo-Logic Inc.

PLATE B-9

705 749 3246 P.01-02

Ministry of the Environment

WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

County or District	Township, Lot, Concession or Village	Con.	Lot
Peterborough	TW1-02 Dummer Twp. Hollis Clendenan(III)	4	28
Owner's surname / First name	Address	Date completed	
Township of Dummer	c/o Totten Sims Hubicki Assoc. 300 Water St. Whitby ON L1N 9J2	29 day 10 month 02 year	

Depth Reading: From ____ To ____

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General Colour	Main Common Material	Other Materials	Materials Description	Depth From	Depth To
Black	Topsoil			0	.5
Brown	Gravel	boulders		.5	9
Grey	Limestone			9	17

WATER RECORD

Water found at - Feet	Kind of water
15.5	☐ Fresh ☐ Salty ☐ Sulphur ☐ Mineral ☐ Gas ☐ Other

CASING & OPEN HOLE RECORD

Inside diam. (inches)	Material	Wall thickness (inches)	Depth - feet From	Depth - feet To
6½	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	.188	43	6
2	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	.180	+3	6
2	☐ Steel ☐ Galvanized ☐ Concrete ☐ Open hole ☐ Plastic	.180	+3	12

SCREEN

Slot No.	Diameter (inches)	Length
10	2	3'45"

Material and type: PVC

Depth at top of screen: 6, 12

PLUGGING & SEALING RECORD

Depth set at - Feet From	To	Material and type (Cement grout, cement/sand, clay, bentonite, etc.)
17	11	sand
11	9	holeplug
9	3	sand backfilling

PUMPING TEST

Pumping level (static) ☐ Water ☐ Dry

Pumping rate: ____ gpm

Duration of pumping: ____ hours ____ minutes

Water level during pumping ☐ Pumping ☐ Recovery

1 minute	2 minutes	3 minutes	4 minutes	5 minutes
7 feet				

Pumping rate (end of pumping): ____ gpm

Pump intake set at: ____ feet

Water at end of test: ☐ Clear ☐ Cloudy

Recommended pump setting: ____ feet

Recommended pump rate: ____ gpm

FINAL STATUS OF WELL

☐ Water supply ☐ Domestic ☐ Municipal ☐ Public ☐ Commercial ☐ Industrial ☐ Irrigation ☐ Cooling & air conditioning ☐ Not used ☐ Other, specify

WATER USE

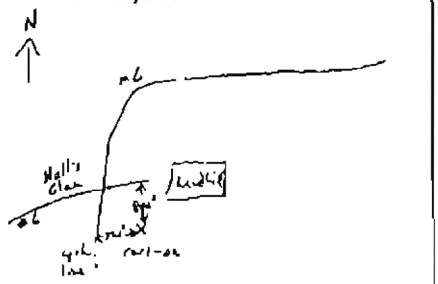
☐ Domestic ☐ Livestock ☐ Irrigation ☐ Industrial ☐ Commercial ☐ Municipal ☐ Public supply ☐ Cooling & air conditioning ☐ Not used ☐ Other, specify

METHOD OF CONSTRUCTION

☐ Cable tool ☐ Rotary (conventional) ☐ Rotary (reverse) ☐ Boring ☐ Air percussion ☐ Diamond ☐ Jetting ☐ Digging ☐ Driving ☐ Other

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



252361

Name of Well Contractor	Well Contractor's Licence No.
C. Hart & Sons Well Drilling Ltd.	2662
Address: Box 850, Pemelon Falls, ON K0M 1N0	
Name of Well Technician: Jim Lang	Well Technician's Licence No. 7-0546
Signature of Technician or Contractor:	Submission date:

MINISTRY USE ONLY

1 - CONTRACTOR'S COPY

M.O.E. WELL RECORD

MW-13

Geo-Logic Inc.
PLATE B-10

Appendix G Ministry Well Records

3109E

UTM 17 Z 728013 E

Cdg R 4493260 N

Elev. 9 R 10580

Basin 2A

WATER WELL RECORD

The Ontario Water Resources Commission Act

WATER RESOURCES DIVISION 51 AUG 31 1964 ONTARIO WATER RESOURCES COMMISSION

No. 1116

County or District Peterborough Township, Village, Town or City Dummer

Con. 4 Lot 25 26 Date completed 10 (day) Aug (month) 1964 (year)

Owner [redacted] (print in block letters) Lot 26 Address RR2 Lakefield Ont

Casing and Screen Record

Per Sketch & Top

Inside diameter of casing 5 inch

Total length of casing 20 ft.

