2025 Annual Monitoring Report

Waste Diversion Site, City of Orillia

Submitted to:

City of Orillia

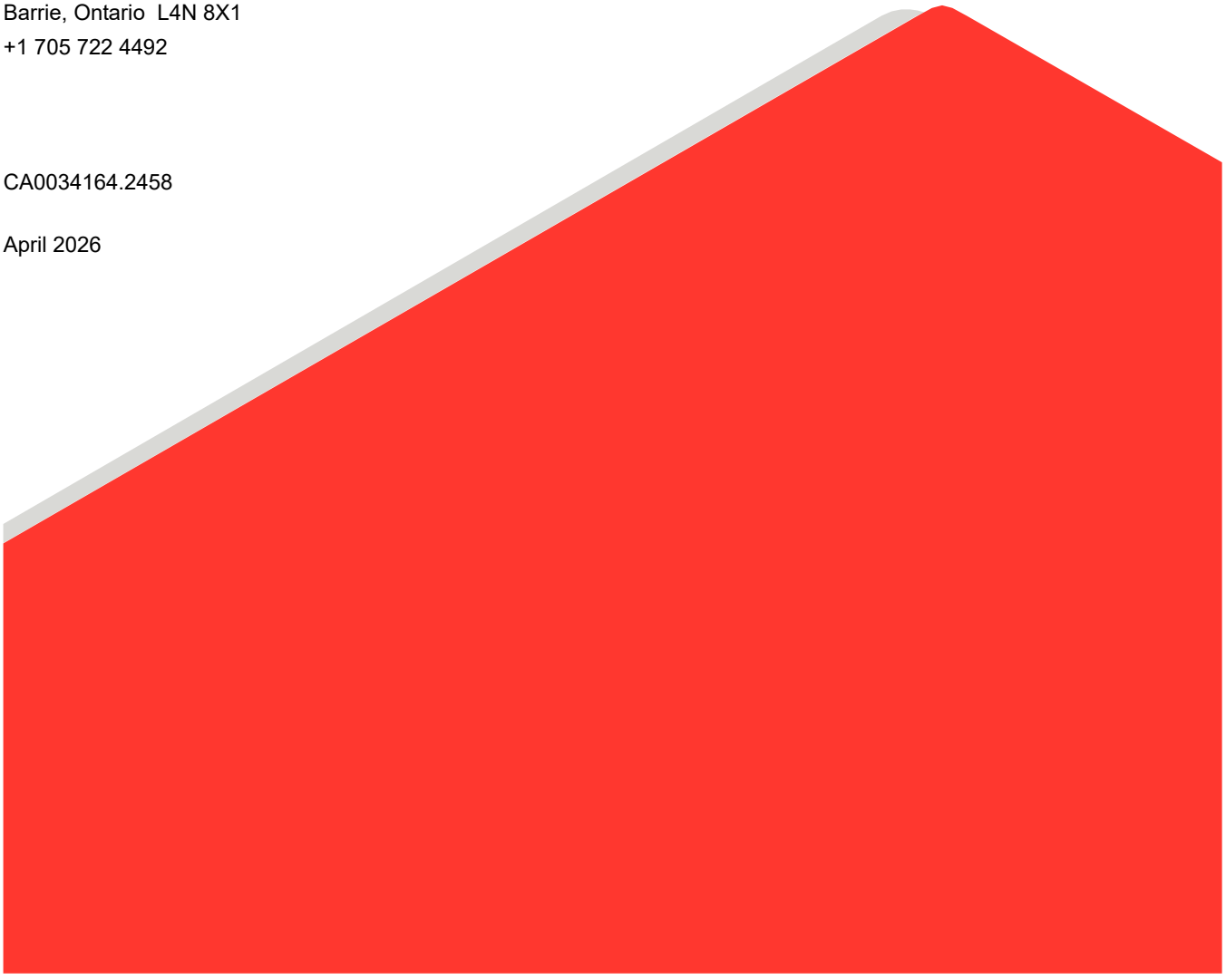
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1.0 INTRODUCTION

1.1 Background and Scope

WSP Canada Inc. (WSP) was retained by the City of Orillia (the City) to prepare the 2025 Annual Monitoring Report for the Kitchener Street Waste Diversion Site located in Orillia, Ontario (hereafter referred to as WDS or "the Site").

The City owns and operates the WDS, located within the southern part of the City limits adjacent to Lake Simcoe along the shores of Shingle Bay (Figure 1), under Environmental Compliance Approval (ECA) No. 5204-B4RRK2, last issued December 23, 2022 (Appendix F).

The Site consists of a 24.3 hectare (ha) licensed landfill area within a 40.5 ha property (Figure 2). Landfilling began in 1967 and is ongoing. The Site is licensed to receive domestic, commercial and solid non-hazardous industrial waste from the City.

The various boundaries pertaining to the WDS are outlined on Figure 2. The Site is bounded by a former CN railroad to the west, the Highway 12 Bypass (Hwy 12B) and Mill Creek to the north, Ben's Ditch to the east and Lake Simcoe to the south. The Orillia Wastewater Treatment Centre (WWTC) is located to the east of the Site.

The landfill is a natural attenuation site, and monitoring is undertaken to evaluate the impact of the Site on the surrounding groundwater and surface water. This report presents and discusses the results of the 2025 monitoring program, undertaken by City staff, which consists of monitoring of groundwater elevations and groundwater and surface water sample collection and analysis.

This report has been prepared by WSP on behalf of the City for submission to the Ontario Ministry of the Environment, Conservation and Parks (MECP, Ministry) by April 30, 2026 as required by Condition 61 of the ECA for the Site. As required by Condition 61, this report presents and interprets the monitoring data for the period from January 1 to December 31, 2025.

A summary of incoming waste accepted during the reporting period, as well as a discussion regarding the status of progress under, and deviations from, the Operations Plan is also included in this report. This summary is modified from the City of Orillia 2025 Solid Waste Management Annual Report (City of Orillia, 2026).

1.2 Landfill Design and Capacity

The landfill is divided into twelve cells (i.e., Cells 1 to 12); the locations of the waste disposal cells and the topographic surface contours are shown on Figure 2. Filling of the site from 1967 until 1985 consisted of placement of waste across the entire footprint. Since that time, waste has been placed sequentially in each of the cells and completed with interim or final cover.

The landfill does not have an engineered base liner/leachate collection system. The landfill was designed and approved as a monitored natural attenuation facility, utilizing the local hydrogeological conditions, in particular the underlying peat and clayey soils, to control contaminant releases to surrounding groundwater and surface water.

In October 2018, the Ministry approved the City's plan to cap Cells 1 to 4 with an engineered geosynthetic cap incorporating a passive landfill gas venting system. Installation of the geomembrane cap commenced in 2021. This construction program, which included upgrades to the perimeter road and stormwater infrastructure, was completed in February 2022.

In 2022, interim cover fill was placed on Cell 8 and landfilling resumed in the southern portion of Cell 5. Interim cover over Cells 5 to 12 consists of imported soil materials ranging from silty sand to clayey soils. The intermediate cover does not include a landfill gas venting system. The top surface area over these cells is typically at a slope of less than 2%. Progressive placement of a final geosynthetic cover over the completed areas of the landfills is intended to be completed in future years.

A landfill volume update was conducted based on a full Site landfill volume survey, last completed in July 2023. Based on records provided by the City, approximately 729,243 cubic metres (m^3) of fill (waste plus cover soil) was landfilled at the site between September 1985 and July 2023. The volume of waste placed prior to 1985 is unknown but is considered minor compared to the overall fill volume capacity of the landfill at final contours. The remaining landfill capacity as of May 2019 was estimated to be 459,226 m^3. The estimated landfill life from July 2023 was accordingly estimated at 42 years, based on an average future filling rate of 11,035 m^3/y. In 2025, the projected landfill lifespan is estimated to be approximately 40 years. While the City states that while major variables remain unknown, (e.g., U.S. border closing to Canadian waste shipments, increased waste diversion, increased/decreased future service area, etc.) precise calculations of landfill life are inappropriate given the available information.

The landfill site is bounded by wetland features that provide both storm water management quantity and quality control (i.e., filtering and settling of particulates) prior to runoff reaching the adjacent water bodies. These water bodies consist of the Mill Creek Diversion to the north, Ben's Ditch to the east, and Lake Simcoe to the south. The stormwater controls at the Site consist of cell slopes and ditches, which direct runoff away from the landfill towards the adjacent wetland boundaries to the north, east and south. A series of corrugated-steel pipe (CSP) culverts provide drainage routes under access roads and paths to the wetlands.

2.0 2025 OPERATIONS SUMMARY

The following operations summary is provided by the City of Orillia.

Site activities in 2025 included waste placement, windrow composting, collection of household hazardous waste and the operation of various depots for other diversion program materials. The City has implemented a progressive tipping fee structure that serves to encourage recycling and the separation of waste materials. Trained City staff direct and monitor the disposal of all materials entering the Site.

During 2025, a total weight of 6,050 tonnes of material was landfilled at the Site. This included 4,573 tonnes of Municipal Solid Waste (MSW) for landfilling as waste and 1,478 tonnes of cover material. The MSW landfilled in 2025 remained similar to the amount landfilled in 2024 (4,507 tonnes), increasing by 66 tonnes. In recent years, overall MSW tonnages has been on a declining trend because of the introduction of the green bin program for food waste in 2008 and 2009 and the expanded recycling bin program in 2010. Further, in September 2015, the City implemented every other week garbage collection and in 2022, the clear garbage bag program and a reduction in the allowable percentage of divertible materials within a garbage bag was introduced.

Many of the operations within the Industrial, Commercial, and Institutional (IC&I) business sector in Orillia manage their own recycling programs and many of those operations contracted their waste management to private waste management companies that collect IC&I waste and haul to disposal sites outside of the City. The volume of waste shipped out of the City by these private waste management companies is difficult to estimate.

Several programs have been put into place by the City to promote waste diversion. The provision of green bins has increased the capture rate of compostable organic material, further extending the lifespan of the landfill. In 2022, the City implemented a clear garbage bag program to discourage the disposal of recyclable and

compostable material in the curbside garbage. The City also reduced the allowable quantity (from 30% down to 10%) of divertible materials permitted in the clear garbage bags. Other programs include a recycling box program and a household hazardous waste and re-use depot. The total weight of recyclable materials collected through recycling box collection program was 3,019 tonnes, a slight decrease from that collected in 2024 (3,051 tonnes). In 2025, 10,257 tonnes of material were diverted through recycling and composting initiatives. This is a decrease of 946 tonnes from 11,203 tonnes of material diverted in 2024. The tonnage of diverted material represents 69% of the total weight of waste collected or dropped off at the Site (not including clean fill, street sweepings, compost overs, or spill clean up material). Other diversion depots include recycling of asphalt, brush/tree wood, concrete, electronics, mattresses and box springs, fluorescent light tubes, gypsum drywall, household hazardous waste, other wood, plastic pails, refrigeration equipment, scrap metal, shingles, textiles, and tires.

Cover material utilized at the Site includes spill cleanup material, street sweeping sand, clean fill, compost overs, and wood chips. These materials were stockpiled and utilized as daily cover if immediate disposal was not required. Amounts of cover material received in 2025 were as follows: street sweeping sand (320 tonnes), clean fill (422 tonnes), compost overs (336 tonnes), and wood chips (400 tonnes). In addition to this daily cover material, two large heavy-duty vinyl membrane covered frames are available to cover waste overnight. The two frames had not been used for several years but were repaired early in 2024 and are utilized as part of daily operations which has resulted in the need for less daily cover fill.

There was no spill cleanup material received at the Site in 2025.

An outdoor windrow composting program commenced at the site in 1993, initially located southeast of Cells 11 and 12, and now located on Cells 9 and 10. Compostable food (including meat and dairy products) and yard waste was collected and managed through the windrow composting operations during the reporting period. It is noted that the City received Ministry approval to relocate the composting operation, through ECA approvals for the new composting pad and associated swale. The composting pad (located towards the southwest area, adjacent to Cell 9) became operational in 2014. A total of 4,501 tonnes of compostable material was accepted in 2025, decreasing from the 4,821 tonnes of compostable materials collected in 2024. Residents are also encouraged to operate backyard composters to further minimize waste production.

The subgrade of the swale, where the runoff water from the pad flows, was covered with a geotextile and covered with a protective sand layer. After the gravel base was prepared, geotextile was laid, and then crushed recycled asphalt was graded above the geotextile to form the composting pad. Litter fencing was installed and some final grading work surrounding the pad was completed. Following the significant amount of snowmelt and rainfall that occurs in the spring, the swale fills up with water on a regular basis. In February 2017, a new forcemain was constructed from the composting pad swale to the United Drive sanitary sewer for treatment through the WWTC. It is used to directly pump swale water in the wet spring and fall periods. In 2025, the City pumped 14,310 m3 of excess water from the compost pad swale to the sanitary sewer.

The Household Hazardous Waste Depot operations accept materials including pesticides, automotive products, paints, solvents, glues, household cleaning products, batteries, propane cylinders and pool chemicals. Paint, oil, antifreeze, fluorescent lamps, all types of batteries, fertilizers, fire extinguishers, empty automotive containers, used propane cylinders/tanks, mercury containing devices, and non-PCB ballasts are recycled. Used oil filters are emptied, crushed, and included with scrap metal.

There were no odour-related complaints related to the Waste Diversion Site received in 2025.

Annual summaries of the inbound and outbound waste are included in Appendix I. Further information on all Site operation activities and diversion programs is discussed by the City in the 2025 Solid Waste Management Annual Report (City of Orillia, 2025).

3.0 2025 MONITORING PROGRAM

The objectives of the annual monitoring report (AMR) program are:

i) To assess the direction and rate of groundwater movement, as well as to monitor the height of the leachate mound within the landfill

ii) To monitor leachate and groundwater quality and determine the impact of the landfill on the underlying groundwater and adjacent water bodies

iii) To monitor the surface water quality in Lake Simcoe and the adjacent ditches and creeks, assess off-site influences and determine the resultant impact of the landfill

iv) To provide recommendations for changes in the monitoring program or remedial measures required to maintain the Site within environmental compliance guidelines

3.1 Monitoring Network

The 2025 monitoring network consisted of 56 individual groundwater monitoring wells at 31 locations, and 18 permanent surface water monitoring locations (Figure 2). Monitoring well details are summarized in Table B-1.

The groundwater monitoring wells are constructed primarily in the shallow sand/peat units and an underlying Sand Aquifer. At all monitoring well nests, the deepest screens are denoted with the suffix ‘I’. Successive shallower screens at the same location are noted with ‘II’, ‘III’, and ‘IV”, etc. Dedicated tubing and inertial foot valves are installed at most wells, with a few exceptions where dedicated bailers are used. All monitoring well locations were reported to be good condition and in compliance with Ontario Regulation 903 (as amended) of the Ontario Water Resources Act.

Surface water quality is monitored at twelve permanent locations: two stations on Mill Creek, four on Ben’s Ditch, one at the mouth of Ben’s Ditch, two at the southernmost culverts crossing beneath the former CN rail bed, one at the WWTC, and two on Lake Simcoe (Figure 2). Water levels are monitored with staff gauges at S-1 (Ben’s Ditch), S-2 (WWTC discharge), S-7 (Mill Creek) and S-8 (Ben’s Ditch). Flow measurements are conducted at S-7. In 2025, location S-1 along with various other locations were re-surveyed following review of elevation discrepancies discussed in previous annual monitoring reports.

Monitoring locations located within on-Site ditches (D-1, D-2, D-3, D-4, D-5 and D-6; see Figure 2) are sampled during significant storm events. As presented in the WDS Assessment report (Golder, 2011c), to better assess the influence of runoff events on stream quality, sampling for the major ion and indicator and trace metals analyses is undertaken during one or two larger rainfall-runoff events (e.g., anticipated rainfall over 24 hours of at least 25 millimetres [mm] or conditions that generate sufficient runoff for sample collection) at the surface water stations. In addition, stream sampling locations S-1 through S-4, S-6 through S-8 and S-11 on Lake Simcoe are sampled to provide locations to assess water quality downstream of D-1 through D-6. These stream/lake locations are sampled during the same storm event after the samples from the landfill area are collected. A summer sampling event is also undertaken to assess changes to long term trends in baseflow stream quality.

3.2 Off-Site Water Supplies

As discussed in Dixon Hydrogeology (1995), a total of 11 recorded private water supply wells are located within a one-kilometre (km) radius of the Site. The majority of these wells are installed in the bedrock underlying the till unit, including four wells constructed at or near Kitchener Park. Based on a 1996 survey by City staff, it was concluded that none of the recorded private water supply wells near the Site are currently in use. The City obtains its municipal water supply from surface water (Lake Couchiching), two municipal groundwater supply wells located approximately 2.5 km north of the Site and a third well (the West Orillia Well), located approximately 2.1 km to the northwest. These locations are outside of the inferred impact area of the landfill (Golder, 2005a).

3.3 Schedule and Analysis

The 2025 sampling schedules for the groundwater monitoring locations and surface water stations are shown in Tables B-2 and B-3, respectively. Water quality is monitored three times per year (spring, summer and fall) or annually (summer), depending upon location. Water levels are obtained three times per year at all monitoring wells and staff gauges. In addition, flow in Mill Creek is measured three times per year at S-7 and is recorded daily at the discharge of the WWTC outlet (S-2), as summarized in Table B-10. Water level data are contained in Appendix C. Water quality data are contained in Appendix D (Major Ions and Indicators) and Appendix E (Metals).

A total of 87 groundwater and leachate samples were obtained in 2025, exclusive of duplicates, and analyzed for major ions and indicators. Additionally, 36 groundwater samples were analyzed for extended metals at the locations listed in Table B-2. Volatile organic compound (VOC) analyses were performed on 12 groundwater samples and benzene, toluene, ethyl benzene and xylene (BTEX) were analyzed on an additional 23 groundwater samples. A total of 29 surface water samples were collected for major ion and indicator analyses, and trace metals. There were no VOC analyses of surface water samples.

Water quality samples were collected by City staff and analyzed by ALS Canada Ltd. of Waterloo, Ontario (ALS). ALS is compliant with ISO/IEC 17025(2017) standards. Analysis for Chemical Oxygen Demand (COD) is also completed by the City's laboratory at the WWTC. Duplicate samples were obtained for quality assurance/quality control (QA/QC) purposes and are discussed in Section 3.5.

3.4 Water Quality/Quantity Sampling Protocols

The monitoring program was undertaken by City staff, following standard procedures outlined in the "Waste Diversion Site Ground and Surface Water Monitoring Protocols" (City of Orillia, 2018). Where possible, purging of three well volumes was completed subsequent to water level measurement and prior to water quality sampling. Wells that were purged dry were allowed to recover, purged dry again and allowed to again recover prior to sampling.

The flow in Mill Creek at S-7 was measured three times in 2025 by City personnel by means of measurements along a five-metre reach of the stream. Flow is calculated based on measurement of stream depths and velocity estimates obtained using a semi-submerged float.

3.5 Quality Assurance/Quality Control (QA/QC)

During the 2025 water quality monitoring program, a total of 19 samples were obtained for QA/QC, including 14 duplicates for groundwater and 5 duplicates for surface water. Of the 14 groundwater duplicates, all were analyzed for major ions and indicators, 9 were analyzed for trace metals and 4 were analyzed for VOC or a limited number of VOC compounds (i.e., BTEX). All 5 surface water samples were analyzed for major ions, trace metals and indicator parameters. The 19 duplicate samples represent approximately 16% of the total number of samples

collected (116 samples in total, 87 groundwater and 29 surface water) in 2025. The samples consisted of duplicate sets of groundwater and surface water collected at the same time as the regular samples using a split sample technique.

Reliability of analytical results is evaluated based partly on ion balance, which is a measure of the electrical balance of the cations and anions in solution. In 2025, 23 of the 116 samples (20% of total) exhibited a calculated ion balance error of greater than 5%, whereas only 5 samples (4% of total) exhibited a calculated ion balance error greater than 10%. The City contracted the services of a new laboratory for sample analysis in 2025, following an unusually high proportion of samples with an elevated ion balance (greater than 5%) in 2023 and early 2024. Ion balance errors of 5% to 10% are common in natural waters, or where geochemical parameters that constitute a large percentage of the anions or cations are not analyzed. The proportion of samples with high ion balance errors is considered to be more than typically expected for samples of this nature. The samples with strongly elevated ion balance (20+%, 3 samples) are interpreted with caution in the data.

Duplicate analyses and calculated relative percent difference (RPD) values are presented in Tables B-7 (Major Ions and Indicators), B-8 (Metals) and B-9 (VOC). Comparison of duplicate analytical results for major ions, expanded metals and BTEX indicates generally acceptable agreement between the results reported by the laboratory for the original or primary samples. The agreement tends to be slightly higher for major ions and indicators with elevated concentrations (e.g., chloride, sodium, etc.) whereas variance (reported as RPD) is higher for lower parameter concentrations near the analytical method detection limit (e.g., ammonia, phenols, etc.). A higher variance is also observed for ammonia, total kjeldahl nitrogen (TKN), and nitrate in 2025. The results for these nutrient parameters are interpreted with caution in the 2025 data.

Surface water tends to have more parameters (typically metals) with elevated RPD, which is considered to reflect, in part, dissolution of sediments in the non-filtered samples by the acid preservative, and the overall lower concentrations of metal parameters in surface water.

On the basis of the duplicate QA/QC, the data are considered acceptable.

4.0 SITE CONDITIONS

4.1 Physiography and Drainage

The topography at the Site and environs was described by Dixon Hydrogeology (2004). The landfill is situated on a flat, low-lying swampy area that has a natural elevation of approximately 219 metres above sea level (masl) to 221 masl (Figure 2), which is only slightly higher (one to three metres, typically) than the level of adjacent Lake Simcoe (218 masl). This flat area extends north of the landfill, where a natural wetland is present. The elevation of the landfill is approximately 234 masl at its highest point near borehole BH3 and is lowest along the southern perimeter near BH16 (221 masl). The estimated maximum waste thickness is 13 m to 15 m. The wetlands east and west of the Site have been filled with various materials, raising the ground surface by up to five metres. The adjacent WWTC and Kitchener Park are situated on this fill; as noted in Golder (2011a), Kitchener Park is predominantly situated on waste and fill materials. Lake Simcoe is located southeast the Site.

A prominent localized highland located southwest of the Site rises to an elevation of 250 masl. To the west and northwest of the Site, the land surface rises to a broader area of rolling hills and uplands, with elevations ranging from 250 masl to 290 masl. Mill Creek flows between these two areas, across the north part of the Site (Figure 1). The lands to the east are relatively flat-lying, generally at elevations less than 225 masl. The landfill is bounded by surface streams to the north and east, Lake Simcoe to the south, and the CN Rail bed to the west. The tracks of

the former CN railroad along the west side of the Site were removed in 1996 and the CN Rail bed is now utilized as a recreational trail. Much of the area west of the CN Rail bed is also part of a wetland.

Urbanized areas surround the Site within a one-kilometre radius, predominantly residential developments present to the north and east, whereas commercial, industrial, and institutional lands are located to the west. Further to the west (greater than one kilometre), agricultural land and woodlands dominate, along with aggregate extraction.

There are several watercourses and surface water features adjacent to the Site (indicated on Figures 1 and 2), the most prominent of which is Lake Simcoe to the southeast. Mill Creek, a small creek originating in the upland area to the west, flows along the northern boundary and merges with Ben's Ditch in the northeast corner of the Site. The Ben's Ditch watercourse then flows southeast along the eastern boundary of the Site and widens as it approaches Lake Simcoe. The Orillia WWTC treated effluent discharges to Ben's Ditch to the east of the Site. A smaller drainage ditch is located beside the former CN Rail bed and is referred to as the CN Rail bed Drain. On the west side of the Site, a drainage divide exists midway between Highway 12 and surface water monitoring location S-18 (Figure 2), whereby water to the north flows towards Mill Creek and water to the south flows directly into Lake Simcoe via the CN Rail bed Drain.

At the Site, surface water runoff on the northern and eastern portions of the Site flows toward Mill Creek and Ben's Ditch. In the southern portions of the Site, surface water flows to Lake Simcoe, whereas surface water on the western portions flows toward the CN Rail bed Drain.

4.2 Geology

The overburden consists of Quaternary age materials, presumably deposited along the Wisconsinan glaciations, overlying Palaeozoic carbonate bedrock. The thickness of the overburden varies from approximately 5 m to 35 m, with the thinnest soils interpreted to the east near a bedrock high. The bedrock lies more than 10 m below ground surface (mbgs) at the Site and does not outcrop in the vicinity of the Site. Two geologic cross-sections of overburden materials at the Site are provided: a north-south section (A-A', Figure 3) and an east-west section (B-B', Figure 4). Cross-section locations are shown on Figure 2.

The uppermost unit consists of earth fill material, up to 3 m thick, with the exception of completed and active landfilling areas where refuse (waste) has been placed to a maximum thickness of 13 m to 15 m. This fill and refuse material directly overlies a layer of peat, up to 2.5 m thick. Sand beach ridges have formed as a result of near-shore erosional and depositional processes along the Lake Simcoe shoreline.

The surficial peat unit is underlain by a glaciolacustrine silt to silty clay confining unit, in turn underlain by a fine to coarse grained Sand Aquifer unit, which is further underlain by a lower confining unit consisting of sand to silt till, overlying bedrock. There are no boreholes that penetrate the entire thickness of the lower confining unit; however, regional bedrock mapping indicates that the elevation of the top of bedrock ranges from 205 masl to 215 masl (Golder, 2005a). Consequently, the lower confining unit is likely not more than 10 m thick. The stratigraphy of the overburden units is continuous beneath most of the Site, with the exception of the Lake Simcoe shoreline, where erosion and deposition has resulted in re-working of the sediments. A clayey sandy silt unit was encountered within the Sand Aquifer unit at monitoring well nest BH16.

The highlands to the west of the Site consist of sand to silty sand till. The lands surrounding the wetlands at the landfill Site are comprised primarily of glaciolacustrine silt and clay to the east, and glaciolacustrine sands to the west between the till ridges (Finnemore and Bajc, 1984).

The bedrock in the vicinity of the City of Orillia consists of fine to coarse grained fossiliferous limestone. This bedrock is the upper member of the Bobcaygeon Formation, which is of Ordovician age. A local bedrock high is present immediately east of the Site, near Kitchener Park.

4.3 Hydrogeology

4.3.1 Hydrostratigraphy

As shown on the cross-sections (Figures 3 and 4), the surficial peat unit (Unit P) is interpreted to underlie the entire Site, except for the southern portion along the shore of Lake Simcoe. The peat unit is hydraulically connected to both the landfill and the fill materials, which together form an unconfined unit. The thickness of the overburden units is variable across the Site. The upper confining layer, which is up to 10 m thick, is found at elevations ranging from 209 masl to 223 masl. It is thickest under the north and south parts of the landfill. It is thinnest under the central part of the landfill (BH3, 1.2 m), to the west (BH4, 0.3 m) where the unit rises, and to the extreme south where it is thin or absent (BH26).

The Sand Aquifer appears to be thickest under the central portion of the Site, thinning out to the north and west. It is found at an elevation of approximately 208 masl to 221 masl and rises to the west (Section B-B', Figure 4). This unit is absent to the northwest as determined at BH15 (Figure 7). This aquifer consists primarily of very fine to fine sand; however, coarser sand and gravel are reported to the south at BH16 and BH17, and to the east at BH2. This aquifer corresponds to the regionally extensive aquifer described in Dixon Hydrogeology (1995), which is reported to be thin and discontinuous adjacent to the landfill.

Single well response testing was completed in 1990 (GLL, 1990) at 15 monitoring wells to determine the hydrogeological properties of the principal hydrostratigraphic units at the Site. Testing was conducted at four locations within the shallow overburden (Unit P), four locations within the upper confining unit (Unit C), and seven locations in the confined Sand Aquifer (Unit SA). Hydraulic conductivities for each unit are summarized in Table 4-1. Also presented are hydraulic conductivity values used in a subsequent water budget modelling study (Golder, 2005b).

Table 4-1: Hydrostratigraphic Unit Summary

Hydrostratigraphic Unit	Inferred Range in Thickness Beneath Site (m)[1]	Geometric Mean Horizontal Hydraulic Conductivity (cm/s)[1]	Range of Hydraulic Conductivity (cm/s)[1]	Hydraulic Conductivity in Modelling Study (cm/s)[2]	2010 Range of Hydraulic Conductivity (cm/s)[3]
Peat Unit (Unit P)	0.6 – 2.4	2.1 x 10-4	4.7 x 10-5 to 2.1 x 10-4	1.4 x 10-3	7.4 x 10-4 to 2.2 x 10-3
Upper Confining Unit, silt to silty clay (Unit C)	1 – 7	1.6 x 10-5	1.1 x 10-5 to 2.0 x 10-5	1.9 x 10-5 (Horizontal) 1.9 x 10-6 (Vertical)	9.6 x 10-6 to 2.7 x 10-5
Confined Sand Aquifer, confined (Unit SA)	0 – 10	1.6 x 10-4	9.1 x 10-6 to 3.9 x 10-3	3.9 x 10-3	2.3 x 10-4 to 6.1 x 10-4
Lower Confining Unit, glacial till (Unit LCL)	ND	ND	ND	ND	ND
Bedrock, fine to coarse grained fossiliferous limestone	ND	ND	ND	ND	ND

Notes:
1 Gartner Lee Ltd, 1990
2 Golder Associates Ltd, 2005
3 Golder Associates Ltd, 2011
ND – Not Determined
m - metres
cm/s – centimetres per second

The hydraulic conductivities determined from the aquifer testing undertaken as part of the 2010 WDS assessment update (Golder, 2011b) confirmed the original hydraulic conductivity estimates and validated the conservative (i.e., maximum) values used in the 2005 modelling. As part of the 2014 well construction program (i.e., the installation of monitoring wells at BH29 and BH30), laboratory estimates of hydraulic conductivity were carried out on soil samples from the upper confining unit. The results of this testing indicated a vertical hydraulic conductivity of the material tested on the order of 2×10^{-7} centimetres per second (cm/s). It is noted that this estimate is approximately one order of magnitude lower than that estimated in the hydraulic conductivity modelling study, as reported in the table above. It is noted that the analysis was based on two discrete and relatively small samples collected at these two borehole locations, and conditions may vary throughout the Site.

4.3.2 Water Level Monitoring

Water level monitoring was carried out in three events in 2025; spring, summer, and fall. Based on the climate data obtained from Environment Canada for the Orillia-Brain Climate Station (Station Number 6115811)[1] summarized in Section 6.0, the 2025 monitoring events were carried out in primarily dry weather conditions. The total precipitation in 2025 was 1266 millimetres (mm), which is higher than reported in the previous few years (963 mm in 2024), and higher than the 30-year normal for this region (883 mm)[2].

Hydrographs of current and historical water level monitoring are contained in Appendix C. During 2025, water levels monitored within the shallow overburden, upper confining layer, Sand Aquifer and lower till remained relatively stable with respect to historic ranges, however water levels were somewhat lower than in recent years.

Within the waste, leachate levels in the waste at BH3-IIR and BH20 remained relatively stable in the last few years, however in 2025 levels were somewhat lower (but within the historic range). As stated in previous annual reports, water levels at these leachate monitoring locations have not notably been influenced by placement of geosynthetic cover in 2022.

The October 2024 water level at BH27-IIR was approximately 1.0 m lower than recent values (potentially anomalous) and was reported to be dry during all three monitoring events in 2025. Water levels at BH16-III and IV have been variable since 2011, reflecting the thin waste and location generally lower within the waste pile where runoff may accumulate. In October 2025, a new historic low water level was reported at BH18R, approximately 1.0 m below recent fall trends.

The water level fluctuations at BH16-I (sand aquifer) in 2025 (218.04 to 219.64 masl) were still variable, similar to recent years, but less extreme than observed in 2024. It is noted that in July 2024, a portion of the stick-up of BH16-I was damaged from debris falling onto the well. The portion of the well stick-up that was broken off was reattached with the use of a PVC coupling; in 2025, the elevation of the top of PVC was re-surveyed. The water levels at this location have significantly fluctuated since 2014 and suggest that the annular seal at this location may be compromised. Given its location within the landfill footprint, and the repaired damage, replacement of the well at a location further south should be considered.

At BH22-IIR, water levels were elevated following replacement of this well in 2019 but returned to their pre-2019 range in 2024 and early 2025. In late 2025, the fall water level was very low in comparison to pre-2019 levels. Water levels at BH24R were unusually low in the summer/fall between 2022 to 2024; in 2025, the water level was

[1] Environment Canada, Orillia-Brain, Station 6115811, https://climate.weather.gc.ca/climate_data; last accessed: April 2, 2026.

[2] Environment Canada, Climate Normals 1991-2020 Data, Udora Ontario, Station 6119055, https://climate.weather.gc.ca/climate_normals; last accessed: March 18, 2026.

reported to be stable during all three monitoring events. This location is off site and may be influenced by local changes to drainage.

Water levels at BH27-I (peat) have remained relatively stable in recent years. BH26 and BH28-I were reported as dry in October 2025; this location may be blocked based on the water levels observed in the spring/summer 2025 monitoring events and the water level elevations in nearby monitors.

4.3.3 Shallow Groundwater Flow

The configuration of the shallow water table under the Site is shown on Figure 6. The groundwater elevation contours are based upon interpretation of water levels obtained in the fall of 2025 from the shallowest screen at wells installed in peat, refuse or fill, and at the surface water staff gauges.

Groundwater flow within the water table roughly reflects topography. This is evident below the landfill mound and along the low-lying stream channels, Mill Creek and Ben's Ditch. Groundwater flow diverges radially outwards from the landfill, except along portions of the western boundary, and flows towards surface water features to the north, east, and south of the Site, where discharge to surface water occurs. The elevation of the confining unit rises to the west, which prevents shallow groundwater flow in this direction. This trend is consistent with that reported in previous annual monitoring reports. A large portion of the shallow groundwater in the shallow overburden on-site infiltrates into the Sand Aquifer (Golder, 2005b).

Estimated horizontal hydraulic gradients in the shallow aquifer were previously calculated to range from approximately 0.005 metre per metre (m/m) to 0.03 m/m (Golder, 2005b). Gradients are highest at the edge of the landfill and along the eastern landfill boundary divide, and lowest to the north, west, and south of the leachate mound where the topography is nearly flat (GLL, 1990). Based on the reported mean hydraulic conductivity of 2.1×10^{-4} cm/s, and an assumed porosity of 0.8 for peat, a corresponding linear flow velocity was calculated to range from 0.5 metres per year (m/y) to 2.5 m/y (Golder, 2005b).

Based on water level data from the fall of 2025, the hydraulic gradients in the shallow overburden were calculated to range from 0.008 m/m to 0.021 m/m. Based on the above hydraulic conductivity and porosity for peat, a corresponding linear flow velocity was calculated based on gradients observed in 2025 to range from 0.7 m/y to 1.8 m/y.

The reported water level at S-1 decreased by approximately one metre in the summer of 2015 and subsequently exhibited relatively stable behaviour, suggesting a change in the measuring point. The elevation at this location (among others) was re-surveyed in 2025. The water level elevation of S-1 in October 2025 (218.65 masl) is now closer to the upstream location water level recorded at S-8 (219.07).

Vertical gradients, as calculated in Golder (2005b) indicate a predominantly downward gradient through the underlying confining layer towards the Sand Aquifer. Vertical gradients between the peat unit and the Sand Aquifer were observed at BH2, BH5 and BH14. Based on water levels from fall 2025, vertical gradients ranged from -0.01 m/m to 0.09 m/m. In 2025, a slight downward vertical gradient was observed at BH14 (0.063 m/m), switched from the slight upward gradient observed at this location in 2024. At BH2 (0.092 m/m), the gradient remained slightly upward similar to 2024 (0.12 m/m).

4.3.4 Confined Sand Aquifer

The fall 2025 potentiometric surface is presented on Figure 7. The interpreted potentiometric surface is consistent with recent years. As discussed in Section 3.1, the Sand Aquifer is locally absent at BH15 and further west.

The groundwater flow direction in the Sand Aquifer is easterly towards Ben's Ditch under the eastern portion of the Site, then southeasterly towards Lake Simcoe where discharge occurs. The potentiometric surface is steepest to the southwest, flattening out significantly to the east/northeast.

Based on water level data from the fall of 2025, the horizontal hydraulic gradients in the Sand Aquifer were calculated to range from 0.0003 m/m to 0.026 m/m, consistent with the values reported in the 2024 Annual Report (WSP, 2025). Based on the mean reported hydraulic conductivity of 1.6×10^{-4} cm/s, and an assumed porosity of 0.3, the corresponding horizontal linear flow velocity in the Sand Aquifer ranges from 0.06 m/y to 4.3 m/y.

4.4 Surface Water

As shown on Figure 2, the landfill is bounded on three sides by surface water bodies: the Mill Creek Diversion (Mill Creek) to the north, Ben's Ditch to the east, and Lake Simcoe to the south. To the west, a wetland area is present on the far side of the rail trail. Drainage from the northern and eastern parts of the Site leads to Mill Creek and Ben's Ditch; the southern area drains to Lake Simcoe. Surface water flow direction in the vicinity of the Site is from the northwest to the southeast. Flow in the ditch located west of the former CN Rail bed diverges near BH25, north towards Mill Creek, and south through the culvert at S-18 to Lake Simcoe. Further to the south, flow through S-19 originates from the south, in part from the Huronia Regional Centre (HRC). Mill Creek discharges to Ben's Ditch near S-6, which then flows into Lake Simcoe.

The Mill Creek Diversion is an improved surface drainage course. Upstream (west) of the Site, it is a natural narrow channel (Mill Creek), which extends beyond Highway 11 to the west (Figure 1). According to the City of Orillia storm drainage plan (UMA Engineering, 1991), the drainage basin of this creek is approximately 1,010 ha, of which 150 ha are serviced by storm drains. Surface water flows monitored at S-7 have ranged from approximately 14 litres per second (L/s) to 460 L/s since 1990. High peak flows may represent specific precipitation events. The discharge recorded at S-7 in 2025 ranged from 45 L/s in July to 349 L/s in April.

Ben's Ditch is reported to drain a catchment area of approximately 340 ha upstream of S-8, of which approximately 200 ha is serviced by storm drains. The headwaters of Ben's Ditch originate in industrial and commercial lands and collect runoff from Highway 12B. Ben's Ditch is an engineered watercourse with soft bottom conditions. Water is occasionally observed to flow upstream in this ditch due to changing water levels in Lake Simcoe, often resulting from a change in wind direction or intensity. Measurement of flow in this ditch is inconsistent due to this condition and has been discontinued. Average annual flow at S-8 is estimated at 36 L/s, calculated based on the watershed area.

During periods of low precipitation, the flow in Ben's Ditch upstream of the WWTC is primarily groundwater discharge, which forms the baseflow component. The Mill Creek Diversion also provides a component of flow to this water body. The discharge of the WWTC to Ben's Ditch near S-2 (Figure 2 and Table B-10) varied from a reported daily low of 9,574 m^3/day on October 15, 2025 to a high of 93,334 m^3/day on April 3, 2025; discharge rates were similar to recent years, though somewhat lower than those reported in the last two years.

Significant surface water flow towards the Site from the west has been intermittently observed at two culverts draining under the former CN Rail bed south of BH25, designated as S-18 and S-19. The surface water through these culverts originates off-site from both the paved industrial/commercial lands to the west and from the Huronia Regional Centre (HRC) to the south, which is notably elevated.

4.5 Landfill Gas

Landfill gas (LFG) in the soils is not regularly monitored at the Site; however, landfill gas has been occasionally observed by City staff to be venting from the surface of the landfill. Landfill gas typically consists primarily of methane and carbon dioxide, which are by-products of the decomposition of organic material found in MSW.

In 2006, Golder conducted a study to assess landfill gas production at the Site, relative to Condition 40 of the updated Environmental Compliance Approval (ECA) for the Site issued September 19, 2005. The following items were addressed in that report:

i) Assessment of the potential for off-Site impacts due to migrating LFG;

v) Prediction of the LFG generation rate for the landfill based on the size of the Site and the composition of the waste deposited at the Site;

vi) An estimation of the LFG discharge rate through the final cover; and

vii) Assessment of the potential for utilizing LFG at the Site.

Additionally, recommendations were made regarding landfill gas safety issues at on-site buildings, and provisions for further work, monitoring, or changes in Site activities.

From this study, it was determined that there is a low rate of landfill gas generation at the WDS with respect to the potential for LFG utilization. The potential for off-site impacts of LFG by migration through the soil was determined to be low due to surface water bodies bounding the Site (Mill Creek to the north, Ben's Ditch to the east, and Lake Simcoe to the south), and the marshy and wetlands to the west of the CN Rail bed that were determined to have low concentrations of methane in the subsoil (0.0% to 0.1% by volume).

A risk of gas build-up in on-site buildings was noted in the report, due to higher methane soil gas concentrations measured immediately adjacent to the waste fill areas near buildings (up to 61.7% methane by volume). The City indicated that weekly sweeps for explosive gases were completed between October 2006 and November 2008. During this period there were no detections of combustible gas (e.g., methane). In November 2008, City staff discontinued the weekly combustible gas sweeps of landfill buildings. A new Equipment and Administration Building was opened on August 8, 2016 and a new Scale house was opened in 2017. Both buildings are equipped with methane detectors. In 2025, no methane alarms were reported by the City to have occurred at their buildings.

To address the potential for landfill gas migration to the west of the Site towards a residence on United Drive, a landfill gas monitoring probe (GP6) was installed in 2010, located to the west of the former CN Rail bed in a low-lying marshy area. Water levels within this marshy area are typically high, and the intervening area between the rail bed and the residence to the north contains little unsaturated soil, if any, through which methane could be expected to migrate. The water levels within the gas probe were historically at, or near, ground surface and therefore present no evident methane migration pathway. The risk of methane migration from the landfill to the buildings on United Drive is considered to be minimal.

In 2020, Golder conducted a study (Golder, 2020b) to assess LFG production at the Site to address Condition 30.3 of the updated ECA issued October 9, 2018. The following items were addressed in the study:

i) Prediction of the LFG generation rate based on the size of the landfill and the composition of the waste deposited;

ii) An estimation of the LFG discharge rate through the final landfill cover;

iii) The potential for off-site migration of LFG; and

iv) Assessment of the potential for LFG controls.

The recent study results were similar to those reported in 2006. The LandGEM modelling results described in Golder (2020) indicated that the LFG generation rate at the WDS will decline with time. The likelihood of off-site lateral LFG migration from the WDS is considered unlikely. Nevertheless, as the waste fill expands, water levels in the gas probes should be regularly measured to monitor for possible landfill gas migration pathways, notably in in the direction of Progress Drive where LFG migration potential was not previously assessed.

5.0 GROUNDWATER QUALITY

Groundwater quality sampling was conducted at 26 of the 27 observation well nest locations in 2025. Triannual sampling is scheduled for locations BH27-I and BH27-IIR located within the landfill; samples have not been collected in these wells in recent years due to insufficient volume for sample collection.

Groundwater within the Site discharges to surface water locations within or adjacent to the Site boundaries; there are no groundwater users within or downgradient of the WDS. As a result, the main concern is protection of surface water quality and aquatic life in adjacent surface water features, and thus the Site compliance is assessed in relation to the Provincial Water Quality Objectives (PWQO).

Key indicators for landfill leachate from the WDS include ammonia, toluene and zinc. Trigger criteria for these key indicators were developed and are applied at four groundwater monitoring wells adjacent to Lake Simcoe, as discussed in Section 7. Other leachate indicator parameters including alkalinity, chloride and sodium have been identified for the landfill, which are used to evaluate trends in water quality relative to background conditions and inputs from other sources including runoff from the upstream urbanized areas and the WWTC. Phosphorous is not considered to be a landfill leachate indicator parameter at the WDS; however, it has been identified as a parameter of concern for Lake Simcoe and is therefore assessed in this report.

Chloride concentrations in the shallowest screen at each monitoring well are illustrated for fall 2025 on Figure 8, and in the underlying Sand Aquifer on Figure 9. Cross-sections A-A′ (Figure 3) and B-B′ (Figure 4) also include chloride concentration results. Elevated chloride concentrations are commonly observed in landfill leachate. Chloride is considered to be a conservative parameter relative to migration in groundwater due to its non-reactive nature, which typically results in chloride being the most advanced parameter migrating within a plume originating from a landfill. Consequently, it is often used to delineate the extent and migration of these plumes.

Prior to 1998, snow dumping activities occurred in Cells 9 and 10 in the southwest part of the landfill, which resulted in a source of chloride and sodium additional to that from the landfill. Subsequently, the snow dump was moved to the north of the WWTC to reduce chloride input at the landfill Site (Figure 2). Concentrations of chloride and sodium subsequently decreased in the vicinity of the former snow dump (i.e., BH16-IVR).

Chloride (and sodium) concentrations are notably highest in 2025 upgradient of the Site, in the peat unit at BH1-III and BH18R (averages of 448 milligrams per litre [mg/L] and 605 mg/L chloride, respectively), however chloride concentrations at BH1-III have slightly declined since reaching their historic maximum in 2020. Concentrations in 2025 continued to fluctuate but were consistent overall with the gradual declining trend observed in recent years. Elevated chloride and sodium concentrations are also present in the Sand Aquifer at BH1-IR (average 109 mg/L and 72 mg/L, respectively,) and remain notably elevated above concentrations prior to 2018 suggesting ongoing

and increasing road salt impacts to this area. Accompanying elevated phosphorous and iron may reflect changes in the chemical makeup of the groundwater.

Chloride concentrations are also elevated at the refuse (waste) monitoring well BH3-IIR (average 577 mg/L in 2025), consistent with elevated concentrations observed at this location since late 2004. The lowest chloride concentrations are monitored in the Sand Aquifer at BH14-I (11 mg/L in 2025) located north of the landfill, and in BH29-II southwest of the new composting pad. In 2025, a new historic maximum for chloride was reported in April (74 mg/L) at BH29-II, but the reported concentration returned to typically observed levels in the summer sampling round (4 mg/L, compared to the average 2.2 mg/L in 2024).

Ammonia concentrations are a key indicator of landfill impact at the WDS, notably relative to the proximity of surface water at the Site. Ammonia concentrations in leachate (e.g., at BH3-IIR) averaged 285 mg/L in 2025 (discussed in Section 5.2). As discussed below, modelling of discharge from the landfill indicates that the vast majority of the leachate (on a mass basis) will discharge to the adjacent water bodies through the Sand Aquifer (Golder, 2005b). Figure 11 illustrates the distribution of ammonia in this aquifer in the fall of 2025. Figure 10 illustrates the distribution of ammonia in the upper sand and peat unit.

Groundwater quality is presented for the shallow groundwater and Sand Aquifer units and divided into upgradient, leachate, landfill vicinity and downgradient sections within each unit. Tables 5-1 and 5-2 summarize the divisions. Leachate quality is discussed in Section 5.2, shallow groundwater water quality in Section 5.3 and Sand Aquifer water quality in Section 5.4.

Table 5-1: Shallow Groundwater Monitoring Wells by Location

Location	Monitoring Wells
Upgradient	BH1-III, BH18R, BH19*, BH23, BH24R, BH28-II
Toe of Landfill	BH2-III, BH6R, BH7*, BH8R, BH15-IIIR, BH21-II
Downgradient	BH5-IIIR, BH10R, BH11R, BH13*, BH14-IIIR, BH22-II
Downgradient of Compost Pad	BH29-II, BH30-II
Leachate	BH3-IIR, BH16-IV, BH20R, BH27-I, BH27-IIR, BH29-II

Note: * Water Level only

Table 5-2: Confined Sand Aquifer Monitoring Wells by Location

Location	Monitoring Wells
Upgradient	BH1-IR, BH25, BH28-I
Landfill Vicinity	BH2-II, BH3-IR, BH4-II, BH14-I, BH16-I, BH21-IR
Downgradient	BH5-IR, BH17-III, BH22-IR, BH26
Downgradient of Compost Pad	BH29-I, BH30-I
Upper Confining Unit	BH17-IVR

The water quality results are presented in Appendix D for major ions and indicator parameters, in Appendix E for metals and in Table B-6 for VOC.

Water quality monitoring was carried out in three events in 2025, spring, summer and fall. Based on a review of climate data prior to and during water quality monitoring events, monitoring was carried out during a mix of dry and wet conditions. Precipitation events of less than 10 mm are not considered to have a significant effect on groundwater monitoring and are considered to be ‘dry’ conditions. It is considered unlikely that the precipitation rates observed during the ‘wet’ weather condition noted in the table above had a significant influence on static

water levels; the observed short-term influence of the precipitation would be expected to be limited to the wells located within shallow unconfined units.

5.1 Concentration Profiles and Indicator Distribution

Concentration profiles of selected indicator parameters along cross-sections through the Site are illustrated on Figures 13 through 16, based on average 2025 concentrations. Along the upper peat and landfill section (Figure 13), concentrations of the plotted indicator parameters were highest within or immediately downgradient of the landfill area (BH8R, BH20R, BH3-IIR, and BH21-II) and decrease substantially with increasing distance from the landfill. Similarly, concentrations in the Sand Aquifer section (Figure 14) were highest within the landfill area (BH3-IR and BH21-IR).

The distribution of concentrations of chloride and ammonia in the Sand Aquifer are illustrated on Figures 9 and 11, respectively, as a means of illustrating the extent of impact derived from the landfill as illustrated by these parameters.

Ammonia concentration distributions within the Sand Aquifer indicate lower concentrations of ammonia are observed under the central part of the landfill at BH3-IR. Ammonia concentrations at BH21-IR indicate that the impact is greater at some locations immediately south of the landfill. The ammonia concentrations return to background or near-background concentrations approaching Lake Simcoe, reflecting the attenuation between the landfill area and the lake. Concentrations of ammonia decline to low or near-background values before reaching the southern Site boundary, whereas chloride concentrations are more persistent and remain slightly elevated downgradient of the landfill.

5.2 Leachate Quality

Leachate quality is monitored at four wells located within the landfill footprint, installed in either refuse (waste) or the underlying peat formation, as listed in Table 5-1.

Historically, BH27-IIR exhibited the highest concentration of most indicator parameters and best represented the quality of undiluted leachate. Since BH27-IIR has been consistently dry (or nearly so), BH3-IIR is now used to assess the quality of landfill leachate. For comparative purposes, it is noted that the peak chloride and ammonia concentrations at BH27-IIR were 3,490 mg/L and 738 mg/L, respectively, in 1993.

Table 5-3 presents the arithmetic mean (“average”) concentrations of selected leachate indicator parameters at the leachate monitoring wells in 2025. BH29-II is included in Table 5-3 for comparison to other leachate wells; however, it is discussed in greater detail in Section 5.4.3 relevant to its position downgradient of the compost pad.

Table 5-3: 2025 WDS Leachate Quality - Selected Average Indicator Parameter Concentrations

Parameter	PWQO	BH3-IIR	BH16-IVR[1,2,3]	BH20R[3]	BH29-II[2]
Alkalinity	-	1680	845	2043	575
Chloride	-	577	171	245	38.7
Iron	0.3	29.6	48.1	61.5	8.9
Manganese (µg/L)	-	374	593	1370	598
Ammonia	0.02	285	29	99.5	0.807
TKN	-	359	40.8	118	2.0
DOC	-	140	37.2	65.3	9.0
Cadmium (µg/L)	0.5	0.184	7.0	<0.02	0.114
Cobalt (µg/L)	0.9	17.6	11.0	<5	2.1
Lead (µg/L)	5	7.84	41	0.42	1.99

Parameter	PWQO	BH3-IIR	BH16-IVR[1,2,3]	BH20R[3]	BH29-II[2]
Nickel (µg/L)	25	74.6	20	<10	3.69
Zinc (µg/L)	20	34.4	42	<5	<30
Phosphorus	0.02	0.546	0.288	0.569	0.289

Notes:
All concentrations in mg/L unless otherwise stated.
1 Cadmium, cobalt, lead, nickel and zinc not analyzed in 2025, average concentrations from 1995 are shown.
2 Average of spring and summer sampling events, no sample in fall 2025.
3 Cadmium, cobalt, lead, nickel and zinc not analyzed in 2025, concentrations from 2009 are shown.

As in previous years, concentrations of most leachate indicator parameters are highest at BH3-IIR. In addition to "typical" leachate indicators chloride, ammonia, iron and manganese, elevated concentrations of sodium, calcium, magnesium, and COD were observed at this location. Chloride concentrations at BH3-IIR remained relatively stable in 2025 (577 mg/L, similar to 566 mg/L in 2024) and continue to be elevated compared with historical (pre-2006) observations. Fluctuations of sodium, total kjeldahl nitrogen (TKN), manganese, calcium and magnesium concentrations are noted but remain within historical ranges. Ammonia concentrations at this well continue to be elevated, but have declined slightly from the historic maximum concentration observed in 2024 (344 mg/L). There has been an increasing trend of ammonia concentration at BH3-IIR since the mid 1990s. In 2025, copper, lead, and zinc were elevated above recent average concentrations. Cobalt and nickel concentrations at BH3-IIR are consistent with historical norms. Phosphorous remains elevated but within historic norms at BH3-IIR.

Elevated concentrations of landfill leachate indicator parameters are generally observed at BH16-IVR and BH20R, but typically at lower concentrations, reflecting the age (older) and thinner waste at these locations. It is noted that the concentrations of iron are well in excess of the PWQO at all three monitoring locations; phosphorous and phenols were also generally observed at concentrations in excess of the PWQO. Iron concentrations at BH16-IVR continue to remain elevated through to 2025 (average 47.3 mg/L), however, a new historic maximum was reported at this location during the spring monitoring event. The summer event sample marked a recent minimum iron concentration, and this location contained insufficient water for sample collection during the fall 2025 monitoring event. Average chloride (171 mg/L in 2025) and ammonia (28.5 mg/L) concentrations at BH16-IVR were within the historic range observed at this location.

Expanded metals analysis (Appendix E) was undertaken during all three monitoring events at BH3-IIR in 2025. Reported concentrations above the Method Detection Limit (MDL) were reported for all analyzed parameters, excluding silver. Exceedances of the PWQO were reported for copper, cobalt, lead, nickel, phosphorus, and zinc.

Impacted soils from the Orillia Ontario Provincial Police Headquarters Building Site were landfilled in 1992. Analyses of these soils undertaken in 1992 prior to their disposal indicated elevated arsenic concentrations of up to 100 ppm.

5.3 Shallow Groundwater

Water quality in the shallow unconfined groundwater adjacent to the landfill is currently monitored at 16 monitoring wells (Table 5-1).

5.3.1 Upgradient

The shallow aquifer upgradient water quality is monitored at two locations north of Highway 12 (BH1-III and BH18R) and two locations to the west of the Site (BH23 and BH24R), where the shallow groundwater flows easterly. Averages of groundwater quality data for all 2025 monitoring events for the selected indicator parameters at the upgradient locations are presented in Table 5-4.

Table 5-4: Upgradient Shallow Groundwater (Background) Water Quality
Selected Average Indicator Parameters (2025)

Parameter	BH1-III[1]	BH18R	BH23[2]	BH24R[2]
Alkalinity	300	289	304	367
Chloride	448	605	148	180
Sodium	243	235	92.8	108
Iron	23.4	16.2	14.0	7.81
Manganese (µg/L)	745	944	1100	1670
Ammonia	0.140	0.920	0.0785	0.458
TKN	4.37	7.42	1.16	0.931
DOC	55.9	72.6	8.85	6.92

Note:
All concentrations in mg/L unless otherwise stated.
1: Average of spring and summer sampling events only
2: Location sampled annually.

As noted above, the elevated chloride and sodium concentrations reported upgradient of the landfill at BH1-III, BH18R, BH23 and BH24R are considered to be the result of ongoing road salt impact. Elevated iron, manganese, DOC, and TKN concentrations are interpreted to be sourced from the peat materials forming part of the shallow overburden and their concentrations in groundwater will be affected by changes to overall chemical makeup by road salt impacts. Exceedances (if observed) of the PWQO are typically observed at these locations for iron, phenols and phosphorous. The road salt impacts or natural presence of these parameters at elevated concentrations at these upgradient locations limits their usefulness as indicators of landfill impact. It is further noted that these wells those to the west of the landfill and the drainage (Ben's Ditch and Mill Street Diversion) have all exhibited a notable long-term increase in off-site chloride and sodium concentrations consistent with increasing urbanization and/or road salt use. The City has reported a recent increase in road salting activities, which includes the use of calcium chloride. As noted in Section 6, the increased road salt impacts in the groundwater are moving into the surface water, increasing the salinity of Lake Simcoe.

5.3.2 Toe of Landfill

Groundwater quality in the shallow aquifer was monitored at four locations at or near the toe of the landfill. Monitoring wells BH8 and BH15-III are located near the northernmost portion of the landfilled area; BH2-III is located approximately 10 m beyond the northeast of the landfilled area and BH21 is located approximately 15 m south of the defined landfill. Average concentrations for the selected indicator parameters at the landfill vicinity locations in 2025 are presented in Table 5-5.

Table 5-5: Toe of Landfill, Shallow Groundwater Quality (2025)

Parameter	BH2-III	BH8R	BH15-IIIR*	BH21-IIR
Alkalinity	1250	1245	1060	705
Chloride	320	99	35.2	97
Iron	11	2.25	55.5	36.4
Manganese (µg/L)	1010	179	1390	1010
Ammonia	15.7	47.3	34.9	25.0
TKN	21.8	57.6	51.6	38.3
DOC	44.5	3844	22.3	44

Note: All concentrations in mg/L unless otherwise stated.
*: Location sampled annually

Groundwater quality at BH2-III, BH8R, BH15-IIIR and BH21-IIR was generally similar, exhibiting elevated concentrations of leachate indicator parameters notably including ammonia, ranging from an average of 21.8 mg/L to 47.3 mg/L and chloride ranging from an average of 35 mg/L to 320 mg/L. Generally, the higher concentrations of leachate indicator parameters were observed at monitoring wells located in closest proximity to the largely completed (i.e., filled) portion of the landfill (BH8R and BH15-IIIR). Iron, phenols and phosphorus are notably elevated at these locations.

Elevated iron and possibly ammonia concentrations at BH21-IIR are considered to potentially reflect input from the former composting operations that were operated nearby. Concentrations of ammonia at BH21-IIR in 2025 (25.0 mg/L) were similar to 2024 concentrations (24.7 mg/L) but remain below historical values observed prior to 2016. The concentration of ammonia at BH15-IIIR (34.9 mg/L) has remained well below the elevated concentrations reported prior to 2022 and has been gradually declining since the historical maximum of 110 mg/L reported in 2015. BH15-IIIR is located immediately adjacent to the waste footprint. Ammonia concentrations at this well have been historically similar to those reported at BH20R, which is screened in waste within an older portion of the landfill. However, since 2022 the concentrations of ammonia have declined significantly at BH15-IIIR and remain much lower than those observed at BH20R.

Concentrations of ammonia at BH8R in 2025 have fluctuated in recent years but are gradually declining (average of 47.3 mg/L in 2025, 58.3 mg/L in 2024, and 67.2 mg/L in 2023) and remain below the historical peak average concentration (83.2 mg/L) observed in 2012. Chloride concentrations at BH8R continued to decrease until July 2025 however in October 2025, a concentration of 147 mg/L was reported, representing a notable increase from 51 mg/L in July. Increases in other parameters included calcium, sodium and ammonia.

As noted below in Section 6.3, the majority of leachate indicator parameters from surface water sampling locations S-7 to S-6 and from S-3 to S-4 indicate no appreciable change in water quality. This reflects the relatively low flux from the upper units, as discussed in Golder (2005b).

5.3.3 Downgradient of Compost Pad

Groundwater quality in the shallow overburden is monitored downgradient of the new composting pad at two locations. The groundwater quality is monitored to the southeast (BH-30-II) and southwest (BH29-II) of the new composting pad. The concentrations for the selected indicator parameters at these locations in 2025 are presented in Table 5-6. BH29-II was also noted in Table 5-3 for comparison to other wells screened in refuse, however, BH29-II has historically exhibited trends that suggest equal impact from composting operations as from leachate and has been discussed as such in this section.

Table 5-6: Downgradient of Compost Pad, Shallow Overburden Groundwater Quality

Selected Average Indicator Parameters (2025)

Parameter	BH29-II2	BH30-II
Alkalinity	575	714
Chloride	38.7	65.9
Iron	8.9	33.2
Manganese (µg/L)	598	1740
Ammonia	0.81	6.78
TKN	2.0	4.4
DOC	7.13	10.0

Notes:
1 All concentrations in mg/L unless otherwise stated.
2 Average of spring and summer sampling events, as well was dry in fall.

Groundwater quality downgradient of the compost pad in the shallow peat exhibited elevated concentrations of a number of indicator parameters however, chloride and ammonia remain relatively low compared to leachate. The overall trends observed in the downgradient locations consist of elevated spring chloride concentrations at BH29-II, the consistent general decline of chloride concentrations at BH30-II, and the relatively stable ammonia concentrations observed at both locations. While iron has fluctuated at location BH30-II, the variability and slightly elevated phenols concentrations reported in 2025 at this location are typical of organic matter decomposition and within the range of values expected to be reported downgradient of a compost pad.

The ammonia concentration at BH 29-II has historically fluctuated. The reported average concentration decreased in 2025 (0.81 mg/L, down from 2.4 mg/L in 2024). Elevated iron, phosphorus (average 0.0873 mg/L at BH29-II, 0.024 at BH30-II) and cobalt (average 1.8 ug/L at BH29-II, 2.4 ug/L at BH30-II) relative to the PWQO are noted at these locations. It is noted that ammonia, iron, and COD are common to compost-specific water quality impacts, and that the expected fluctuation of indicator parameter suggests that the impact of compost operations on water quality is within the expected range of values; effectively, the impacts of composting operations are not unduly influencing downgradient water quality above that which is typically expected from the landfilled waste.

5.3.4 Downgradient of the Landfill

Shallow overburden groundwater downgradient of the landfill is monitored at five locations adjacent to Mill Creek (BH10, BH14-III), Ben's Ditch (BH11R) and Lake Simcoe (BH5-IIIR, BH22-IIR). Average concentrations for the selected indicator parameters at downgradient locations in 2025 are presented in Table 5-7.

Table 5-7: Downgradient Shallow Overburden Groundwater Quality - Selected Average Indicator Parameters (2025)

Parameter	BH5-IIIR	BH10R	BH11R	BH14-IIIR	BH22-IIR
Alkalinity	491	482	439	507	267
Chloride	100	108	136	85.6	138
Iron	52.3	2.70	3.08	2.67	6.60
Manganese (µg/L)	212	306	209	430	381
Ammonia	1.06	0.80	0.12	1.88	0.401
TKN	17.3	2.79	1.90	5.09	1.39
DOC	34.9	19.9	28.7	34.5	13

Note: All concentrations in mg/L unless otherwise stated.

Concentrations of chloride, manganese, TKN and DOC in the shallow groundwater at the downgradient monitoring wells were generally similar to concentrations reported for the upgradient monitoring locations; although elevated concentrations of alkalinity at all but BH22-IIR indicate landfill-derived impacts at these locations. At background location BH1-III (screened within the peat unit), alkalinity has remained within a relatively stable range of concentrations since monitoring began in the 1980s; while the downgradient monitors in Table 5-7 indicate alkalinities that are not significantly elevated in comparison to BH1-III, the concentrations reported at these locations has remained consistently elevated above the range at background monitor BH1-III. Beginning in 2023, elevated TKN was first noted at BH5-IIIR, which has continued through 2025 (average 17.3 mg/L); elevated phosphorous has also been reported at this location since 2022; this has been discussed with the City, and no changes to operations in this area suggest local sources for the observed changes.

Similar to the leachate indicators noted for BH21-IIR (see Section 5.3.2), elevated iron and ammonia are typically considered to potentially reflect input from the adjacent former historical composting operations. As has been historically observed, ammonia concentrations decreased substantially downgradient between BH21-IIR (average 25 mg/L) and BH22-IIR (average 0.4 mg/L) reflecting natural attenuation of this parameter, whereas chloride

concentrations are slightly higher at BH22-IIR. The ammonia concentrations at BH22-IIR were somewhat lower in 2025 (average 0.4 mg/L, similar to 0.7 mg/L in 2024) and remain well below the historical maximum concentrations observed in 2010 (2.47 mg/L).

Concentrations of chloride south of the landfill are typically lowest at BH5-IIIR (average 100 mg/L in 2025) however, chloride has decreased at BH14-IIIR since 2023 and remained low in 2025 (average of 86 mg/L). The historically lower concentrations of chloride at BH5-IIIR suggest that landfill impacts are greater downgradient of the central portion of the landfill to the west (south of Cell 11).

Overall, comparing the concentrations of leachate indicator parameters at downgradient monitoring wells to those adjacent to the landfill, lower concentrations of leachate parameters chloride, and notably ammonia, were observed at the downgradient monitoring wells. This reflects attenuation, notably of ammonia, within the intervening overburden materials.

The expanded metals analysis undertaken for samples collected from BH22-IIR indicates that the concentrations of the expanded metals analysis parameters were reported within historically observed ranges in 2025. Aluminum returned to more typical concentrations in 2025 (average 23.5 µg/L), suggesting that the highly elevated concentration reported in April 2023 (3,000 µg/L) was anomalous. As is typically observed at BH22-IIR, phosphorous exceeded the PWQO limits during all three sampling events. However, all other parameters in the expanded metals analysis remained below the PWQO limits in 2025.

5.4 Confined Sand Aquifer

As presented in Table 5-2, the confined Sand Aquifer unit is monitored by 16 monitoring wells, including BH17-IVR (in the upper confining unit). The results of the groundwater monitoring program for the confined Sand Aquifer are discussed in Sections 5.4.1 to 5.4.4, for upgradient locations, the landfill vicinity and two downgradient locations. Monitoring well BH17-IVR is discussed in Section 5.4.5.

5.4.1 Upgradient

Background water quality for the Sand Aquifer is monitored at BH1-IR north of Highway 12B and BH25 southwest of the landfill west of the former CN railway corridor. The interpreted potentiometric surface and the observed low vertical hydraulic gradients indicate that groundwater flow is toward Lake Simcoe. Consequently, these monitoring locations are interpreted to be upgradient of the landfill and represent “background” water quality conditions. Average concentrations for the selected indicator parameters at upgradient Sand Aquifer locations are presented in Table 5-8.

Table 5-8: Upgradient Confined Sand Aquifer Water Quality - Selected Average Indicator Parameters (2025)

Parameter	BH1-IR	BH25[2]
Alkalinity	227	344
Chloride	109	189
Iron	1.4	18.8
Manganese (µg/L)	515	937
Ammonia	0.14	0.11
TKN	0.7	1.50
DOC	10.9	3.86

Notes:
1 - All concentrations in mg/L unless otherwise stated.
2 - Location sampled annually.

The concentrations of indicator parameters observed at the upgradient Sand Aquifer location BH25 were generally consistent with historical results however, iron concentrations continued to increase in 2025. Water quality at BH25 indicates that road salting impacts are present upgradient of the landfill. Previously, BH1-IR was considered to be the best representation of background water quality; increasing concentrations of a number of indicator parameters at this location in starting in 2018 indicate changing upgradient conditions. Concentrations remained similar to those reported in recent years and remain elevated to those reported prior to 2018. This includes chloride (average 109 mg/L, up from 3 mg/L in 2017), iron (average 1.4 mg/L, up from 0.026 mg/L in 2017), manganese (average 235 µg/L, up from 42 µg/L in 2017), and sodium (average 72 mg/L, up from 28 mg/L in 2017). Sodium and hardness similarly remain elevated compared to historical pre-2018 data. Ammonia concentrations remained low in 2025 (average 0.14 mg/L). In the absence of other potential sources for this change in groundwater quality and considering the parameters that are elevated in recent years, it is interpreted that the onset of road salt and urbanization impacts at this monitoring location were observed starting in 1990 and notably increasing since 2005.

Chloride concentrations have been increasing consistently at BH25 since 2005 but appear to be stabilizing since the historic high first observed in 2021 (189 mg/L in 2025, 250 mg/L in 2021). Sodium and hardness concentration trends are also increasing over time. TKN and COD concentrations have fluctuated significantly at this well, notably since 2002. COD ranged from below detection limits for the period 1998 to 2000, to 137 mg/L in 2010; in 2025, COD was 98 mg/L. In 2025, manganese concentrations were reported at a new historic maximum at BH25 (454 µg/L). An elevated concentration of barium (412 µg/L), consistent with historical results, was detected in 2025. Despite the close proximity to the landfill (less than 100 m), BH25 is not considered to be within its area of influence. The elevated chloride and sodium concentrations at BH25, as well as associated changes in other parameters (e.g., alkalinity and calcium), are considered to reflect increasing urbanization in the local surroundings, notably road salt application.

5.4.2 Landfill Vicinity

Groundwater quality in the Sand Aquifer in the vicinity of the landfill is monitored at six locations, BH2-II, BH3-IR, BH4-IIR, BH14-I, BH16-I, and BH21-IR. Groundwater trigger locations in the Sand Aquifer are monitored at locations BH5-IR, BH17-III, BH22-IR and BH26; these are discussed in detail in Section 7.1. Average concentrations for the selected indicator parameters in 2025 are presented in Table 5-9. Notably, elevated concentrations of ammonia are only present at BH21-IR.

Table 5-9: Landfill Vicinity Confined Sand Aquifer Water Quality - Selected 2024 Average Indicator Parameters

Parameter	BH2-II	BH3-IR	BH4-IIR	BH14-I[2]	BH16-I[3]	BH21-IR
Alkalinity	575	791	498	205	583	532
Chloride	112	206	255	10.6	177.5	112
Iron	11.5	25.7	15	1.19	7.87	21.2
Manganese (µg/L)	366	1600	1370	60.8	64.5	1060
Ammonia	0.472	0.468	0.0376	0.162	0.06	11
TKN	1.02	1.40	0.416	0.227	0.5	13.4
DOC	9.6	21.6	3.5	1.4	8.9	18.5

Notes:
1 All concentrations in mg/L unless otherwise stated.
2 Location sampled annually.
3 Summer 2025 data considered anomalous and not included in the annual average

Groundwater quality at BH14-I is characterized by stable, relatively low, near background indicator parameter concentrations. This well is located 75 m north and cross-gradient/upgradient of the landfill; it is not interpreted to

be impacted by landfilling activities and appears to be isolated from local road salt impacts, based on low chloride and sodium concentrations.

East of the WDS, indicator parameter concentrations are slightly elevated at BH2-II compared to BH14-I. Increasing trends were observed for chloride, sodium, iron, manganese at this location up to 2007 and again after 2017. Whereas ammonia concentrations are low (< 1 mg/L), an increasing trend is evident since 2007. Chloride, calcium, and sodium continued to increase into 2025, whereas ammonia and iron appear to be stabilizing. In 2025, concentrations of chloride remain elevated at 112 mg/L.

To the southwest of the WDS, groundwater quality at BH4-IIR exhibits moderately elevated chloride (average 255 mg/L in 2025) and sodium (average 146 mg/L) concentrations since 2005; sodium concentrations have fluctuated since 2016 but appear to be exhibiting an overall increasing trend. Chloride concentrations reached a historic maximum in 2021 and have since declined slightly. Elevated iron concentrations deviate from those observed prior to 2008, when groundwater quality at this well was largely similar to that at BH25. Seasonal effects on groundwater quality are apparent; however, the overall increasing trend in chloride and sodium are considered to represent infiltration of road salt impacted runoff from the vicinity of Memorial Avenue.

Monitoring locations BH3-IR and BH16-I are located under the landfill. Landfill impacts are observed at these locations, most notably at BH3-IR, characterized by elevated concentrations of alkalinity, chloride, iron and relatively low (< 1 mg/L) concentrations of ammonia. Indicator parameters including major ions, COD and metals (including iron and manganese), increased substantially at BH3-IR from 2007 to 2010. Recent concentration trends are lower than peak values, notably the most recent chloride result in 2025. Ammonia concentrations were higher prior to 2009.

Indicator parameter concentrations in the overlying leachate monitoring well BH3-IIR (average chloride, 577 mg/L) are higher than those observed at BH3-IR (average chloride, 206 mg/L) reflecting the presence of the intervening peat unit and underlying confining layer. The low vertical hydraulic conductivity of the confining layer overlying the Sand Aquifer further limits the rate of vertical migration of leachate into the Sand Aquifer. Since ammonia and potassium concentrations have not increased substantially in the same period and are not notably above background concentrations, it is concluded that these parameters are, to date, attenuated within the intervening peat and confining layer.

On the south side of the landfill, at BH16-I, chloride has increased overall but fluctuates and presently exhibits a decreasing trend since 2022; increasing iron and sodium trends are noted since about 2003. Concentrations of COD have fluctuated significantly at this well, notably since 2009. Elevated COD concentrations have also increased notably since 2021. Concentrations of ammonia (average 0.1 mg/L) remain low at BH16-I indicating that this parameter is attenuated; it is noted that the elevated concentrations reported in the summer sample at BH16-I are significantly outside the typical concentration range and were not observed again in the fall 2025 sample. As such, these have been considered anomalous (or potentially contaminated) and were not considered in the analysis.

As shown on Figure 3 (Cross-Section A-A′), BH21-IR and BH16-I are screened in significantly different parts of the Sand Aquifer; the screen of BH16-I is located near the base of the aquifer below an intervening silty confining layer.

At BH21-IR, located 15 m downgradient of the waste limit, elevated concentrations of chloride, iron, manganese, ammonia and DOC are observed, albeit decreased from peak concentrations in 2015 to 2016. Impacts in this area are landfill derived, possibly with input from the composting operation formerly located in this area. A

downward hydraulic gradient exists between BH21-IIR and BH21-IR, as illustrated by the approximately 0.15 m difference in water levels at these screens in the fall of 2025. Chloride concentrations at BH21-IR in 2025 are similar to the previous year (average 112 mg/L, up slightly from 105 mg/L in 2024). Ammonia concentrations are slightly higher than in 2024 (average 10.5 mg/L, down from 8.4 mg/L in 2024). Given that ammonia concentrations are higher at this well than at upgradient BH3-IR, it is concluded that the former operation of the leaf-composting in this area contributed nitrogen, iron and other components of organic decay.

Expanded metals analyses were performed on samples collected from BH2-II, BH3-IR, BH14-I, BH16-I, and BH21-IR. Stable or decreasing barium concentrations are observed at BH14-I since 2015, following historical maximum barium concentrations reported in 2014 at BH14-I (360 µg/L in 2025; down from 420 µg/L in 2014), and BH21-IR (186 µg/L in 2025; down from 974 µg/L in 2014). The decrease in barium concentrations observed at BH21-IR since 2015 is similar to the stabilizing chloride and declining ammonia trends observed at this location. Barium has fluctuated at BH3-IR; from 2016 to 2024, expanded metals analysis was only completed during the summer sampling events. In 2025, the expanded metals analysis was completed for all three samples; barium ranged from 382 µg/L to 505 µg/L, and cobalt fluctuated between 2 and 4.6 µg/L. Phosphorous remains elevated at BH3-IR, similar to historically observed concentrations. Barium concentrations at BH2-II have fluctuated since 2012 but have increased in recent years. Excluding BH2-II, these concentrations are relatively low and reflect near background or natural conditions (observed at BH14) and therefore support the interpretation that landfill-related impacts are not present at these locations.

5.4.3 Downgradient of Compost Pad

Groundwater quality in the Sand Aquifer downgradient of the composting pad is monitored at BH29-I and 30-I to the southwest and southeast, respectively. Average concentrations for the selected indicator parameters in 2024 are presented in Table 5-10.

Table 5-10: Downgradient of Compost Pad, Sand Aquifer Water Quality Average Concentrations (2025)

Parameter	BH29-I	BH30-I
Alkalinity	411	796
Chloride	57	263
Iron	4.5	14.9
Manganese (µg/L)	583	290
Ammonia	0.071	0.49
TKN	0.803	1.2
DOC	7.3	11.8

Note: All concentrations in mg/L unless otherwise stated.

The concentrations of most indicator parameters, including ammonia (average 0.07 mg/L), remain low downgradient of the new composting pad at BH29-I. However, chloride has exhibited an increasing trend since 2017 (maximum concentration of 94 mg/L, average 56 mg/L in 2025); the chloride concentrations in 2025 at monitor BH29-I were reported to be anomalously low in the spring, however returned to their typical range in the following summer and fall samples. Elevated concentrations of chloride (average 263 mg/L) and iron (average 14.9 mg/L) are reported at BH30-I; these concentrations were similar to 2024 (200 mg/L and 16.0 mg/L, respectively). Ammonia concentrations in 2025 remain low (average 0.49 mg/L, slight increase from 0.2 mg/L in 2024). Elevated concentrations of metals including barium (average 2,037 µg/L) are reported at BH30-I, consistent with previous years. It is noted that barium concentrations at BH30-I are higher than reported in leachate. Metals concentrations were considerably lower at BH29-I (average barium concentration of 215 µg/L).

The water quality at monitors BH29-I and BH30-I is within the range of values typically observed downgradient of composting operations, noting that at BH30-I, chloride and ammonia have exhibited a recent increasing trend. As these two parameters are also considered to be more general leachate indicators, the data do not suggest that composting operations have impacted water quality at these downgradient monitors above any impacts expected to be seen from the influence of the landfilled waste.

5.4.4 Downgradient of Landfill

Downgradient (and cross-gradient) water quality in the confined Sand Aquifer is monitored at BH5-IR, BH17-III, BH22-IR, and BH26, all located between the landfill and Lake Simcoe (Figure 2). Trigger concentrations for leachate indicator parameters at these wells have been developed based on their location between the landfill and Lake Simcoe and are used as part of the trigger assessment for further actions, as described in the ECA and Golder (2006). Evaluation of trigger concentrations at these wells is discussed in Section 7.1. Average mean concentrations for the selected indicator parameters at downgradient Sand Aquifer locations in 2025 are presented in Table 5-11.

Table 5-11: Downgradient Sand Aquifer Water Quality - Selected 2025 Average Indicator Parameters

Parameter	BH5-IR	BH17-III	BH22-IR	BH26[1]
Alkalinity	956	415	335	233
Chloride	128	211	150	76.6
Iron	58	16	10.8	0.23
Manganese (µg/L)	2970	1660	3370	0.192
Ammonia	0.079	0.14	0.29	0.029
TKN	0.76	0.42	0.60	0.83
DOC	4.24	5.07	7.00	11.2

Note:
All concentrations in mg/L unless otherwise stated.
1 Average of spring and summer sampling events, location interpreted to be blocked during fall sampling event.

Alkalinity, chloride and TKN are moderately to significantly elevated at BH5-IR, BH17-III, BH22-IR, and BH26 and are considered to reflect impact from the landfill. Ammonia concentrations are relatively low, indicating that this parameter is attenuated between the landfill and Lake Simcoe. This is notable at BH22-IR (average 0.29 mg/L), in comparison to the higher concentrations upgradient at BH21-IR (average 10.5 mg/L).

Following the replacement of BH5-IR in the summer of 2010, an appreciable increase in the concentration of several major ions and indicator parameters was noted, as discussed in the 2011 annual report (Golder, 2011a). It is noted that in the fall of 2022, DOC reached a historic maximum at BH5-IR (138 mg/L). In 2025, analysis of samples from this location indicated the typical range for DOC (average 4.2 mg/L). It is noted that the chloride concentration reached a new historic maximum in October 2021 (180 mg/L) however, chloride has since declined; average chloride concentration at BH5-IR was 128 mg/L in 2025, similar to those observed prior to 2018. Concentrations of ammonia remained within historic normal levels in 2025 (0.08 mg/L in 2025).

At BH17-III, concentrations of chloride and other major ions have remained relatively stable since 2012 (average 211 mg/L in 2025). Ammonia concentrations in 2025 (average 0.14 mg/L) remained similar to historical concentrations. Higher chloride (and sodium) concentrations at this well compared to the others downgradient of the landfill may reflect, in part, impacts from the snow dump previously located upgradient.

At BH22-IR, chloride and sodium concentrations increased until 2012, accompanied by increasing iron and manganese trends. Since that time, chloride and sodium concentrations have fluctuated, but remain relatively stable.

Chloride, calcium and sodium concentrations were increasing moderately at BH26 until 2012 but appear to have stabilized since that time (average chloride concentration of 77 mg/L in 2025). Water quality at this well appears to be seasonally affected, in that concentrations of several major ions and TKN are typically lower in the spring months than the summer and fall sampling rounds. This is considered to reflect the shallow depth of the screen of this well, which is closer to surface and spans both the Sand Aquifer as well as the shallower units.

Expanded metals analyses were performed on samples collected from BH5-IR, BH17-III, BH22-IR and BH26 in 2025, in order to supplement parameters potentially useful as leachate tracers. Barium concentrations at BH5-IR remained elevated in 2025 (average of 3,533 µg/L), which is higher than reported in leachate (average of 590 µg/L at BH3-IIR) and wells in the vicinity of the landfill (e.g., 360 µg/L at BH14-I). Barium concentrations are also elevated at BH17-III (average 584 µg/L) as is the case in many, although not all (i.e., not BH22-IR and BH26), downgradient Sand Aquifer wells. As noted in Section 5.3.4, barium concentrations greater than those reported in leachate were also reported downgradient of the compost pad at BH30-I (average 2,037 µg/L). These concentrations are well above the background in the Sand Aquifer reported at BH1-IR (132 µg/L in 2025). Elevated concentrations of barium are found outside of the landfill influence at BH25 (412 µg/L in 2025). It is considered likely the elevated concentrations of barium at BH5-IR and BH30-I are reflective of influence from the landfill and could represent variability in source leachate concentrations. The downgradient receptor is surface water; there is no standard (such as PWQO) for barium.

Based on the elevated concentrations found in leachate at BH3-IIR, cobalt and nickel have historically been considered to also be potential indicators of leachate impact. The concentrations of cobalt at BH17-III (maximum of 1.3 µg/L at BH17-III) exceeded the PWQO limit in all sampling events in 2025. Nickel concentrations remained below the PWQO at all downgradient locations in the confined aquifer. Concentrations of cobalt at BH5-IR (<1 µg/L in 2025) are inferred to remain below background concentration observed at BH1-IR (0.49 µg/L). Concentrations at BH17-III (maximum 1.3 µg/L) are above background concentrations, but well below those observed in leachate at BH3-IIR in 2025 (average 17.4 µg/L in 2025). As these parameter concentrations have remained low for the majority of the monitoring events in the program's history, these parameters remain as a secondary consideration of leachate impacts on downgradient water quality.

5.4.5 Upper Confining Unit

Groundwater in the upper confining unit is monitored at downgradient BH17-IVR. The water quality at BH17-IVR is characterized by elevated chloride and sodium, and to a lesser extent manganese. The water quality results in 2025 were largely consistent with those observed historically. Average concentrations of ammonia (0.02 mg/L), chloride (84 mg/L), sodium (64 mg/L) and other parameters were relatively similar to or lower than those reported in 2024 and remain lower than historical maximum concentrations observed in September 2012. Comparison of the water quality observed at BH17-IVR to the underlying BH17-III in the Sand Aquifer indicates similar groundwater quality, with the exceptions of iron and manganese, which are significantly greater in the Sand Aquifer. Observed concentrations of these metal parameters were similar to the observed historic range of concentrations at this location.

5.5 VOC Monitoring Results

As noted in Section 3.3, VOC have been analyzed from selected wells since 2005. In 2025, VOC were detected at BH3-IR, BH3-IIR, BH6R, BH21-IR, BH21-IIR, and BH22-IR; The detected VOC include benzene, chlorobenzene, 1,4-dichlorobenzene, methyl tert-butyl ether (MTBE), toluene, and o-xylene, and m,p-xylene. A summary is provided below and the complete results are presented in Table B-6. The highest concentrations of VOC were found in leachate at BH3-IIR, at concentrations ranging from 0.33 µg/L to 5.18 µg/L, and at the toe of the landfill at

BH21-IIR, at concentrations ranging from 1.7 µg/L to 211 µg/L. Concentrations at the other locations were less than or equal to 6 µg/L, and typically near the method detection limit (MDL).

- Benzene (BH3-IR, BH3-IIR, and BH6R) – 0.8 µg/L to 5.18 µg/L;
- Chlorobenzene (BH3-IIR, BH21-IR and BH21-IIR) – 1.9 µg/L to 5.9 µg/L;
- 1,4-Dichlorobenzene (BH3-IIR, BH21-IR and BH21-IIR) – 0.8 µg/L to 1.7 µg/L;
- Toluene (BH21-IIR) - 211 µg/L;
- Methyl tert-butyl ether (BH3-IIR) – 1.7 µg/L to 2.9 µg/L;
- m,p-xylene (BH3-IIR) – 1.3 µg/L to 2.3 µg/L; and,
- o-xylene (BH3-IIR) – 0.3 µg/L to 0.6 µg/L.

The identification and concentrations of VOC at BH3-IIR are typical of those observed in leachate from similarly sized landfills.

6.0 SURFACE WATER QUALITY

The 2025 surface water monitoring program consisted of water quality sampling in the spring, summer and fall at the locations listed in Table B-3 and shown on Figure 2.

Surface water quality is assessed with respect to the PWQO (MOE, July 1994, reprinted February 1999). Interim PWQO are used for several parameters, including phosphorous, which has tiered criteria depending on the nature of the water body. The criteria for phosphorous varies from 0.03 mg/L for rivers and streams to 0.02 mg/L for lakes (ice-free period). Phosphorus concentrations herein are compared against the default lake criteria (0.02 mg/L) regardless of location, as all monitoring locations ultimately discharge to Lake Simcoe. Phosphorous concentrations and loading were previously assessed in the Kitchener Street Waste Diversion Site Assessment Update (Golder, 2011c).

A statistical analysis was completed for the surface water quality in 2005, to determine if the water quality data in Mill Creek and Ben's Ditch was impacted by the landfill (Golder, 2005b). The results indicated that there is no statistically significant impact of the landfill on the Mill Creek Diversion for the parameters examined (chloride, DOC, phosphorous, ammonia, phenols, cadmium and lead). This was confirmed during similar statistical analyses undertaken as part of the 2010 assessment reports (Golder, 2011b).

Surface water monitoring in 2025 was carried out on eight days, as noted in Table 6-1 which also provides a summary of precipitation events prior to the sampling events. Precipitation events were determined based on the climate data obtained from Environment Canada for the Barrie-Oro DDD (Station Number 6117700)[1]. Surface water quality data for the monitoring stations listed in Table 6-1 are contained in Appendices D and E.

Table 6-1: Climate Conditions Prior to and During Surface Water Monitoring Events

Date	Sampling Event	Stations Monitored	Total Precipitation (mm) (Barrie-Oro Station No. 6117700)[1]	Monitoring Condition
April 19	-	-	6.7	-
April 20	-	-	0.0	-
April 21	-	-	2.0	-
April 22	Spring	S1, S-2, S-3, S-4, S-5, S-6, S-7, S-8	0.0	Sunny
April 23	Spring	S-11	0.0	Sunny

Date	Sampling Event	Stations Monitored	Total Precipitation (mm) (Barrie-Oro Station No. 6117700)[1]	Monitoring Condition
June 11	-	-	0.0	-
June 12	-	-	0.0	-
July 13	-	-	0.0	-
July 14	Summer	S-6, S-8, S-9, S-11, S-14, S-14-1, S-14-2, S-14-3, S-14-4, S-14-5	0.0	Sunny
July 15	Summer	S-7, S-18, S-19	0.0	Sunny
July 16	Summer	S-1, S-2, S-3, S-4	0.0	Sunny
October 4	-	-	0.0	-
October 5	-	-	0.0	-
October 6	-	-	0.0	-
October 7	Fall	S-1, S-2, S-3, S-7, S-8, D-1, D-2, D-3, D-4, D-5, D-6	11.3	Rain/Overcast
October 12	-	-		-
October 13	-	-	0.0	-
October 14	-	-	0.0	-
October 15	Fall	S-6	0.0	Sunny
October 16	Fall	S-4, S-11	0.0	Sunny

[1] Environment Canada, Barrie Oro DDD, Station 6117700, https://climate.weather.gc.ca/; last accessed: January 21, 2026.

Based on a review of climate data prior to and during surface water monitoring events, the 2025 monitoring events were carried out in primarily dry-weather/baseflow conditions; the October 7th monitoring date occurred during wet conditions.

6.1 Ben's Ditch North of Highway 12

Sampling upstream of the Site in Ben's Ditch is undertaken at monitoring station S-8, located north of Highway 12B (see Figure 2).

Exceedances of the PWQO reported at S-8 in 2025 include:

- **Iron (PWQO 0.3 mg/L):** 0.306 mg/L to 0.621 mg/L, average 0.454 mg/L;
- **Phenols (PWQO 1 µg/L):** 1.1 µg/L to 2.4 µg/L, average 1.9 µg/L; and,
- **Phosphorous (PWQO 0.02 mg/L):** 0.021 mg/L to 0.058 mg/L, average 0.038 mg/L.

Monitoring station S-8 is representative of the Bens Ditch upstream of Highway 12. Concentrations of most key parameters at S-8 are generally consistent with historical norms; however, chloride and sodium concentrations are notably elevated and have been exhibiting long-term increases related to anthropogenic impacts (i.e., road salting). In 2025, iron remained at typical concentrations observed at this location in the past (average of 0.45 mg/L in 2025) following a new historic maximum of 3.5 mg/L observed in the fall 2023 sample. Concentrations of phenols at this location have recently fluctuated near the PWQO for phenols (1 µg/L) since 2017. Elevated concentrations of iron, phosphorous and phenols (and other organic parameters) are typical of discharge from peat and wetlands and may be contributing to the elevated concentrations observed at this location.