~~Type of screen~~

~~Length of screen~~

~~Depth to top of screen~~

Diameter of finished hole 5 inch

Pumping Test

Static level 25 ft

Test-pumping rate 4 G.P.M.

Pumping level 25 ft.

Duration of test pumping ½ hr.

Water clear or cloudy at end of test clearing

Recommended pumping rate 4 G.P.M.

with pump setting of 26 ft. feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
dirt & stone	0	18	26	fresh
hard grey limestone	18	28ft.		

For what purpose(s) is the water to be used?

household

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm Clinton Griffith

Address RR2 Waysaw Ont

Licence Number 1282

Name of Driller or Borer Clinton Griffith

Address RR2 Waysaw Ont

Date Aug 12/64

Clinton Griffith

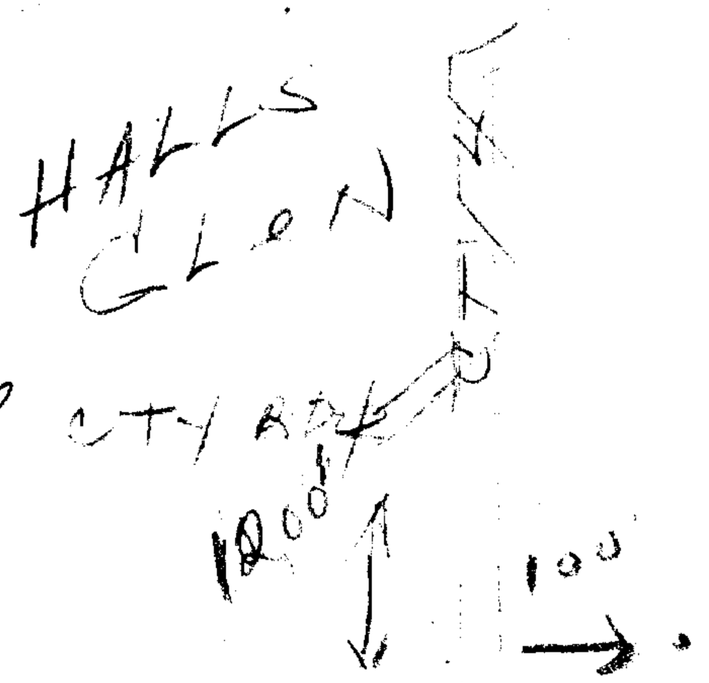
(Signature of Licensed Drilling or Boring Contractor)

Form 7 10M-62-1152

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

3109

1 PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

(11) 5110084 MUNICIP 51008 CON CON 05

COUNTY OR DISTRICT [redacted] | TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE DUMMER | CON, BLOCK, TRACT, SURVEY, ETC 5 | LOT 026

[redacted] R2 LAKEFIELD | DATE COMPLETED DAY 15 MO 08 YR 80

HEIGHING 733400 RC 5 ELEVATION 0850 RC 6 BASIN CODE 24

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
DUG	~~DRILLED~~ PREVIOUS			0	27
GREY	LIME STONE			27	52
BROWN	" "			52	53

No Casing in Well
Owners Instance

(31) 0027 23 0052 15 0053 15

(32)

(41) WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0052 53	1 ☑ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
15-18	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
20-23	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
25-28	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL
30-33	1 ☐ FRESH 2 ☐ SALTY 3 ☐ SULPHUR 4 ☐ MINERAL

(51) CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
10-11	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☑ OPEN HOLE	DUG	0	27
17-18	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE		27	0053
24-25	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.) | DIAMETER INCHES | LENGTH FEET

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

(61) PLUGGING & SEALING RECORD

DEPTH SET AT FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.)
10-13	14-17	
18-21	22-25	
26-29	30-33	

(71) PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☑ BAILER

PUMPING RATE: 0036 GPM | DURATION OF PUMPING: 02 HOURS 00 MINS

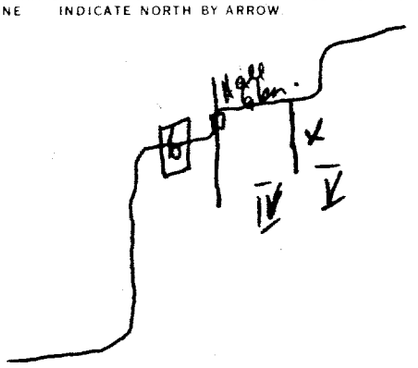
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING (1 ☐ PUMPING 2 ☐ RECOVERY)	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
022 FEET	030 FEET		FEET	FEET	FEET	FEET