6.2 Mill Creek Diversion

The Mill Creek Diversion water quality is monitored at the upstream S-7 monitoring station and the downstream S-6 monitoring station.

Exceedances of the PWQO at S-6 and S-7 include:

- **Aluminum (PWQO 75 µg/L):** S-6 (<3 µg/L to 244 µg/L, average 90 µg/L), and S-7 (35 µg/L to 130 µg/L, average 69 µg/L);
- **Iron (PWQO 0.3 mg/L):** S-6 (0.127 mg/L to 0.938 mg/L, average 0.416 mg/L), and S-7 (0.223 mg/L to 0.518 mg/L, average 0.374 mg/L);
- **Phenols (PWQO 1 µg/L):** S-6 (1.2 µg/L to 15 µg/L, average 5 µg/L), and S-7 (<1 µg/L to 2.5 µg/L, average 1.3 µg/L); and,
- **Phosphorous (PWQO 0.02 mg/L):** S-6 (0.013 mg/L to 0.050 mg/L, average 0.032 mg/L), and S-7 (0.014 mg/L to 0.026 mg/L, average 0.019 mg/L).

Sodium and chloride are elevated at both Mill Creek monitoring stations, indicative of road salting impacts within the catchment area. Concentrations of chloride and sodium are increasing over time (average chloride 152 mg/L at S-6 and 155 mg/L at S-7 in 2025), however it is noted that chloride and sodium decreased from historic highs in 2022 (200 mg/L at S-6 and 190 mg/L at S-7). Elevated concentrations of iron and phosphorous (and other organic parameters, including phenols) are typical of discharge from peat and wetlands and may be contributing to the elevated concentrations observed at these locations. The absence of landfill indicators other than chloride and sodium indicate that the landfill is not notably influencing quality in the Mill Creek Diversion.

6.3 Ben's Ditch and WWTC Outfall

Sampling along Ben's Ditch was undertaken at four monitoring stations: S-1 which is downstream of the WWTC outfall and mixing zone prior to Lake Simcoe, S-2 which monitors the WWTC outfall, S-3 which is located a short distance downstream of the WWTC outfall and reflects the water quality in the mixing zone from the outfall into the ditch, and S-4 which is upstream of the WWTC and monitors runoff from the Snow Disposal Area (SDA).

Exceedances of the PWQO in Ben's Ditch and WWTC outfall monitoring stations include:

- **Aluminum (PWQO 75 µg/L):** S-2 (232 µg/L to 436 µg/L, average 323 µg/L), S-3 (140 µg/L to 498 µg/L, average 260 µg/L), and S-4 (37 µg/L to 184 µg/L, average 103 µg/L); and,
- **Cobalt (PWQO 0.9 µg/L):** S-2 (2.7 µg/L to 47 µg/L, average 19 µg/L), S-3 (1.1 µg/L to 29.2 µg/L, average 12.9 µg/L); and,
- **Iron (PWQO 0.3 mg/L):** S-4 (0.23 mg/L to 0.57 mg/L, average 0.41 mg/L); and,
- **Phenols (PWQO 1 µg/L):** S-2 (1.2 µg/L to 3.7 µg/L, average 2.1 µg/L), S-3 (1.2 µg/L to 2.7 µg/L, average 1.8 µg/L) and S-4 (<1 µg/L to 1.9 µg/L, average 1.1 µg/L); and,
- **Phosphorus (PWQO 0.02 mg/L):** S-2 (0.07 mg/L to 0.19 mg/L, average 0.13 mg/L), S-3 (0.039 mg/L to 0.264 mg/L, average 0.129 mg/L), and S-4 (0.015 mg/L to 0.031 mg/L, average 0.024 mg/L.

Elevated sodium and chloride are observed at all three monitoring stations and were highest at S-2 in 2025. The concentrations of these parameters at S-2 have notably increased since 2014 and are higher than those of upstream stations. Elevated nutrient parameter nitrate is noted at S-1, S-2, and S-3, with all three locations recording new historic maximum concentrations. Concentrations of TKN are noted to be similar to pre-2024 levels. The iron concentrations at the WWTC outfall (S-2) returned to typical values in 2025, following the elevated concentrations reported in 2024. It is noted that the ECA for the WWTC mandates a limit of 0.1 mg/L for phosphorus effective June 2015. The City has indicated that the WWTC was operated in compliance with its

Environmental Compliance Approval in 2025, exhibiting an average annual concentration of phosphorus in plant effluent of 0.1 mg/L. The observed metals and ammonia concentration changes at S-3 relative to S-4 (including increases in aluminum and nitrate) are interpreted to be predominantly sourced from the WWTC, not the landfill. It is noted that aluminum is used in the phosphorous removal process at the WWTC, which may contribute to the elevated aluminum reported downstream.

Downstream of the WWTC outfall and mixing zone, Ben's Ditch flows to the east towards monitoring station S-1. Exceedances of the PWQO in the Ben's Ditch discharge to Lake Simcoe location S-1 include:

- **Aluminum (PWQO 75 µg/L):** 120 µg/L to 265 µg/L, average 179 µg/L ;
- **Cobalt (PWQO 0.9 µg/L):** 1.2 µg/L to 28 µg/L, average 12 µg/L ;
- **Phenols (PWQO 1 µg/L):** 1.2 µg/L to 3.9 µg/L, average 2.2 µg/L ; and,
- **Phosphorus (PWQO 0.02 mg/L):** 0.042 mg/L to 0.069 mg/L, average 0.074 mg/L .

Elevated concentrations of chloride and sodium are also observed at monitoring station S-1, as are slightly elevated concentrations of the nutrient parameters nitrate and TKN. Sodium and chloride continue to exhibit an overall increasing trend since 2011 (88 to 135 mg/L); in 2025, peak concentrations were 141 mg/L (sodium) and 262 mg/L (chloride). This increasing trend is considered to be the result of urban runoff (e.g., road salting). Given the low concentrations of landfill indicator parameters, landfill leachate is not expected to significantly contribute to the observed concentrations.

6.4 Lake Simcoe

The water quality along the northern shoreline of Lake Simcoe downgradient of the WDS is monitored at two stations (southwest to northeast): S-9 and S-11. Monitoring station S-14 is located approximately one km offshore of the landfill. Location S-9 and S-14 were only sampled once in 2025, during the summer, whereas S-11 was sampled during the spring, summer and fall.

Exceedances of the PWQO in the Lake Simcoe samples include:

- **Aluminum (PWQO 75 µg/L):** S-11 (6 µg/L to 79 µg/L, average 52 µg/L);
- **Cobalt (PWQO 0.9 µg/L):** S-11 (0.2 µg/L to 3.9 µg/L, average 1.5 µg/L); and
- **Phenols (PWQO 1 µg/L):** S-11 (<1 µg/L to 7.1 µg/L, average 2.4 µg/L); and,
- **Phosphorous (PWQO 0.02 mg/L):** S-11 (0.018 mg/L to 0.048 mg/L, average 0.025 mg/L).

Chloride and sodium concentrations at S-9, S-11, and S-14 continue to increase and ongoing contribution of road salt to Lake Simcoe in the area of the WDS. Collection of a sample at this location provides a measure of the overall quality of Lake Simcoe but is not expected to be measurably influenced by leachate impacts relative to the inputs from the urban runoff and WWTC discharge as well as the influence of inputs related to the wetlands surrounding the WDS.

Concentrations of other indicator parameters (excluding iron) at the background station S-14 were low in 2025 and remain within historical norms; this includes nitrate and ammonia, which were very low (0.02 mg/L for both). Slightly elevated concentrations of the nutrient parameters nitrate, ammonia and TKN were historically observed at the monitoring stations S-9 and S-11, however this has fluctuated over time. Nitrate and TKN remained slightly elevated in 2025 at these locations, however reported ammonia concentrations were low or not detected at these

locations in 2025. Concentrations of phosphorous observed at S-9 and S-11 are typically slightly elevated in comparison to the concentrations from the deeper lake sample S-14; in 2025, phosphorous remained elevated at S-11.

6.5 CN Rail Bed Drain

Two surface water monitoring locations are located within the CN Rail bed Drain to assess the quality of surface flow originating west of the Site, including the Huronia Regional Centre compound (S-19) and an industrial subdivision (S-18). S-19 was dry during the summer 2025 sampling round.

Exceedances of the PWQO in the CN Rail bed Drain include:

- **Iron (PWQO 0.3 mg/L):** S-18 (0.47 mg/L);
- **Phosphorus (PWQO 0.02 mg/L)**: S-18 (0.047 mg/L);
- **Phenols (PWQO 1 µg/L):** S-18 (2.1 µg/L); and,
- **Zinc (PWQO 20 µg/L):** S-18 (38 µg/L).

Chloride and sodium concentrations are elevated at S-18 (239 mg/L and 144 mg/L, respectively) but remain within historical norms. It is noted that nitrate concentrations have decreased since 2010; the source and cause for decline are not known with certainty but could reflect changes in land use at the upslope Huronia Regional Centre and the commercial area west of the Site. The concentrations of the other selected indicator parameters remained within historical norms. Elevated phosphorous and metals including iron and zinc were reported in 2025; these are considered to potentially reflect entrained sediment. The water quality at S-18 is indicative of influences from off-site drainage.

6.6 Surface Water Quality Summary

Exceedances of the PWQO for some parameters in the surface water samples were identified for all locations sampled in 2025. As noted above, the observed exceedances in the water bodies adjacent to the WDS are not reflective of impacts from the landfill. The data do not suggest that measurable impacts of the WDS on Lake Simcoe are occurring. The observed changes in water quality are considered to be due to the inputs from the urban runoff and WWTC discharge as well as the influence of inputs related to the wetlands surrounding the WDS.

Elevated concentrations of phosphorus are observed at the downstream station S-1 in Ben’s Ditch, similar to previous years. Ammonia remained within the historic range in 2025 (average 1.76 mg/L). The elevated concentration of nitrate increased in 2025, reported at an average of 9 mg/L, compared to the previous average reported value of 7.1 mg/L in 2024. The higher concentrations for nitrate at the downstream station S-1 location are considered to be related to outflow from the WWTC (as sampled at S-2). This conclusion is based on the observation that concentrations of other typical leachate indicators are not significantly higher at S-1, which is supported by the results of the t-test for chloride, DOC, phenols, cadmium and lead between the upstream station S-8 and the downstream station S-1 along Ben’s Ditch as reported in Golder (2005b). The elevated concentrations of nitrate and phosphorus in the WWTC effluent relative to upstream water quality in Ben’s Ditch is confirmed by the historically higher concentrations at the WWTC effluent station S-2. It is further noted that nitrate concentrations at the Ben’s Ditch downstream station S-1 are historically similar (albeit lower) and correspond to concentrations at the WWTC effluent station S-2.

Elevated concentrations of chloride, manganese, iron, phenols and phosphorous are observed at upgradient, “background” surface water location S-8 (located along Ben’s Ditch) indicating that off-site sources north of Highway 12 are contributing to the concentrations of these parameters at the discharge to Lake Simcoe. Low concentrations of phosphorous were detected at S-7 (western part of the Mill Creek Diversion) in 2025, and concentrations at S-7 are typically less than the concentrations observed downstream in the eastern portion of the Mill Creek Diversion (S-6), and after the confluence of the Mill Creek Diversion and Ben’s Ditch (S-4), indicating that the majority of the off-Site contribution to phosphorous is from the north.

Phosphorous concentrations at the WWTC Effluent (S-2) (average 0.128 mg/L in 2025) are elevated above the PWQO and above concentrations observed at S-4 (average 0.024 mg/L in 2025) suggesting that the predominant contributor to phosphorous concentrations to the Lake Simcoe monitoring locations along Ben’s Ditch is from the S-2 WWTC effluent. Along the stretch of Lake Simcoe shoreline south of the landfill, phosphorous concentrations are typically higher towards the northeast at S-11 (average 0.025 mg/L in 2025). Elevated concentrations above the PWQO were reported at S-11 in 2025 (phosphorous, aluminum, cobalt, and phenols). These elevated concentrations in the are considered to potentially reflect entrained sediment.

6.7 On-Site Stormwater Runoff Sampling

Stormwater runoff is sampled at six locations, D-1 to D-6 (Figure 2), to determine if significant evidence of landfill impact (e.g., contribution of leachate seepage to runoff) is present. Given that these samples are collected from active runoff, prior to settlement in the wetland areas next to the landfill, entrained sediment is present and therefore some elevated metal parameter concentrations are expected. As a result, review of the data focuses on significant changes in concentration and the presence of elevated ammonia.

In 2025, two surface water stations (D-5 and D-6) were sampled in the fall, on October 7. It is noted that the remaining stations (D-1 through D-4) were not sampled during this event as no flowing water was observed (insufficient water for sampling). All six stations in the drainage ditch network (D-1 through D-6) were dry during the spring and summer sampling rounds and could not be sampled.

Station D-1 is located in the low-lying wet area along a drainage path through this feature towards Shingle Bay (Lake Simcoe) where Ministry staff observed “yellow water” in 2009; Station D-2 is located at the toe of the Cell No. 1 portion of the landfill in the roadside ditch, at the intersection of the perimeter road with the northern Fire Road; and Station D-3 is located at the upstream end of the culvert at the southeast end of the East Perimeter Road. Station D-4 is located to the northwest of Cell No. 1; D-5 is located at the toe of Cell No. 9 and D-6 is located in the ditch to the south of Cell No. 9.

The concentrations of indicator parameters were generally similar to previous years at D-5 and D-6, including chloride and sodium. For these parameters, concentrations of 372 mg/L and 194 mg/L (respectively) were reported at D-5, and at location D-6 the concentrations were reported at 249 mg/L and 140 mg/L. Elevated concentrations relative to the PWQO in the stormwater runoff samples were noted at the following locations:

- **Aluminum (PWQO 75 µg/L):** D-5 (513 µg/L) and D-6 (503 µg/L);
- **Iron (PWQO 0.3 mg/L):** D-5 (2.61 mg/L) and D-6 (2.94 mg/L);
- **Phenols (PWQO 1 µg/L):** D-5 (2 µg/L) and D-6 (2 µg/L);
- **Phosphorus (PWQO 0.02 mg/L):** D-5 (0.099 mg/L) and D-6 (0.284 mg/L);
- **Zinc (PWQO 20 µg/L):** D-6 (50.6 µg/L).

The elevated metal parameters observed at D-5 and D-6 are considered to reflect entrained sediment. The total ammonia concentration is used to calculate the un-ionized ammonia proportion based on the field pH and field temperature readings. Un-ionized ammonia concentrations are presented in Table 6-2.

Table 6-2: Un-ionized Ammonia Concentrations at Stormwater Runoff Locations

Station	Date	Field pH	Field Temperature (°C)	Total Ammonia Concentration (mg/L)	Calculated Un-ionized Ammonia Concentration (mg/L)
D-5	07 October 2025	8.2	14.6	0.04	<0.001
D-6	07 October 2025	8.5	13.8	0.03	<0.001

Total ammonia concentrations ranged from 0.03 mg/L at D-6 to 0.04 mg/L at D-5; ammonia concentrations were less than or similar to those reported in previous years. The maximum ammonia concentration of 0.04 mg/L represents an un-ionized ammonia of concentration of <0.001 mg/L. TKN was slightly elevated at both D-5 and D-6; however, concentrations were similar to those observed in recent years. The highest concentration of TKN was observed at these locations in 2025 was 1.5 mg/L at D-5. No leachate seeps were noted in this area in 2025. At location D-5, ammonia and TKN remain low following the landfill cap construction being completed in 2022. At D-6, concentrations of TKN and ammonia have remained low since before the landfill cap construction.

7.0 TRIGGER AND CONTAMINANT LOADING ASSESSMENT

7.1 Groundwater Trigger Mechanism and Assessment

A groundwater trigger mechanism and response plan (Golder, 2006) was proposed to address Condition No. 35 of the former ECA. Through communication with the Ministry and the City in late 2006, the trigger mechanism and response plan were amended and accepted by the Ministry as per correspondence dated January 2, 2007. The response plan flowchart in the event of a trigger exceedance is included in Appendix F.

As shown in Table 7-1, trigger concentrations have been established for ammonia, zinc and toluene, to be applied at monitoring locations in the Sand Aquifer at BH5-IR, BH17-III, BH22-IR and BH26. All four monitoring locations are located downgradient of the landfill and close to the Lake Simcoe shoreline.

Table 7-1: Groundwater Trigger Parameters

Parameter	Trigger Concentration
Ammonia	7 mg/L
Zinc	0.025 mg/L (25 µg/L)
Toluene	0.010 mg/L (10 µg/L)

The PWQO for ammonia is based on un-ionized concentrations (0.02 mg/L). A proxy total ammonia criterion of 7 mg/L has been calculated based on the groundwater temperature and pH measured in the field at the trigger wells during the August 2005 sampling round (approximate average values of 7.0 and 12ºC for pH and temperature, respectively). This is considered a conservative means of evaluating the potential impact of the landfill on Lake Simcoe from groundwater discharge, since the PWQO applies to surface water and dilution of the groundwater discharge in the surface water will be substantial. The threshold for acute lethality for un-ionized ammonia of 0.2 mg/L should also be considered for the groundwater discharge. In this case, the objective for un-ionized ammonia would be on the order of 70 mg/L.

The concentrations of the trigger parameters in 2025 are summarized in Table 7-2.

Table 7-2: Trigger Parameter Concentrations

Trigger Locations	Ammonia (mg/L) Trigger: 7 mg/L	Zinc (mg/L) Trigger: 0.025 mg/L)	Toluene (mg/L) Trigger: 0.010 mg/L
BH5-IR (May-Jul-Oct)	0.06 – 0.07 – 0.10	<0.01 - <0.01 - <0.01	<0.0005 – <0.0005 – <0.0005
BH17-III (May-Jul-Oct)	0.15 – 0.17 – 0.11	<0.01 - <0.01 - <0.001	<0.0005 – <0.0005 – <0.0005
BH22-IR (May-Jul-Oct)	0.27 – 0.27 – 0.32	<0.01 - <0.01 - <0.001	<0.0005 – <0.0005 – <0.0005
BH26 (May-Jul-Oct)	<0.01 – 0.03 – 0.03	<0.001 – 0.003 - <0.001	<0.0005 – <0.00051

Bold Red Text – trigger exceedance

[1] Only the April/July VOC samples were collected at BH26 in 2025, field notes indicate the location was dry during the October monitoring event

There were no exceedances of the trigger thresholds for ammonia, zinc, or toluene at the four trigger locations sampled in 2025. The most recent reported trigger threshold exceedance occurred in 2023; zinc exceeded the trigger threshold in April 2023 at BH5-IR. As subsequent samples in 2023 through 2025 from this location indicate, concentrations of zinc are aligned with historical values and the 2023 result for zinc is considered anomalous and should be ignored. Based on the results, remedial actions are not required.

7.2 2025 Contaminant Loading Evaluation

The 2025 contaminant loading calculations are based on groundwater flux as calculated and reported by Golder (2005b) based on the same methodology used in the 2010 Annual Report (Golder 2011a). Golder developed a simplified geologic model utilizing three horizontally layered geologic units (shallow overburden, confining unit, and Sand Aquifer), using the hydraulic conductivities summarized in Table 4-1. The landfill was subdivided into north, central, and south sections, based on differing thicknesses of the three geologic units in these areas. Considering hydraulic conditions in the area of the landfill have remained similar to those presented in the modelling report, the fluxes and flow rates are deemed to be valid in 2025.

7.2.1 Groundwater Flux

Golder (2005b) modelled contaminant loading to adjacent surface water features based on two groundwater flow pathways as follows:

- Pathway 1: Downward groundwater flow from the landfill, through the peat layer and the confining unit, into the underlying Sand Aquifer and discharging to Lake Simcoe.
- Pathway 2: Downward groundwater flow from the landfill and into the shallow groundwater, followed by horizontal, radial groundwater flow, discharging to Mill Creek and Ben's Ditch.

The groundwater fluxes for these pathways are summarized in Table 7-3.

Table 7-3: Groundwater Fluxes

Pathway	Flux (m3/yr)
	Golder (2005b)
Pathway 1 (flux from the landfill to the Sand Aquifer)	37,192
Pathway 2 (flux from the landfill to Mill Creek)	810
Pathway 2 (flux from the landfill to Ben's Ditch)	2,845

Total flux as reported in Golder (2005b) was 40,847 m^3/y.

7.2.2 Leachate Source Concentration

The average 2025 leachate concentrations of the selected indicator parameters at BH3-IIR are presented in Table 7-4 along with the values assumed for the modelling in Golder (2005b).

Table 7-4: Average Leachate Concentrations - Selected Indicator Parameters

Parameter	BH3-IIR Observed	BH3-IIR Modeled
	2025 Average	**Golder (2005b)**
Chloride (mg/L)	577	1,000 [1]
Ammonia (mg/L)	285	200 [1]
Toluene (µg/L)	<0.5	1.0 [2]
Cadmium (µg/L)	0.04	50 [2]
Lead (µg/L)	2.8	600 [2]
Zinc (µg/L)	22.5	4,000 [3]

Notes:
1 Based on measured concentrations in 2005
2 Based on O.Reg. 232/98 (MOE, 1998)
3 Based on values from other Ontario Landfill Sites as reported by Rowe et. al., 1994.

Concentrations of chloride, ammonia, and toluene in 2025 are similar to, or less than, the values used in the Golder modelling study. The concentration of ammonia is higher than predicted based on 2004 data from Golder (2005), and in 2025 at BH3-IIR, an increasing trend continued. Concentrations of the metal parameters are significantly lower than the values assumed based on the Ministry Landfill Standards (O. Reg. 232/98) and therefore the results of the Golder model can be considered conservative for metals.

7.2.3 Contaminant Loading Calculation

Expanded analyses for metals and VOC were not undertaken at BH2-III and BH14-IIIR in 2025. Consequently, cadmium, lead, zinc and toluene concentrations were obtained from the average 2025 concentrations at leachate monitoring location BH3-IIR to provide a conservative estimate of loading to Mill Creek and Ben's Ditch. Where reported concentrations were below detection limits, the MDL was used to provide conservative loading estimates for these trace parameters. Contaminant loading assessments for the shallow overburden discharge to surface water are shown in Table 7-5.

Table 7-5: 2025 Contaminant Loading Calculations

Shallow Overburden Discharge to Mill Creek versus Ben's Ditch

Parameter	2025 Average Concentration BH14-IIIR (Mill Creek)	2025 Loading BH14-IIIR (Mill Creek)[2]	2025 Average Concentration BH2-III (Ben's Ditch)	2025 Loading BH2-III (Ben's Ditch)[3]
	(mg/L)	(kg/year)	(mg/L)	(kg/year)
Chloride	87	70.5	320	909.5
Ammonia	2.12	1.7	16.83	47.9
Toluene	<0.0005 [1]	0.00041	<0.0005 [1]	0.001
Cadmium	0.00004 [1]	0.00003	0.00004 [1]	0.0001
Lead	<0.0028 [1]	0.00225	<0.0028 [1]	0.0079
Zinc	0.0225 [1]	0.018	0.0225 [1]	0.064

Notes:
1 Parameter concentration based on BH3-IIR 2025 average
2 Mill Creek groundwater flux = 810 m3/y (Golder, 2005b)
3 Ben's Ditch groundwater flux = 2,845 m3/y (Golder, 2005b)

The combined contaminant loading from the shallow overburden groundwater to Mill Creek (BH14-IIIR) and Ben's Ditch (BH2-IIIR) is shown in Table 7-6, along with predicted loading values from 2004 (Golder, 2005b).

Table 7-6: Combined Contaminant Loading - Shallow Overburden Groundwater Discharge to Mill Creek and Ben's Ditch

Parameter	Total 2025 Loading	Predicted Loading 2
	(kg/y)	(kg/y)
Chloride	980	1,825
Ammonia	50	365
Toluene	0.002[1]	0.0037
Cadmium	0.0001[1]	0.000037
Lead	0.01[1]	0.000037
Zinc	0.08[1]	0.73

Notes:
1 Parameter concentration based on BH3-IIR 2025 average
2 Golder (2005b), presented only in graphical format for calendar years 2004 to peak concentration (approximately year 2050)

The lower calculated mass loading for chloride, ammonia, toluene and zinc in 2025, relative to those predicted in Golder (2005b), reflect natural attenuation of these parameters as well as the conservative inputs of some parameters used in the modelled loading estimates. The loading estimates for cadmium and lead are higher than predicted in the Golder model. This is a direct function of using conservative data from BH3-IIR as a proxy for missing downgradient data and therefore represents impacts assuming no attenuation occurs between the landfill and the adjacent water bodies. Actual concentrations, and consequently loading values, are expected to be significantly lower.

The 2025 contaminant loading from the shallow overburden groundwater to the Sand Aquifer at the discharge to Lake Simcoe is shown in Table 7-7.

Table 7-7: 2025 Contaminant Loading Calculations
Shallow Overburden Groundwater to Confined Sand Aquifer at Discharge to Lake Simcoe

Parameter	2025 Average Concentration BH17-III	2025 Loading 2	Predicted Loading 1
	(mg/L)	(kg/y)	(kg/y)
Chloride	211	7,848	9,125
Ammonia	0.1	3.72	182.5
Toluene	<0.00004	0.019	0.000037
Cadmium	<0.0002	0.001	0.000037
Lead	<0.00005	0.013	0.000037
Zinc	<0.007	0.260	1.46

Notes:
1 Golder (2005)
2 Flux from the Landfill to Confined Sand Aquifer = 37,192 m3/y (Golder, 2005)

Confined Sand Aquifer contaminant loading values for ammonia and zinc in 2025 are significantly less than predicted in the model but are higher for cadmium and lead. Chloride concentrations have fluctuated over time, and in 2025 were lower than predicted in the 2004 model. The cadmium, lead and toluene results were less than the method detection limit in 2025 and loading calculations are therefore based on the method detection limits for these parameters, which is considered to be conservative.

8.0 CONCLUSIONS

Based on the results of the 2025 annual monitoring program undertaken at the Kitchener Street Waste Diversion Site, the following conclusions are presented:

1) Groundwater and surface water elevations are largely consistent with previous years. Highly variable measurements at BH16-I suggest that the annular seal is compromised.

2) Elevations of reported water levels in the area around S-1 and BH2 suggest that either the measurement point elevation may be outdated or that a change in local drainage patterns has occurred. Following a re-survey of elevation markers in 2025, the water levels are closer to the expected elevations based on nearby monitors.

3) Groundwater flow directions in 2025 were consistent with those observed in recent years; groundwater flow in the Upper Aquifer is radial towards the surrounding water bodies; groundwater flow in the Sand Aquifer is east towards Ben's Ditch and ultimately south to Lake Simcoe.

4) Landfill leachate impacts are observed in the surficial peat adjacent to the landfill. Attenuation of the constituents in the leachate, notably ammonia, occurs between the landfill and Lake Simcoe. In 2025, elevated concentrations of TKN and phosphorous were again reported at location BH5-IIIR; no changes to Site operations in 2024 or 2025 suggested new local sources of these elevated parameters. However, it is noted that diversion depot stockpiles for tires, shingles, and drywall are stored in the area to the north of BH5-IIIR, and that these were removed in late 2025.

5) Elevated chloride and sodium concentrations noted in the Sand Aquifer are considered to be largely the result of road salt application upgradient of the landfill.

6) Based on elevated concentrations of alkalinity, TKN, and detectable concentrations of ammonia, groundwater quality in the Sand Aquifer is influenced by the landfill. In the vicinity of the landfill, ammonia is only present at elevated concentrations at BH21-IR; ammonia concentrations in 2025 remained similar to those observed in 2024. It is noted that the decrease in ammonia at BH21-IR since 2017 is likely attributed to the relocation of composting operations from this area.

7) Surface water entering the Site from the Mill Creek Diversion and Ben's Ditch is interpreted to be impacted by road salting. The WWTC contributes nutrient parameters to the surface water within Ben's Ditch (including nitrogen and phosphorous) and also contributes significant flow volume to Ben's Ditch.

8) Phosphorous was observed at the shallower Lake Simcoe surface water station S-11, but not at S-9 or S-14. The surface water quality in Lake Simcoe (at S-9, S-11 and S-14) meets the PWQO limits, with the minor exception of phenols and one phosphorous result at S-11. Water quality at these locations is not considered to be adversely affected by the landfill.

9) Elevated metals concentrations at the stormwater sampling locations reflect entrained sediment within the storm water runoff. Samples collected at D-5 and D-6 in 2025 exhibited TKN and ammonia concentrations that have been historically typical for these locations; historically, these parameters were elevated above their recent range of values. This reduction in nutrient parameter concentrations at these locations since 2022 suggests that the construction of the landfill cap over Cells 1 to 4 has reduced seepage from the landfill side slopes.

10) Leachate constituent concentrations in the leachate wells were less than or similar to those used in the 2005 attenuation assessment, with the exception of Ammonia. Ammonia was 65% higher than estimated in the attenuation assessment. Nevertheless, the calculated mass loading for ammonia within the Sand Aquifer remains below that predicted in 2005. This reflects natural attenuation as well as the conservative value used in the modelled loading estimates.

11) There were no exceedances in 2025 of the trigger thresholds for ammonia, zinc and toluene at the trigger locations the Sand Aquifer.

9.0 RECOMMENDATIONS

Based on the results of the 2025 annual monitoring program undertaken at the Kitchener Street Waste Diversion Site, the following recommendations are provided:

1) The monitoring program outlined in Tables B-2 and B-3 should continue in 2026.

2) Data from BH16-I suggests that the annular seal of the well has been compromised, and this well should be replaced in 2026. Given its location within the landfill footprint, consideration should be given to replacing the deeper screen outside of the toe of the landfill.

3) Drainage and local elevations should be investigated in the area surrounding trigger location BH2.

4) The unusual data at BH5-IIIR has continued to exhibit elevated TKN and phosphorous. It is recommended that the grading around this area and in the upgradient area be evaluated for potential runoff issues following the removal of diversion depot stockpiles; and, to be re-graded if necessary to direct excess flow away from this area.

5) Monitoring wells BH26 and BH28-I should be investigated for potential blockages and developed or rehabilitated as necessary.

6) Wells BH27-I and BH27-II, screened within the waste, have had insufficient water for sample collection in the last few years. WSP is proposing that BH27-I and BH27-II be reduced to an annual sampling frequency in the spring to maximize the probability of collecting a sample during seasonal high water levels, with tri-annual water level measurement to monitor leachate elevations.

Signature Page

WSP Canada Inc.

Brig Gubins, B.A.Sc.
Environmental Scientist & Waste EIT

BKG/PJD/al

Reviewed by:

Northern Geo Environmental Ltd.



Paul Dewaele, M.Sc., P.Eng.
Senior Geo Environmental Engineer

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SITE CONTACT INFORMATION

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Contact for Site Environmental Issues:

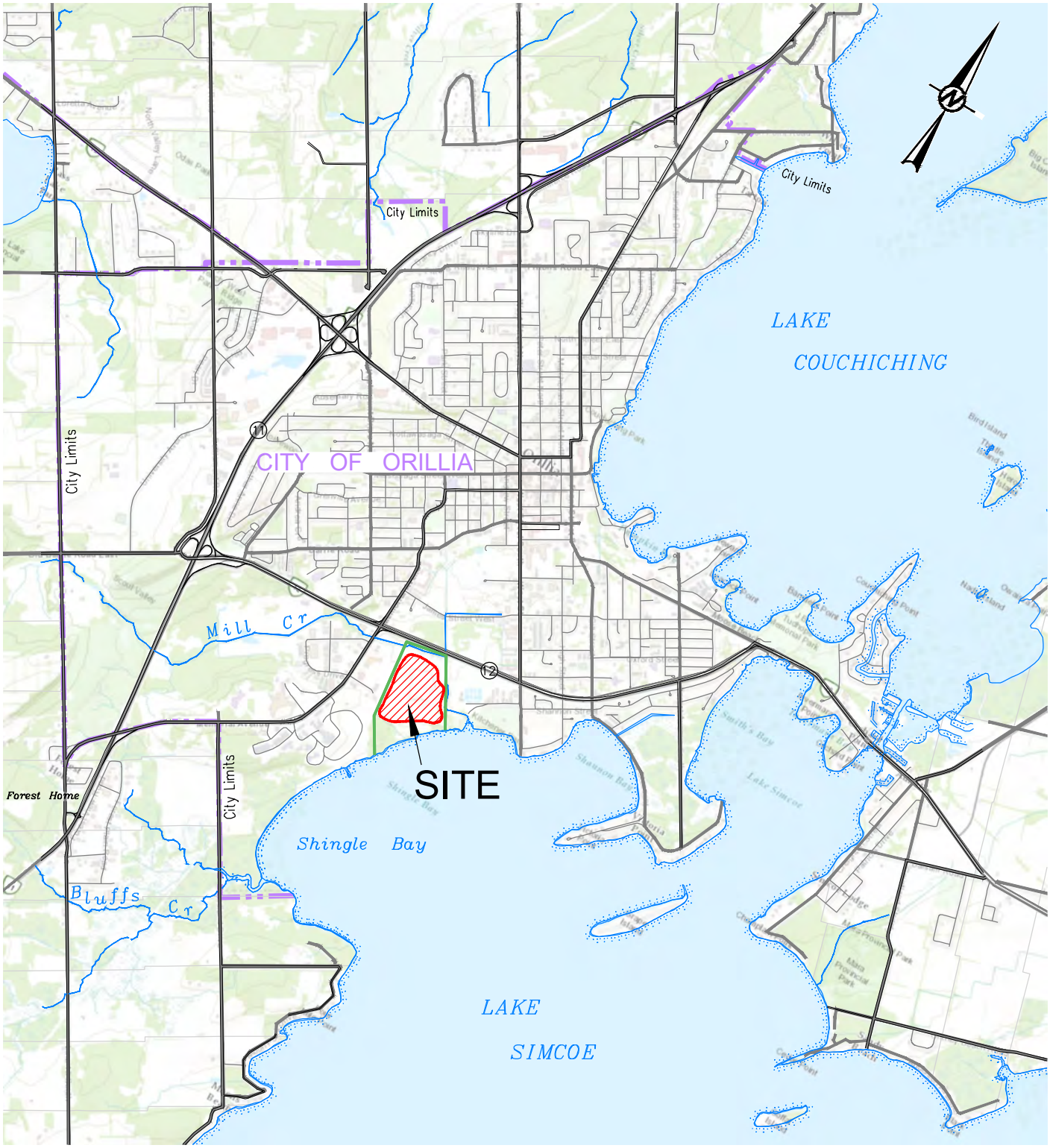
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Groundwater and Surface Water Representative Competent Environmental Practitioner:

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APPENDIX A

Figures



CITY OF ORILLIA LIMITS

0 1,000 2,000
1:50,000 METRES

BASE FROM LICENSED EMR DIGITAL 1:50000 TOPOGRAPHIC SHEET 31D/11

CLIENT
CITY OF ORILLIA

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

CONSULTANT
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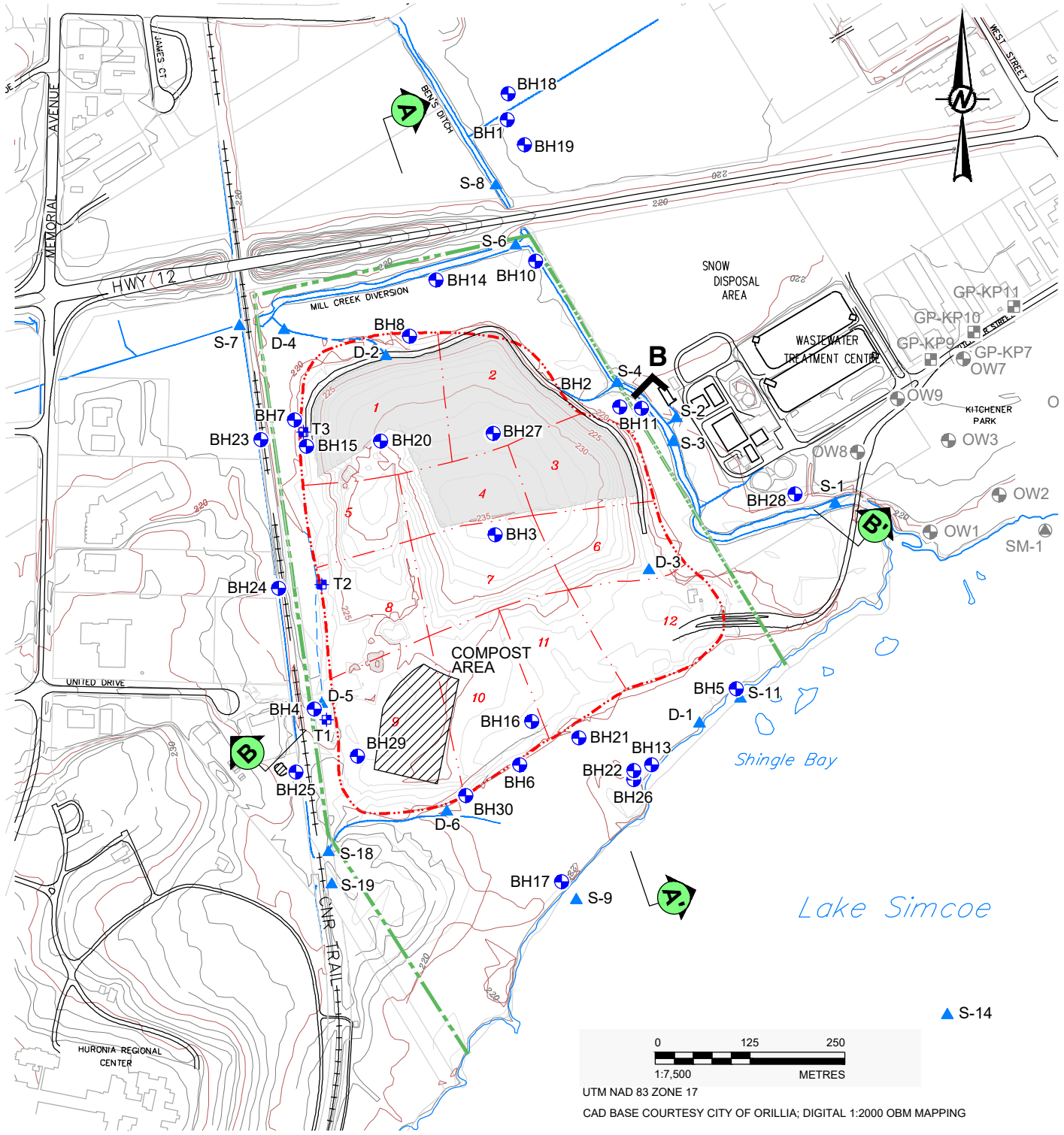
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PREPARED	JPR
REVIEWED	JER/BG
APPROVED	NGE (PJD)

TITLE
REGIONAL LOCATION MAP

PROJECT NO.	CONTROL	REV.	FIGURE
CA0034164.2458	0001	----	1

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0 25 mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI A



UTM NAD 83 ZONE 17

CAD BASE COURTESY CITY OF ORILLIA; DIGITAL 1:2000 OBM MAPPING

- SHORELINE
- FLOWING DITCH / IMPROVED SURFACE DRAIN
- SITE BOUNDARY
- LIMIT OF LANDFILL (APPROXIMATE)
- LANDFILL CELL
- CAPPED EXTENT
- OBSERVATION WELL
- GROUNDWATER LEVEL MONITORING LOCATION
- SURFACE WATER QUALITY STATION
- LINE OF SECTION

CLIENT
CITY OF ORILLIA

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

CONSULTANT
wsp

YYYY-MM-DD	2026-03-16
DESIGNED	
PREPARED	JPR
REVIEWED	JER/BG
APPROVED	NGE (PJD)

TITLE
SITE LOCATION MAP
2025 MONITORING PLAN

PROJECT NO.	CONTROL	REV.	FIGURE
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N

S

240

230

220

210

ELEVATION: metres above Sea-level

BH27

BH3

CAPPED EXTENT

Offset 60 m E

BH14

BH8

Extended BH3R

HWY 12

℄ — Mill Creek Diversion

Limit of Landfill

Limit of Landfill

WASTE DIVERSION & DROP OFF

Offset 75 m W

Offset 160 m E

BH18 BH1

BH16 BH21

BH22 BH26

Lake Simcoe

FILL

S6

REFUSE

L

REFUSE

S11

DRY

NS

Silted

FILL

572

P

C

SA

LCL

589

DRY

172

92

147

NS

NS

NS

118

142

126

143

BLOCKED

67

155

111

174

▼ ▽ STATIC WATER LEVEL FALL 2025

403 CHLORIDE CONCENTRATION FALL 2025 (mg/L)

(200) CHLORIDE CONCENTRATION SUMMER 2025 (mg/L)

NS NOT SAMPLED

SEE FIGURE 2 FOR SECTION LINE

SEE FIGURE 5 FOR HYDROGEOLOGICAL SYMBOLS

SITE GRADE, SURVEY 2023

0 50 100

1:3,000 METRES

CLIENT
CITY OF ORILLIA

CONSULTANT
wsp

YYYY-MM-DD	2026-03-16
DESIGNED	
PREPARED	JPR
REVIEWED	JER/BG
APPROVED	NGE (PJD)

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

TITLE
SITE SECTION A - A'

PROJECT NO.	CONTROL	REV.	FIGURE
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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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SW

SE

Section angles 90° SE

NE

ELEVATION: metres above Sea-level

BH3

BH25 BH4 BH2 BH11 BH28

230

220

210

Extended BH3R

LIMIT OF LANDFILL

CAPPED EXTENT

LIMIT OF LANDFILL

BEN'S DITCH

WASTEWATER TREATMENT CENTRE

BEN'S DITCH (Downstream)

CNR

REFUSE

L

FILL

S3

FILL

S1

P

C

SA

LCL

(189)

243

572

142

49

259

296

(112)

NS

BLOCKED

37

229

SEE FIGURE 2 FOR SECTION LINE

SEE FIGURE 5 FOR HYDROGEOLOGICAL SYMBOLS

SITE GRADE, SURVEY 2023

▼ ▽ STATIC WATER LEVEL FALL 2025

403 CHLORIDE CONCENTRATION FALL 2025 (mg/L)

(200) CHLORIDE CONCENTRATION SUMMER 2025 (mg/L)

NS NOT SAMPLED

0 50 100

1:3,000 METRES

CLIENT
CITY OF ORILLIA

CONSULTANT
wsp

YYYY-MM-DD	2026-03-16
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PREPARED	JPR
REVIEWED	JER/BG
APPROVED	NGE (PJD)

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

TITLE
SITE SECTION B - B'

PROJECT NO.	CONTROL	REV.	FIGURE
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SYMBOLS

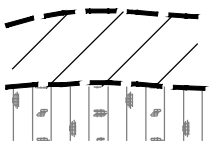
- Unoxidized CLAY, Blue, Grey, White, or Undefined CLAY
- Oxidized CLAY, Brown, Red, Yellow
- SILT
- SAND
- SAND FILL
- REFUSE
- GRAVEL
- STONES, Rounded GRAVEL
- BOULDER
- TILL

	Secondary/ Some	Trace	Minor	
Clayey				Clay
Silty				Silt
Sandy				Granular

- Screen
- Upper Peat and Landfill Water Level
- Sand Aquifer Static Water Level
- 11 Chloride Concentration

LEGEND

UNIT	DESCRIPTION
L	Landfill (Refuse)
F	Fill
P	Peat
C	Confining Layer
SA	Sand Aquifer
LCL	Lower Till Confining Layer



- Generally indicating Aquifer
- Inferred Hydrostratigraphic Contact
- Generally indicating Confining Material
- Generally Indicating Till

NOTE: On all sections, boundaries between soil strata have been determined only at well and test well locations. Between the wells and test wells, boundaries are not proven, but are inferred from geological evidence.