IF FLOWING, GIVE RATE: GPM | PUMP INTAKE SET AT: 30 FEET | WATER AT END OF TEST: 1 ☑ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☑ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING: 030 FEET | RECOMMENDED PUMPING RATE: 0005 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW



DRILLERS REMARKS: 4.227

FINAL STATUS OF WELL (54): 1 ☑ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED — 1

WATER USE (55-56): 1 ☑ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING ☐ OTHER 9 ☐ NOT USED — 01

METHOD OF DRILLING (57): 1 ☑ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING — 1

CONTRACTOR

NAME OF WELL CONTRACTOR: P.E. Eveidge Well Drilling | LICENCE NUMBER: 1904

ADDRESS: Po Box 93 PTBO

NAME OF DRILLER OR BORER: Ed LaFonte | LICENCE NUMBER:

SIGNATURE OF CONTRACTOR: Russell Eveidge | SUBMISSION DATE DAY ____ MO ____ YR ____

OFFICE USE ONLY

DATA SOURCE (58): 1 | CONTRACTOR (59-62): 1904 | DATE RECEIVED (63-68): 090281

DATE OF INSPECTION | INSPECTOR

REMARKS: 8

CSS.ES

FORM NO. 0506—4—77 FORM 7

MINISTRY OF THE ENVIRONMENT COPY

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 5112368 MUNICIP CON.

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON., BLOCK, TRACT, SURVEY, ETC	LOT
[redacted]	Dummer	4	27

[redacted]. 2, Lakefield, Ont. KOL 2HO

DATE COMPLETED: DAY 11 MO 5 YR 87

RC ELEVATION RC BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	fill		medium	0	2
Grey	limestone		porous	2	44

31
32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
40 untested	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	22
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☒ AIR 2 ☐ BAILER
PUMPING RATE: 80 GPM
DURATION OF PUMPING: 2 HOURS — MINS

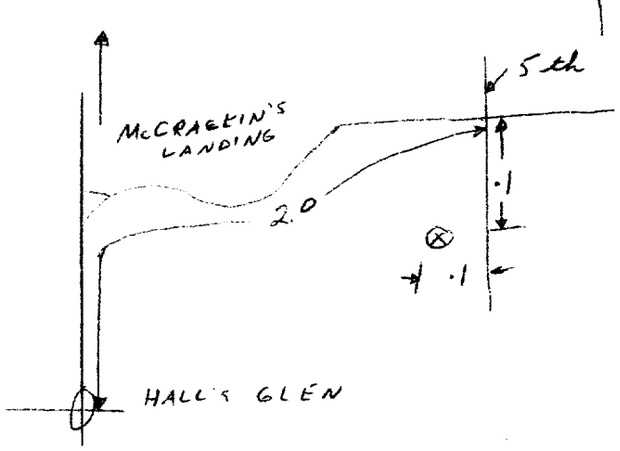
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY			
		15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
6 FEET	25 FEET	25 FEET	25 FEET	25 FEET	25 FEET

IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
— GPM	35 FEET	1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE	RECOMMENDED PUMP SETTING	RECOMMENDED PUMPING RATE
☐ SHALLOW ☒ DEEP	35 FEET	80 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS: 5 Y W

08086

FINAL STATUS OF WELL

1 ☒ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE

1 ☒ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING

1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☒ ROTARY (AIR) 5 ☐ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Faulkner Well Drilling Co.Ltd
LICENCE NUMBER: 2104
ADDRESS: 789 Erskine Ave., Peterborough, Ont.
NAME OF DRILLER OR BORER: Robert McLean
LICENCE NUMBER: 13
SIGNATURE OF CONTRACTOR: Jim Faulkner
SUBMISSION DATE: DAY 12 MO 5 YR 87

OFFICE USE ONLY

DATE RECEIVED: 030687
DATE OF INSPECTION:
INSPECTED BY:
REMARKS:

CSS.ES

FORM NO. 0506—4—77 FORM 7

MINISTRY OF THE ENVIRONMENT COPY

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 — 5113996 — MUNICIP. 51008 — CON. CON 04