CLIENT
CITY OF ORILLIA

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

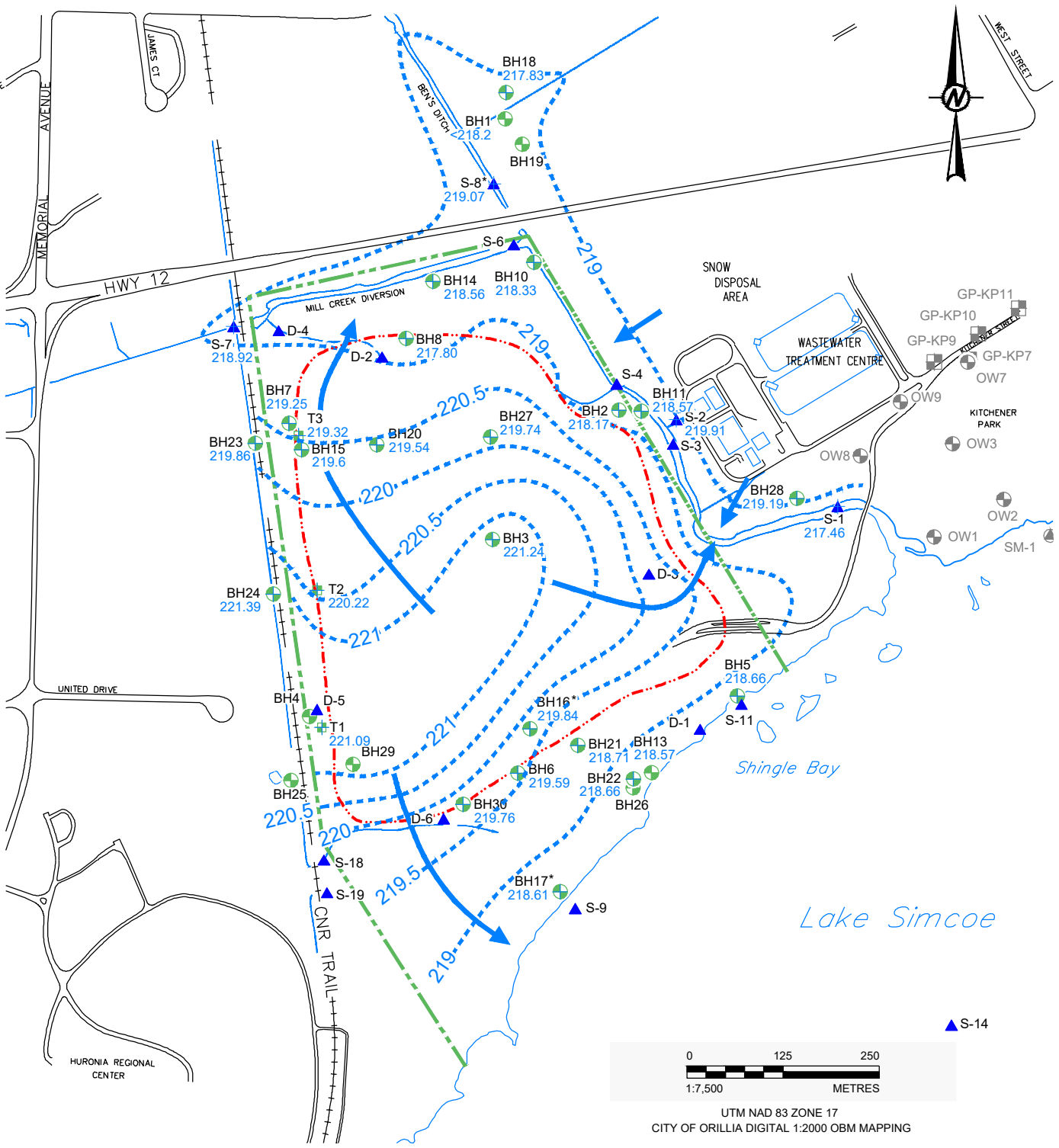
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REVIEWED	JER/BG
APPROVED	NGE (PJD)

TITLE
HYDROGEOLOGICAL SYMBOLS

PROJECT NO.	CONTROL	REV.	FIGURE
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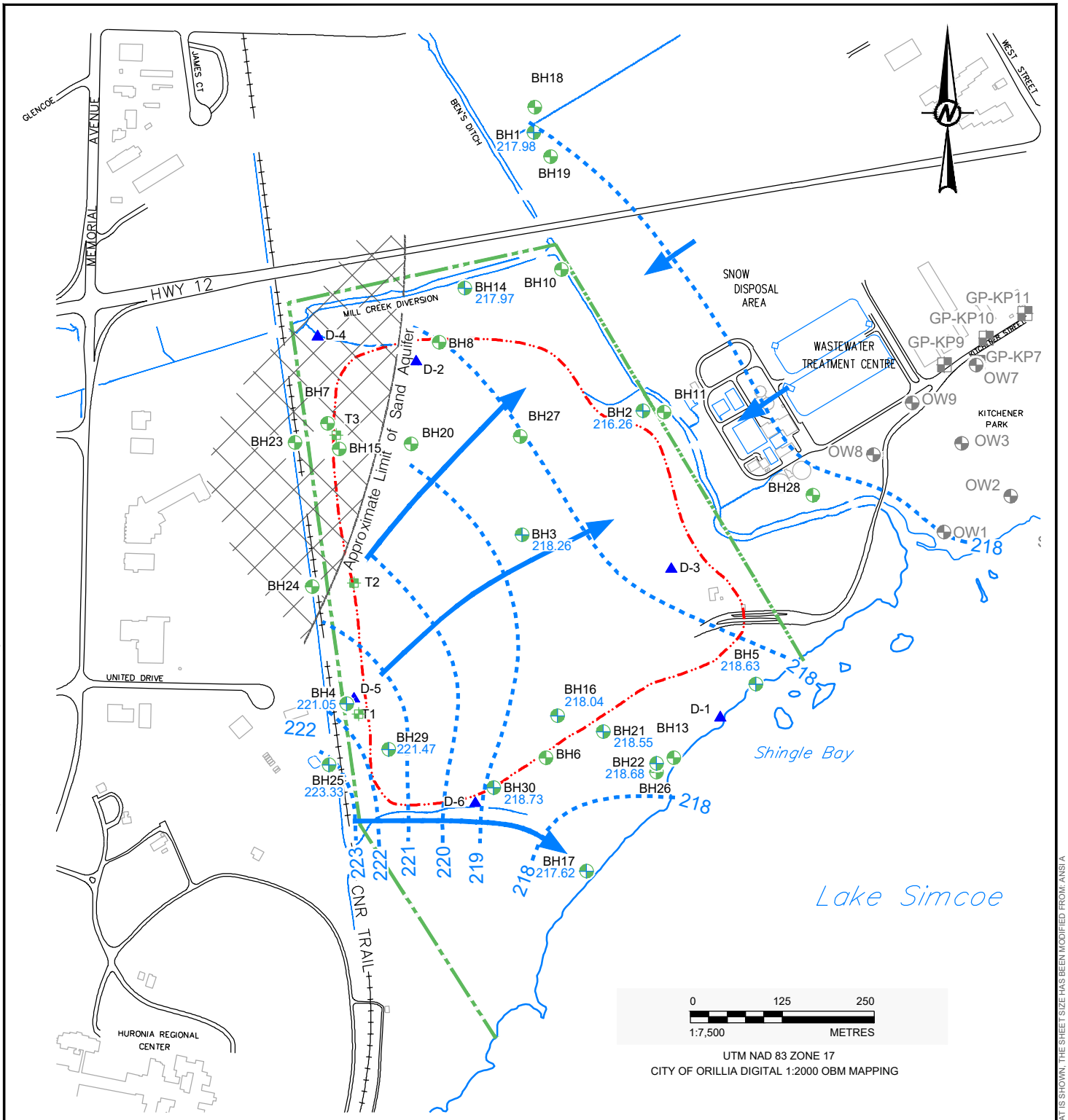
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REVIEWED	JER/BG
APPROVED	NGE (PJD)

TITLE
WATER TABLE UPPER PEAT & SHALLOW UNITS FALL 2025

PROJECT NO.	CONTROL	REV.	FIGURE
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CITY OF ORILLIA

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

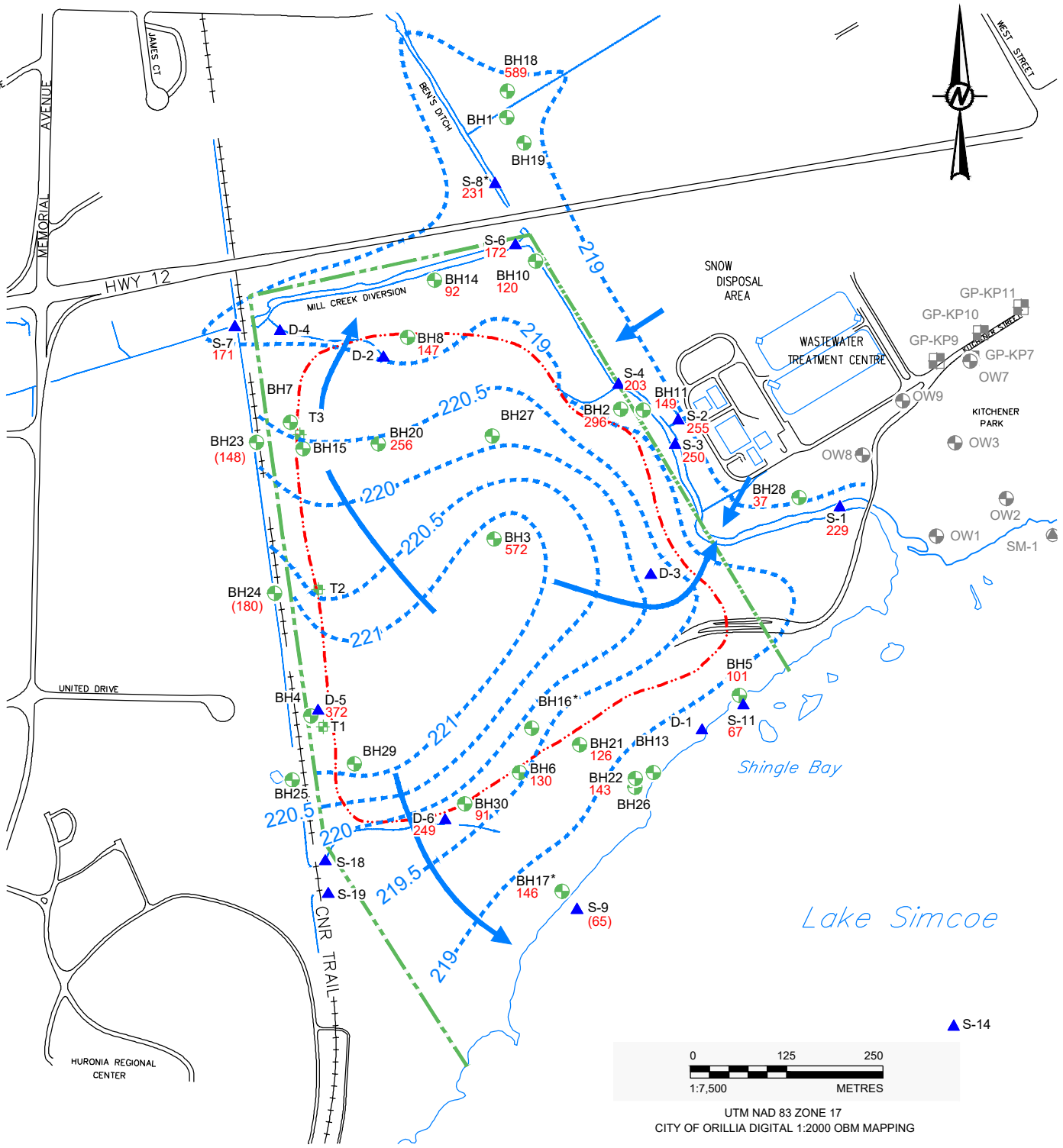
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REVIEWED	JER/BG
APPROVED	NGE (PJD)

TITLE
POTENTIOMETRIC SURFACE SAND AQUIFER FALL 2025

PROJECT NO.	CONTROL	REV.	FIGURE
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UTM NAD 83 ZONE 17
CITY OF ORILLIA DIGITAL 1:2000 OBM MAPPING

- SITE BOUNDARY
- LIMIT OF LANDFILL (APPROXIMATE)
- OBSERVATION WELL
- GROUNDWATER LEVEL MONITORING LOCATION
- SURFACE WATER QUALITY STATION

43 CHLORIDE CONCENTRATION FALL 2024 (mg/L)
(43) CHLORIDE CONCENTRATION SUMMER 2024
* PERCHED SCREEN / SURFACE WATER

CLIENT
CITY OF ORILLIA

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

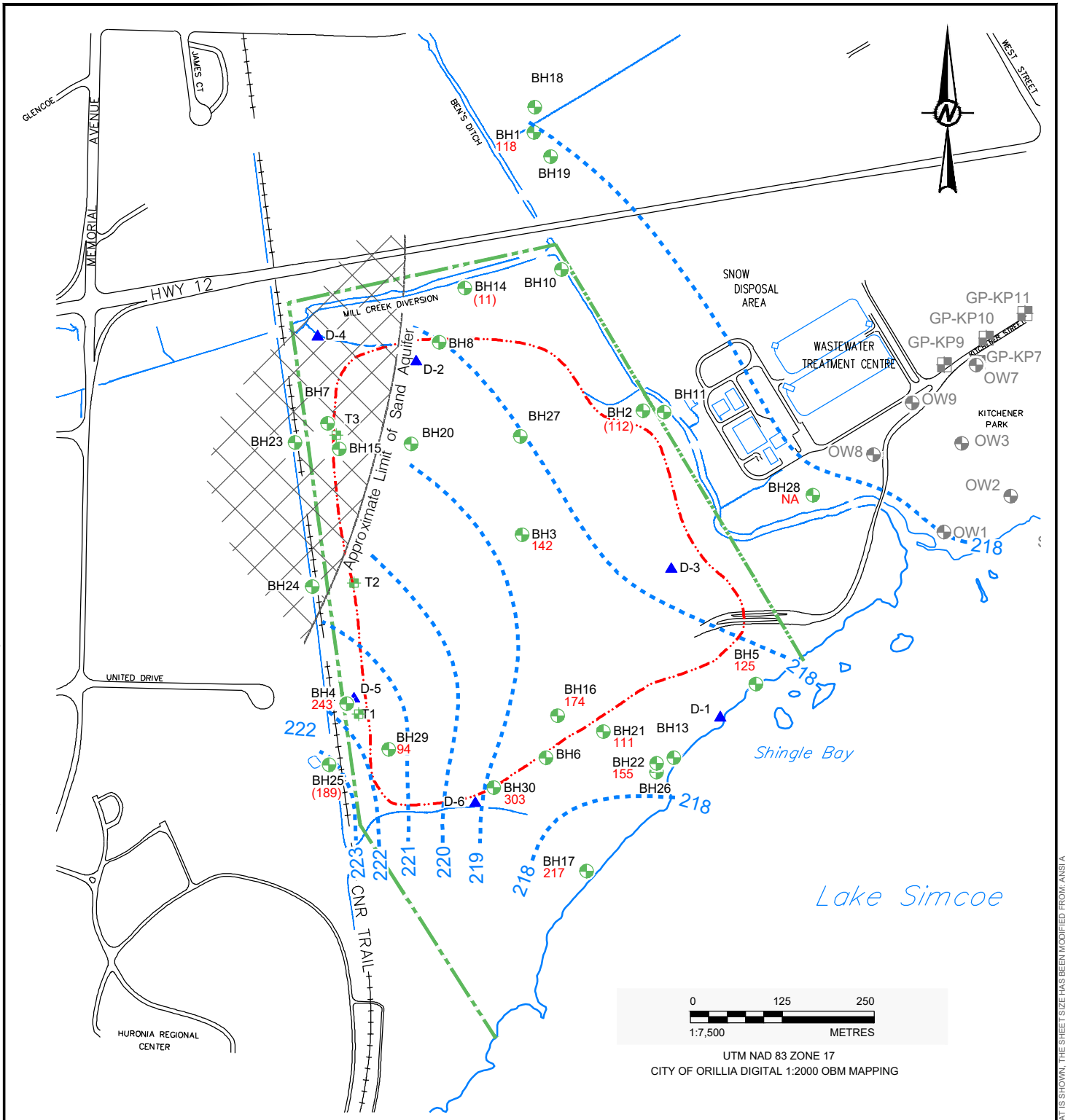
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wsp

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PREPARED	JPR
REVIEWED	JER/BG
APPROVED	NGE (PJD)

TITLE
CHLORIDE CONCENTRATION
UPPER PEAT & LANDFILL FALL 2025

PROJECT NO.	CONTROL	REV.	FIGURE
CA0034164.2458	0001	----	8

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A
0 25 mm



CLIENT
CITY OF ORILLIA

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

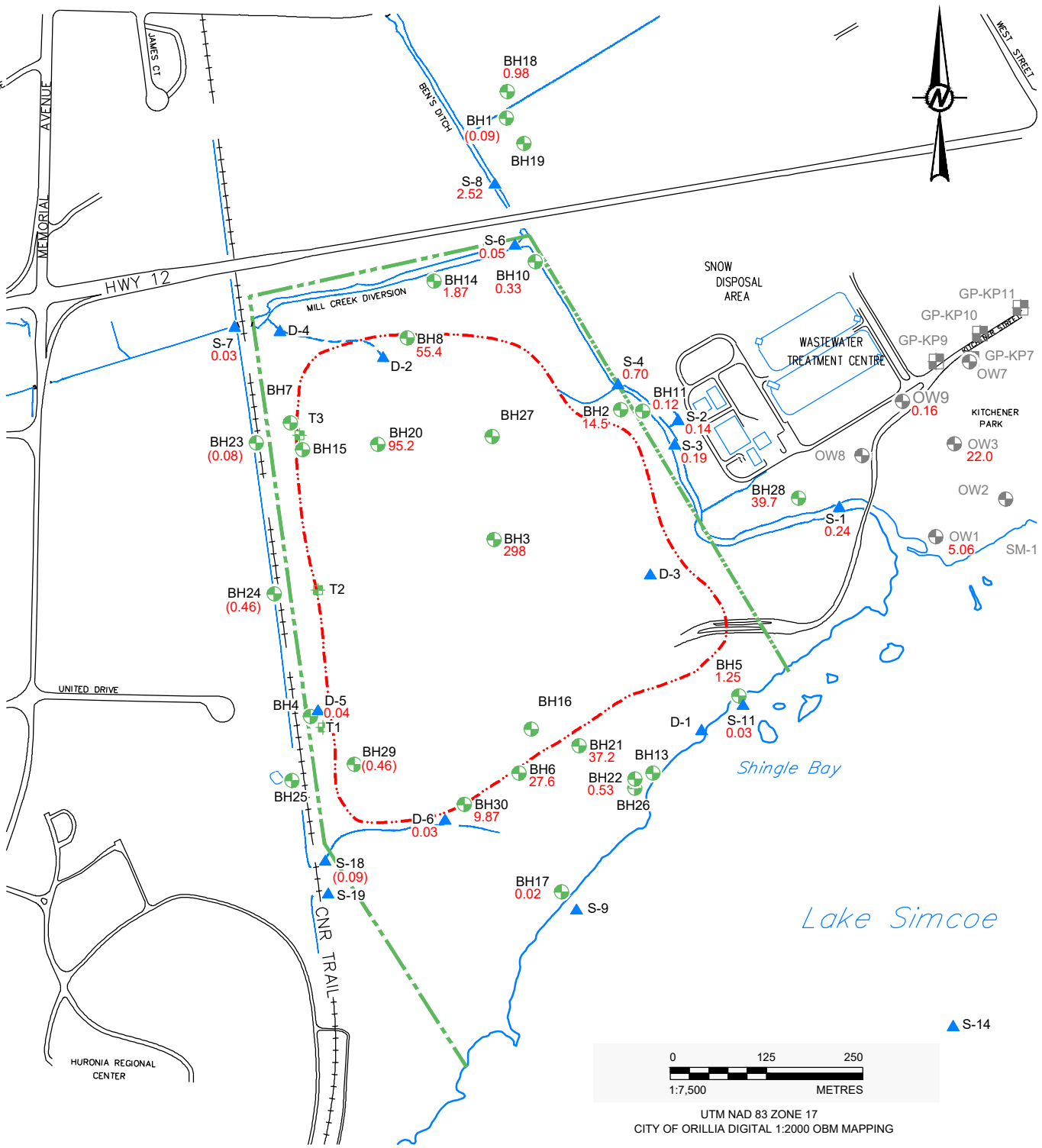
CONSULTANT
wsp

YYYY-MM-DD	2026-03-16
DESIGNED	
PREPARED	JPR
REVIEWED	JER/BG
APPROVED	NGE (PJD)

TITLE
CHLORIDE CONCENTRATIONS SAND AQUIFERS FALL 2025

PROJECT NO.	CONTROL	REV.	FIGURE
CA0034164.2458	0001	----	9

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A
0 25 mm



UTM NAD 83 ZONE 17
CITY OF ORILLIA DIGITAL 1:2000 OBM MAPPING

- SITE BOUNDARY
- LIMIT OF LANDFILL (APPROXIMATE)
- OBSERVATION WELL (SITE / KITCHENER PARK)
- GROUNDWATER LEVEL MONITORING LOCATION
- SURFACE WATER QUALITY STATION

0.01 AMMONIA CONCENTRATION FALL 2025 (mg/L)
(0.01) AMMONIA CONCENTRATION SUMMER 2025 (mg/L)

AMMONIA CONCENTRATION AT KITCHENER PARK OW'S (WSP 2025)

CLIENT
CITY OF ORILLIA

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

CONSULTANT
wsp

YYYY-MM-DD	2026-03-16
DESIGNED	
PREPARED	JPR
REVIEWED	JER/BG
APPROVED	NGE (PJD)

TITLE
AMMONIA CONCENTRATION PEAT, LANDFILL & SURFACE WATER, FALL 2025

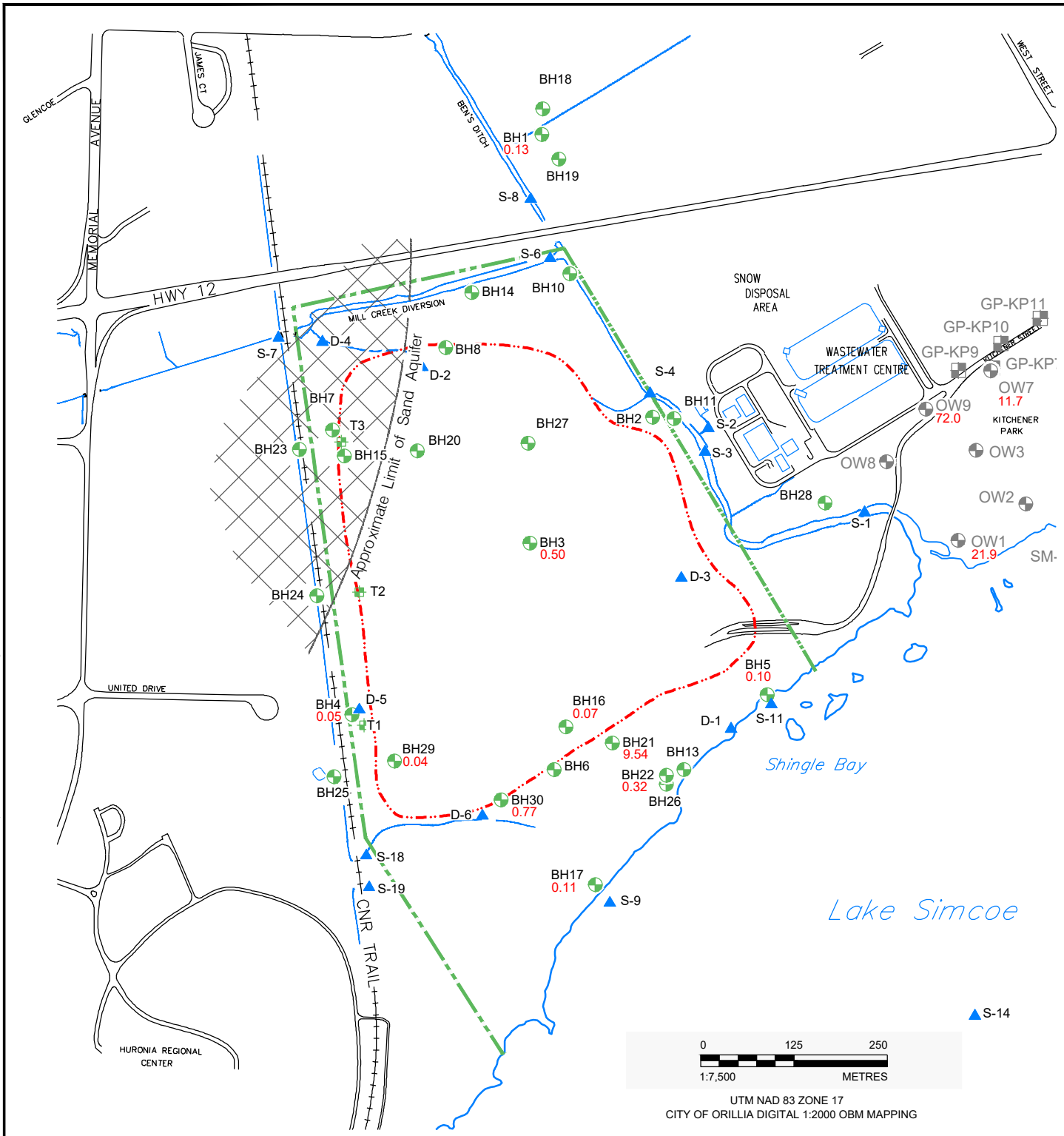
PROJECT NO.	CONTROL	REV.	FIGURE
CA0034164.2458	0001	----	10

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

25 mm

0

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UTM NAD 83 ZONE 17
CITY OF ORILLIA DIGITAL 1:2000 OBM MAPPING

SITE BOUNDARY

LIMIT OF LANDFILL (APPROXIMATE)

OBSERVATION WELL (SITE / KITCHENER PARK)

GROUNDWATER LEVEL MONITORING LOCATION

SURFACE WATER QUALITY STATION

0.01 AMMONIA CONCENTRATION FALL 2025 (mg/L)

(0.01) AMMONIA CONCENTRATION SUMMER 2025 (mg/L)

AMMONIA CONCENTRATION AT KITCHENER PARK OW'S (WSP 2025)
OW9 SAND AQUIFER NOT PRESENT / CONCENTRATION FROM LOWER SCREEN

CLIENT
CITY OF ORILLIA

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

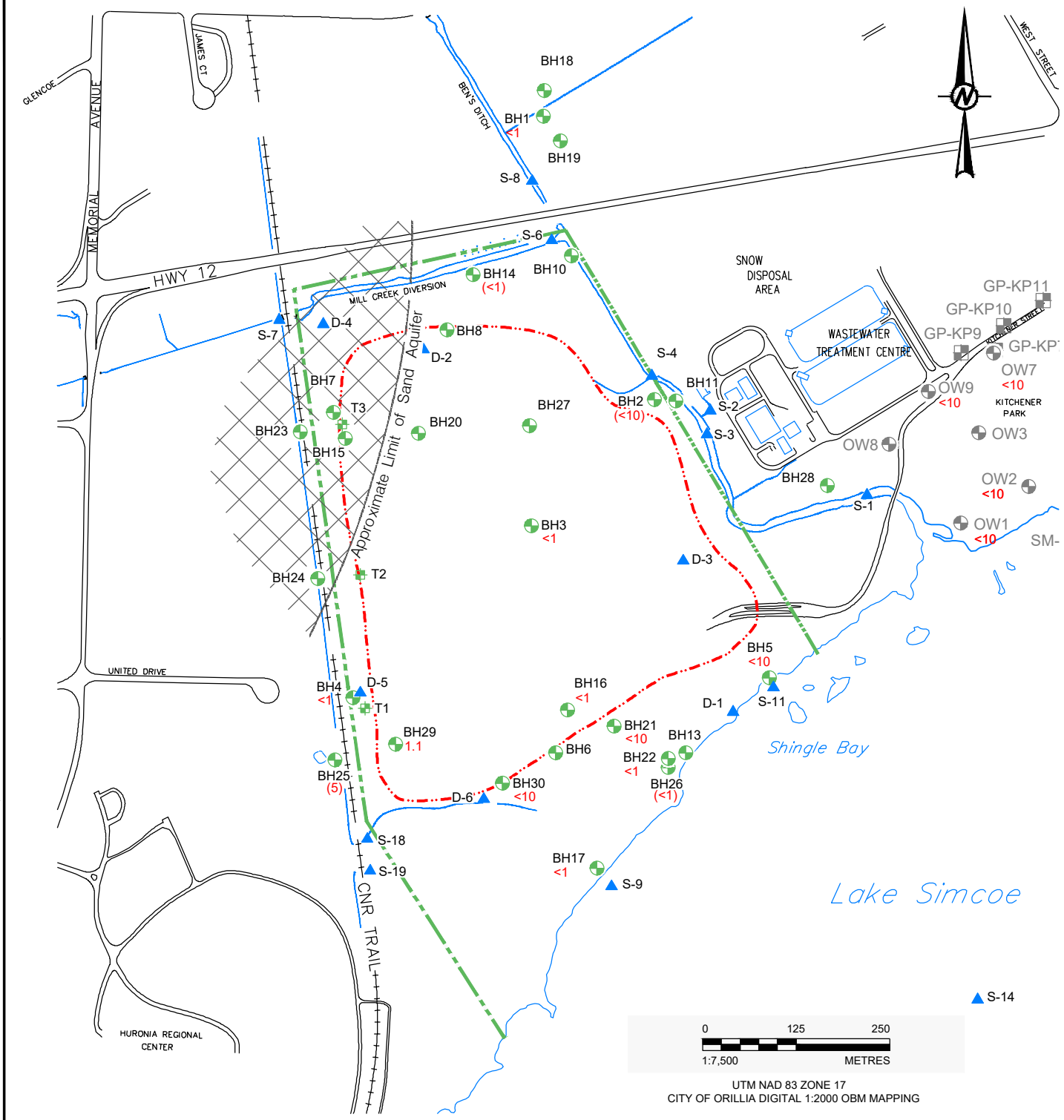
CONSULTANT
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YYYY-MM-DD	2026-03-16
DESIGNED	
PREPARED	JPR
REVIEWED	JER/BG
APPROVED	NGE (PJD)

TITLE
AMMONIA CONCENTRATION SAND AQUIFER FALL 2025

PROJECT NO.	CONTROL	REV.	FIGURE
CA0034164.2458	0001	----	11

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A
0 25 mm



UTM NAD 83 ZONE 17
CITY OF ORILLIA DIGITAL 1:2000 OBM MAPPING

SITE BOUNDARY

LIMIT OF LANDFILL (APPROXIMATE)

OBSERVATION WELL (SITE / KITCHENER PARK)

GROUNDWATER LEVEL MONITORING LOCATION

SURFACE WATER QUALITY STATION

6 ZINC CONCENTRATION FALL 2025 (mg/L)

(6) ZINC CONCENTRATION SUMMER 2025 (mg/L)

ZINC CONCENTRATION AT KITCHENER PARK OW'S (WSP 2025)
OW9 SAND AQUIFER NOT PRESENT / CONCENTRATION FROM LOWER SCREEN

CLIENT
CITY OF ORILLIA

PROJECT
KITCHENER STREET WASTE DIVERSION SITE
2025 ANNUAL WATER MONITORING REPORT

CONSULTANT
wsp

YYYY-MM-DD	2026-03-16
DESIGNED	
PREPARED	JPR
REVIEWED	JER/BG
APPROVED	NGE (PJD)

TITLE
ZINC CONCENTRATION SAND AQUIFER FALL 2025

PROJECT NO.	CONTROL	REV.	FIGURE
CA0034164.2458	0001	----	12

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A
25 mm
0

APPENDIX B

Tables

Table B-10

City of Orillia - Kitchener Street Waste Diversion Site

2025 WWTC Daily Flows

JAN	FLOW m3	FEB	FLOW m3	MAR	FLOW m3	APR	FLOW m3	MAY	FLOW m3	JUNE	FLOW m3	JULY	FLOW m3	AUG	FLOW m3	SEPT	FLOW m3	OCT	FLOW m3	NOV	FLOW m3	DEC	FLOW m3
1	16,810	1	10,579	1	11,540	1	36,609	1	15954.3	1	14,435	1	11,719	1	9,760	1	10,390	1	10525	1	10,076.0	1	10,630
2	16,860	2	11,223	2	12,674	2	30,951	2	16625.7	2	14,442	2	12,153	2	10,095	2	10,506	2	9841	2	10,821.0	2	11,237
3	15,713	3	11,067	3	12,561	3	93,334	3	14756.8	3	13,931	3	11,715	3	10,242	3	10,815	3	11055	3	10,248.0	3	11,047
4	14,872	4	11,365	4	12,621	4	61,000	4	14276.3	4	14,428	4	11,413	4	10,308	4	11,050	4	10275	4	10,650.0	4	11,052
5	13,971	5	11,596	5	16,974	5	42,243	5	14560.1	5	14,920	5	11,991	5	10,553	5	10,316	5	10080	5	11,464.0	5	11,076
6	14,018	6	10,923	6	17,150	6	37,885	6	13900.1	6	13,608	6	12,347	6	10,630	6	10,089	6	10507	6	11,084.0	6	10,997
7	13,199	7	11,057	7	15,715	7	31,497	7	13909.6	7	13,554	7	11,669	7	10,413	7	10,505	7	10512	7	10,963.0	7	10,852
8	13,298	8	10,927	8	14,539	8	27,456	8	14144.8	8	13,160	8	12,276	8	10,520	8	10,106	8	9813	8	10,906.0	8	10,573
9	13,080	9	10,872	9	13,549	9	24,288	9	13274.1	9	13,411	9	11,593	9	10,397	9	10,109	9	9644	9	10,493.0	9	10,578
10	13,202	10	11,638	10	16,471	10	22,058	10	13227.2	10	13,002	10	11,774	10	10,472	10	10,236	10	9740	10	10,393.0	10	10,314
11	12,695	11	11,311	11	19,474	11	21,124	11	12770.9	11	13,228	11	12,024	11	10,609	11	10,280	11	10558	11	10,234.0	11	10,246
12	12,396	12	11,264	12	18,869	12	19,909	12	12803.8	12	12,548	12	11,408	12	10,880	12	10,052	12	9585	12	10,688.0	12	10,906
13	12,045	13	11,400	13	17,420	13	19,228	13	13368.6	13	12,362	13	11,687	13	10,762	13	10,220	13	10748	13	15,164.0	13	10,431
14	12,495	14	11,177	14	16,791	14	18,851	14	13484.8	14	12,244	14	11,336	14	10,760	14	10,147	14	9689	14	13,398.0	14	10,342
15	11,442	15	10,721	15	23,663	15	18,609	15	13481.1	15	12,264	15	11,333	15	10,501	15	10,373	15	9574	15	12,019.0	15	10,140
16	11,801	16	11,565	16	48,808	16	17,218	16	13272.9	16	11,913	16	11,264	16	10,965	16	10,286	16	10690	16	12,261.0	16	10,183
17	12,381	17	11,035	17	41,989	17	16,657	17	14437.4	17	12,318	17	11,713	17	11,065	17	10,114	17	10107	17	12,012.0	17	10,464
18	11,441	18	11,556	18	32,792	18	16,453	18	13538.8	18	12,008	18	10,960	18	10,835	18	9,895	18	10189	18	11,243.0	18	11,280
19	11,899	19	13,921	19	33,990	19	28,899	19	13217.4	19	12,917	19	11,035	19	11,403	19	10,016	19	11003	19	11,539.0	19	15,543
20	11,156	20	11,112	20	39,794	20	21,948	20	13845.3	20	12,356	20	10,687	20	11,711	20	10,299	20	10822	20	11,040.0	20	13,263
21	9,780	21	11,059	21	35,365	21	20,404	21	12734.7	21	12,293	21	10,963	21	10,908	21	9,691	21	9888	21	10,899.0	21	12,903
22	11,895	22	10,590	22	29,590	22	19,445	22	16240.5	22	11,867	22	10,596	22	10,812	22	9,875	22	10130	22	10,612.0	22	12,027
23	11,482	23	11,787	23	25,265	23	17,826	23	21317	23	12,478	23	10,834	23	10,220	23	10,508	23	9827	23	11,017.0	23	12,032
24	11,398	24	11,795	24	23,721	24	17,496	24	20409	24	12,059	24	10,686	24	10,664	24	10,181	24	10298	24	10,919.0	24	12,538
25	11,774	25	12,322	25	22,700	25	17,415	25	18145.2	25	12,764	25	10,989	25	10,365	25	9,826	25	10538	25	10,542.0	25	11,318
26	11,436	26	11,988	26	20,918	26	16,235	26	17035.6	26	11,896	26	10,807	26	11,229	26	10,470	26	9887	26	11,254.0	26	10,979
27	11,327	27	12,055	27	20,900	27	15,703	27	15799.5	27	12,195	27	10,709	27	10,590	27	9,963	27	9909	27	11,052.0	27	11,190
28	11,422	28	12,089	28	20,203	28	15,761	28	15023.6	28	12,013	28	10,870	28	10,644	28	10,200	28	10050	28	10,795.0	28	11,759
29	11,437			29	34,704	29	15,532	29	17373.1	29	11,718	29	11,694	29	10,278	29	11,145	29	10231	29	11,122.0	29	13,823
30	11,829			30	46,117	30	14,822	30	16343.5	30	11,827	30	11,262	30	10,151	30	10,075	30	10345	30	11,221.0	30	12,761
31	10,860			31	52,951			31	15552.6			31	11,314	31	10,327			31	11516			31	12,601
TOTAL	389,414		319,994		769,818		776,856		464,824		384,159		352,821		329,069		297,348		317,576		336,129		355,085

YEARLY TOTAL **5,093,093 m³**

Table B-1
City of Orillia - Kitchener Street Waste Diversion Site
2025 Surface Water Monitoring Program

Location	Repl. Date	Measuring Point Elevation (Top of Pipe) (masl)	Easting (m)	Northing (m)	Screen Base (m)	Screen Top (m)	Hydrostratigraphic unit
BH1-IR	24/Jul/12	220.08	625661	4939086	208.2	209.7	Sand Aquifer
BH1-II		220.12	625661	4939086	213.8	214.3	Upper Confining Layer
BH1-III		220.22	625661	4939086	218.2	218.8	Peat
BH2-I		220.68	625809	4938707	207.7	208.2	Lower Till
BH2-II		220.48	625809	4938707	213.5	214.0	Sand Aquifer
BH2-III		220.48	625809	4938707	216.6	219.0	Peat
BH3-IIR	30/Sep/16	234.68	625645	4938538	218.4	221.5	Leachate
BH3-IR	31/Jul/08	234.68	625645	4938538	215.7	216.3	Sand Aquifer
BH4-IR	29/Sep/16	222.38	625406	4938308	215.3	216.8	Lower Till
BH4-IIR	29/Sep/16	222.37	625406	4938308	218.4	219.9	Sand Aquifer
BH5-IR	05/Oct/10	220.23	625963	4938335	210.2	211.8	Sand Aquifer
BH5-IIR	05/Oct/10	220.14	625963	4938335	213.4	215.0	Upper Confining Layer
BH5-IIIR	05/Oct/10	220.16	625963	4938335	216.6	217.3	Peat
BH6R	09/Jul/13	219.73	625677	4938235	217.9	219.4	Peat
BH7		220.24	625380	4938690	218.0	218.6	Peat
BH8R	09/Jul/13	219.25	625532	4938800	217.4	219.0	Peat
BH10R	09/Jul/13	219.06	625701	4938895	217.2	218.8	Peat
BH11R	23/Jul/12	220.21	625838	4938705	217.7	218.9	Peat
BH13		220.15	625851	4938235	217.8	218.4	Peat
BH14-I		220.51	625567	4938874	207.8	208.5	Sand Aquifer
BH14-II		220.46	625567	4938874	213.6	214.3	Upper Confining Layer
BH14-IIIR	09/Jul/13	219.62	625567	4938874	217.3	218.9	Peat
BH15-I		221.54	625396	4938655	209.8	210.5	Lower Till
BH15-II		221.64	625396	4938655	214.8	215.5	Upper Confining Layer
BH15-IIIR	08/Jul/13	221.70	625396	4938655	217.9	219.4	Fill
BH16-I		223.28	625692	4938291	206.3	207.1	Sand Aquifer
BH16-II		223.90	625692	4938291	215.1	215.8	Upper Confining Layer
BH16-III		223.69	625692	4938291	218.2	222.6	Leachate
BH16-IV		223.51	625692	4938291	219.9	222.4	Leachate
BH16-IVR	01/Aug/08	223.79	625692	4938291	219.7	221.3	Leachate
BH17-I		220.70	625732	4938080	206.7	207.4	Lower Till
BH17-II		220.66	625732	4938080	210.7	211.3	Lower Till
BH17-III		221.27	625732	4938080	214.6	215.2	Sand Aquifer
BH17-IVR	23/Jul/12	220.87	625732	4938080	217.8	219.3	Upper Confining Layer
BH18R	23/Jul/12	220.01	625662	4939120	217.5	218.7	Peat
BH19		220.53	625683	4939053	218.0	219.3	Peat
BH20R	15/Nov/90	231.30	625494	4938662	218.3	219.8	Leachate
BH21-IIR	29/Mar/19	220.67	625755	4938270	217.9	219.4	Peat
BH21-IR	21/Mar/95	220.83	625755	4938270	215.2	216.0	Sand Aquifer
BH22-II		220.60	625828	4938227	217.9	219.4	Peat
BH22-IR	15/Jul/88	219.96	625828	4938227	216.1	216.8	Sand Aquifer
BH23		220.82	625336	4938664	218.2	219.7	Peat
BH24R	11/Apr/95	222.03	625359	4938467	220.1	220.9	Peat
BH25		224.49	625382	4938225	220.6	221.4	Sand Aquifer
BH26		220.77	625827	4938215	216.1	220.6	Sand Aquifer
BH27-I		234.01	625642	4938672	218.3	218.6	Peat
BH27-IIX		233.97	625642	4938672	219.3	223.9	Leachate
BH29-I		224.42	625463	4938246	221.4	222.7	Sand Aquifer
BH29-II		224.49	625463	4938246	218.4	219.5	Leachate
BH30-I		222.46	625606	4938194	219.0	219.8	Peat
BH30-II		222.44	625606	4938194	212.4	214.0	Sand Aquifer
S-1		219.95	626094	4938581			Stream
S-2			625884	4938695			Stream
S-3			625880	4938663			Stream
S-4			625806	4938741			Stream
S-5			626182	4938499			Surface Water Location
S-6			625672	4938922			Stream
S-7			625308	4938816			Stream
S-8			625646	4939002			Stream
S-9			625752	4938058			Surface Water Location
S-11			625969	4938324			Surface Water Location
S-14			626242	4937907			Surface Water Location
S-18			625425	4938122			Stream
S-19			625429	4938079			Stream
D-1			625914	4938292			Ditch
D-2			625501	4938776			Ditch
D-3			625848	4938494			Ditch
D-4							Ditch
D-5							Ditch
D-6							Ditch
T1		221.87	625423	4938294			Peat
T2		221.03	625416	4938472			Peat
T3		220.32	625392	4938674			Peat

masl: metres above sea level
m: metres
** Measuring point elevations provided have not been altered to reflect the 2009 survey data

Coordinate provided georeferenced UTM NAD 83 Zone7, accurate to within approximately 5 m. Data provided electronically by the City of Orillia. Coordinate provided for monitoring well nest represent centroid position between monitoring locations. Elevation data provided electronically by the City of Orillia, accurate to within 0.1 m.

Table B-2
City of Orillia - Kitchener Street Waste Diversion Site
2025 Surface Water Monitoring Program

Location	Unit	Water Level	Major Ions and Indicators	Dissolved Solids (metals)	VOC
BH1-IR	SA	T	T	A	-
BH1-II	UCL	T	-	-	-
BH1-III	P	T	T	-	-
BH2-I	BT	T	-	-	-
BH2-II	SA	T	A	A	-
BH2-III	P	T	T	-	-
BH3-IR	SA	T	T	A	T
BH3-IIR	LF	T	T	T	T
BH4-I	BT	T	-	-	-
BH4-II	SA	T	T	A	-
BH5-IR	SA	T	T	T	T*
BH5-IIR	UCL	T	-	-	-
BH5-IIIR	P	T	T	-	T*
BH6R	P	T	-	-	T*
BH7	P	T	-	-	-
BH8R	P	T	T	-	-
BH10R	P	T	T	-	-
BH11R	P	T	T	-	T*
BH13	P	T	-	-	-
BH14-I	SA	T	A	A	-
BH14-II	UCL	T	-	-	-
BH14-IIIR	P	T	T	-	-
BH15-I	BT	T	-	-	-
BH15-II	UCL	T	-	-	-
BH15-IIIR	F	T	A	-	-
BH16-I	SA	T	T	A	-
BH16-II	UCL	T	-	-	-
BH16-III	LF	T	-	-	-
BH16-IVR	LF	T	T	-	-
BH17-I	BT	T	-	-	-
BH17-II	BT	T	-	-	-
BH17-III	SA	T	T	T	T*
BH17-IVR	UCL	T	T	T	-
BH18R	P	T	T	-	-
BH19	P	T	-	-	-
BH20R	LF	T	T	-	-
BH21-IR	SA	T	T	A	T
BH21-IIR	P	T	T	-	T
BH22-IR	SA	T	T	T	T*
BH22-II	P	T	T	T	T*
BH23	P	T	A	-	-
BH24R	P	T	A	-	-
BH25	SA	T	A	A	-
BH26	SA	T	T	T	T*
BH27-I	P	T	T	-	-
BH27-IIR	LF	T	T	T	-
BH29-I	SA	T	T	T	-
BH29-II	LF	T	T	T	-
BH30-I	SA	T	T	T	-
BH30-II	P	T	T	T	-
T1	P	T	-	-	-
T2	P	T	-	-	-
T3	P	T	-	-	-

Note: * VOC analysis for BTEX only (starting in 2015)

P	Peat
SA	Sand Aquifer
UCL	Upper Confinning Layer
BT	Bottom Till
F	Fill
LF	Leachate
T	Triannual event (3 samples)
A	Annual Event (1 sample)
-	Not Taken

Table B-3
City of Orillia - Kitchener Street Waste Diversion Site
2025 Surface Water Monitoring Program

Location	Water Quality (all parameters)	Water Level	Flow	Arsenic	Description
Active Surface Sampling Stations					
S-1	T	A			Ben's Ditch
S-2	T	A		T	WWTC Discharge
S-3	T				Ben's Ditch
S-4	T				Ben's Ditch
S-6	T				Mill Creek
S-7	T	A	A		Mill Creek
S-8	T	A			Ben's Ditch
S-9	A				Lake Simcoe
S-11	T				Lake Simcoe
S-14	A			A	Lake Simcoe
S-18	T				CN Drain
S-19	A				CN Drain
D-1	S				Lake Simcoe Shoreline
D-2	S				Toe of Cell No. 1
D-3	S				SE End of E Access Road
D-4	S				Northwest of Cell No. 1
D-5	S				West of Cell No. 9
D-6	S				South of Cell No. 9

A Annual Event
S Semi-Annual Event (2 times per year)
T Triannual Event (3 times per year)

Table B-4
City of Orillia - Kitchener Street Waste Diversion Site
2025 Surface Water Monitoring Program

Major Ions and Indicators Parameter	PWQO	Trace Metals Parameter	PWQO
Alkalinity (mg/L)	--	Aluminum (µg/L)	75
Conductivity (mg/L)	--	Arsenic (µg/L)[2]	5
Hardness (mg/L)	--	Antimony (µg/L)	20
pH (std. Units)	6.5-8.5	Barium (µg/L)	--
Chloride (mg/L)	--	Cadmium (µg/L)[2]	0.5
Sulphate (mg/L)	--	Chromium (µg/L)	1
Calcium (mg/L)	--	Cobalt (µg/L)	0.9
Magnesium (mg/L)	--	Copper (µg/L)[2]	5
Sodium (mg/L)	--	Lead (µg/L)[2]	5
Potassium (mg/L)	--	Molybdenum (µg/L)	40
Phenols (ug/L)	1	Nickel (µg/L)	25
Nitrite(N) (ug/L)	--	Selenium (µg/L)	100
Nitrate(N) (mg/L)	--	Silver (µg/L)	0.1
Total Ammonia(N) (mg/L)	--	Zinc (µg/L)[2]	20
Un-ionized Ammonia(N) (mg/L)[3]	0.02		
TKN(N) (mg/L)	--		
Organic Nitrogen (mg/L)	--	Ortho-Phosphate(P) (mg/L)	--
(COD) Chemical Oxygen Demand (mg/L)	--	Total Phosphorus(P) (mg/L)[4,5]	0.02/0.03
(DOC) Dissolved Organic Carbon (mg/L)	--		
(DIC) Dissolved Inorganic Carbon (mg/L)	--		
Iron (mg/L)	0.3		
Manganese (ug/L)	--		
Field pH (std. Units)	6.5-8.5		
Field Temperature (°C)	--		
Field Conductivity (µS/cm)	--		
Field Dissolved Oxygen	pH and Temp related		

Notes:

[1] *Provincial Water Quality Objectives, July 1994, Reprinted February 1999, where applicable*

[2] *Interim PWQO*

[3] *Calculated from total ammonia, as per PWQO*

[4] *Interim PWQO for lakes (0.02 mg/L); Interim PWQO for rivers and streams (0.03 mg/L)*

[5] *Average total phosphorous should not exceed 0.02 mg/L*

Table B-5
City of Orillia - Kitchener Street Waste Diversion Site
2025 Surface Water Monitoring Program

RECORD OF FLOW

DATE	S7 *Litres/Sec*
26/Apr/11	176
08/Oct/11	244
10/Dec/11	38
05/Apr/12	196
19/Jul/12	27
31/Oct/12	8435
02/May/13	203
25/Jul/13	34
13/Oct/13	371
06/May/14	198
17/Jul/14	86
25/Sep/14	124
27/Apr/15	123
17/Jul/15	83
25/Sep/15	69
03/May/16	187
13/Jul/16	55
05/Oct/16	91
18/Apr/17	213
12/Jul/17	145
13/Oct/17	185
08/May/18	276
11/Jul/18	161
11/Oct/18	208
17/Apr/19	276
11/Jul/19	161
24/Oct/19	208
27/Apr/20	220
17/Jul/20	162
24/Oct/20	139
27/Apr/21	428
17/Jul/21	275
24/Oct/21	101
26/Apr/22	414
06/Jul/22	993
29/Sep/22	139
24/Apr/23	104
06/Jul/23	162
10/Oct/23	522
22/Apr/24	341
03/Jul/24	102
26/Sep/24	225
24/Apr/25	349
15/Jul/25	45
15/Oct/25	53

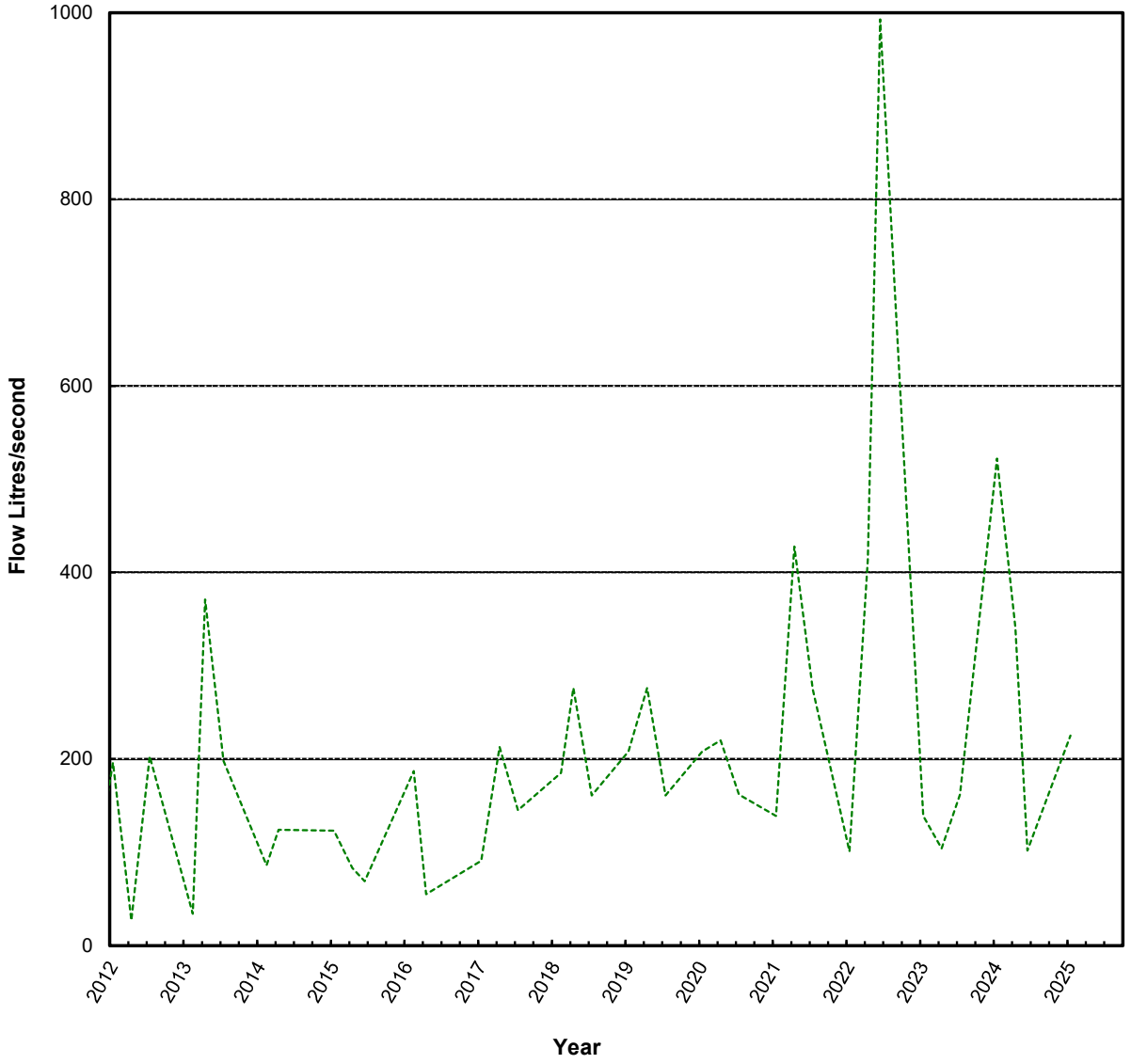


Table B-6
City of Orillia - Kitchener Street Waste Diversion Site
2025 Surface Water Monitoring Program

ID	Date	LIMS	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	Dibromoethane,1,2-	Dichlorobenzene,1,2-	Dichlorobenzene,1,3-	Dichlorobenzene,1,4-	Dichloroethane,1,1-	Dichloroethane,1,2-	Dichloroethene, 1,1-	Dichloroethene, cis-1,2-	Dichloroethene, trans-1,2-	Dichloropropane,1,2-	Dichloropropene, cis-1,3-	trans-1,3-Dichloropropene	Ethylbenzene	Dichloromethane	Styrene	Tetrachloroethane,1,1,1,2-	Tetrachloroethane,1,1,2,2-	Tetrachloroethene	Toluene	Trichloroethane,1,1,1-	Trichloroethane,1,1,2-	Trichloroethylene	Trichlorofluoromethane	Vinyl chloride	Xylene, m,p-	Xylene, o-
	Units		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	M.D.L.		0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	2	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.5	0.3	0.3	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.2	0.4	0.3
	PWQO		100	200	60	0.9	-	15	-	-	700	40	-	2.5	2.5	4	200	100	40	200	200	-	-	7	8	-	4	20	70	50	0.8	10	800	20		600	32	40
	ODWS		1	-	-	-	1	80	-	-	-	-	-	200	-	5	-	5	14	-	-	-	-	-	1.6	-	-	-	-	10	24	-	-	50		2	20	
BH3-IR	05-May-2025		0.80	<0.50	<0.50	<0.50	<0.20	<0.50	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	<0.40	<0.30
BH3-IIR	05-May-2025		4.45	<0.50	<0.50	<0.50	<0.20	4.16	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	0.97	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	2.34	0.56
BH5-IR	08-May-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH5-IIIR	08-May-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH6R	05-May-2025		0.94																						<0.50		<0.50				<0.50						<0.40	<0.30
BH17-III	07-May-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH21-IR	07-May-2025		<0.50	<0.50	<0.50	<0.50	<0.20	2.40	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	0.82	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	<0.40	<0.30
BH21-IIR	07-May-2025		<0.50	<0.50	<0.50	<0.50	<0.20	3.33	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	1.08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	<0.40	<0.30
BH22-IR	07-May-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH22-II	07-May-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH26	07-May-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH506R	05-May-2025		0.76																						<0.50		<0.50				<0.50						<0.40	<0.30
BH3-IR	22-Jul-2025		0.85	<0.50	<0.50	<0.50	<0.20	<0.5	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	<0.40	<0.30
BH3-IIR	22-Jul-2025		4.07	<0.50	<0.50	<0.50	<0.20	4.16	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	1.09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	1.46	0.33
BH5-IR	22-Jul-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH5-IIIR	22-Jul-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH6R	22-Jul-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH11R	09-Jul-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH21-IR	16-Jul-2025		<0.5	<0.50	<0.50	<0.50	<0.20	2.28	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	0.88	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	<0.40	<0.30
BH21-IIR	16-Jul-2025		<0.5	<0.50	<0.50	<0.50	<0.20	5.59	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	1.65	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	<0.40	<0.30
BH3-IR	22-Oct-2025		<0.5	<0.50	<0.50	<0.50	<0.20	<0.50	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	<0.40	<0.30
BH3-IIR	22-Oct-2025		5.18	<0.50	<0.50	<0.50	<0.20	5.23	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	1.08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	1.25	0.43
BH5-IR	20-Oct-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH5-IIIR	20-Oct-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH6R	08-Oct-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH11R	20-Oct-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH17-III	09-Oct-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH21-IR	08-Oct-2025		<0.5	<0.50	<0.50	<0.50	<0.20	1.87	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	0.88	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20	<0.40	<0.30
BH21-IIR	08-Oct-2025		<0.5	<0.50	<0.50	<0.50	<0.20	5.91	<0.50	<0.50	<2.0	<0.50	<0.20	<0.50	<0.50	1.68	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.30	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	211	<0.50	<0.50	<0.50	<0.50	<0.20	<0.40	<0.30
BH22-IR	06-Oct-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30
BH22-II	06-Oct-2025		<0.50																						<0.50		<0.50				<0.50						<0.40	<0.30

Table B-7
City of Orillia - Kitchener Street Waste Diversion Site
2025 Surface Water Monitoring Program

ID	LIMS	Date Collected	FPH	Hardness (as CaCO3)	Alkalinity (as CaCO3)	Conductivity	pH	Chloride	Nitrite (N)	Nitrate (N)	Sulphate	Calcium	Calcium (dissolved)	Magnesium	Magnesium (dissolved)	Sodium	Sodium (dissolved)	Potassium	Potassium (dissolved)	Ammonia (N) - Total	Total Kjeldahl Nitrogen	Phosphorus - Total	Phenolics	Dissolved Organic Carbon	Ion Balance
		Units		mg/L	mg/L	µS/cm	pH Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	µg/L	mg/L	%
		MDL		0.5	2	2		0.5	0.01	0.02	0.3	0.05	0.05	0.005	0.005	0.05	0.05	0.05	0.05	0.005	0.05	0.002	1	0.5	
BH6R		05-May-2025																				0.490			
BH506R		05-May-2025																				0.510			
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-		-		-		-		-	-	**4.0%**	-		-
BH14-IIIR		16-Apr-2025		529	533	1180	7.90	82.2	<0.050	<0.100	27.9		136		45.9		75.1		21.4	1.94	6.03	0.262	<0.0010	35.3	3.55
BH514-IIIR		16-Apr-2025		527	536	1170	7.90	80.8	<0.050	<0.100	29.3		136		45.6		74.9		21.5	1.92	5.66	0.262	<0.0010	34.6	3.20
Relative Percent Difference			-	**0.4%**	**0.6%**	**0.9%**	**0.0%**	**1.7%**	-	-	**4.9%**		**0.0%**		**0.7%**		**0.3%**		**0.5%**	**1.0%**	**6.3%**	**0.0%**	-	**2.0%**	**10.4%**
BH14-IIIR		30-Apr-2025	-									135		45.5		68.4		18.7						33.2	
BH514-IIIR		30-Apr-2025	-									135		45.4		67.9		18.6						35.2	
Relative Percent Difference			-	-	-	-	-	-	-	-	-	**7.3%**		**5.1%**		**4.9%**		**0.5%**		-	-	-	-	**5.8%**	-
S-3		22-Apr-2025		312	222	1130	8.12	208	0.121	0.608	30.8	96.1	100	14.6	15.2	113	119	4.84	5.4	4.17	5.44	0.0394	0.0027	6.90	3.93
S-503		22-Apr-2025		296	227	1150	8.12	213	0.128	0.654	32.3	94.8	95.8	14.6	13.9	113	107	4.86	5.1	4.20	5.08	0.0386	0.0040	7.73	-1.34
Relative Percent Difference			-	**5.3%**	**2.2%**	**1.8%**	**0.0%**	**2.4%**	**5.6%**	**7.3%**	**4.8%**	**1.4%**	**4.3%**	**0.0%**	**8.9%**	**0.0%**	**10.6%**	**0.4%**	**4.6%**	**0.7%**	**6.8%**	**2.1%**	**38.8%**	**11.3%**	**406.9%**
S-4		22-Apr-2025		258	200	917	8.19	166	<0.020	0.220	13.0	81.9	79.3	12.9	11.8	93.5	85.3	2.64	2.56	0.0619	0.392	0.0154	0.0013	7.81	97.1
S-4D		22-Apr-2025		255	203	916	8.21	166	<0.020	0.217	12.9	81.2	80.4	12.8	12.1	92.9	86.9	2.61	2.62	0.0624	0.398	0.0154	0.0019	7.34	98.1
Relative Percent Difference			-	**1.2%**	**1.5%**	**0.1%**	**0.2%**	**0.0%**	-	**1.4%**	**0.8%**	**0.9%**	**1.4%**	**0.8%**	**2.5%**	**0.6%**	**1.9%**	**1.1%**	**2.3%**	**0.8%**	**1.5%**	**0.0%**	**37.5%**	**6.2%**	**1.0%**
BH1-III		08-Jul-2025		630	309	2310	7.01	553	<0.050	<0.100	3.33	200	161	31.6	13.9	294	279	5.40	<0.500	0.0942	4.44	0.907	1.3	67.0	-0.92
DUP1		08-Jul-2025		627	319	2290	7.01	555	<0.050	<0.100	2.82	200	162	30.9	14.7	293	289	5.37	<0.500	0.114	17.8	0.899	1.1	66.8	-0.45
Relative Percent Difference			-	**0.5%**	**3.2%**	**0.9%**	**0.0%**	**0.4%**	-	-	**16.6%**	**0.0%**	**0.6%**	**2.2%**	**5.6%**	**0.3%**	**3.5%**	**0.6%**	-	**19.0%**	**120.1%**	**0.9%**	**16.7%**	**0.3%**	**-68.6%**
BH10R		09-Jul-2025		465	534	1220	8.26	102	0.040	<0.040	0.75	125	116	44.2	42.6	82.6	79.8	20.0	18.7	1.18	3.05	0.233	1.8	20.9	-0.74
DUP2		09-Jul-2025		473	537	1240	7.83	102	<0.020	<0.040	0.62	126	120	45.1	42.2	84.4	79.6	20.3	18.4	1.23	2.55	0.210	1.7	20.6	-0.37
Relative Percent Difference			-	**1.7%**	**0.6%**	**1.6%**	**5.3%**	**0.0%**	-	-	**19.0%**	**0.8%**	**3.4%**	**2.0%**	**0.9%**	**2.2%**	**0.3%**	**1.5%**	**1.6%**	**4.1%**	**17.9%**	**10.4%**	**5.7%**	**1.4%**	**-66.7%**
S-14		14-Jul-2025		141	112	470	8.41	62.4	<0.010	0.024	16.0	43.0	45.0	8.09	9.15	33.5	37.2	2.20	2.34	0.0162	0.467	0.0050	<1	4.82	3.77
DUP3		14-Jul-2025		142	114	468	8.44	63.1	<0.010	0.031	16.1	43.3	40.8	8.16	8.31	33.8	35.6	2.24	2.32	0.0172	0.440	0.0049	<1	4.89	-0.8
Relative Percent Difference			-	**0.7%**	**1.8%**	**0.4%**	**0.4%**	**1.1%**	-	**25.5%**	**0.6%**	**0.7%**	**9.8%**	**0.9%**	**9.6%**	**0.9%**	**4.4%**	**1.8%**	**0.9%**	**6.0%**	**6.0%**	**2.0%**	-	**1.4%**	**307.7%**
S-7		15-Jul-2025		325	258	1040	8.30	166	<0.010	0.454	10.6	94.4	97	21.7	24.3	81.7	91	2.11	2.17	0.0531	0.515	0.0255	1.3	4.93	3.35
DUP4		15-Jul-2025		325	255	1040	8.36	165	<0.010	0.451	10.7	94.2	87.6	21.9	22.4	82.3	88.4	2.13	2.2	0.0354	0.523	0.0255	1.2	4.91	0.5
Relative Percent Difference			-	**0.0%**	**1.2%**	**0.0%**	**0.7%**	**0.6%**	-	**0.7%**	**0.9%**	**0.2%**	**10.2%**	**0.9%**	**8.1%**	**0.7%**	**2.3%**	**0.9%**	**1.8%**	**40.0%**	**1.5%**	**0.0%**	**8.0%**	**0.4%**	**148.1%**
BH21-IR		16-Jul-2025		732	523	1320	7.62	113	<0.050	<0.100	9.88	207	164	52.3	35.4	38.6	40.0	44.0	42.1	11.0	14.6	0.776	6.6	19.5	6.12
DUP5		16-Jul-2025		793	532	1330	7.25	116	<0.050	<0.100	9.53	221	141	58.5	30.3	39.2	36.4	45.2	42.4	10.9	13.9	0.794	6	20.9	-0.71
Relative Percent Difference			-	**8.0%**	**1.7%**	**0.8%**	**5.0%**	**2.6%**	-	-	**3.6%**	**6.5%**	**15.1%**	**11.2%**	**15.5%**	**1.5%**	**9.4%**	**2.7%**	**0.7%**	**0.9%**	**4.9%**	**2.3%**	**9.5%**	**6.9%**	**252.5%**
BH3-IR		22-Jul-2025		1090	820	2300	6.94	239	<0.050	<0.100	5.01	320	289	99.3	89.3	162	168	3.43	2.86					28.9	12.6
DUP6		22-Jul-2025		1080	820	2270	6.90	237	<0.050	<0.100	5.02	307	286	95.3	88.4	162	166	3.30	2.90					27.2	12.3
Relative Percent Difference			-	**0.9%**	**0.0%**	**1.3%**	**0.6%**	**0.8%**	-	-	**0.2%**	**4.1%**	**1.0%**	**4.1%**	**1.0%**	**0.0%**	**1.2%**	**3.9%**	**1.4%**	-	-	-	-	**6.1%**	**2.4%**
BH6R		08-Oct-2025		743	819	1840	7.04	130	<0.050	<0.100	19.2	234	229	38.6	36.5	91.5	92.8	36.0	34.8	27.6	38.3	0.554	2.5	35.4	2.86
DUP1		08-Oct-2025		762	808	1830	7.12	124	<0.050	<0.100	18.0	240	230	39.6	35.9	91.5	91.0	36.7	34.6	30.3	37.3	0.482	2.9	35.6	4.08
Relative Percent Difference			-	**2.5%**	**1.4%**	**0.5%**	**1.1%**	**4.7%**	-	-	**6.5%**	**2.5%**	**0.4%**	**2.6%**	**1.7%**	**0.0%**	**2.0%**	**1.9%**	**0.6%**	**9.3%**	**2.6%**	**13.9%**	**14.8%**	**0.6%**	**35.2%**
BH14-IIIR		14-Oct-2025		525	512	1140	8.13	92.4	<0.050	<0.100	<1.50	140	121	42.7	39.0	70.1	67.9	19.5	18.1	1.87	4.47	0.188	<1	35.4	0
DUP2		14-Oct-2025		519	516	1140	8.10	93.8	<0.050	<0.100	<1.50	138	119	42.4	40.0	69.9	67.7	20.8	17.9	1.90	5.41	0.191	1.2	35.8	-0.78
Relative Percent Difference			-	**1.1%**	**0.8%**	**0.0%**	**0.4%**	**1.5%**	-	-	-	**1.4%**	**1.7%**	**0.7%**	**2.5%**	**0.3%**	**0.3%**	**6.5%**	**1.1%**	**1.6%**	**19.0%**	**1.6%**	-	**1.1%**	**-200.0%**
S-7		15-Oct-2025		343	262	1020	8.49	171	<0.050	0.397	12.5	98.4	90.3	23.6	22.5	83.9	84.4	2.28	2.37	0.0336	0.348	0.0161	<1	4.51	-0.98
DUP3		15-Oct-2025		345	267	1010	8.56	170	<0.050	0.771	12.6	99.0	88.5	23.8	23.0	84.8	84.4	2.33	2.39	0.0580	0.380	0.0157	<1	5.92	-1.96
Relative Percent Difference			-	**0.6%**	**1.9%**	**1.0%**	**0.8%**	**0.6%**	-	**64.0%**	**0.8%**	**0.6%**	**2.0%**	**0.8%**	**2.2%**	**1.1%**	**0.0%**	**2.2%**	**0.8%**	**53.3%**	**8.8%**	**2.5%**	-	**27.0%**	**-66.7%**
BH11R		20-Oct-2025		527	360	1490	7.15	149	<0.050	<0.100	183	145	131	40.0	38.1	117	123	26.3	24.9	0.119	1.89	0.162	2	27.3	1.62
DUP4		20-Oct-2025		523	356	1500	7.07	152	<0.050	<0.100	204	145	129	39.1	37.4	115	121	25.8	24.1	0.107	1.90	15.1	1.3	26.9	-0.64
Relative Percent Difference			-	**0.8%**	**1.1%**	**0.7%**	**1.1%**	**2.0%**	-	-	**10.9%**	**0.0%**	**1.5%**	**2.3%**	**1.9%**	**1.7%**	**1.6%**	**1.9%**	**3.3%**	**10.6%**	**0.5%**	**195.8%**	**42.4%**	**1.5%**	**461.2%**
BH5-IIIR		20-Oct-2025		420	493	1200	7.93	101	<0.050	<0.100	<1.50	193	131	42.1	22.6	58.7	61.6	82.3	75.4	1.25	18.7	0.0197	1.9	37.9	1.55
DUP5		20-Oct-2025		406	498	1210	7.73	97.1	<0.050	<0.100	<1.50	237	126	45.6	22.1	61.2	61.9	91.6	72.5	1.25	17.3	1.97	1.2	39.4	0.39
Relative Percent Difference			-	**3.4%**	**1.0%**	**0.8%**	**2.6%**	**3.9%**	-	-	-	**20.5%**	**3.9%**	**8.0%**	**2.2%**	**4.2%**	**0.5%**	**10.7%**	**3.9%**	**0.0%**	**7.8%**	**196.0%**	**45.2%**	**3.9%**	**119.6%**

Table B-8
City of Orillia - Kitchener Street Waste Diversion Site
2025 Surface Water Monitoring Program

ID	LIMS	Date Collected	Aluminum	Barium	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Nickel	Selenium	Silver	Zinc
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
		MDL	3	1	0.005	0.5	0.1	0.5	0.01	0.05	0.1	0.5	0.05	0.01	3
BH6R		05-May-2025													
BH506R		05-May-2025													
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-
BH14-IIIR		16-Apr-2025	14.6	187	<0.050	<0.50	0.31	<0.20	0.978	0.069	451	1.86	0.902	<0.010	2.2
BH514-IIIR		16-Apr-2025	14.3	185	<0.050	<0.50	0.32	<0.20	0.955	0.066	454	1.74	0.766	<0.010	2.2
Relative Percent Difference			**2.1%**	**1.1%**	-	-	**3.2%**	-	**2.4%**	**4.4%**	**0.7%**	**6.7%**	**16.3%**	-	-
BH14-IIIR		30-Apr-2025	1640	179	0.059	<0.05	1.25	<5.00	3.24	0.953	450	<5.00	<0.500	<0.010	<30.0
BH514-IIIR		30-Apr-2025	1640	178	<0.05	<0.05	1.2	<5.00	3.24	0.941	449	<5.00	<0.500	<0.010	<30.0
Relative Percent Difference			**0.0%**	**0.6%**	-	-	**4.1%**	-	**0.0%**	**1.3%**	**0.2%**	-	-	-	-
S-3		22-Apr-2025	142	90.3	0.005	<0.5	1.1	1.18	0.14	0.095	60.4	0.65	0.22	<0.010	5.9
S-503		22-Apr-2025	143	88.2	0.006	<0.5	1.1	1.25	0.137	0.092	59.9	0.67	0.219	<0.010	5.4
Relative Percent Difference			**0.7%**	**2.4%**	**18.2%**	-	**0.0%**	**5.8%**	**2.9%**	**3.2%**	**0.8%**	**3.0%**	**0.5%**	-	**8.8%**
S-4		22-Apr-2025	36.8	95.5	0.0067	<0.5	<0.1	0.8	0.23	0.10	54	<0.5	0.11	<0.01	3
S-4D		22-Apr-2025	38.3	94.8	<0.005	<0.5	<0.1	0.7	0.23	0.09	54.4	<0.5	0.12	<0.01	<3
Relative Percent Difference			**4.0%**	**0.7%**	-	-	-	**5.5%**	**0.0%**	**7.3%**	**0.7%**	-	**14.2%**	-	-
BH1-III		08-Jul-2025	18900	362	0.194	27.0	10.5	22.6	22.10	9.34	773	22.9	<0.5	<0.1	88.4
DUP1		08-Jul-2025	18800	361	0.185	26.5	10.4	21.7	21.50	9.1	755	22.1	<0.5	<0.1	87.7
Relative Percent Difference			**0.5%**	**0.3%**	**4.7%**	**1.9%**	**1.0%**	**4.1%**	**2.8%**	**2.6%**	**2.4%**	**3.6%**	-	-	**0.8%**
BH10R		09-Jul-2025	2020	334	<0.05	<5	1.34	<5	3.19	0.75	369	6.69	<0.5	<0.1	<30
DUP2		09-Jul-2025	2050	343	<0.05	<5	1.34	<5	3.23	0.782	379	6.66	<0.5	<0.1	<30
Relative Percent Difference			**1.5%**	**2.7%**	-	-	**0.0%**	-	**1.2%**	**4.2%**	**2.7%**	**0.4%**	-	-	-
S-14		14-Jul-2025	<3	29.3	<0.05	<0.5	<0.1	<0.5	<0.01	<0.05	2.71	<0.5	0.063	<0.01	<3
DUP3		14-Jul-2025	<3	35.4	<0.05	<0.5	<0.1	<0.5	<0.01	<0.05	2.88	<0.5	0.064	<0.01	<3
Relative Percent Difference			-	**18.9%**	-	-	-	-	-	-	**6.1%**	-	**1.6%**	-	-
S-7		15-Jul-2025	130	166	0.0054	<0.5	0.11	0.57	0.518	0.232	135	<0.5	0.11	<0.01	5.8
DUP4		15-Jul-2025	134	170	0.0058	<0.5	0.13	0.74	0.528	0.251	138	<0.5	0.09	<0.01	4
Relative Percent Difference			**3.0%**	**2.4%**	**7.1%**	-	**16.7%**	**26.0%**	**1.9%**	**7.9%**	**2.2%**	-	**20.0%**	-	**36.7%**
BH21-IR		16-Jul-2025	3610	239	<0.05	6.3	3.68	2.56	32.30	2.84	1380	6.92	<0.5	<0.1	<30
DUP 5		16-Jul-2025	4000	243	<0.05	6.93	4.32	2.62	32.30	2.99	1420	8.85	<0.5	<0.1	<30
Relative Percent Difference			**10.2%**	**1.7%**	-	**9.5%**	**16.0%**	**2.3%**	**0.0%**	**5.1%**	**2.9%**	**24.5%**	-	-	-
BH3-IR		22-Jul-2025	1820	434	0.055	<5	9.25	<5	27.8	1.33	2310	2.22	<0.5	<0.1	<30
DUP6		22-Jul-2025	1130	431	0.05	<5	8.86	<5	27.3	1.05	2270	1.97	<0.5	<0.1	<30
Relative Percent Difference			**46.8%**	**0.7%**	**9.5%**	-	**4.3%**	-	**1.8%**	**23.5%**	**1.7%**	**11.9%**	-	-	-
6R		08-Oct-2025	13300	448	0.168	14.6	5.41	8.3	17.9	3.92	1070	11.2	<0.5	<0.1	51.1
DUP1		08-Oct-2025	17000	489	0.224	18.7	6.34	10.5	20.5	4.72	1090	14	0.527	<0.1	64.3
Relative Percent Difference			**24.4%**	**8.8%**	**28.6%**	**24.6%**	**15.8%**	**23.2%**	**13.5%**	**18.5%**	**1.9%**	**22.2%**	-	-	**22.9%**
14-IIIR		14-Oct-2025	2530	222	<0.05	5.87	1.54	<5	3.54	0.919	364	<5	<0.5	<0.1	<30
DUP2		14-Oct-2025	2450	240	0.0376	5.35	1.69	3.05	3.50	0.892	366	5.0	0.266	<0.1	7.4
Relative Percent Difference			**3.2%**	**7.8%**	-	**9.3%**	**9.3%**	-	**1.1%**	**3.0%**	**0.5%**	-	-	-	-
S-7		15-Oct-2025	41.6	183	<0.05	<0.5	<0.1	<0.5	0.38	0.085	59.4	<0.5	0.074	<0.1	<30
DUP3		15-Oct-2025	36.6	186	<0.05	<0.5	<0.1	<0.5	0.37	0.072	58.1	<0.5	0.066	<0.1	<30
Relative Percent Difference			**12.8%**	**1.6%**	-	-	-	-	**4.0%**	**16.6%**	**2.2%**	-	**11.4%**	-	-
11R		20-Oct-2025	3400	328	0.196	5.57	9.03	22.1	0.52	2.56	208	1.25	0.364	0.031	27.4
DUP4		20-Oct-2025	3270	323	0.199	5.28	8.81	21.5	4.33	2.55	204	1.21	0.313	0.034	26.1
Relative Percent Difference			**3.9%**	**1.5%**	**1.5%**	**5.3%**	**2.5%**	**2.8%**	**157.1%**	**0.4%**	**1.9%**	**3.3%**	**15.1%**	**9.2%**	**4.9%**
BH5-IIIR		20-Oct-2025	56200	968	0.669	69.1	26.8	58.7	60.1	28.1	793	51.7	1.4	0.18	275
DUP5		20-Oct-2025	59300	1060	1.03	70.4	29.4	82.2	62.7	38.9	935	56.7	2.48	0.192	293
Relative Percent Difference			**5.4%**	**9.1%**	**42.5%**	**1.9%**	**9.3%**	**33.4%**	**4.2%**	**32.2%**	**16.4%**	**9.2%**	**55.7%**	**6.5%**	**6.3%**
			-	-	-	-	-	-	26.10	-	1120	-	-	-	-
			-	-	-	-	-	-	24.70	-	1070	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	**5.5%**	-	**4.6%**	-	-	-	-
			-	-	-	-	-	-	8.54	-	67	-	-	-	-
			-	-	-	-	-	-	12.90	-	164	-	-	-	-
Relative Percent Difference			-	-	-	-	-	-	**40.7%**	-	**84.0%**	-	-	-	-

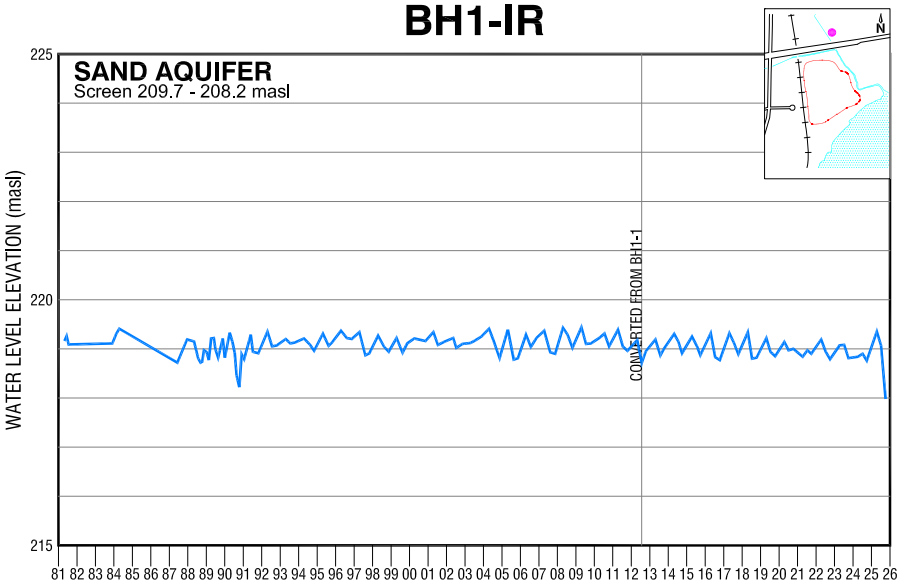
Table B-9
City of Orillia - Kitchener Street Waste Diversion Site
2025 Surface Water Monitoring Program

ID	LIMS	Date Collected	Benzene	Bromodichloromethane	Bromoform	Bromomethane	Carbon Tetrachloride	Monochlorobenzene (Chlorobenzene)	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	Dibromoethane,1,2- (Ethylene Dibromide)	Dichlorobenzene ,1,2-	Dichlorobenzene,1,3-	Dichlorobenzene ,1,4-	Dichloroethane ,1,1-	Dichloroethane,1,2-	Dichloroethene,1,1-	Dichloroethene, cis-1,2-	Dichloroethene, trans-1,2-	Dichloropropane,1,2-	Dichloropropene, cis-1,3	Dichloropropene, trans-1,3	Ethylbenzene	Dichloromethane (Methylene Chloride)	Styrene	Tetrachloroethane,1,1,1,2-	Tetrachloroethane,1,1,2,2-	Tetrachloroethylene	Toluene	Trichloroethane,1,1,1-	Trichloroethane,1,1,2-	Trichloroethylene	Trichlorofluoromethane	Vinyl Chloride	Xylene, m,p-	Xylene, o-
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
		MDL	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.5	2	0.5	0.2	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.5	0.3	0.3	0.5	1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	5	0.2	0.4	0.3
BH6R		05-May-2025	0.94																						<0.5		<0.5				<0.5						<0.4	<0.3
BH506R		05-May-2025	0.76																						<0.5		<0.5				<0.5						<0.4	<0.3
Relative Percent Difference			**21.2%**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH21-IR		16-Jul-2025	<0.50	<0.50	<0.50	<0.50	<0.2	2.28	<0.5	<0.5	<2	<0.5	<0.2	<0.5	<0.5	0.88	<0.5	<0.5	<0.5	<0.3	<0.3	<0.5	<0.3	<0.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.2	<0.4	<0.3
DUP 5		16-Jul-2025	<0.50	<0.50	<0.50	<0.50	<0.2	2.37	<0.5	<0.5	<2	<0.5	<0.2	<0.5	<0.5	0.91	<0.5	<0.5	<0.5	<0.3	<0.3	<0.5	<0.3	<0.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.2	<0.4	<0.3
Relative Percent Difference			-	-	-	-	-	**3.9%**	-	-	-	-	-	-	-	**3.4%**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH3-IR		22-Jul-2025	0.85	<0.50	<0.50	<0.50	<0.2	<0.5	<0.5	<0.5	<2	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.5	<0.3	<0.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.2	<0.4	<0.3
DUP6		22-Jul-2025	0.94	<0.50	<0.50	<0.50	<0.2	<0.5	<0.5	<0.5	<2	<0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.5	<0.3	<0.3	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5	<0.2	<0.4	<0.3
Relative Percent Difference			**10.1%**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BH6R		08-Oct-2025	<0.5																						<0.5		<0.5				<0.5						<0.4	<0.3
DUP1		08-Oct-2025	<0.5																						<0.5		<0.5				<0.5						<0.4	<0.3
Relative Percent Difference			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

APPENDIX C

Water Level Hydrographs

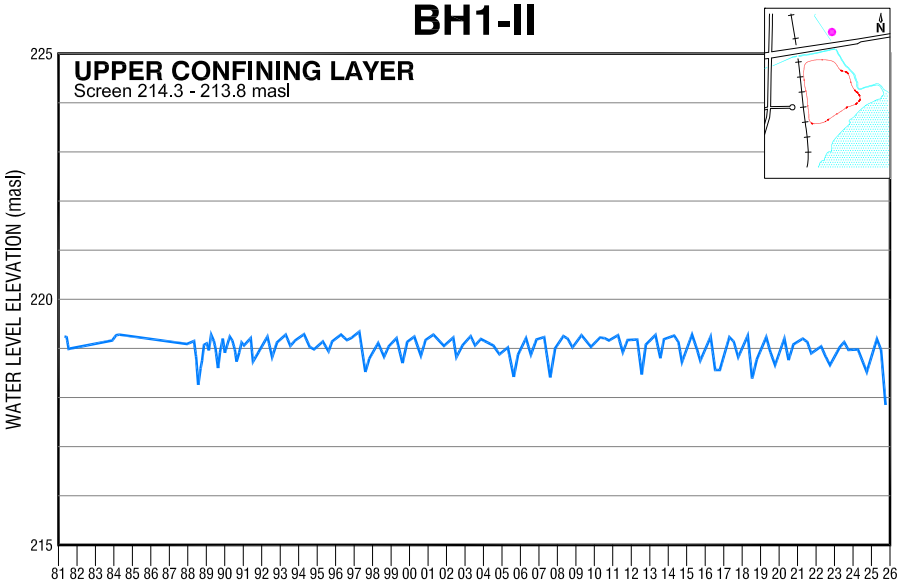
BH1-IR



MP Elevation 220.08 masl

DATE	ELEVATION	DATE	ELEVATION
21-Jul-09	219.10	17-Oct-17	218.89
27-Oct-09	219.11	23-Apr-18	219.34
22-Apr-10	219.23	16-Jul-18	218.80
21-Jul-10	219.31	15-Oct-18	218.82
19-Oct-10	219.05	23-Apr-19	219.22
14-Apr-11	219.39	15-Jul-19	218.94
19-Jul-11	219.04	15-Oct-19	218.85
20-Oct-11	218.96	14-Apr-20	219.14
27-Apr-12	219.18	08-Jul-20	218.97
26-Jul-12	218.71	08-Oct-20	219.00
15-Oct-12	218.95	13-Apr-21	218.84
22-Apr-13	219.19	12-Jul-21	218.97
29-Jul-13	218.87	29-Sep-21	218.90
08-Oct-13	219.00	11-Apr-22	219.19
28-Apr-14	219.30	11-Jul-22	218.94
21-Jul-14	219.15	04-Oct-22	218.79
30-Sep-14	218.91	11-Apr-23	219.07
15-Apr-15	219.25	10-Jul-23	219.08
20-Jul-15	219.06	04-Oct-23	218.81
28-Sep-15	218.87	08-Apr-24	218.84
19-Apr-16	219.32	08-Jul-24	218.90
17-Jul-16	218.83	01-Oct-24	218.76
17-Oct-16	218.77	16-Apr-25	219.35
24-Apr-17	219.32	08-Jul-25	219.07
18-Jul-17	219.13	06-Oct-25	217.98

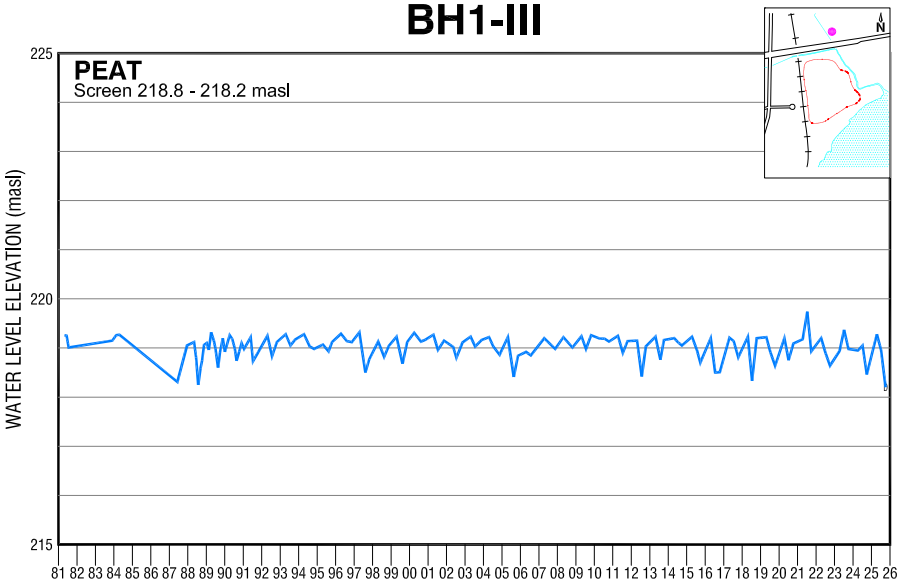
BH1-II



MP Elevation 220.12 masl

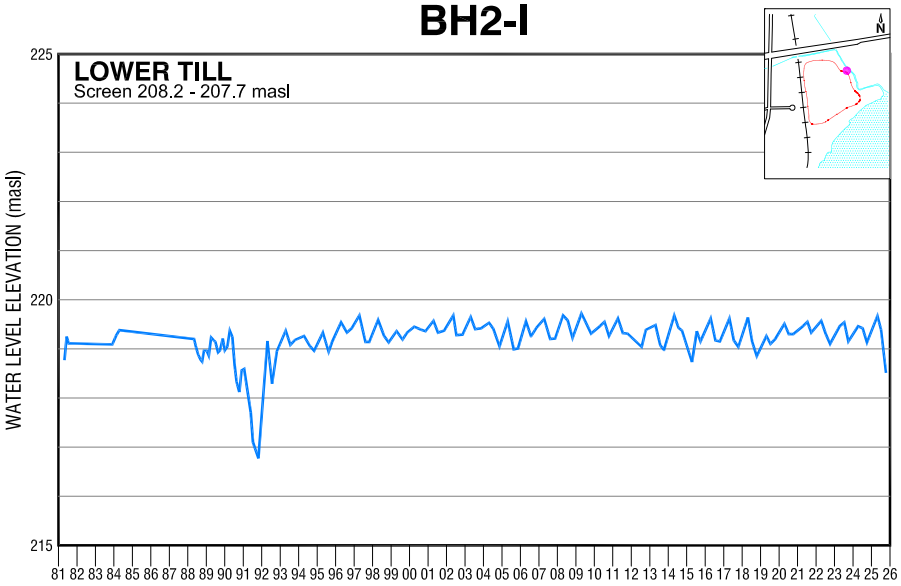
DATE	ELEVATION	DATE	ELEVATION
22-Apr-09	219.27	17-Oct-17	218.82
27-Oct-09	219.03	23-Apr-18	219.26
22-Apr-10	219.22	16-Jul-18	218.41
21-Jul-10	219.21	24-Jul-18	218.41
19-Oct-10	219.16	15-Oct-18	218.77
14-Apr-11	219.27	23-Apr-19	219.23
19-Jul-11	218.92	15-Jul-19	218.92
19-Oct-11	219.17	15-Oct-19	218.66
27-Apr-12	219.18	14-Apr-20	219.20
26-Jul-12	218.47	08-Jul-20	218.76
15-Oct-12	219.07	08-Oct-20	219.08
22-Apr-13	219.27	13-Apr-21	219.20
29-Jul-13	218.80	12-Jul-21	219.13
08-Oct-13	219.18	29-Sep-21	218.90
28-Apr-14	219.26	11-Apr-22	219.04
21-Jul-14	219.13	11-Jul-22	218.83
30-Sep-14	218.72	04-Oct-22	218.66
15-Apr-15	219.28	11-Apr-23	219.02
20-Jul-15	218.99	10-Jul-23	219.13
28-Sep-15	218.75	04-Oct-23	218.97
19-Apr-16	219.24	08-Apr-24	218.98
17-Jul-16	218.56	01-Oct-24	218.52
17-Oct-16	218.56	16-Apr-25	219.19
24-Apr-17	219.23	08-Jul-25	218.97
18-Jul-17	219.14	06-Oct-25	217.85