COUNTY OR DISTRICT: [redacted] — TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE: Dummer — CON. BLOCK, TRACT, SURVEY, ETC: 4 — LOT: 27

[redacted] RR#2 LAKEFIELD

DATE COMPLETED: DAY 30 MO 07 YR 89

RC. ELEVATION RC. BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
Brown	Clay	Boulders		0	8
Grey	Limestone			8	45

31

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
41	1 ☒ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS
	1 ☐ FRESH 2 ☐ SALTY — 3 ☐ SULPHUR 4 ☐ MINERALS 6 ☐ GAS

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6	1 ☒ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC	.188	0	20
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE 5 ☐ PLASTIC			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN FEET	

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	DEPTH SET AT - FEET TO	MATERIAL AND TYPE (CEMENT GROUT LEAD PACKER ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☐ PUMP 2 ☒ BAILER — PUMPING RATE: 10 GPM — DURATION OF PUMPING: 1 HOURS ___ MINS

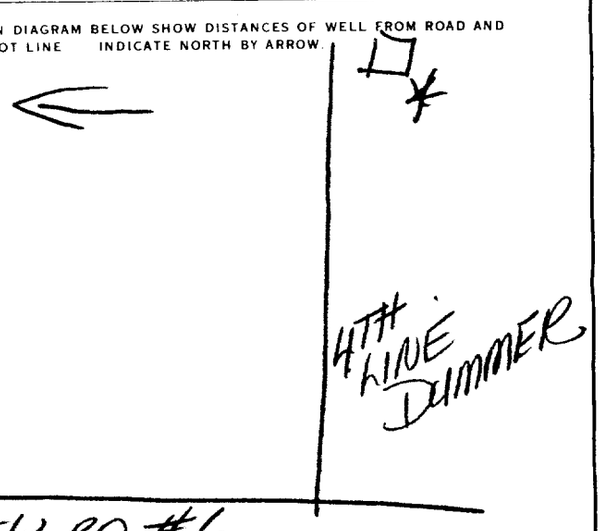
STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
10 FEET	45 FEET		10 FEET	10 FEET	10 FEET	10 FEET

IF FLOWING, GIVE RATE: ___ GPM — PUMP INTAKE SET AT: 45 FEET — WATER AT END OF TEST: 1 ☒ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☐ SHALLOW ☒ DEEP — RECOMMENDED PUMP SETTING: 40 FEET — RECOMMENDED PUMPING RATE: 5 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



66123

DRILLERS REMARKS

FINAL STATUS OF WELL
1 ☒ WATER SUPPLY; 2 ☐ OBSERVATION WELL; 3 ☐ TEST HOLE; 4 ☐ RECHARGE WELL; 5 ☐ ABANDONED, INSUFFICIENT SUPPLY; 6 ☐ ABANDONED, POOR QUALITY; 7 ☐ UNFINISHED; ☐ DEWATERING

WATER USE
1 ☒ DOMESTIC; 2 ☐ STOCK; 3 ☐ IRRIGATION; 4 ☐ INDUSTRIAL; ☐ OTHER; 5 ☐ COMMERCIAL; 6 ☐ MUNICIPAL; 7 ☐ PUBLIC SUPPLY; 8 ☐ COOLING OR AIR CONDITIONING; 9 ☐ NOT USED

METHOD OF CONSTRUCTION
1 ☐ CABLE TOOL; 2 ☐ ROTARY (CONVENTIONAL); 3 ☐ ROTARY (REVERSE); 4 ☐ ROTARY (AIR); 5 ☒ AIR PERCUSSION; 6 ☐ BORING; 7 ☐ DIAMOND; 8 ☐ JETTING; 9 ☐ DRIVING; ☐ DIGGING; ☐ OTHER

CONTRACTOR

NAME OF WELL CONTRACTOR: Morris Dobbin Drilling — WELL CONTRACTOR'S LICENCE NUMBER: 1748