BH1-III



DATE	ELEVATION	DATE	ELEVATION
21-Jul-09	218.98	17-Oct-17	218.81
29-Oct-09	219.26	23-Apr-18	219.23
21-Apr-10	219.19	16-Jul-18	218.33
21-Jul-10	219.19	15-Oct-18	219.20
19-Oct-10	219.13	23-Apr-19	219.22
12-Apr-11	219.25	15-Jul-19	218.91
19-Jul-11	218.90	15-Oct-19	218.64
19-Oct-11	219.14	14-Apr-20	219.20
25-Apr-12	219.15	08-Jul-20	218.75
26-Jul-12	218.42	08-Oct-20	219.09
15-Oct-12	219.03	13-Apr-21	219.18
22-Apr-13	219.23	12-Jul-21	219.74
29-Jul-13	218.76	29-Sep-21	218.93
08-Oct-13	219.16	11-Apr-22	219.20
28-Apr-14	219.20	11-Jul-22	218.89
21-Jul-14	219.11	04-Oct-22	218.64
30-Sep-14	219.05	11-Apr-23	218.94
15-Apr-15	219.23	10-Jul-23	219.37
20-Jul-15	218.96	04-Oct-23	218.98
28-Sep-15	218.70	08-Apr-24	218.95
19-Apr-16	219.20	08-Jul-24	219.05
17-Jul-16	218.50	01-Oct-24	218.46
17-Oct-16	218.51	16-Apr-25	219.28
24-Apr-17	219.21	08-Jul-25	218.96
18-Jul-17	219.14	06-Oct-25	DRY

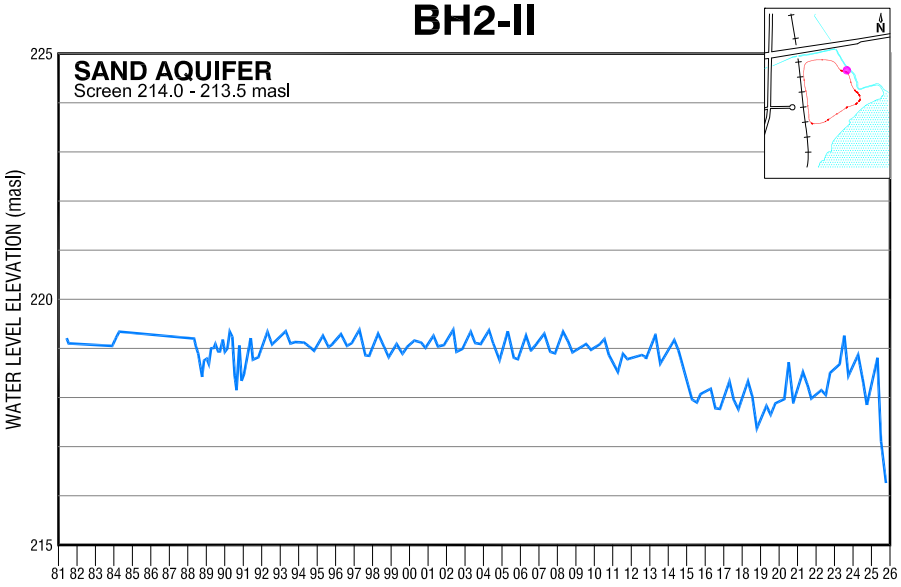
BH2-I



MP Elevation 220.68 masl

DATE	ELEVATION	DATE	ELEVATION
21-Apr-09	219.72	19-Oct-17	219.04
29-Oct-09	219.31	25-Apr-18	219.64
21-Apr-10	219.46	19-Jul-18	219.14
20-Jul-10	219.55	18-Oct-18	218.85
19-Oct-10	219.26	26-Apr-19	219.26
12-Apr-11	219.62	15-Jul-19	219.10
19-Jul-11	219.32	18-Oct-19	219.20
19-Oct-11	219.31	15-Apr-20	219.51
25-Jul-12	219.04	10-Jul-20	219.30
15-Oct-12	219.38	08-Oct-20	219.30
23-Apr-13	219.49	16-Apr-21	219.46
29-Jul-13	219.07	14-Jul-21	219.55
08-Oct-13	218.98	29-Sep-21	219.33
09-Oct-13	218.98	14-Apr-22	219.57
29-Apr-14	219.68	14-Jul-22	219.30
22-Jul-14	219.43	05-Oct-22	219.10
29-Sep-14	219.37	13-Apr-23	219.46
16-Apr-15	218.73	13-Jul-23	219.54
20-Jul-15	219.36	03-Oct-23	219.15
30-Sep-15	219.15	10-Apr-24	219.46
20-Apr-16	219.62	09-Jul-24	219.42
22-Jul-16	219.17	02-Oct-24	219.13
20-Oct-16	219.15	29-Apr-25	219.67
25-Apr-17	219.62	09-Jul-25	219.39
21-Jul-17	219.17	14-Oct-25	218.51

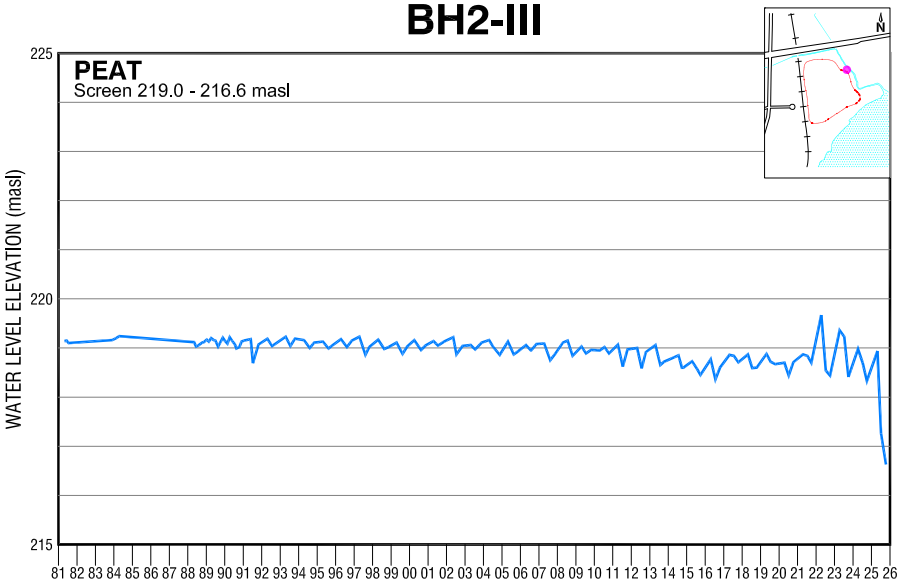
BH2-II



MP Elevation 219.53 masl

DATE	ELEVATION	DATE	ELEVATION
21-Jul-09	219.09	25-Apr-18	218.33
29-Oct-09	218.97	19-Jul-18	218.03
21-Apr-10	219.09	18-Oct-18	217.37
20-Jul-10	219.19	26-Apr-19	217.83
19-Oct-10	218.86	19-Jul-19	217.65
12-Apr-11	218.52	18-Oct-19	217.88
19-Jul-11	218.89	15-Apr-20	217.97
19-Oct-11	218.78	10-Jul-20	218.72
25-Jul-12	218.87	07-Oct-20	217.90
15-Oct-12	218.82	08-Oct-20	217.90
17-Oct-12	218.79	16-Apr-21	218.52
23-Apr-13	219.27	14-Jul-21	218.26
24-Apr-13	219.27	29-Sep-21	217.98
29-Jul-13	218.69	14-Apr-22	218.15
29-Apr-14	219.17	14-Jul-22	218.05
22-Jul-14	218.96	05-Oct-22	218.50
16-Apr-15	217.96	13-Apr-23	218.68
21-Jul-15	217.90	13-Jul-23	219.26
30-Sep-15	218.07	03-Oct-23	218.44
20-Apr-16	218.18	10-Apr-24	218.87
22-Jul-16	217.78	09-Jul-24	218.38
20-Oct-16	217.77	02-Oct-24	217.85
25-Apr-17	218.33	29-Apr-25	218.81
21-Jul-17	217.95	09-Jul-25	217.11
19-Oct-17	217.76	14-Oct-25	216.26

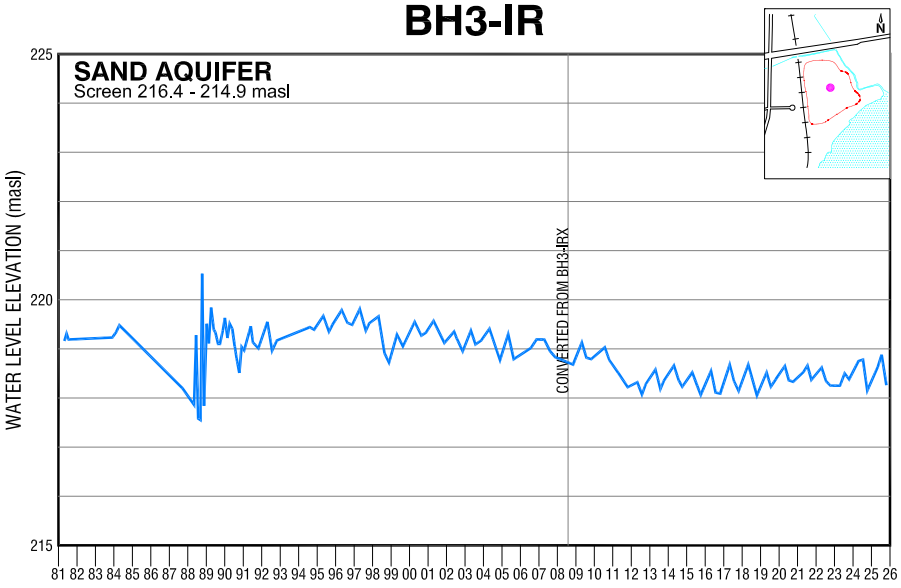
BH2-III



MP Elevation 218.94 masl

DATE	ELEVATION	DATE	ELEVATION
28-Oct-09	218.96	19-Oct-17	218.71
22-Apr-10	218.95	25-Apr-18	218.87
20-Jul-10	219.02	19-Jul-18	218.59
19-Oct-10	218.89	18-Oct-18	218.60
12-Apr-11	219.07	26-Apr-19	218.88
19-Jul-11	218.62	19-Jul-19	218.72
19-Oct-11	218.97	18-Oct-19	218.67
25-Apr-12	219.00	15-Apr-20	218.70
25-Jul-12	218.59	10-Jul-20	218.44
15-Oct-12	218.91	08-Oct-20	218.71
23-Apr-13	219.06	16-Apr-21	218.87
29-Jul-13	218.65	14-Jul-21	218.84
08-Oct-13	218.72	29-Sep-21	218.70
29-Apr-14	218.81	14-Apr-22	219.67
22-Jul-14	218.85	14-Jul-22	218.54
29-Sep-14	218.60	05-Oct-22	218.44
29-Oct-14	218.60	13-Apr-23	219.36
16-Apr-15	218.73	13-Jul-23	219.23
21-Jul-15	218.58	03-Oct-23	218.41
30-Sep-15	218.45	10-Apr-24	218.98
20-Apr-16	218.77	09-Jul-24	218.70
22-Jul-16	218.36	02-Oct-24	218.33
20-Oct-16	218.60	29-Apr-25	218.94
25-Apr-17	218.86	09-Jul-25	217.26
21-Jul-17	218.84	14-Oct-25	216.63

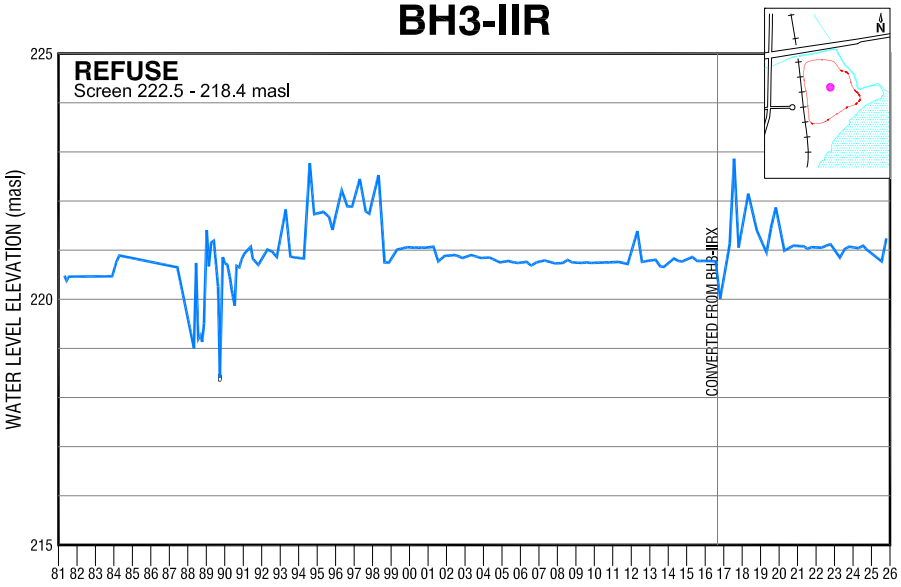
BH3-IR



MP Elevation 235.33 masl

DATE	ELEVATION	DATE	ELEVATION
20-Nov-07	218.83	25-Jul-17	218.34
06-Nov-08	218.68	23-Oct-17	218.14
28-Apr-09	219.13	01-May-18	218.68
28-Jul-09	218.82	22-Oct-18	218.05
03-Nov-09	218.79	29-Apr-19	218.52
26-Jul-10	219.03	23-Jul-19	218.23
25-Oct-10	218.77	28-Oct-19	218.38
20-Apr-11	218.51	23-Apr-20	218.65
24-Oct-11	218.22	13-Jul-20	218.36
30-Apr-12	218.32	06-Oct-20	218.33
30-Jul-12	218.07	29-Apr-21	218.53
15-Oct-12	218.29	16-Jul-21	218.66
23-Apr-13	218.58	01-Oct-21	218.37
30-Jul-13	218.18	21-Apr-22	218.62
08-Oct-13	218.35	19-Jul-22	218.34
22-Apr-14	218.66	13-Oct-22	218.25
28-Jul-14	218.36	19-Apr-23	218.25
06-Oct-14	218.23	19-Jul-23	218.50
21-Apr-15	218.52	16-Oct-23	218.38
27-Jul-15	218.25	18-Apr-24	218.75
05-Oct-15	218.06	17-Jul-24	218.78
26-Apr-16	218.55	10-Oct-24	218.15
25-Jul-16	218.11	05-May-25	218.63
25-Oct-16	218.09	22-Jul-25	218.88
01-May-17	218.68	22-Oct-25	218.26

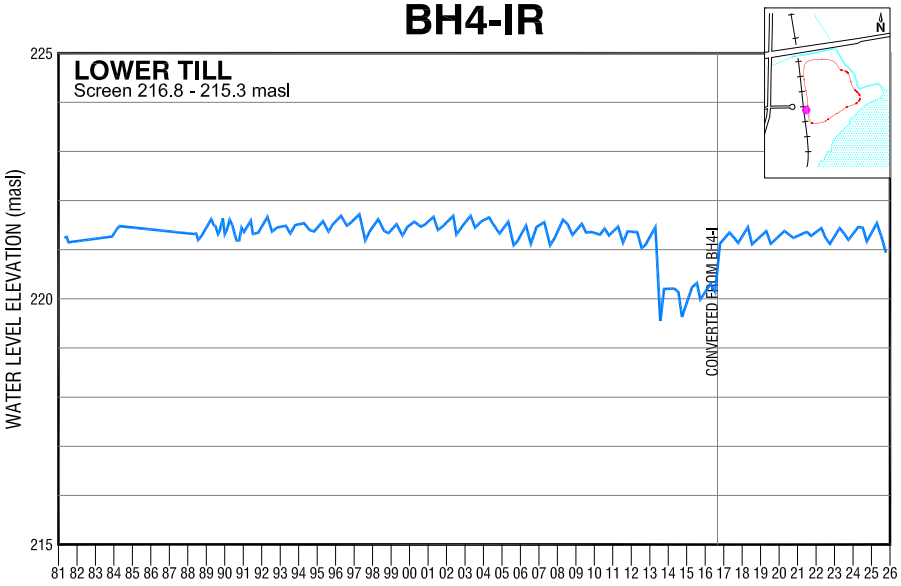
BH3-IIR



MP Elevation 235.29 masl

DATE	ELEVATION	DATE	ELEVATION
21-Apr-08	220.74	01-May-17	221.13
21-Jul-08	220.80	25-Jul-17	222.86
27-Oct-08	220.75	23-Oct-17	221.05
27-Apr-09	220.74	01-May-18	222.15
28-Jul-09	220.75	22-Oct-18	221.39
03-Nov-09	220.74	29-Apr-19	220.95
26-Jul-10	220.75	23-Jul-19	221.44
25-Oct-10	220.75	28-Oct-19	221.87
19-Apr-11	220.76	16-Apr-20	220.99
25-Oct-11	220.72	13-Jul-20	221.04
01-May-12	221.39	06-Oct-20	221.09
30-Jul-12	220.76	29-Apr-21	221.08
15-Oct-12	220.77	16-Jul-21	221.03
23-Apr-13	220.80	01-Oct-21	221.06
30-Jul-13	220.67	21-Apr-22	221.05
08-Oct-13	220.66	19-Jul-22	221.09
22-Apr-14	220.83	13-Oct-22	221.12
28-Jul-14	220.78	19-Apr-23	220.85
06-Oct-14	220.77	19-Jul-23	221.02
21-Apr-15	220.86	16-Oct-23	221.07
29-Jul-15	220.78	18-Apr-24	221.04
05-Oct-15	220.78	17-Jul-24	221.09
25-Apr-16	220.78	10-Oct-24	221.00
25-Jul-16	220.77	22-Jul-25	220.77
25-Oct-16	220.01	22-Oct-25	221.24

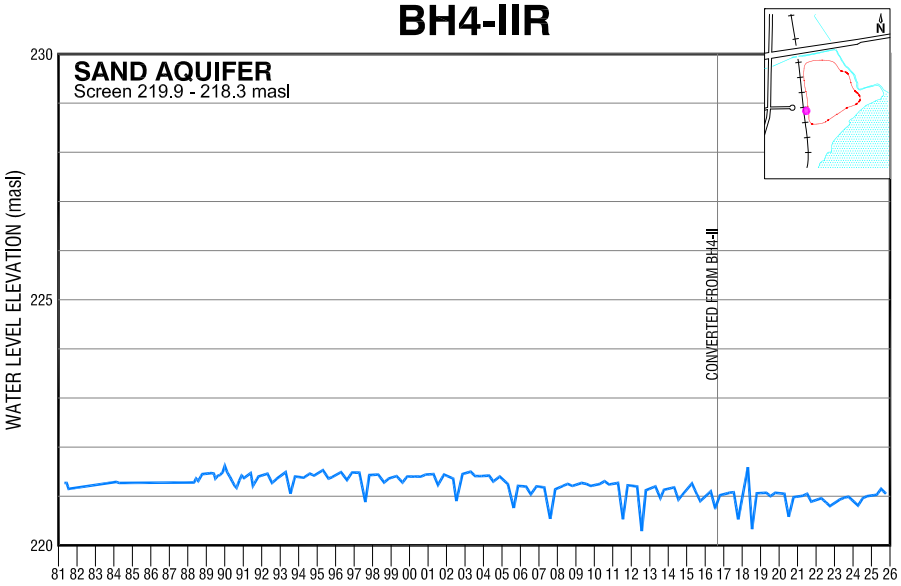
BH4-IR



MP Elevation 222.38 masl

DATE	ELEVATION	DATE	ELEVATION
21-Jul-08	221.52	18-Oct-16	221.12
27-Oct-08	221.30	24-Apr-17	221.35
27-Apr-09	221.53	19-Jul-17	221.25
24-Jul-09	221.35	16-Oct-17	221.14
27-Oct-09	221.36	24-Apr-18	221.46
26-Apr-10	221.31	17-Jul-18	221.11
22-Jul-10	221.43	23-Apr-19	221.38
20-Oct-10	221.29	23-Jul-19	221.12
14-Apr-11	221.47	14-Apr-20	221.38
25-Jul-11	221.15	13-Oct-20	221.24
20-Oct-11	221.37	14-Apr-21	221.33
26-Apr-12	221.36	08-Jul-21	221.36
27-Jul-12	221.04	28-Sep-21	221.28
15-Oct-12	221.11	14-Apr-22	221.44
22-Apr-13	221.46	13-Jul-22	221.23
29-Jul-13	219.55	04-Oct-22	221.12
08-Oct-13	220.20	12-Apr-23	221.44
28-Apr-14	220.21	11-Jul-23	221.33
21-Jul-14	220.14	03-Oct-23	221.20
30-Sep-14	219.63	10-Apr-24	221.46
15-Apr-15	220.23	12-Jul-24	221.45
20-Jul-15	220.32	02-Oct-24	221.17
28-Sep-15	219.99	15-Apr-25	221.54
19-Apr-16	220.31	08-Jul-25	221.29
17-Jul-16	220.14	14-Oct-25	220.94

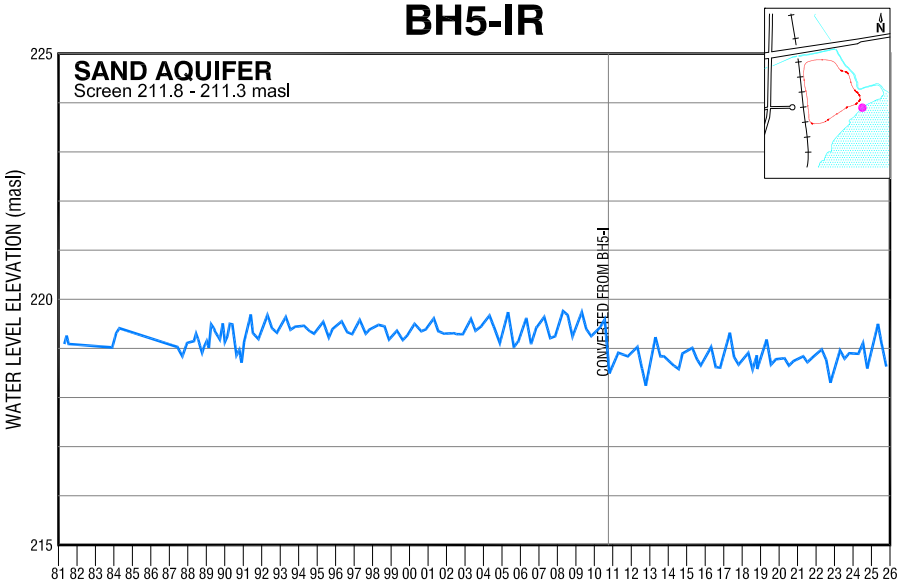
BH4-IIR



MP Elevation 222.53 masl

DATE	ELEVATION	DATE	ELEVATION
27-Oct-09	221.21	16-Oct-17	220.53
22-Apr-10	221.25	24-Apr-18	221.59
22-Jul-10	221.30	17-Jul-18	220.33
20-Oct-10	221.24	16-Oct-18	221.06
14-Apr-11	221.27	23-Apr-19	221.07
21-Jul-11	220.53	16-Jul-19	221.00
20-Oct-11	221.22	17-Oct-19	221.07
26-Apr-12	221.20	14-Apr-20	221.05
27-Jul-12	220.29	09-Jul-20	220.58
15-Oct-12	221.12	13-Oct-20	220.98
22-Apr-13	221.20	14-Apr-21	221.01
29-Jul-13	220.96	08-Jul-21	221.05
08-Oct-13	221.13	28-Sep-21	220.89
28-Apr-14	221.18	14-Apr-22	220.96
21-Jul-14	220.93	13-Jul-22	220.88
30-Sep-14	221.02	04-Oct-22	220.80
15-Apr-15	221.26	12-Apr-23	220.93
21-Jul-15	221.04	11-Jul-23	220.97
28-Sep-15	220.90	03-Oct-23	220.99
19-Apr-16	221.10	10-Apr-24	220.81
17-Jul-16	220.76	11-Jul-24	220.96
19-Jul-16	220.76	02-Oct-24	221.00
18-Oct-16	221.02	15-Apr-25	221.03
24-Apr-17	221.07	08-Jul-25	221.15
19-Jul-17	221.08	14-Oct-25	221.05

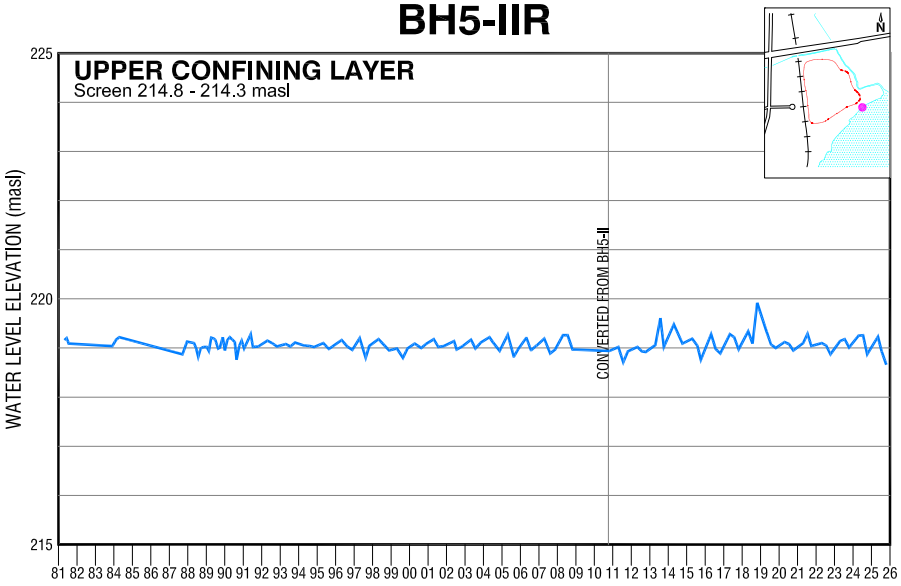
BH5-IR



MP Elevation 220.23 masl

DATE	ELEVATION	DATE	ELEVATION
28-Jul-09	219.39	01-May-18	218.91
03-Nov-09	219.25	26-Jul-18	218.57
26-Apr-10	219.43	18-Oct-18	218.86
26-Jul-10	219.59	25-Oct-18	218.58
27-Oct-10	218.49	01-May-19	219.18
20-Apr-11	218.91	26-Jul-19	218.67
26-Oct-11	218.84	29-Oct-19	218.78
30-Apr-12	219.03	17-Apr-20	218.80
31-Jul-12	218.59	14-Jul-20	218.65
15-Oct-12	218.24	08-Oct-20	218.74
22-Apr-13	219.23	21-Apr-21	218.84
30-Jul-13	218.84	15-Jul-21	218.72
07-Oct-13	218.84	06-Oct-21	218.80
22-Apr-14	218.65	21-Apr-22	218.98
28-Jul-14	218.58	20-Jul-22	218.77
08-Oct-14	218.90	13-Oct-22	218.30
20-Apr-15	219.01	20-Apr-23	218.96
30-Jul-15	218.77	20-Jul-23	218.79
08-Oct-15	218.65	16-Oct-23	218.90
27-Apr-16	219.03	18-Apr-24	218.89
28-Jul-16	218.62	18-Jul-24	219.11
26-Oct-16	218.61	09-Oct-24	218.59
03-May-17	219.32	08-May-25	219.50
27-Jul-17	218.82	22-Jul-25	219.09
24-Oct-17	218.67	20-Oct-25	218.63

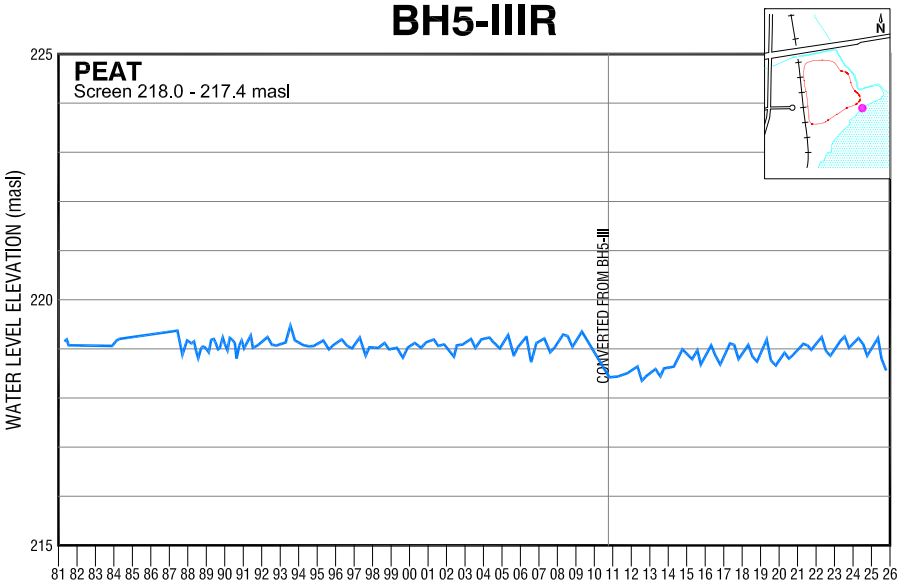
BH5-IIR



MP Elevation 220.04 masl

DATE	ELEVATION	DATE	ELEVATION
14-Aug-07	218.89	24-Oct-17	218.97
20-Nov-07	218.97	01-May-18	219.34
22-Apr-08	219.26	26-Jul-18	219.09
22-Jul-08	219.26	25-Oct-18	219.92
27-Oct-08	218.97	01-May-19	219.33
27-Oct-10	218.94	26-Jul-19	219.07
20-Apr-11	219.02	29-Oct-19	219.00
27-Jul-11	218.71	17-Apr-20	219.12
26-Oct-11	218.93	14-Jul-20	219.08
01-May-12	219.02	08-Oct-20	218.95
31-Jul-12	218.93	21-Apr-21	219.10
15-Oct-12	218.92	15-Jul-21	219.29
22-Apr-13	219.06	30-Sep-21	219.04
30-Jul-13	219.61	21-Apr-22	219.10
07-Oct-13	219.02	20-Jul-22	219.05
22-Apr-14	219.48	13-Oct-22	218.87
08-Oct-14	219.09	20-Apr-23	219.14
20-Apr-15	219.19	20-Jul-23	219.18
30-Jul-15	219.05	16-Oct-23	219.01
08-Oct-15	218.76	18-Apr-24	219.25
27-Apr-16	219.28	18-Jul-24	219.26
27-Jul-16	218.98	09-Oct-24	218.87
26-Oct-16	218.89	08-May-25	219.23
03-May-17	219.28	22-Jul-25	218.93
27-Jul-17	219.22	20-Oct-25	218.66

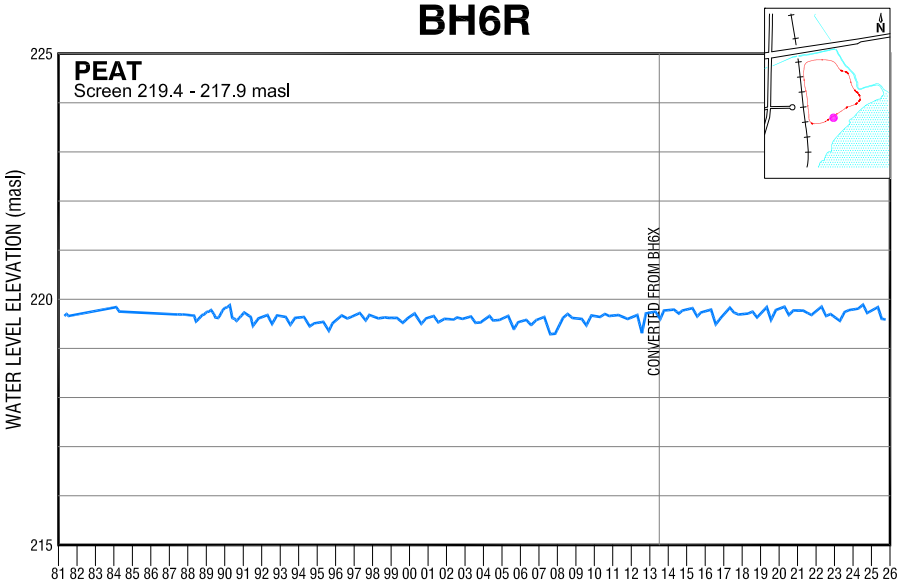
BH5-IIIR



MP Elevation 219.92 masl

DATE	ELEVATION	DATE	ELEVATION
14-Aug-07	218.93	24-Oct-17	218.79
20-Nov-07	219.04	01-May-18	219.08
22-Apr-08	219.29	26-Jul-18	218.84
22-Jul-08	219.26	25-Oct-18	218.74
27-Oct-08	219.04	01-May-19	219.19
29-Apr-09	219.35	26-Jul-19	218.76
27-Oct-10	218.42	29-Oct-19	218.66
20-Apr-11	218.44	17-Apr-20	218.92
26-Oct-11	218.51	14-Jul-20	218.80
01-May-12	218.64	08-Oct-20	218.88
31-Jul-12	218.35	21-Apr-21	219.10
15-Oct-12	218.43	15-Jul-21	219.07
22-Apr-13	218.59	30-Sep-21	218.98
30-Jul-13	218.44	21-Apr-22	219.24
07-Oct-13	218.60	20-Jul-22	218.95
22-Apr-14	218.64	13-Oct-22	218.86
08-Oct-14	218.99	20-Apr-23	219.15
20-Apr-15	218.79	20-Jul-23	219.25
30-Jul-15	218.97	16-Oct-23	219.02
08-Oct-15	218.68	18-Apr-24	219.22
27-Apr-16	219.07	18-Jul-24	219.10
27-Jul-16	218.85	09-Oct-24	218.86
26-Oct-16	218.68	08-May-25	219.22
03-May-17	219.11	22-Jul-25	218.79
27-Jul-17	219.08	20-Oct-25	218.56

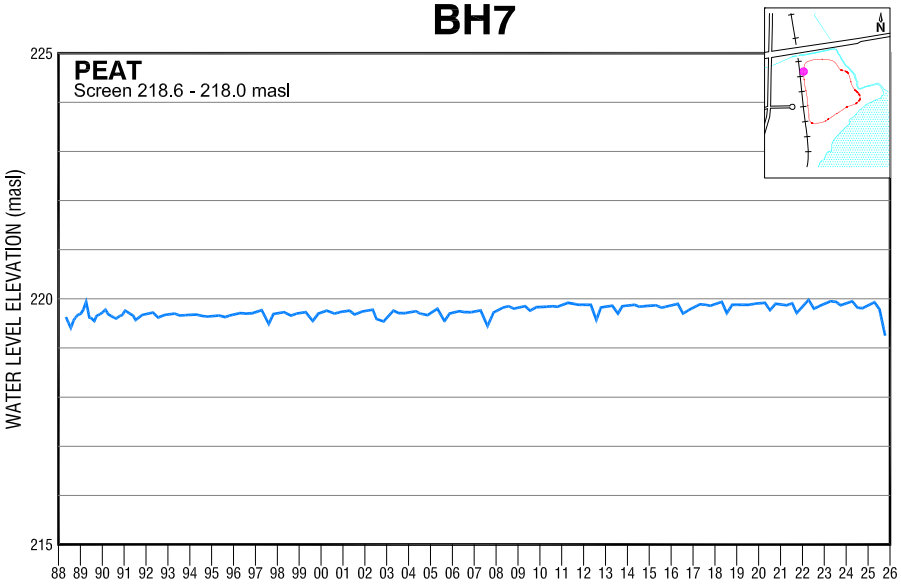
BH6R



MP Elevation 220.60 masl

DATE	ELEVATION	DATE	ELEVATION
27-Apr-09	219.60	23-Oct-17	219.69
29-Jul-09	219.47	01-May-18	219.71
03-Nov-09	219.67	25-Jul-18	219.75
26-Apr-10	219.64	25-Oct-18	219.63
27-Jul-10	219.70	01-May-19	219.84
25-Oct-10	219.66	26-Jul-19	219.58
19-Apr-11	219.68	29-Oct-19	219.78
24-Oct-11	219.60	17-Apr-20	219.85
30-Apr-12	219.68	14-Jul-20	219.68
30-Jul-12	219.31	07-Oct-20	219.77
15-Oct-12	219.71	21-Apr-21	219.77
22-Apr-13	219.75	19-Jul-21	219.72
29-Jul-13	219.60	04-Oct-21	219.68
07-Oct-13	219.77	20-Apr-22	219.85
23-Apr-14	219.79	18-Jul-22	219.66
31-Jul-14	219.71	13-Oct-22	219.70
08-Oct-14	219.77	18-Apr-23	219.56
23-Apr-15	219.82	18-Jul-23	219.74
28-Jul-15	219.65	12-Oct-23	219.78
06-Oct-15	219.73	15-Apr-24	219.81
27-Apr-16	219.79	17-Jul-24	219.89
29-Jul-16	219.49	08-Oct-24	219.72
26-Oct-16	219.61	07-May-25	219.84
02-May-17	219.83	22-Jul-25	219.60
25-Jul-17	219.73	08-Oct-25	219.59

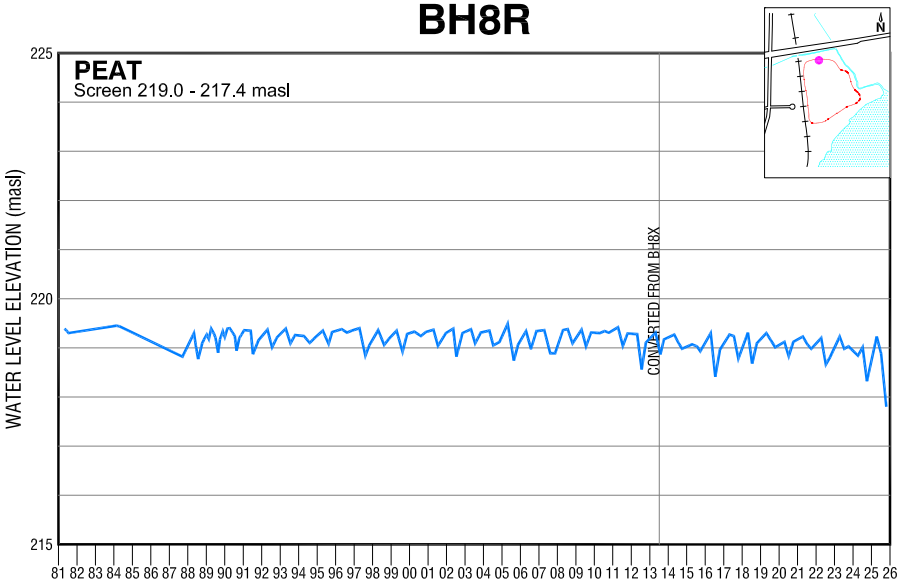
BH7



MP Elevation 220.13 masl

DATE	ELEVATION	DATE	ELEVATION
28-Oct-08	219.80	19-Jul-17	219.88
27-Apr-09	219.85	19-Oct-17	219.86
22-Jul-09	219.76	25-Apr-18	219.94
03-Nov-09	219.83	19-Jul-18	219.71
26-Apr-10	219.84	16-Oct-18	219.88
27-Jul-10	219.85	26-Jul-19	219.88
25-Oct-10	219.84	28-Oct-19	219.90
13-Apr-11	219.92	14-Apr-20	219.92
19-Oct-11	219.88	09-Jul-20	219.77
30-Apr-12	219.88	09-Oct-20	219.90
01-Aug-12	219.57	14-Apr-21	219.87
15-Oct-12	219.82	14-Jul-21	219.91
23-Apr-13	219.86	28-Sep-21	219.71
29-Jul-13	219.70	13-Apr-22	219.98
07-Oct-13	219.85	13-Jul-22	219.80
29-Apr-14	219.88	04-Oct-22	219.85
22-Jul-14	219.84	12-Apr-23	219.95
02-Oct-14	219.85	14-Jul-23	219.94
16-Apr-15	219.87	03-Oct-23	219.87
28-Jul-15	219.82	09-Apr-24	219.95
29-Sep-15	219.84	12-Jul-24	219.82
20-Apr-16	219.90	04-Oct-24	219.81
19-Jul-16	219.70	15-Apr-25	219.93
18-Oct-16	219.77	09-Jul-25	219.79
25-Apr-17	219.89	14-Oct-25	219.25

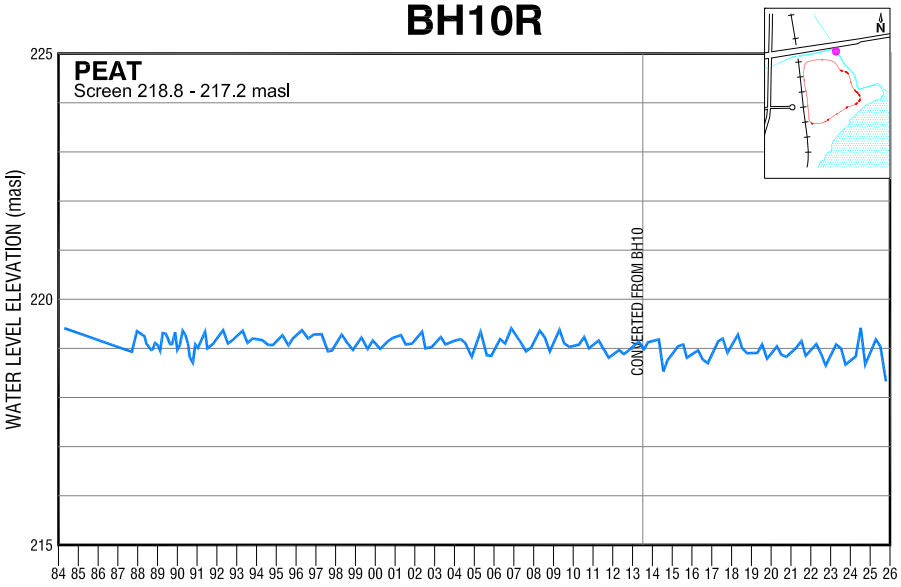
BH8R



MP Elevation 220.04 masl

DATE	ELEVATION	DATE	ELEVATION
22-Jul-09	219.03	18-Oct-17	218.78
28-Oct-09	219.31	25-Apr-18	219.31
22-Apr-10	219.30	18-Jul-18	218.68
21-Jul-10	219.34	17-Oct-18	219.09
19-Oct-10	219.31	24-Apr-19	219.30
13-Apr-11	219.42	18-Jul-19	219.16
19-Jul-11	219.04	18-Oct-19	219.01
19-Oct-11	219.29	15-Apr-20	219.12
26-Apr-12	219.28	09-Jul-20	218.83
26-Jul-12	218.56	09-Oct-20	219.12
15-Oct-12	219.10	14-Apr-21	219.23
23-Apr-13	219.31	13-Jul-21	219.07
29-Jul-13	218.87	30-Sep-21	218.98
07-Oct-13	219.17	13-Apr-22	219.20
29-Apr-14	219.27	14-Jul-22	218.66
22-Jul-14	219.10	05-Oct-22	218.81
02-Oct-14	218.98	13-Apr-23	219.23
16-Apr-15	219.07	12-Jul-23	218.98
22-Jul-15	219.03	04-Oct-23	219.03
28-Sep-15	218.93	09-Apr-24	218.84
20-Apr-16	219.30	09-Jul-24	219.01
19-Jul-16	218.41	03-Oct-24	218.32
18-Oct-16	218.96	15-Apr-25	219.23
26-Apr-17	219.27	09-Jul-25	218.89
20-Jul-17	219.24	20-Oct-25	217.80

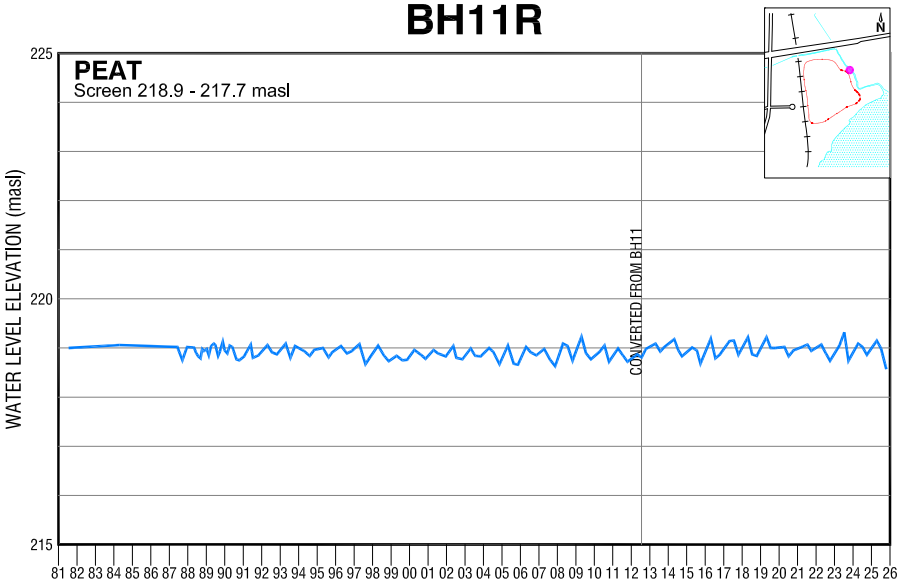
BH10R



MP Elevation 220.03 masl

DATE	ELEVATION	DATE	ELEVATION
27-Oct-09	219.03	18-Oct-17	218.91
21-Apr-10	219.08	26-Apr-18	219.28
21-Jul-10	219.23	18-Jul-18	219.00
19-Oct-10	219.00	17-Oct-18	218.90
13-Apr-11	219.16	25-Apr-19	218.91
20-Jul-11	218.98	18-Jul-19	219.08
19-Oct-11	218.81	18-Oct-19	218.79
25-Apr-12	218.96	15-Apr-20	219.04
25-Jul-12	218.88	10-Jul-20	218.87
15-Oct-12	218.96	09-Oct-20	218.83
23-Apr-13	219.14	14-Apr-21	219.02
29-Jul-13	218.98	13-Jul-21	219.15
01-Aug-13	218.98	30-Sep-21	218.85
07-Oct-13	219.12	13-Apr-22	219.09
29-Apr-14	219.18	13-Jul-22	218.88
23-Jul-14	218.53	05-Oct-22	218.65
02-Oct-14	218.75	13-Apr-23	219.08
16-Apr-15	219.04	13-Jul-23	219.00
22-Jul-15	219.08	05-Oct-23	218.67
30-Sep-15	218.81	11-Apr-24	218.84
20-Apr-16	218.96	11-Jul-24	219.42
20-Jul-16	218.77	03-Oct-24	218.67
19-Oct-16	218.70	15-Apr-25	219.18
27-Apr-17	219.14	09-Jul-25	219.04
20-Jul-17	219.20	20-Oct-25	218.33

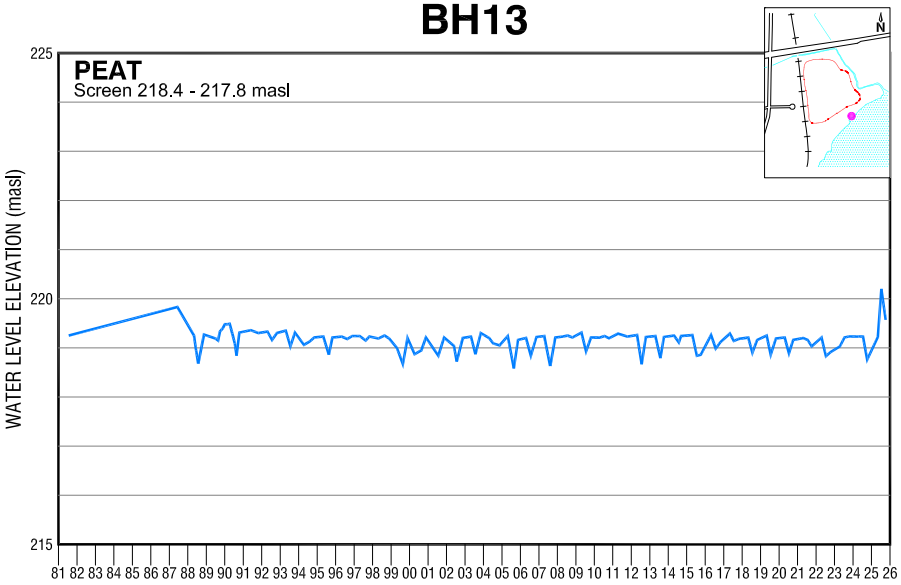
BH11R



MP Elevation 220.21 masl

DATE	ELEVATION	DATE	ELEVATION
21-Jul-09	218.89	19-Oct-17	218.86
27-Oct-09	218.77	26-Apr-18	219.22
22-Apr-10	218.93	19-Jul-18	218.87
21-Jul-10	219.05	18-Oct-18	218.84
19-Oct-10	218.72	26-Apr-19	219.22
13-Apr-11	218.99	19-Jul-19	219.00
19-Jul-11	218.85	18-Oct-19	219.00
19-Oct-11	218.72	16-Apr-20	219.02
25-Apr-12	218.87	10-Jul-20	218.83
25-Jul-12	218.81	09-Oct-20	218.95
15-Oct-12	218.98	16-Apr-21	219.03
23-Apr-13	219.09	13-Jul-21	219.07
29-Jul-13	218.93	29-Sep-21	218.94
07-Oct-13	219.01	14-Apr-22	219.07
30-Apr-14	219.18	14-Jul-22	218.89
22-Jul-14	218.95	05-Oct-22	218.74
29-Sep-14	218.83	13-Apr-23	219.06
17-Apr-15	219.01	13-Jul-23	219.32
21-Jul-15	218.95	03-Oct-23	218.74
01-Oct-15	218.68	11-Apr-24	219.09
21-Apr-16	219.19	09-Jul-24	219.02
22-Jul-16	218.79	02-Oct-24	218.86
20-Oct-16	218.87	16-Apr-25	219.15
25-Apr-17	219.14	09-Jul-25	218.99
21-Jul-17	219.15	20-Oct-25	218.57

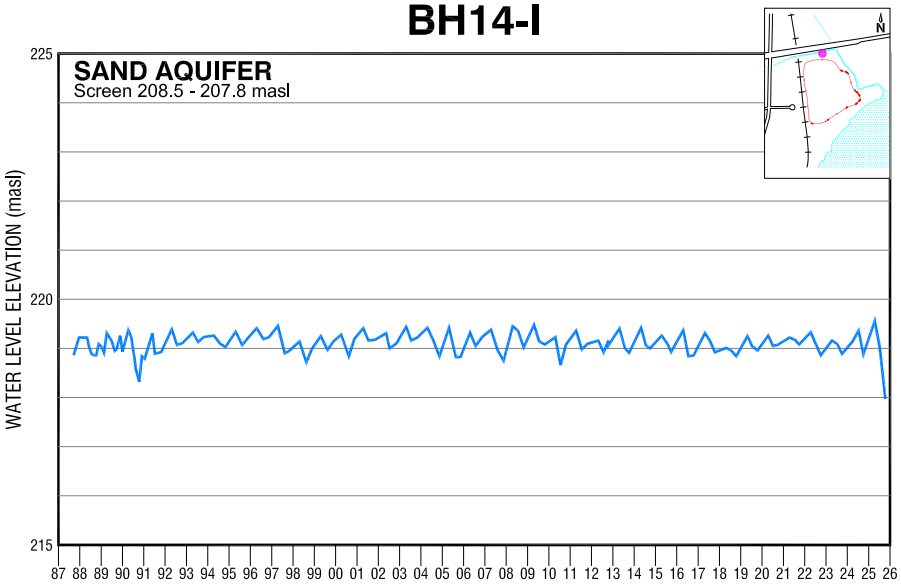
BH13



MP Elevation 221.44 masl

DATE	ELEVATION	DATE	ELEVATION
21-Apr-09	219.31	25-Oct-17	219.18
21-Jul-09	218.93	30-Apr-18	219.21
27-Oct-09	219.21	23-Jul-18	218.90
22-Apr-10	219.21	24-Oct-18	219.16
21-Jul-10	219.24	30-Apr-19	219.25
19-Oct-10	219.20	19-Jul-19	218.86
13-Apr-11	219.29	30-Oct-19	219.19
19-Oct-11	219.23	20-Apr-20	219.21
25-Apr-12	219.26	14-Jul-20	218.89
25-Jul-12	218.66	06-Oct-20	219.16
15-Oct-12	219.22	21-Apr-21	219.20
22-Apr-13	219.24	20-Jul-21	219.16
29-Jul-13	218.79	07-Oct-21	219.03
08-Oct-13	219.22	19-Apr-22	219.21
24-Apr-14	219.25	15-Jul-22	218.83
30-Jul-14	219.11	11-Oct-22	218.91
10-Sep-14	219.24	17-Apr-23	219.03
21-Apr-15	219.26	17-Jul-23	219.21
21-Jul-15	218.84	10-Oct-23	219.23
07-Oct-15	218.86	16-Apr-24	219.23
26-Apr-16	219.26	15-Jul-24	219.23
28-Jul-16	218.99	07-Oct-24	218.76
25-Oct-16	219.11	07-May-25	219.22
02-May-17	219.29	15-Jul-25	220.20
20-Jul-17	219.14	08-Oct-25	219.57

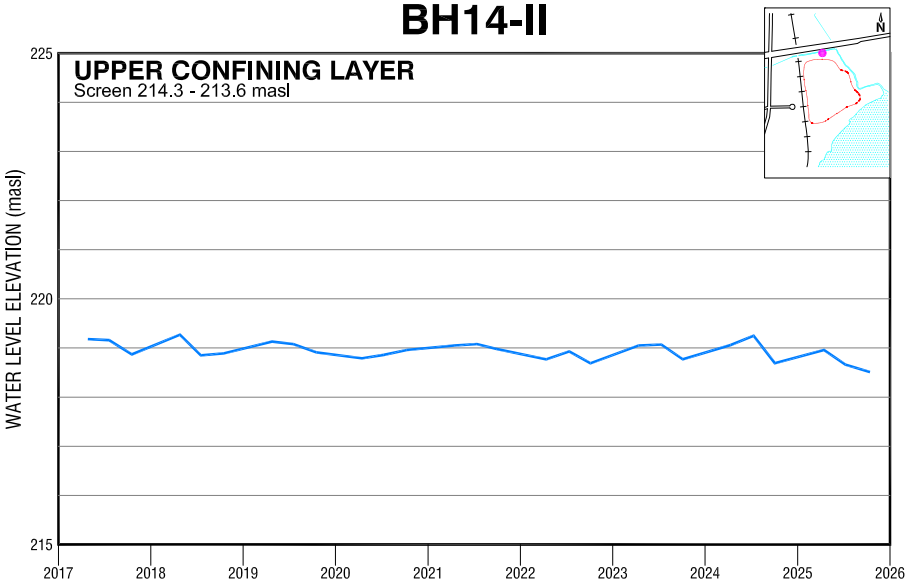
BH14-I



MP Elevation 220.40 masl

DATE	ELEVATION	DATE	ELEVATION
27-Oct-09	219.08	18-Oct-17	218.92
21-Apr-10	219.23	26-Apr-18	219.01
21-Jul-10	218.66	18-Jul-18	218.96
19-Oct-10	219.07	17-Oct-18	218.84
13-Apr-11	219.36	25-Apr-19	219.25
20-Jul-11	218.98	18-Jul-19	219.04
19-Oct-11	219.09	18-Oct-19	218.96
26-Apr-12	219.16	15-Apr-20	219.26
27-Jul-12	218.92	10-Jul-20	219.05
15-Oct-12	219.16	09-Oct-20	219.08
16-Oct-12	219.06	14-Apr-21	219.22
23-Apr-13	219.40	13-Jul-21	219.18
29-Jul-13	219.00	30-Sep-21	219.08
08-Oct-13	218.91	13-Apr-22	219.33
29-Apr-14	219.42	13-Jul-22	219.08
23-Jul-14	219.06	05-Oct-22	218.86
02-Oct-14	219.00	13-Apr-23	219.16
16-Apr-15	219.26	12-Jul-23	219.09
22-Jul-15	219.10	05-Oct-23	218.89
29-Sep-15	218.93	11-Apr-24	219.16
20-Apr-16	219.37	11-Jul-24	219.36
20-Jul-16	218.84	03-Oct-24	218.88
19-Oct-16	218.86	15-Apr-25	219.56
27-Apr-17	219.31	09-Jul-25	219.03
20-Jul-17	219.16	14-Oct-25	217.97

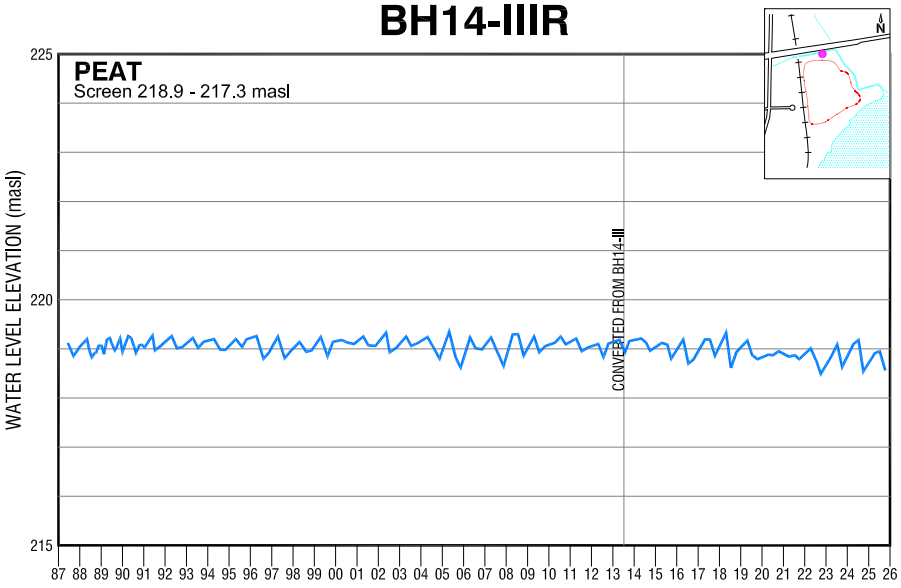
BH14-II



MP Elevation 220.46 masl

DATE	ELEVATION	DATE	ELEVATION
27-Apr-17	219.18	09-Jul-25	218.66
20-Jul-17	219.16	14-Oct-25	218.51
18-Oct-17	218.87		
26-Apr-18	219.27		
18-Jul-18	218.85		
17-Oct-18	218.89		
25-Apr-19	219.13		
18-Jul-19	219.08		
18-Oct-19	218.91		
15-Apr-20	218.79		
10-Jul-20	218.86		
09-Oct-20	218.96		
14-Apr-21	219.05		
13-Jul-21	219.08		
30-Sep-21	218.98		
13-Apr-22	218.77		
13-Jul-22	218.93		
05-Oct-22	218.69		
13-Apr-23	219.05		
12-Jul-23	219.07		
05-Oct-23	218.77		
11-Apr-24	219.06		
11-Jul-24	219.25		
03-Oct-24	218.69		
15-Apr-25	218.96		

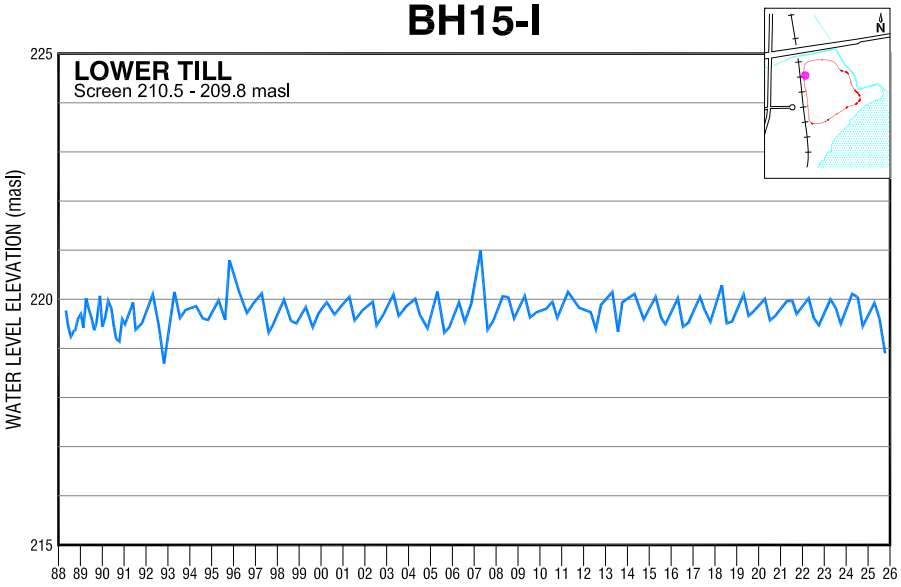
BH14-IIIR



MP Elevation 220.69 masl

DATE	ELEVATION	DATE	ELEVATION
21-Jul-09	218.93	18-Oct-17	218.86
27-Oct-09	219.05	26-Apr-18	219.33
21-Apr-10	219.13	18-Jul-18	218.61
21-Jul-10	219.25	17-Oct-18	218.93
19-Oct-10	219.09	25-Apr-19	219.17
13-Apr-11	219.21	18-Jul-19	218.87
20-Jul-11	218.95	18-Oct-19	218.79
19-Oct-11	219.02	15-Apr-20	218.88
26-Apr-12	219.10	10-Jul-20	218.87
26-Jul-12	218.83	09-Oct-20	218.95
15-Oct-12	219.10	14-Apr-21	218.84
23-Apr-13	219.18	13-Jul-21	218.87
29-Jul-13	218.93	30-Sep-21	218.79
08-Oct-13	219.15	13-Apr-22	219.01
29-Apr-14	219.21	13-Jul-22	218.77
23-Jul-14	219.13	05-Oct-22	218.49
02-Oct-14	218.96	13-Apr-23	218.87
16-Apr-15	219.12	12-Jul-23	219.09
22-Jul-15	219.09	05-Oct-23	218.63
29-Sep-15	218.80	11-Apr-24	219.09
20-Apr-16	219.19	11-Jul-24	219.18
20-Jul-16	218.70	03-Oct-24	218.54
19-Oct-16	218.79	15-Apr-25	218.91
27-Apr-17	219.19	09-Jul-25	218.95
20-Jul-17	219.19	14-Oct-25	218.56

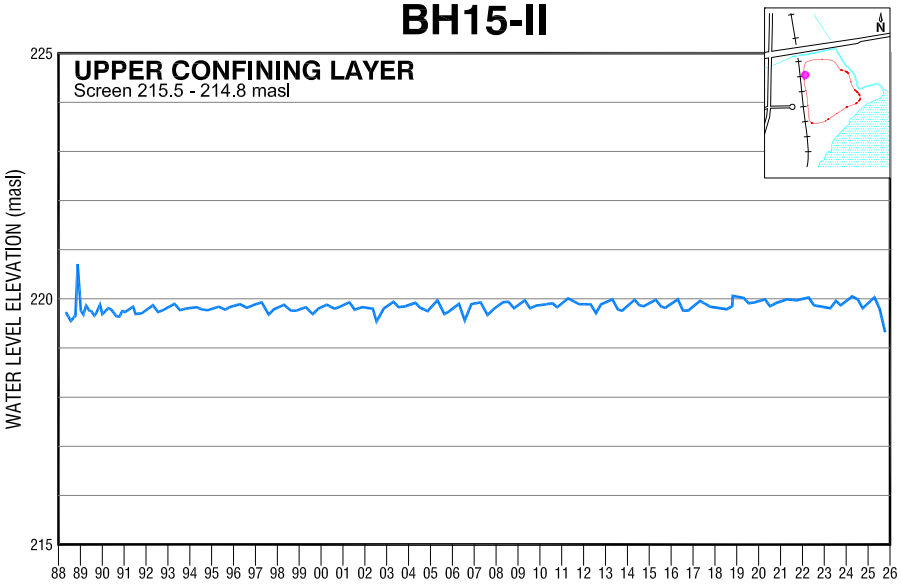
BH15-I



MP Elevation 221.47 masl

DATE	ELEVATION	DATE	ELEVATION
28-Oct-08	219.61	19-Oct-17	219.54
22-Apr-09	220.07	25-Apr-18	220.29
23-Jul-09	219.63	19-Jul-18	219.51
27-Oct-09	219.73	16-Oct-18	219.55
21-Apr-10	219.81	24-Apr-19	220.10
27-Jul-10	219.95	18-Jul-19	219.66
19-Oct-10	219.62	28-Oct-19	219.78
13-Apr-11	220.15	14-Apr-20	220.01
24-Oct-11	219.82	09-Jul-20	219.57
26-Apr-12	219.74	09-Oct-20	219.67
26-Jul-12	219.39	14-Apr-21	219.96
15-Oct-12	219.88	14-Jul-21	219.97
23-Apr-13	220.15	28-Sep-21	219.70
29-Jul-13	219.34	13-Apr-22	220.02
07-Oct-13	219.93	13-Jul-22	219.61
29-Apr-14	220.11	04-Oct-22	219.47
02-Oct-14	219.59	12-Apr-23	220.00
16-Apr-15	220.05	12-Jul-23	219.82
22-Jul-15	219.61	03-Oct-23	219.50
29-Sep-15	219.49	09-Apr-24	220.11
20-Apr-16	220.02	12-Jul-24	220.04
19-Jul-16	219.44	04-Oct-24	219.45
18-Oct-16	219.53	15-Apr-25	219.93
25-Apr-17	220.05	09-Jul-25	219.61
19-Jul-17	219.77	14-Oct-25	218.90

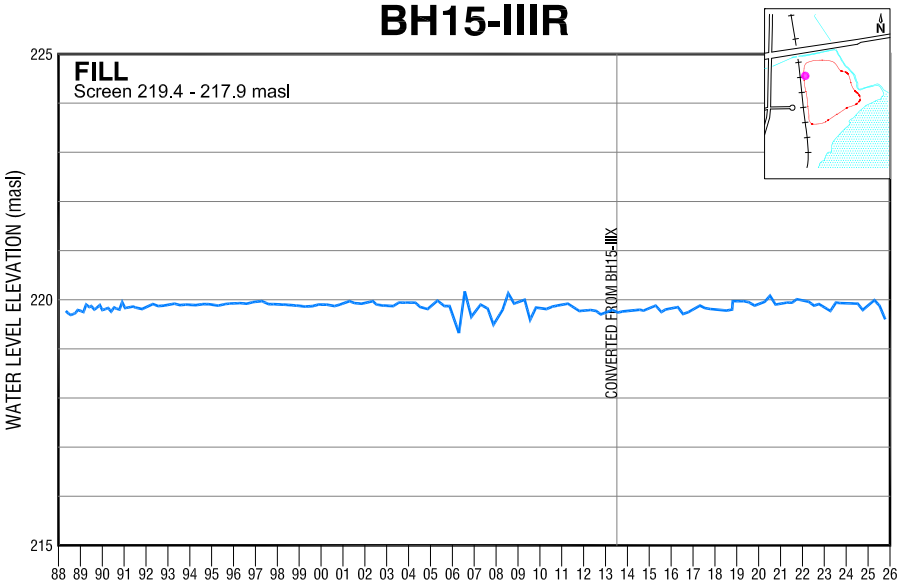
BH15-II



MP Elevation 221.53 masl

DATE	ELEVATION	DATE	ELEVATION
22-Apr-09	219.97	19-Oct-17	219.84
23-Jul-09	219.81	19-Jul-18	219.79
27-Oct-09	219.86	16-Oct-18	219.85
21-Apr-10	219.89	25-Oct-18	220.06
27-Jul-10	219.91	24-Apr-19	220.02
19-Oct-10	219.83	18-Jul-19	219.91
13-Apr-11	220.01	28-Oct-19	219.93
24-Oct-11	219.89	14-Apr-20	219.99
26-Apr-12	219.89	09-Jul-20	219.85
26-Jul-12	219.71	09-Oct-20	219.91
15-Oct-12	219.88	14-Apr-21	219.99
23-Apr-13	219.99	14-Jul-21	219.98
29-Jul-13	219.78	28-Sep-21	219.97
07-Oct-13	219.76	13-Apr-22	220.03
29-Apr-14	219.98	13-Jul-22	219.87
22-Jul-14	219.87	04-Oct-22	219.85
02-Oct-14	219.85	12-Apr-23	219.81
16-Apr-15	219.98	12-Jul-23	219.96
22-Jul-15	219.84	03-Oct-23	219.87
29-Sep-15	219.82	09-Apr-24	220.05
20-Apr-16	219.99	12-Jul-24	219.99
19-Jul-16	219.76	04-Oct-24	219.81
18-Oct-16	219.76	15-Apr-25	220.03
25-Apr-17	219.96	09-Jul-25	219.81
19-Jul-17	219.90	14-Oct-25	219.32

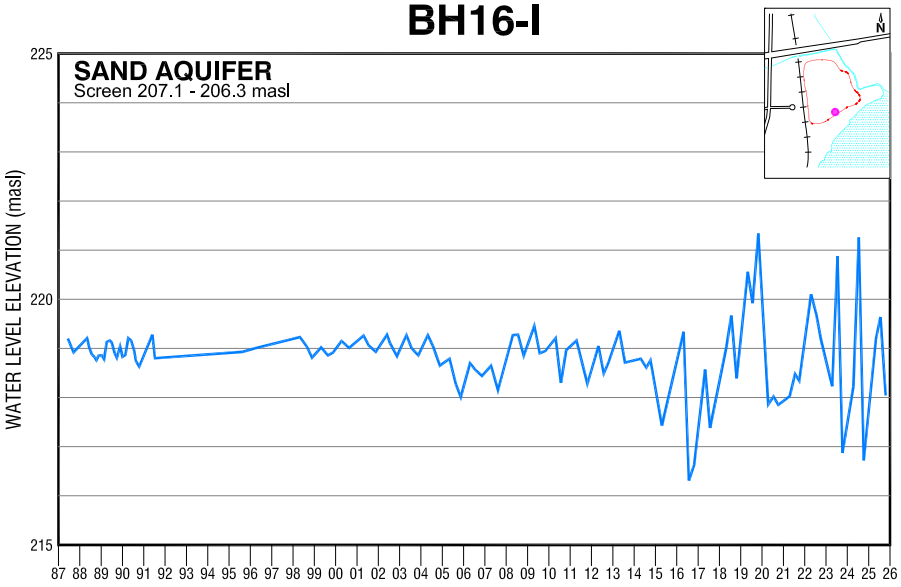
BH15-IIIR



MP Elevation 222.56 masl

DATE	ELEVATION	DATE	ELEVATION
22-Jul-08	220.13	19-Jul-17	219.83
28-Oct-08	219.92	19-Oct-17	219.81
22-Apr-09	220.00	19-Jul-18	219.78
23-Jul-09	219.59	16-Oct-18	219.80
27-Oct-09	219.84	25-Oct-18	219.97
21-Apr-10	219.81	24-Apr-19	219.97
27-Jul-10	219.86	17-Jul-19	219.95
19-Oct-10	219.88	28-Oct-19	219.88
13-Apr-11	219.92	14-Apr-20	219.96
24-Oct-11	219.77	09-Jul-20	220.08
26-Apr-12	219.79	09-Oct-20	219.90
26-Jul-12	219.77	14-Apr-21	219.94
15-Oct-12	219.70	14-Jul-21	219.94
23-Apr-13	219.79	28-Sep-21	220.01
29-Jul-13	219.74	13-Apr-22	219.96
07-Oct-13	219.76	13-Jul-22	219.88
22-Jul-14	219.79	04-Oct-22	219.91
02-Oct-14	219.78	12-Apr-23	219.77
16-Apr-15	219.88	12-Jul-23	219.94
22-Jul-15	219.75	03-Oct-23	219.93
29-Sep-15	219.80	11-Jul-24	219.92
20-Apr-16	219.85	04-Oct-24	219.79
19-Jul-16	219.71	15-Apr-25	219.99
18-Oct-16	219.75	09-Jul-25	219.88
25-Apr-17	219.88	14-Oct-25	219.60

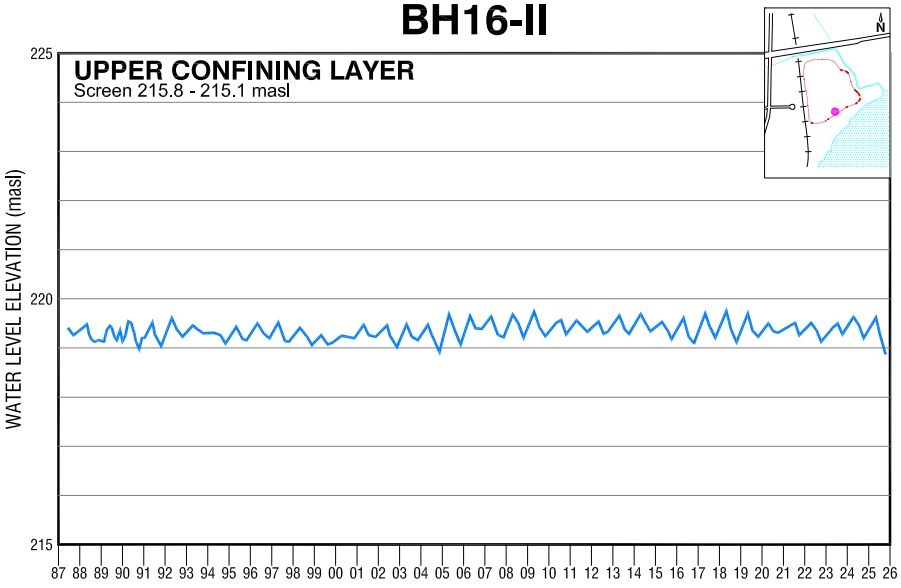
BH16-I



MP Elevation 223.10 masl

DATE	ELEVATION	DATE	ELEVATION
13-Aug-07	218.15	25-Jul-17	217.38
22-Apr-08	219.27	01-May-18	219.03
21-Jul-08	219.28	25-Jul-18	219.67
27-Oct-08	218.85	23-Oct-18	218.39
27-Apr-09	219.46	01-May-19	220.56
29-Jul-09	218.90	24-Jul-19	219.92
04-Nov-09	218.95	29-Oct-19	221.34
27-Apr-10	219.21	17-Apr-20	217.86
27-Jul-10	218.30	14-Jul-20	218.02
25-Oct-10	218.96	07-Oct-20	217.85
19-Apr-11	219.16	21-Apr-21	218.03
24-Oct-11	218.28	19-Jul-21	218.48
30-Apr-12	219.05	01-Oct-21	218.34
30-Jul-12	218.49	20-Apr-22	220.10
24-Oct-12	218.73	18-Jul-22	219.70
22-Apr-13	219.36	12-Oct-22	219.15
29-Jul-13	218.71	18-Apr-23	218.23
23-Apr-14	218.79	18-Jul-23	220.88
29-Jul-14	218.61	11-Oct-23	216.87
08-Oct-14	218.76	15-Apr-24	218.23
22-Apr-15	217.43	16-Jul-24	221.26
27-Apr-16	219.34	09-Oct-24	216.72
27-Jul-16	216.31	05-May-25	219.19
26-Oct-16	216.63	22-Jul-25	219.64
01-May-17	218.57	20-Oct-25	218.04

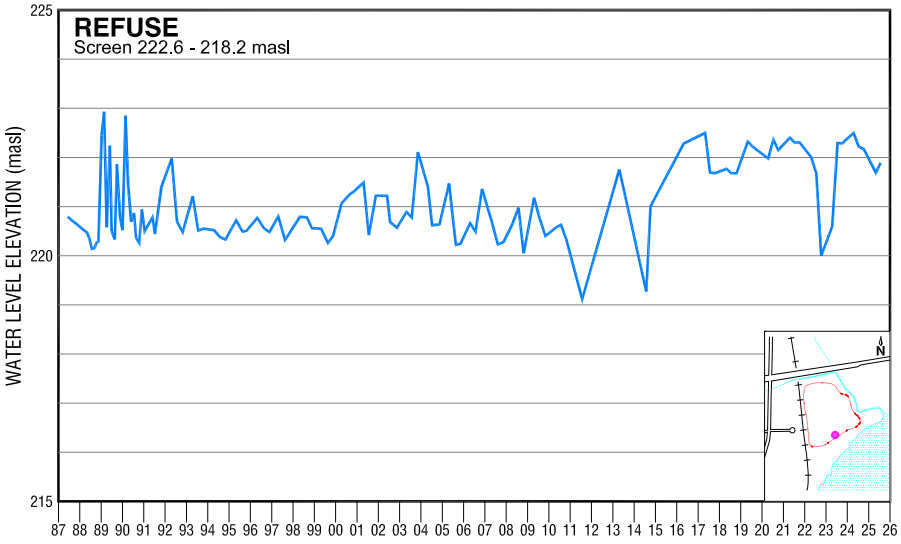
BH16-II



MP Elevation 223.79 masl

DATE	ELEVATION	DATE	ELEVATION
29-Jul-09	219.41	23-Oct-17	219.21
04-Nov-09	219.24	01-May-18	219.75
27-Apr-10	219.50	25-Jul-18	219.36
27-Jul-10	219.57	23-Oct-18	219.12
25-Oct-10	219.28	01-May-19	219.70
19-Apr-11	219.56	24-Jul-19	219.35
24-Oct-11	219.33	29-Oct-19	219.23
30-Apr-12	219.54	17-Apr-20	219.50
30-Jul-12	219.29	13-Jul-20	219.34
15-Oct-12	219.34	07-Oct-20	219.31
22-Apr-13	219.66	21-Apr-21	219.45
29-Jul-13	219.37	19-Jul-21	219.51
08-Oct-13	219.29	01-Oct-21	219.26
23-Apr-14	219.69	20-Apr-22	219.51
29-Jul-14	219.48	18-Jul-22	219.37
08-Oct-14	219.34	12-Oct-22	219.13
22-Apr-15	219.53	18-Apr-23	219.40
28-Jul-15	219.36	18-Jul-23	219.50
06-Oct-15	219.18	11-Oct-23	219.28
27-Apr-16	219.61	15-Apr-24	219.63
27-Jul-16	219.22	16-Jul-24	219.47
25-Oct-16	219.10	09-Oct-24	219.20
26-Oct-16	219.10	05-May-25	219.62
01-May-17	219.70	22-Jul-25	219.24
25-Jul-17	219.42	20-Oct-25	218.87

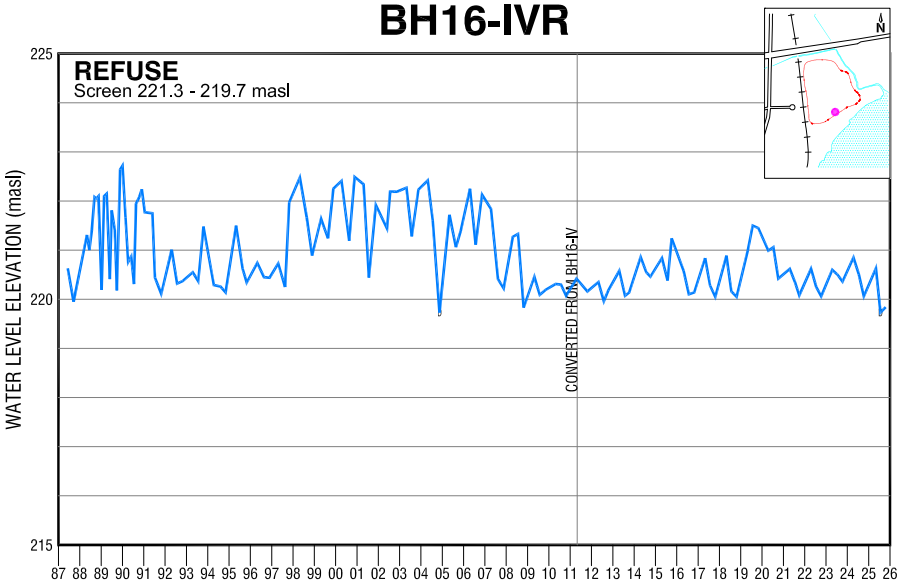
BH16-III



MP Elevation 223.69 masl

DATE	ELEVATION	DATE	ELEVATION
15-Nov-04	220.64	25-Jul-17	221.69
26-Apr-05	221.47	23-Oct-17	221.68
23-Aug-05	220.22	01-May-18	221.77
14-Nov-05	220.25	25-Jul-18	221.68
21-Apr-06	220.66	23-Oct-18	221.68
27-Jul-06	220.49	01-May-19	222.32
13-Nov-06	221.36	24-Jul-19	222.22
16-Apr-07	220.75	29-Oct-19	222.13
13-Aug-07	220.23	17-Apr-20	221.98
19-Nov-07	220.28	13-Jul-20	222.36
22-Apr-08	220.66	07-Oct-20	222.15
30-Jul-08	220.98	21-Apr-21	222.40
27-Oct-08	220.05	19-Jul-21	222.30
22-Apr-09	221.18	01-Oct-21	222.31
29-Jul-09	220.75	20-Apr-22	222.01
04-Nov-09	220.40	18-Jul-22	221.68
27-Apr-10	220.57	12-Oct-22	220.00
27-Jul-10	220.63	18-Apr-23	220.60
25-Oct-10	220.34	18-Jul-23	222.29
27-Jul-11	219.12	11-Oct-23	222.29
22-Apr-13	221.76	15-Apr-24	222.50
29-Jul-14	219.27	16-Jul-24	222.22
08-Oct-14	221.00	09-Oct-24	222.17
27-Apr-16	222.28	05-May-25	221.69
01-May-17	222.50	22-Jul-25	221.89

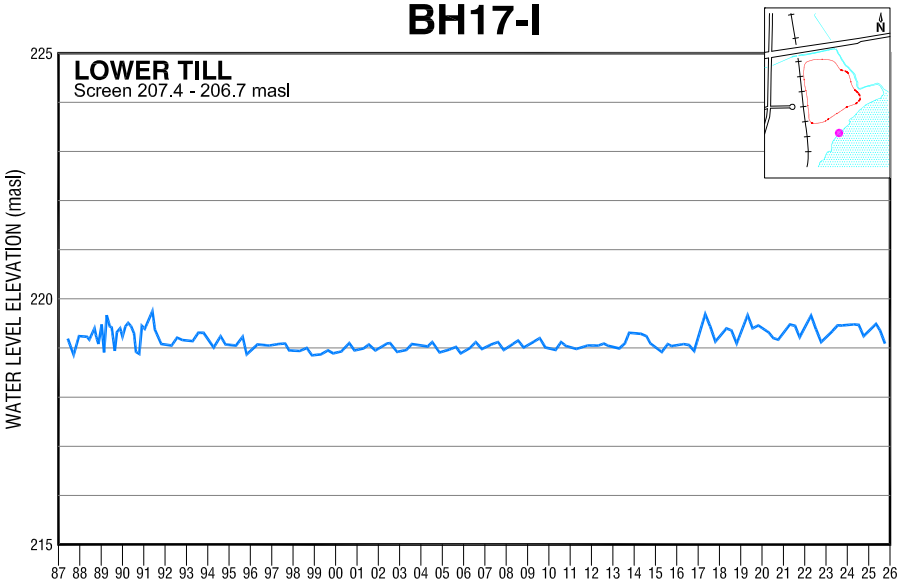
BH16-IVR



MP Elevation 223.69 masl

DATE	ELEVATION	DATE	ELEVATION
27-Apr-09	220.46	23-Oct-17	220.05
29-Jul-09	220.09	01-May-18	220.89
04-Nov-09	220.19	25-Jul-18	220.16
27-Apr-10	220.31	23-Oct-18	220.05
27-Jul-10	220.30	01-May-19	220.99
25-Oct-10	220.07	25-Jul-19	221.50
19-Apr-11	220.42	30-Oct-19	221.45
24-Oct-11	220.16	17-Apr-20	220.99
30-Apr-12	220.35	13-Jul-20	221.06
30-Jul-12	219.96	07-Oct-20	220.42
15-Oct-12	220.18	21-Apr-21	220.62
22-Apr-13	220.58	19-Jul-21	220.35
29-Jul-13	220.07	01-Oct-21	220.08
08-Oct-13	220.14	20-Apr-22	220.62
23-Apr-14	220.86	18-Jul-22	220.25
29-Jul-14	220.55	12-Oct-22	220.06
08-Oct-14	220.46	18-Apr-23	220.60
22-Apr-15	220.84	18-Jul-23	220.50
28-Jul-15	220.38	11-Oct-23	220.36
06-Oct-15	221.24	15-Apr-24	220.85
27-Apr-16	220.58	16-Jul-24	220.51
27-Jul-16	220.10	09-Oct-24	220.06
26-Oct-16	220.14	05-May-25	220.63
01-May-17	220.84	22-Jul-25	DRY
25-Jul-17	220.28	20-Oct-25	219.84

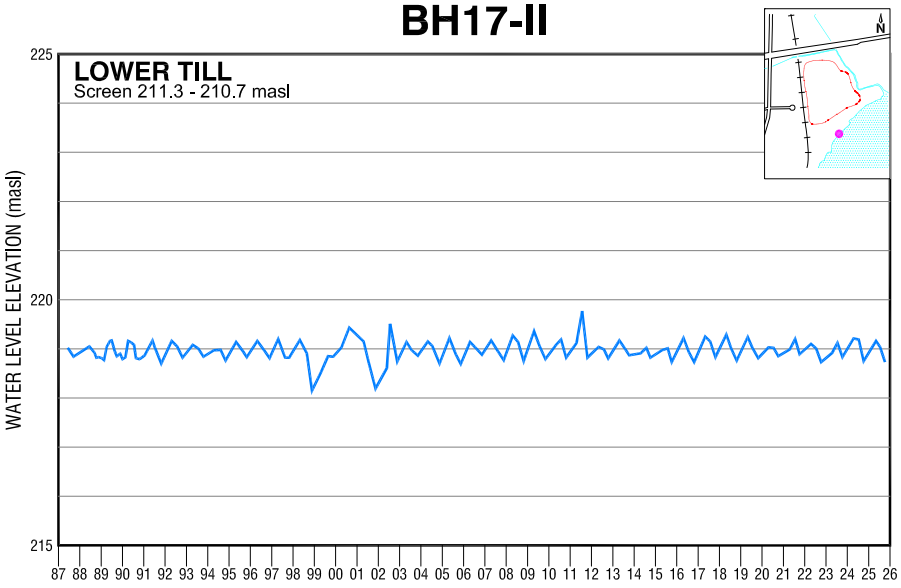
BH17-I



MP Elevation 220.70 masl

DATE	ELEVATION	DATE	ELEVATION
22-Apr-09	219.13	25-Oct-17	219.13
27-Jul-09	219.20	30-Apr-18	219.40
04-Nov-09	219.01	24-Jul-18	219.36
28-Apr-10	218.96	24-Oct-18	219.09
28-Jul-10	219.12	30-Apr-19	219.67
25-Oct-10	219.04	25-Jul-19	219.40
20-Apr-11	218.98	29-Oct-19	219.46
24-Oct-11	219.05	20-Apr-20	219.32
01-May-12	219.05	15-Jul-20	219.20
31-Jul-12	219.09	06-Oct-20	219.17
15-Oct-12	219.04	22-Apr-21	219.48
22-Apr-13	218.99	20-Jul-21	219.45
29-Jul-13	219.10	07-Oct-21	219.22
08-Oct-13	219.31	19-Apr-22	219.66
24-Apr-14	219.29	15-Jul-22	219.38
30-Jul-14	219.24	11-Oct-22	219.12
08-Oct-14	219.09	18-Apr-23	219.34
21-Apr-15	218.92	17-Jul-23	219.46
29-Jul-15	219.08	10-Oct-23	219.46
07-Oct-15	219.04	16-Apr-24	219.48
26-Apr-16	219.08	15-Jul-24	219.47
28-Jul-16	219.06	07-Oct-24	219.24
25-Oct-16	218.94	07-May-25	219.49
03-May-17	219.69	15-Jul-25	219.36
26-Jul-17	219.44	09-Oct-25	219.09