ADDRESS: RR#2 Inglewood, Ont

NAME OF WELL TECHNICIAN: Bob Dyck — WELL TECHNICIAN'S LICENCE NUMBER: T0436

SIGNATURE OF TECHNICIAN/CONTRACTOR: [signature] — SUBMISSION DATE: DAY ___ MO ___ YR ___

OFFICE USE ONLY

DATA SOURCE — CONTRACTOR: 1748 — DATE RECEIVED: AUG 14 1989

DATE OF INSPECTION — INSPECTOR

REMARKS

CSS.ES

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506 (11/86) FORM 9

Ontario **Ministry of the Environment**

The Ontario Water Resources Act
WATER WELL RECORD

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11 — 5119156

Municipality 51008 Con. CON OH

County or District: PETERBOROUGH

Township/Borough/City/Town/Village: DUMMER

Con block tract survey, etc.: 4

Lot: 25

Address: RR#2 LAKEFIELD K0L 2H0

Date completed: 31 day 7 month 02 year

21 — UTM — Northing — RC — Elevation — RC — Basin Code — ii — iii — iv

LOG OF OVERBURDEN AND BEDROCK MATERIALS (see instructions)

General colour	Most common material	Other materials	General description	Depth - feet From	Depth - feet To
BLACK	TOPSOIL		SOFT	0	1
BROWN	CLAY & STONES	BOULDERS.	HARD PACKED	1	16
GREY.	LIMESTONE		BEDROCK	16	55

31 — 32

41 WATER RECORD

Water found at - feet	Kind of water
35	1 ☑ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
51	1 ☑ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas
	1 ☐ Fresh 2 ☐ Salty 3 ☐ Sulphur 4 ☐ Minerals 6 ☐ Gas

51 CASING & OPEN HOLE RECORD

Inside diam inches	Material	Wall thickness inches	Depth - feet From	Depth - feet To
6¼	1 ☑ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic	.188	0	20
6	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☑ Open hole 5 ☐ Plastic		20	55
	1 ☐ Steel 2 ☐ Galvanized 3 ☐ Concrete 4 ☐ Open hole 5 ☐ Plastic			

SCREEN

Sizes of opening (Slot No.)	Diameter inches	Length feet

Material and type: | Depth at top of screen feet:

61 PLUGGING & SEALING RECORD

☑ Annular space ☐ Abandonment

Depth set at - feet From	Depth set at - feet To	Material and type (Cement grout, bentonite, etc.)
3	20	PORTLAND CEMENT

71 PUMPING TEST

Pumping test method: AIR (1 ☐ Pump 2 ☐ Bailer)

Pumping rate: 8.0 GPM

Duration of pumping: 1 Hours 0 Mins

25 Water levels during: 1 ☐ Pumping 2 ☑ Recovery

Static level	Water level end of pumping	15 minutes	30 minutes	45 minutes	60 minutes
16 feet	55 feet	16 feet	16 feet	16 feet	16 feet

If flowing give rate: GPM

Pump intake set at: feet

Water at end of test: ☑ Clear ☐ Cloudy

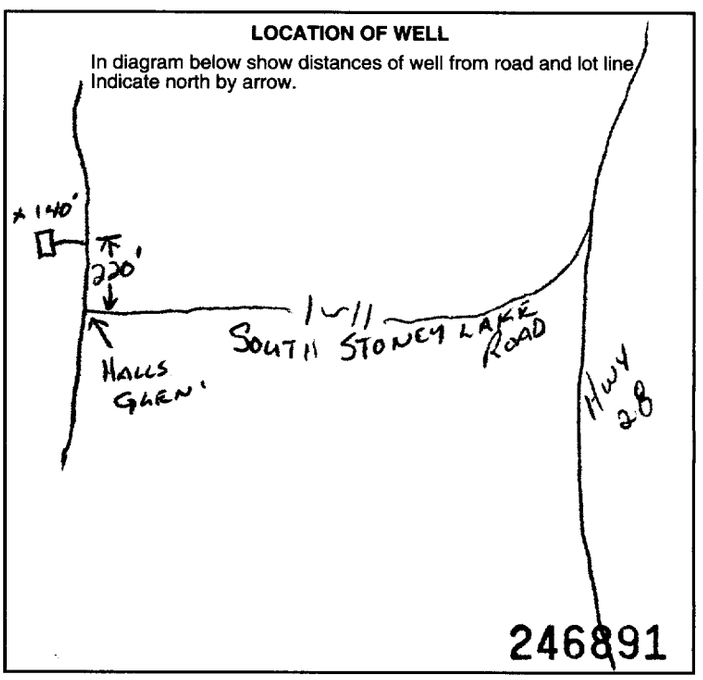
Recommended pump type: ☐ Shallow ☑ Deep

Recommended pump setting: 50 feet

Recommended pump rate: 8 GPM

LOCATION OF WELL

In diagram below show distances of well from road and lot line. Indicate north by arrow.



246891

FINAL STATUS OF WELL

54

1 ☑ Water supply
2 ☐ Observation well
3 ☐ Test hole
4 ☐ Recharge well
5 ☐ Abandoned, insufficient supply
6 ☐ Abandoned, poor quality
7 ☐ Abandoned (Other)
8 ☐ Dewatering
9 ☐ Unfinished
10 ☐ Replacement well

WATER USE

55-56

1 ☑ Domestic
2 ☐ Stock
3 ☐ Irrigation
4 ☐ Industrial
5 ☐ Commercial
6 ☐ Municipal
7 ☐ Public supply
8 ☐ Cooling & air conditioning
9 ☐ Not use
10 ☐ Other

METHOD OF CONSTRUCTION

57

1 ☐ Cable tool
2 ☐ Rotary (conventional)
3 ☐ Rotary (reverse)
4 ☐ Rotary (air)
5 ☑ Air percussion
6 ☐ Boring
7 ☐ Diamond
8 ☐ Jetting
9 ☐ Driving
10 ☐ Digging
11 ☐ Other

Name of Well Contractor: JOE LEGGE & SONS Drilling — Well Contractor's Licence No.: 7052

Address: RR#3 BANCROFT K0L 1C0

Name of Well Technician: JOE LEGGE — Well Technician's Licence No.: 1879

Signature of Technician/Contractor: Joe Legge — Submission date: day mo yr

MINISTRY USE ONLY

Data source 58 — Contractor 59-62: 7052 — Date received 63-68: AUG 19 2002

Date of inspection — Inspector

Remarks: CSS.ES2

2 - MINISTRY OF THE ENVIRONMENT COPY

0506 (07/00) Front Form 9

Ontario — Ministry of the Environment and Climate Change

Measurements recorded in: ☐ Metric ☑ Imperial

Well Tag No. *(Place Sticker and/or Print Below)* A197111

Well Record

Regulation 903 Ontario Water Resources Act

Page 1 of 1

[redacted]

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
1989 4TH LINE RD N	DUMMER	25	4

County/District/Municipality	City/Town/Village	Province	Postal Code
PETERBOROUGH	HALLS GLEN	Ontario	K0L 2H0

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 83	17	727921	4933179		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
GREY	CLAY	STONES	SOFT	0	8
GREY	LIMESTONE		HARD	8	43

Annular Space

Depth Set at (m/ft) From	To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
0	20	BENTONITE	7 FT³

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☐ Boring ☐ Digging
☑ Air percussion
☐ Other, *specify*

Well Use

☐ Public ☐ Commercial ☐ Not used
☑ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☐ Test Hole ☐ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, *specify*

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
6 5/8	STEEL	188	0	20
6 1/8	OPEN HOLE		20	43

Status of Well

☑ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☐ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, *specify*
☐ Other, *specify*

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To

Results of Well Yield Testing

After test of well yield, water was:
☑ Clear and sand free
☐ Other, *specify*

If pumping discontinued, give reason:

Pump intake set at *(m/ft)*: 40

Pumping rate *(l/min / GPM)*: 10 +

Duration of pumping: 1 hrs + ____ min

Final water level end of pumping *(m/ft)*: 19

If flowing give rate *(l/min / GPM)*:

Recommended pump depth *(m/ft)*: 40

Recommended pump rate *(l/min / GPM)*: 6

Well production *(l/min / GPM)*: 10 +

Disinfected?
☑ Yes ☐ No

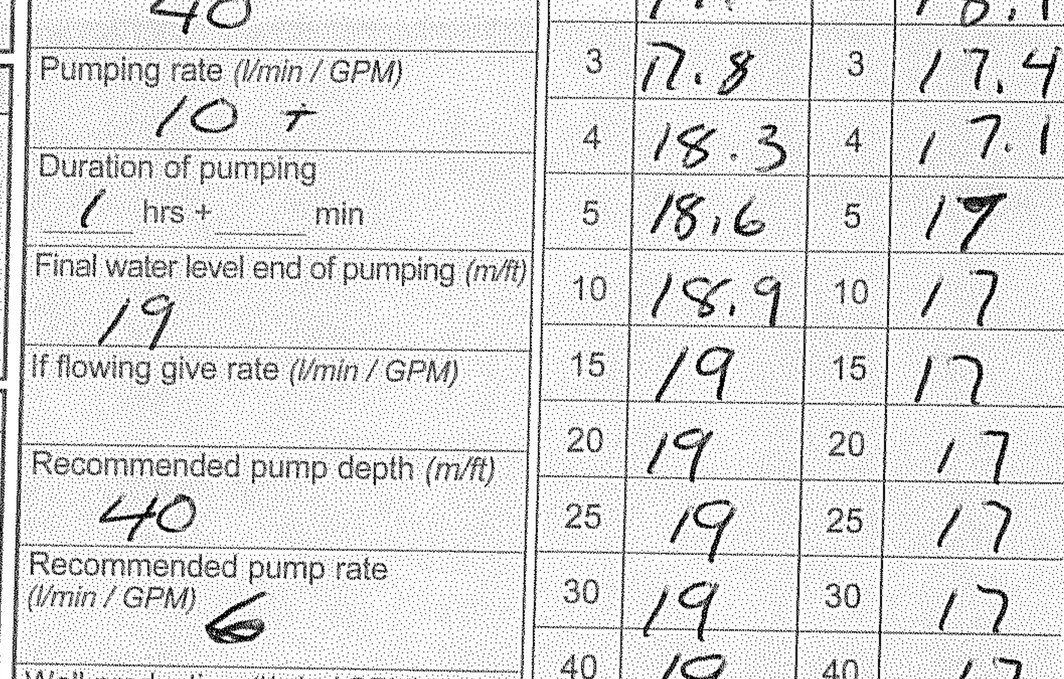
Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	17		
1	17.3	1	18.5
2	17.6	2	18.1
3	17.8	3	17.4
4	18.3	4	17.1
5	18.6	5	17
10	18.9	10	17
15	19	15	17
20	19	20	17
25	19	25	17
30	19	30	17
40	19	40	17
50	19	50	17
60	19	60	17

Water Details

Water found at Depth	Kind of Water	Hole Diameter Depth From	Depth To	Diameter (cm/in)
40 (m/ft) ☐ Gas	☐ Fresh ☑ Untested ☐ Other, *specify*	0	20	8 3/4
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, *specify*	20	43	6 1/8
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, *specify*			

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
WENSLEY WATER WELL LTD	6578

Business Address (Street Number/Name)	Municipality
RR 2 LAKEFIELD	PETERBOROUGH

Province	Postal Code	Business E-mail Address
ON	K0L 2H0	

Bus. Telephone No. (inc. area code)	Name of Well Technician (Last Name, First Name)
7056521629	ERIC WENSLEY

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
0632		2016 05 05

Well owner's information package delivered	Date Package Delivered	Date Work Completed
☐ Yes ☑ No		2016 04 22

Ministry Use Only

Audit No: Z 224203

Received JUL 04 2016

06E (2014/11)

Ministry's Copy

Tag#:A268544

Ontario — Ministry of the Environment and Climate Change

Measurements recorded in: ☒ Metric ☐ Imperial

Well Tag No. *(Place Sticker and/or Print Below)*: A268544

Well Record

Regulation 903 Ontario Water Resources Act

Page 1 of 1

Well Owner's Information

First Name	~~Last Name~~ / Organization	E-mail Address	☐ Well Constructed by Well Owner
	Township of Douro - Dummer		

Mailing Address (Street Number/Name)	Municipality	Province	Postal Code	Telephone No. *(inc. area code)*
894 South ST.	Warsaw	ON	K0L3A0	2 1 9 5 6 9 2 5 3 9 0

Well Location

Address of Well Location (Street Number/Name)	Township	Lot	Concession
1951 County Rd #6	Douro - Dummer		

County/District/Municipality	City/Town/Village	Province	Postal Code
Peterborough	Hall's Glen	Ontario	K0L3A0

UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number	Other
NAD 8 3	17	7 3 9 1 1 6 0	4 9 3 3 1 3 8		

Overburden and Bedrock Materials/Abandonment Sealing Record *(see instructions on the back of this form)*

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From	Depth (m/ft) To
Brown	Med. Sand			0	1.22 m
Brown	Coarse Sand	Gravel		1.22	2.74 m
Grey	Limestone		Fractured, Broken	2.74	3.05 m
Grey	Limestone			3.05	4.72 m

Annular Space

Depth Set at (m/ft) From	Depth Set at (m/ft) To	Type of Sealant Used (Material and Type)	Volume Placed (m^3/ft^3)
0	2.13m	Bentonite	0.10 m^3
2.13	4.72m	Sand	0.028 m^3

Method of Construction

☐ Cable Tool ☐ Diamond
☐ Rotary (Conventional) ☐ Jetting
☐ Rotary (Reverse) ☐ Driving
☒ Boring ☐ Digging
☒ Air percussion
☐ Other, *specify*

Well Use

☐ Public ☐ Commercial ☐ Not used
☐ Domestic ☐ Municipal ☐ Dewatering
☐ Livestock ☒ Test Hole ☒ Monitoring
☐ Irrigation ☐ Cooling & Air Conditioning
☐ Industrial
☐ Other, *specify*

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft) From	Depth (m/ft) To
10.16	Steel	0.64	+0.91	0.61
5.08	Plastic	0.47	+0.91	2.44

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft) From	Depth (m/ft) To
6.03	Plastic	0.10	2.44	4.72

Status of Well

☐ Water Supply
☐ Replacement Well
☐ Test Hole
☐ Recharge Well
☐ Dewatering Well
☒ Observation and/or Monitoring Hole
☐ Alteration (Construction)
☐ Abandoned, Insufficient Supply
☐ Abandoned, Poor Water Quality
☐ Abandoned, other, *specify*
☐ Other, *specify*

Water Details

Water found at Depth	Kind of Water	Hole Diameter Depth (m/ft) From	Depth (m/ft) To	Diameter (cm/in)
4.26 (m/ft) ☐ Gas	☐ Fresh ☒ Untested ☐ Other, *specify*	0	3.05	22.35
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, *specify*	3.05	4.72	10.16
(m/ft) ☐ Gas	☐ Fresh ☐ Untested ☐ Other, *specify*			

Results of Well Yield Testing

After test of well yield, water was:
☐ Clear and sand free
☐ Other, *specify*

If pumping discontinued, give reason:

Pump intake set at (m/ft)

Pumping rate (l/min / GPM) NOT TESTED

Duration of pumping ____ hrs + ____ min

Final water level end of pumping (m/ft)

If flowing give rate (l/min / GPM)

Recommended pump depth (m/ft)

Recommended pump rate (l/min / GPM)

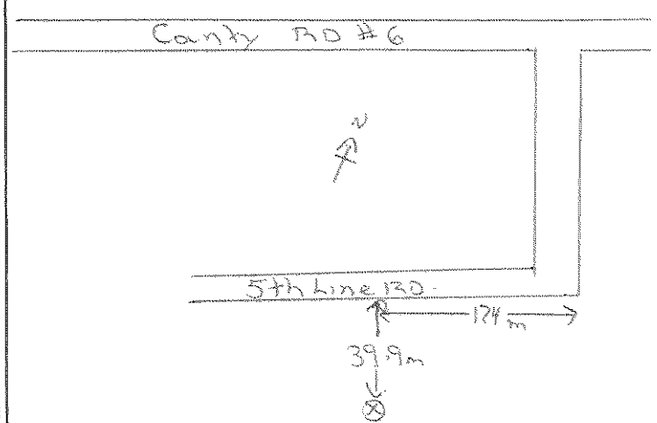
Well production (l/min / GPM) monitor well Installed

Disinfected? ☐ Yes ☐ No

Draw Down Time (min)	Draw Down Water Level (m/ft)	Recovery Time (min)	Recovery Water Level (m/ft)
Static Level	2.14m		
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
50		50	
60		60	

Map of Well Location

Please provide a map below following instructions on the back.



Comments:

Well Contractor and Well Technician Information

Business Name of Well Contractor	Well Contractor's Licence No.
GET Drilling LTD	7 0 1 8 5

Business Address (Street Number/Name)	Municipality
223 Drive-in Rd	Napanee

Province	Postal Code	Business E-mail Address
ON	K7R3L1	get@allmyemail.ca

Bus. Telephone No. *(inc. area code)*	Name of Well Technician (Last Name, First Name)
6 1 3 3 5 4 4 7 6 P	Harrison, Jim

Well Technician's Licence No.	Signature of Technician and/or Contractor	Date Submitted
2 2 3 1		2019/07/22

Well owner's information package delivered	Date Package Delivered	Ministry Use Only
☐ Yes ☒ No	Y Y Y Y M M D D: 2019/07/22	Audit No. Z298776
	Date Work Completed: 2019/07/22	AUG 01 2019 Received