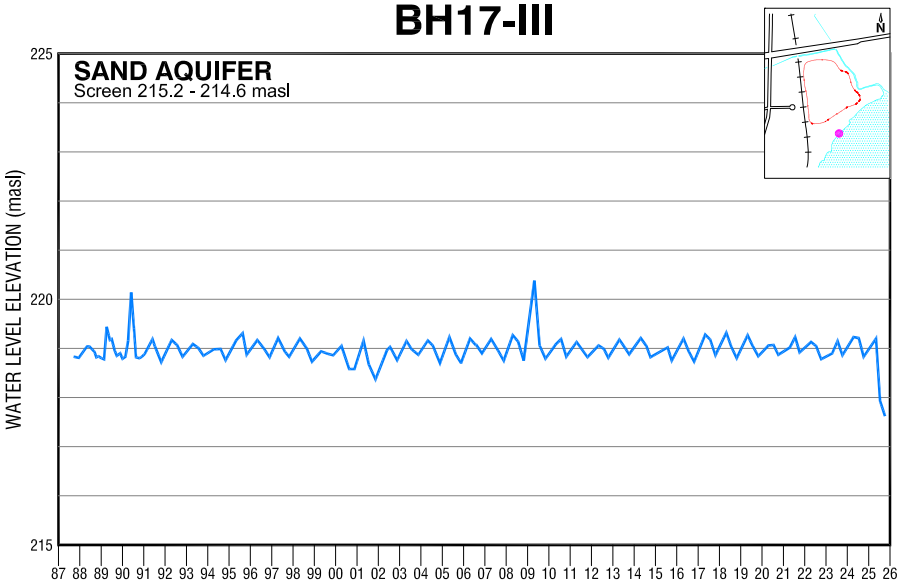
BH17-II



MP Elevation 220.66 masl

DATE	ELEVATION	DATE	ELEVATION
27-Jul-09	219.05	25-Oct-17	218.83
04-Nov-09	218.79	30-Apr-18	219.29
28-Apr-10	219.07	24-Jul-18	219.00
28-Jul-10	219.19	24-Oct-18	218.76
25-Oct-10	218.82	30-Apr-19	219.24
20-Apr-11	219.12	25-Jul-19	219.01
26-Jul-11	219.77	29-Oct-19	218.81
24-Oct-11	218.82	20-Apr-20	219.03
01-May-12	219.04	15-Jul-20	219.02
31-Jul-12	218.99	06-Oct-20	218.85
15-Oct-12	218.80	22-Apr-21	218.99
22-Apr-13	219.17	20-Jul-21	219.20
29-Jul-13	219.00	07-Oct-21	218.89
08-Oct-13	218.87	19-Apr-22	219.10
24-Apr-14	218.91	15-Jul-22	219.01
30-Jul-14	219.02	11-Oct-22	218.73
08-Oct-14	218.82	18-Apr-23	218.92
21-Apr-15	218.97	17-Jul-23	219.12
29-Jul-15	219.01	10-Oct-23	218.83
07-Oct-15	218.73	16-Apr-24	219.21
26-Apr-16	219.22	15-Jul-24	219.19
28-Jul-16	218.93	07-Oct-24	218.75
25-Oct-16	218.73	07-May-25	219.16
03-May-17	219.25	15-Jul-25	219.04
26-Jul-17	219.15	09-Oct-25	218.73

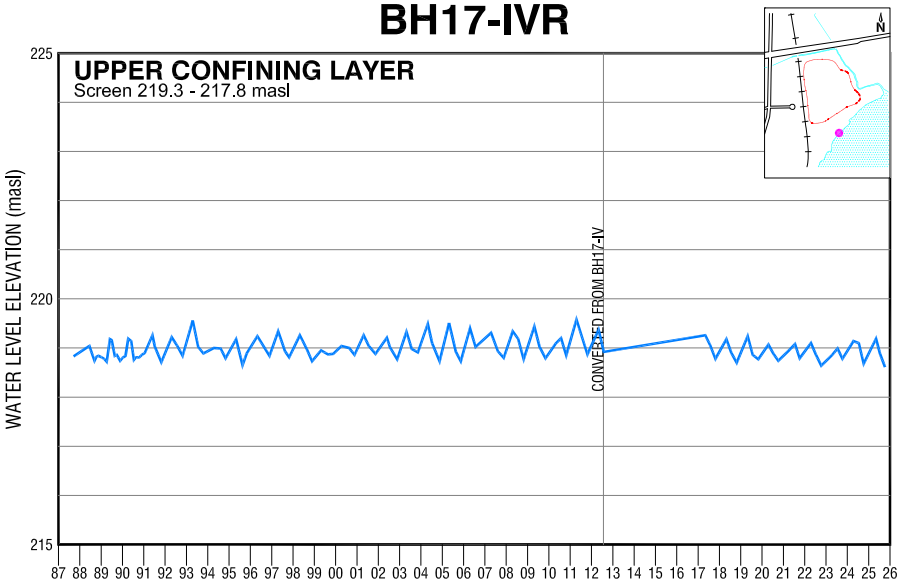
BH17-III



MP Elevation 220.14 masl

DATE	ELEVATION	DATE	ELEVATION
27-Oct-08	218.75	25-Oct-17	218.86
28-Apr-09	220.38	30-Apr-18	219.32
27-Jul-09	219.06	24-Jul-18	219.03
05-Nov-09	218.79	24-Oct-18	218.80
28-Apr-10	219.08	30-Apr-19	219.27
28-Jul-10	219.19	25-Jul-19	219.05
26-Oct-10	218.83	30-Oct-19	218.84
20-Apr-11	219.13	20-Apr-20	219.06
25-Oct-11	218.82	15-Jul-20	219.07
01-May-12	219.06	06-Oct-20	218.87
31-Jul-12	218.99	22-Apr-21	219.02
15-Oct-12	218.81	20-Jul-21	219.23
22-Apr-13	219.18	07-Oct-21	218.92
29-Jul-13	219.01	19-Apr-22	219.13
08-Oct-13	218.88	15-Jul-22	219.05
24-Apr-14	219.21	11-Oct-22	218.78
30-Jul-14	219.05	18-Apr-23	218.90
08-Oct-14	218.82	17-Jul-23	219.15
29-Jul-15	219.02	10-Oct-23	218.86
07-Oct-15	218.75	16-Apr-24	219.23
26-Apr-16	219.20	15-Jul-24	219.21
28-Jul-16	218.93	07-Oct-24	218.83
25-Oct-16	218.73	07-May-25	219.20
03-May-17	219.28	15-Jul-25	217.93
26-Jul-17	219.18	09-Oct-25	217.62

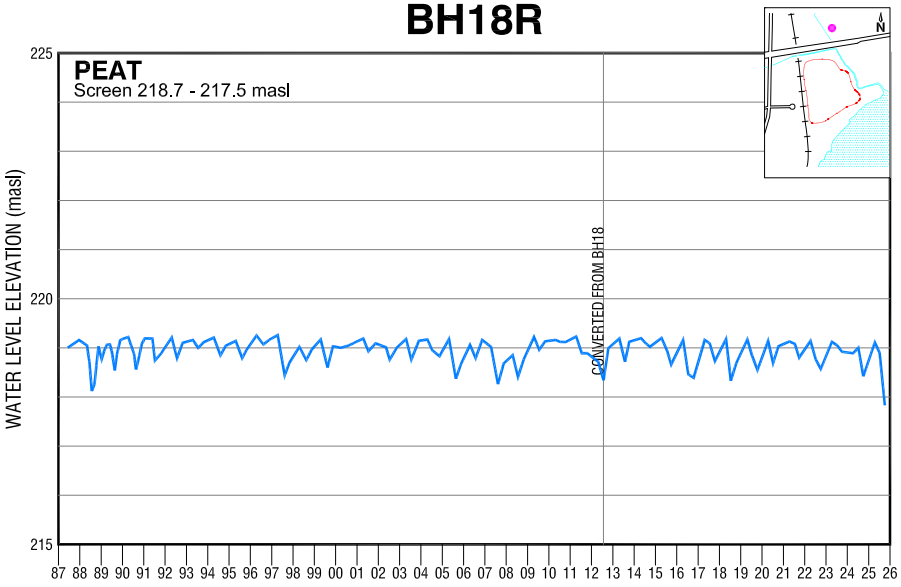
BH17-IVR



MP Elevation 220.87 masl

DATE	ELEVATION	DATE	ELEVATION
12-Jul-04	219.09	25-Oct-17	218.78
16-Nov-04	218.73	30-Apr-18	219.18
27-Apr-05	219.51	24-Jul-18	218.90
23-Aug-05	218.92	24-Oct-18	218.70
14-Nov-05	218.73	30-Apr-19	219.24
21-Apr-06	219.40	25-Jul-19	218.86
27-Jul-06	219.02	30-Oct-19	218.77
17-Apr-07	219.31	20-Apr-20	219.07
14-Aug-07	218.93	15-Jul-20	218.88
20-Nov-07	218.80	06-Oct-20	218.74
22-Apr-08	219.34	22-Apr-21	218.97
22-Jul-08	219.19	20-Jul-21	219.08
27-Oct-08	218.77	07-Oct-21	218.79
28-Apr-09	219.44	19-Apr-22	219.10
27-Jul-09	219.02	15-Jul-22	218.86
04-Nov-09	218.79	11-Oct-22	218.64
28-Apr-10	219.09	18-Apr-23	218.86
28-Jul-10	219.20	17-Jul-23	218.99
26-Oct-10	218.85	10-Oct-23	218.78
20-Apr-11	219.58	16-Apr-24	219.14
24-Oct-11	218.87	15-Jul-24	219.10
02-May-12	219.37	07-Oct-24	218.68
31-Jul-12	218.92	07-May-25	219.19
03-May-17	219.26	15-Jul-25	218.88
26-Jul-17	219.06	09-Oct-25	218.61

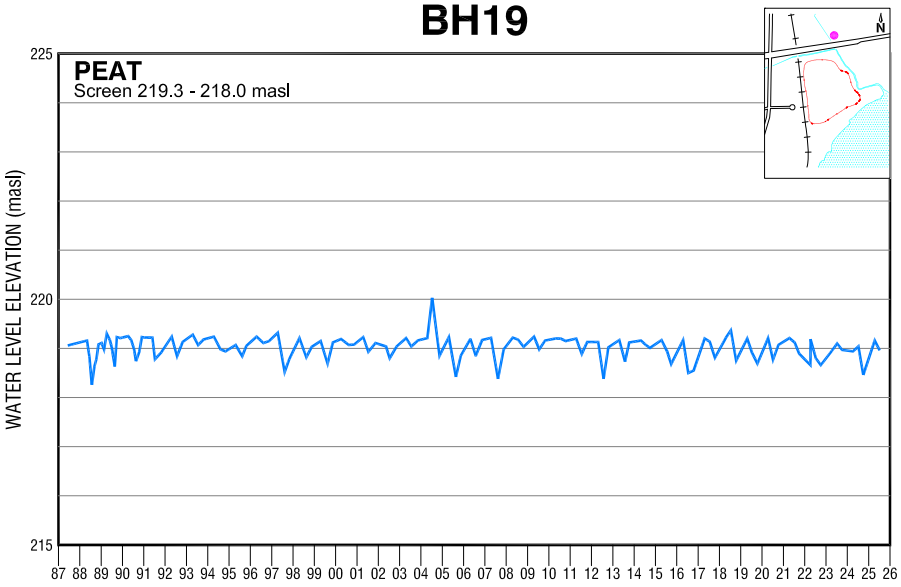
BH18R



MP Elevation 220.01 masl

DATE	ELEVATION	DATE	ELEVATION
21-Jul-09	218.96	17-Oct-17	218.73
27-Oct-09	219.13	23-Apr-18	219.18
22-Apr-10	219.16	16-Jul-18	218.33
21-Jul-10	219.12	15-Oct-18	218.68
19-Oct-10	219.12	23-Apr-19	219.17
14-Apr-11	219.23	15-Jul-19	218.84
19-Jul-11	218.89	15-Oct-19	218.55
20-Oct-11	218.89	14-Apr-20	219.14
25-Apr-12	218.72	08-Jul-20	218.69
26-Jul-12	218.34	08-Oct-20	219.03
15-Oct-12	218.99	13-Apr-21	219.13
22-Apr-13	219.19	16-Jul-21	219.08
29-Jul-13	218.71	29-Sep-21	218.80
08-Oct-13	219.12	11-Apr-22	219.14
28-Apr-14	219.20	11-Jul-22	218.76
21-Jul-14	219.09	04-Oct-22	218.57
30-Sep-14	219.02	11-Apr-23	219.12
15-Apr-15	219.20	10-Jul-23	219.05
20-Jul-15	218.94	04-Oct-23	218.92
28-Sep-15	218.66	09-Apr-24	218.89
19-Apr-16	219.16	08-Jul-24	219.00
17-Jul-16	218.46	02-Oct-24	218.42
17-Oct-16	218.39	16-Apr-25	219.11
24-Apr-17	219.16	08-Jul-25	218.90
18-Jul-17	219.09	06-Oct-25	217.83

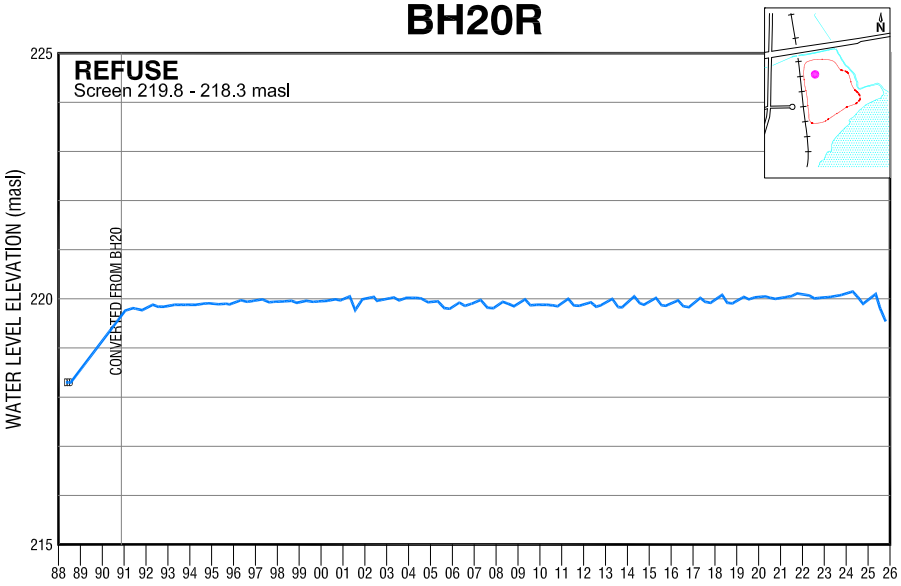
BH19



MP Elevation 220.53 masl

DATE	ELEVATION	DATE	ELEVATION
21-Jul-09	218.98	17-Oct-17	218.81
27-Oct-09	219.16	23-Apr-18	219.22
22-Apr-10	219.20	16-Jul-18	219.37
21-Jul-10	219.20	15-Oct-18	218.75
19-Oct-10	219.15	23-Apr-19	219.20
14-Apr-11	219.20	15-Jul-19	218.91
19-Jul-11	218.88	15-Oct-19	218.69
20-Oct-11	219.13	14-Apr-20	219.21
25-Apr-12	219.13	08-Jul-20	218.77
26-Jul-12	218.38	08-Oct-20	219.07
15-Oct-12	219.02	13-Apr-21	219.21
22-Apr-13	219.17	12-Jul-21	219.12
29-Jul-13	218.73	29-Sep-21	218.89
08-Oct-13	219.12	10-Apr-22	218.66
28-Apr-14	219.16	11-Apr-22	219.19
21-Jul-14	219.07	11-Jul-22	218.80
30-Sep-14	219.01	04-Oct-22	218.66
15-Apr-15	219.17	11-Apr-23	218.95
20-Jul-15	218.94	10-Jul-23	219.10
28-Sep-15	218.68	04-Oct-23	218.97
19-Apr-16	219.17	08-Apr-24	218.94
17-Jul-16	218.50	08-Jul-24	219.04
17-Oct-16	218.55	01-Oct-24	218.46
24-Apr-17	219.20	16-Apr-25	219.16
18-Jul-17	219.14	08-Jul-25	218.96

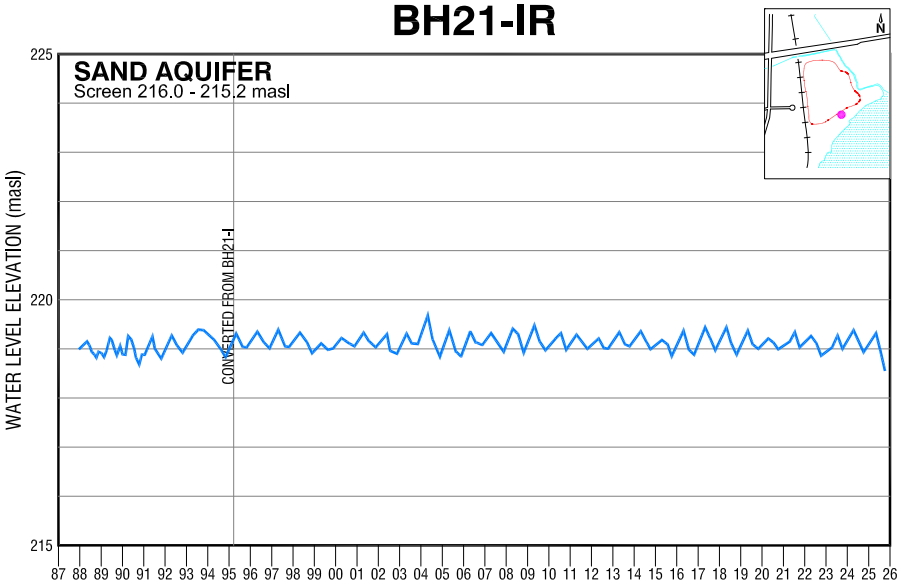
BH20R



MP Elevation 231.11 masl

DATE	ELEVATION	DATE	ELEVATION
28-Jul-09	219.87	24-Jul-17	219.94
02-Nov-09	219.88	23-Oct-17	219.92
26-Apr-10	219.88	02-May-18	220.08
26-Jul-10	219.87	26-Jul-18	219.92
25-Oct-10	219.85	22-Oct-18	219.91
18-Apr-11	220.00	29-Apr-19	220.04
25-Jul-11	219.87	23-Jul-19	219.99
24-Oct-11	219.86	28-Oct-19	220.03
30-Apr-12	219.93	16-Apr-20	220.05
30-Jul-12	219.84	13-Jul-20	220.02
15-Oct-12	219.87	07-Oct-20	220.00
23-Apr-13	220.00	21-Apr-21	220.04
30-Jul-13	219.84	14-Jul-21	220.06
06-Aug-13	219.83	01-Oct-21	220.11
08-Oct-13	219.83	21-Apr-22	220.07
23-Apr-14	220.05	20-Jul-22	220.01
28-Jul-14	219.91	13-Oct-22	220.02
06-Oct-14	219.88	19-Apr-23	220.04
22-Apr-15	220.02	16-Oct-23	220.08
27-Jul-15	219.87	17-Apr-24	220.15
05-Oct-15	219.86	18-Jul-24	220.03
25-Apr-16	219.97	10-Oct-24	219.90
25-Jul-16	219.85	08-May-25	220.10
24-Oct-16	219.83	22-Jul-25	219.80
01-May-17	220.02	22-Oct-25	219.54

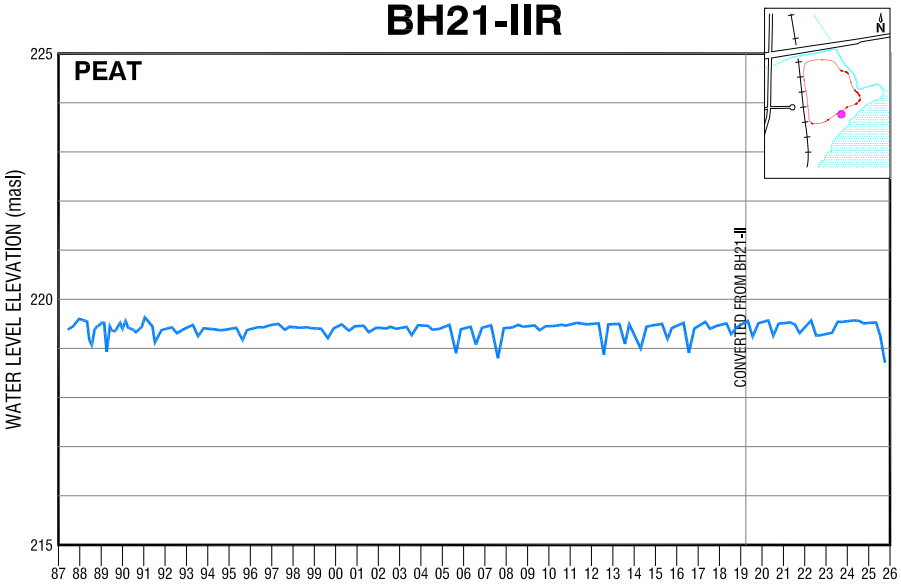
BH21-IR



MP Elevation 220.68 masl

DATE	ELEVATION	DATE	ELEVATION
28-Apr-09	219.48	26-Jul-17	219.22
29-Jul-09	219.15	24-Oct-17	218.97
04-Nov-09	218.97	30-Apr-18	219.44
27-Apr-10	219.21	23-Jul-18	219.11
26-Jul-10	219.32	23-Oct-18	218.88
26-Oct-10	218.98	01-May-19	219.37
18-Apr-11	219.29	25-Jul-19	219.09
24-Oct-11	219.00	30-Oct-19	219.00
02-May-12	219.21	17-Apr-20	219.21
01-Aug-12	219.01	14-Jul-20	219.13
15-Oct-12	219.01	07-Oct-20	218.99
22-Apr-13	219.34	22-Apr-21	219.15
29-Jul-13	219.09	15-Jul-21	219.34
08-Oct-13	219.05	07-Oct-21	219.03
16-Oct-13	219.05	20-Apr-22	219.26
24-Apr-14	219.36	18-Jul-22	219.12
31-Jul-14	219.14	11-Oct-22	218.86
09-Oct-14	218.99	17-Apr-23	219.03
22-Apr-15	219.18	17-Jul-23	219.27
29-Jul-15	219.09	11-Oct-23	219.00
07-Oct-15	218.85	17-Apr-24	219.38
26-Apr-16	219.37	08-Oct-24	218.93
28-Jul-16	218.98	07-May-25	219.32
26-Oct-16	218.88	16-Jul-25	218.99
02-May-17	219.44	08-Oct-25	218.55

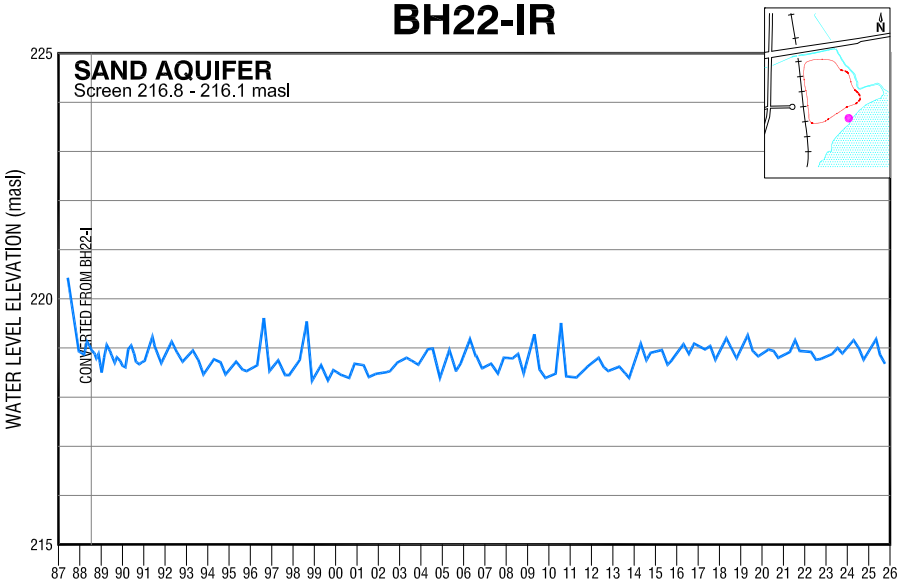
BH21-IIR



MP Elevation 220.67 masl

DATE	ELEVATION	DATE	ELEVATION
28-Apr-09	219.47	24-Oct-17	219.45
29-Jul-09	219.37	30-Apr-18	219.51
04-Nov-09	219.45	23-Jul-18	219.29
27-Apr-10	219.46	23-Oct-18	219.43
26-Jul-10	219.48	01-May-19	219.56
26-Oct-10	219.46	25-Jul-19	219.24
18-Apr-11	219.52	30-Oct-19	219.51
25-Oct-11	219.49	17-Apr-20	219.57
02-May-12	219.51	14-Jul-20	219.26
01-Aug-12	218.87	07-Oct-20	219.50
15-Oct-12	219.49	21-Apr-21	219.53
22-Apr-13	219.50	15-Jul-21	219.49
29-Jul-13	219.09	07-Oct-21	219.31
08-Oct-13	219.49	20-Apr-22	219.57
24-Apr-14	219.00	18-Jul-22	219.26
31-Jul-14	219.44	11-Oct-22	219.27
09-Oct-14	219.46	17-Apr-23	219.32
22-Apr-15	219.50	17-Jul-23	219.54
29-Jul-15	219.19	11-Oct-23	219.54
07-Oct-15	219.41	17-Apr-24	219.57
26-Apr-16	219.52	19-Jul-24	219.56
28-Jul-16	218.91	08-Oct-24	219.51
26-Oct-16	219.40	07-May-25	219.53
02-May-17	219.54	16-Jul-25	219.27
26-Jul-17	219.40	08-Oct-25	218.71

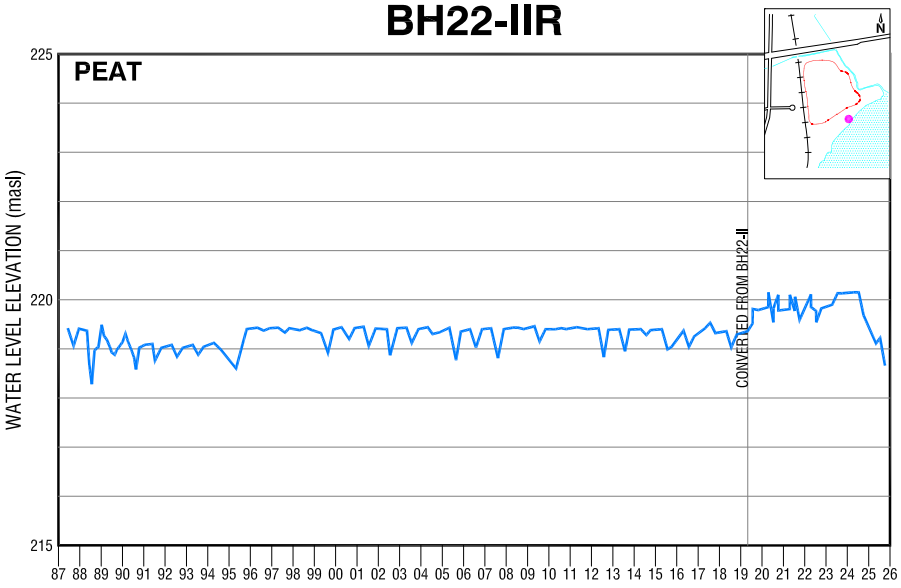
BH22-IR



MP Elevation 219.96 masl

DATE	ELEVATION	DATE	ELEVATION
28-Apr-09	219.28	25-Oct-17	218.76
27-Jul-09	218.56	30-Apr-18	219.20
05-Nov-09	218.39	23-Jul-18	219.00
28-Apr-10	218.48	24-Oct-18	218.79
28-Jul-10	219.51	30-Apr-19	219.26
26-Oct-10	218.42	26-Jul-19	218.94
20-Apr-11	218.40	30-Oct-19	218.83
25-Oct-11	218.62	20-Apr-20	218.97
01-May-12	218.80	15-Jul-20	218.94
01-Aug-12	218.61	06-Oct-20	218.80
15-Oct-12	218.53	22-Apr-21	218.92
22-Apr-13	218.62	20-Jul-21	219.16
29-Jul-13	218.49	07-Oct-21	218.94
08-Oct-13	218.39	19-Apr-22	218.92
24-Apr-14	219.09	15-Jul-22	218.76
30-Jul-14	218.75	11-Oct-22	218.78
09-Oct-14	218.90	17-Apr-23	218.88
21-Apr-15	218.96	17-Jul-23	219.00
29-Jul-15	218.66	10-Oct-23	218.89
07-Oct-15	218.75	16-Apr-24	219.16
26-Apr-16	219.08	15-Jul-24	219.00
28-Jul-16	218.88	07-Oct-24	218.76
25-Oct-16	219.09	07-May-25	219.18
02-May-17	218.97	15-Jul-25	218.86
26-Jul-17	219.04	08-Oct-25	218.68

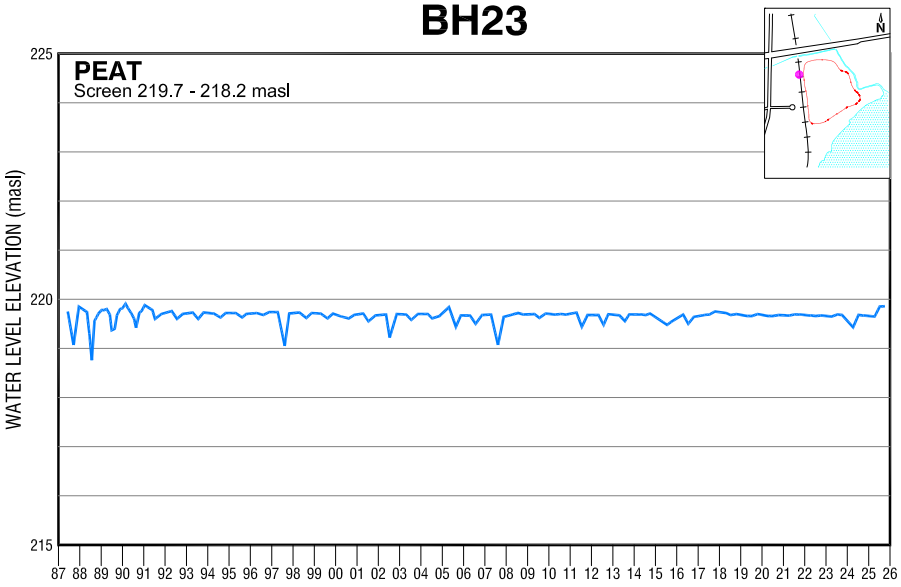
BH22-IIR



MP Elevation 220.14 masl

DATE	ELEVATION	DATE	ELEVATION
01-May-12	219.42	17-Apr-20	219.85
31-Jul-12	218.83	20-Apr-20	220.15
15-Oct-12	219.38	14-Jul-20	219.54
22-Apr-13	219.40	15-Jul-20	219.82
29-Jul-13	218.95	06-Oct-20	220.10
08-Oct-13	219.39	07-Oct-20	219.78
24-Apr-14	219.40	21-Apr-21	219.81
30-Jul-14	219.28	22-Apr-21	220.10
09-Oct-14	219.38	15-Jul-21	219.77
21-Apr-15	219.40	20-Jul-21	220.06
29-Jul-15	218.99	07-Oct-21	219.59
07-Oct-15	219.04	19-Apr-22	220.11
26-Apr-16	219.37	20-Apr-22	219.85
28-Jul-16	219.04	15-Jul-22	219.77
25-Oct-16	219.25	18-Jul-22	219.54
02-May-17	219.42	11-Oct-22	219.82
26-Jul-17	219.53	17-Apr-23	219.90
25-Oct-17	219.32	17-Jul-23	220.13
30-Apr-18	219.36	10-Oct-23	220.13
23-Jul-18	219.03	16-Apr-24	220.15
24-Oct-18	219.29	15-Jul-24	220.15
30-Apr-19	219.36	07-Oct-24	219.68
25-Jul-19	219.52	07-May-25	219.11
26-Jul-19	219.81	15-Jul-25	219.22
30-Oct-19	219.79	08-Oct-25	218.66

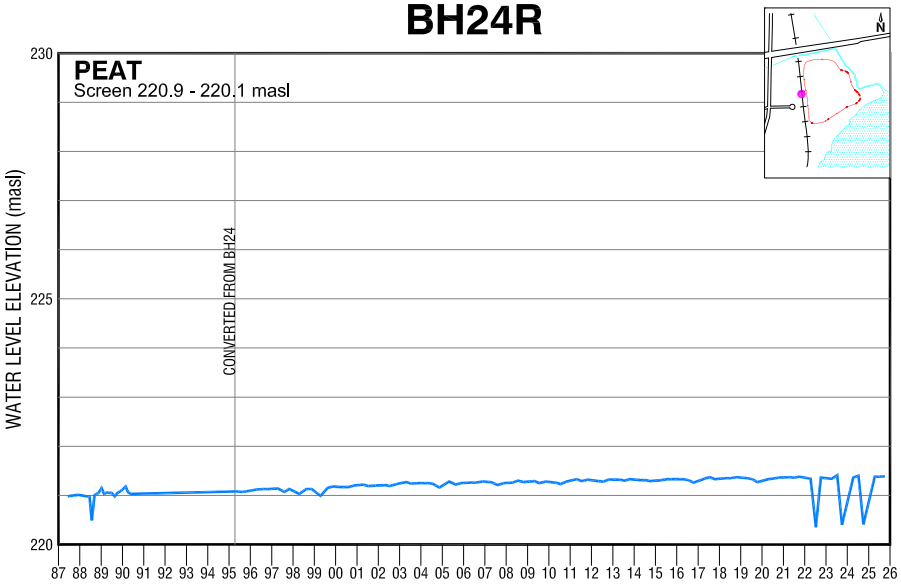
BH23



MP Elevation 221.01 masl

DATE	ELEVATION	DATE	ELEVATION
28-Apr-09	219.70	16-Oct-17	219.75
23-Jul-09	219.62	23-Apr-18	219.72
05-Nov-09	219.71	16-Jul-18	219.68
28-Apr-10	219.69	15-Oct-18	219.70
22-Jul-10	219.70	24-Apr-19	219.66
26-Oct-10	219.69	17-Jul-19	219.66
20-Apr-11	219.73	16-Oct-19	219.70
20-Jul-11	219.44	14-Apr-20	219.66
25-Oct-11	219.68	08-Jul-20	219.66
01-May-12	219.68	09-Oct-20	219.68
27-Jul-12	219.48	14-Apr-21	219.67
15-Oct-12	219.70	07-Jul-21	219.69
22-Apr-13	219.68	28-Sep-21	219.69
29-Jul-13	219.55	12-Apr-22	219.67
08-Oct-13	219.69	12-Jul-22	219.66
28-Apr-14	219.69	03-Oct-22	219.67
21-Jul-14	219.68	12-Apr-23	219.65
29-Sep-14	219.71	11-Jul-23	219.69
20-Jul-15	219.48	02-Oct-23	219.68
28-Sep-15	219.54	10-Apr-24	219.43
19-Apr-16	219.69	10-Jul-24	219.68
17-Jul-16	219.50	04-Oct-24	219.67
18-Oct-16	219.64	15-Apr-25	219.65
24-Apr-17	219.68	08-Jul-25	219.85
17-Jul-17	219.69	06-Oct-25	219.86

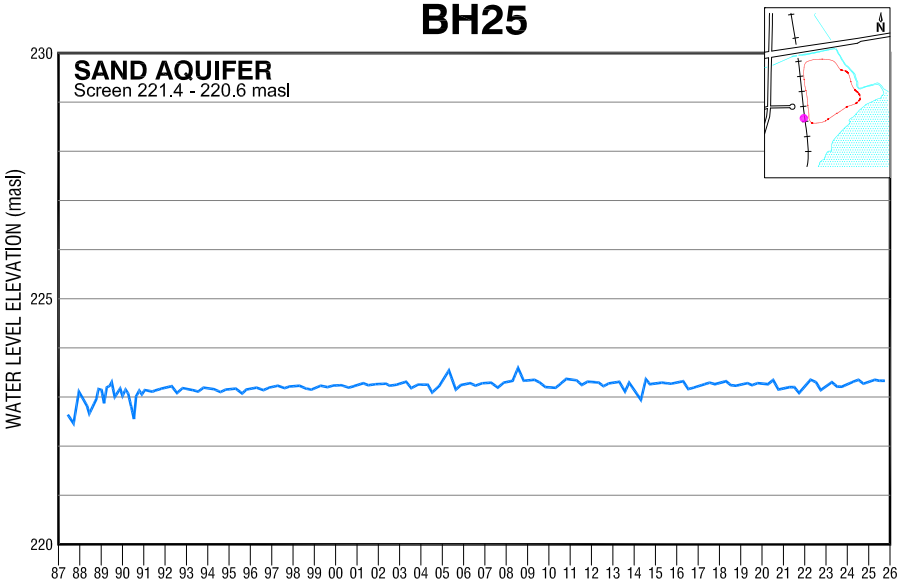
BH24R



MP Elevation 222.03 masl

DATE	ELEVATION	DATE	ELEVATION
23-Jul-09	221.25	16-Oct-17	221.33
05-Nov-09	221.28	23-Apr-18	221.35
28-Apr-10	221.26	16-Jul-18	221.35
22-Jul-10	221.23	15-Oct-18	221.37
26-Oct-10	221.28	24-Apr-19	221.35
20-Apr-11	221.33	17-Jul-19	221.33
21-Jul-11	221.29	16-Oct-19	221.27
25-Oct-11	221.32	14-Apr-20	221.33
01-May-12	221.29	08-Jul-20	221.34
27-Jul-12	221.28	09-Oct-20	221.36
15-Oct-12	221.32	14-Apr-21	221.37
22-Apr-13	221.32	07-Jul-21	221.36
29-Jul-13	221.30	28-Sep-21	221.38
08-Oct-13	221.33	12-Apr-22	221.34
28-Apr-14	221.31	12-Jul-22	220.35
21-Jul-14	221.31	03-Oct-22	221.36
29-Sep-14	221.29	12-Apr-23	221.34
15-Apr-15	221.31	11-Jul-23	221.41
20-Jul-15	221.33	02-Oct-23	220.40
28-Sep-15	221.33	10-Apr-24	221.36
19-Apr-16	221.33	10-Jul-24	221.40
17-Jul-16	221.31	04-Oct-24	220.41
18-Oct-16	221.26	15-Apr-25	221.38
24-Apr-17	221.34	08-Jul-25	221.38
18-Jul-17	221.37	06-Oct-25	221.39

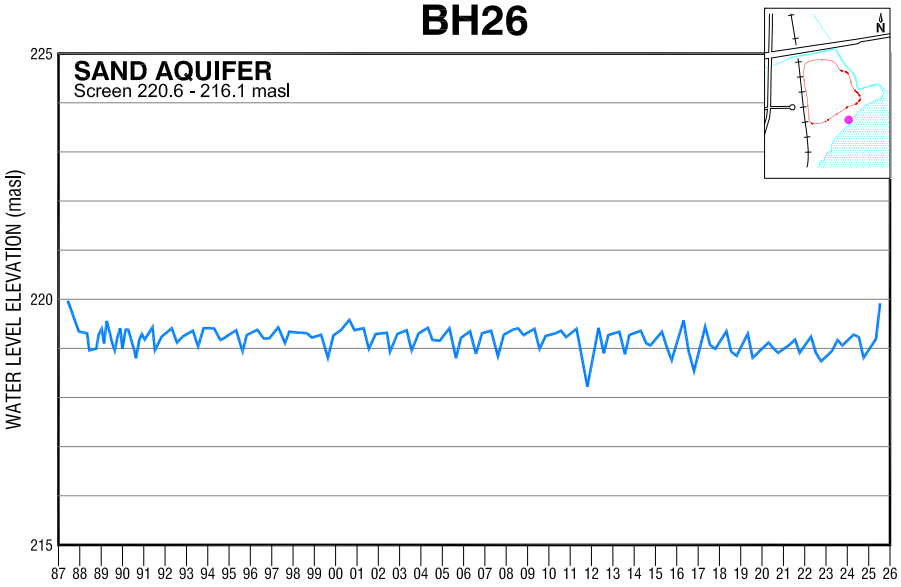
BH25



MP Elevation 224.49 masl

DATE	ELEVATION	DATE	ELEVATION
05-Nov-09	223.20	16-Oct-17	223.26
28-Apr-10	223.18	23-Apr-18	223.32
22-Jul-10	223.27	17-Jul-18	223.24
26-Oct-10	223.37	16-Oct-18	223.23
20-Apr-11	223.34	24-Apr-19	223.28
20-Jul-11	223.24	16-Jul-19	223.24
25-Oct-11	223.31	16-Oct-19	223.28
01-May-12	223.29	14-Apr-20	223.26
27-Jul-12	223.22	09-Jul-20	223.35
15-Oct-12	223.27	09-Oct-20	223.15
25-Oct-12	223.27	14-Apr-21	223.20
22-Apr-13	223.31	07-Jul-21	223.20
29-Jul-13	223.11	28-Sep-21	223.08
08-Oct-13	223.29	12-Apr-22	223.35
28-Apr-14	222.94	12-Jul-22	223.30
21-Jul-14	223.36	03-Oct-22	223.14
29-Sep-14	223.26	12-Apr-23	223.30
15-Apr-15	223.29	11-Jul-23	223.21
21-Jul-15	223.28	02-Oct-23	223.21
28-Sep-15	223.27	10-Apr-24	223.31
19-Apr-16	223.32	10-Jul-24	223.35
17-Jul-16	223.16	04-Oct-24	223.27
18-Oct-16	223.19	15-Apr-25	223.35
24-Apr-17	223.26	08-Jul-25	223.33
17-Jul-17	223.29	06-Oct-25	223.33

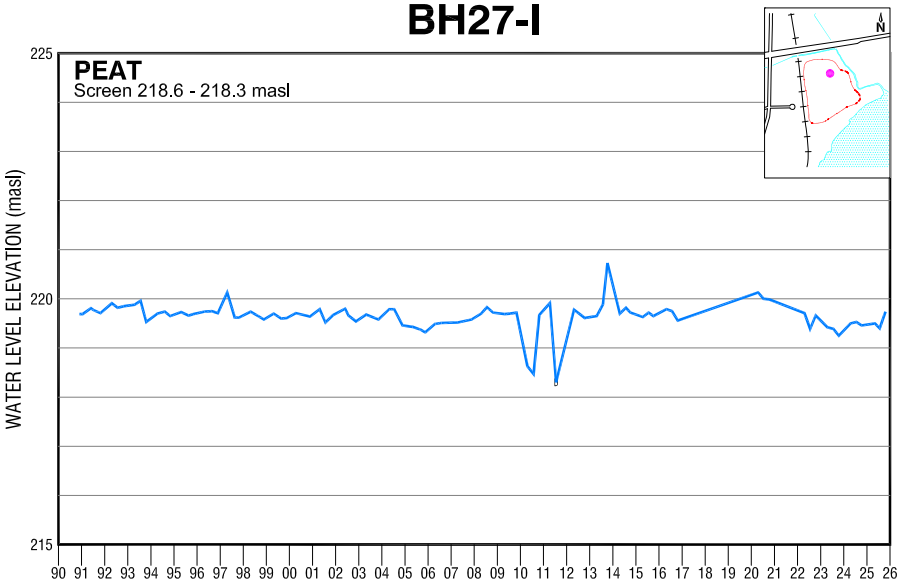
BH26



MP Elevation 221.66 masl

DATE	ELEVATION	DATE	ELEVATION
27-Oct-08	219.27	26-Jul-17	219.07
28-Apr-09	219.40	25-Oct-17	218.99
27-Jul-09	218.99	30-Apr-18	219.35
04-Nov-09	219.25	23-Jul-18	218.93
28-Apr-10	219.31	24-Oct-18	218.85
28-Jul-10	219.36	30-Apr-19	219.30
26-Oct-10	219.23	26-Jul-19	218.81
20-Apr-11	219.40	30-Oct-19	218.92
24-Oct-11	218.22	20-Apr-20	219.12
01-May-12	219.42	14-Jul-20	219.00
31-Jul-12	218.90	06-Oct-20	218.91
15-Oct-12	219.27	22-Apr-21	219.08
22-Apr-13	219.34	20-Jul-21	219.18
29-Jul-13	218.88	07-Oct-21	218.91
08-Oct-13	219.27	19-Apr-22	219.24
24-Apr-14	219.36	15-Jul-22	218.90
30-Jul-14	219.10	11-Oct-22	218.74
08-Oct-14	219.06	17-Apr-23	218.95
21-Apr-15	219.34	17-Jul-23	219.17
29-Jul-15	218.98	10-Oct-23	219.06
07-Oct-15	218.76	16-Apr-24	219.28
26-Apr-16	219.57	15-Jul-24	219.23
28-Jul-16	218.92	07-Oct-24	218.81
25-Oct-16	218.54	07-May-25	219.20
02-May-17	219.44	15-Jul-25	219.92

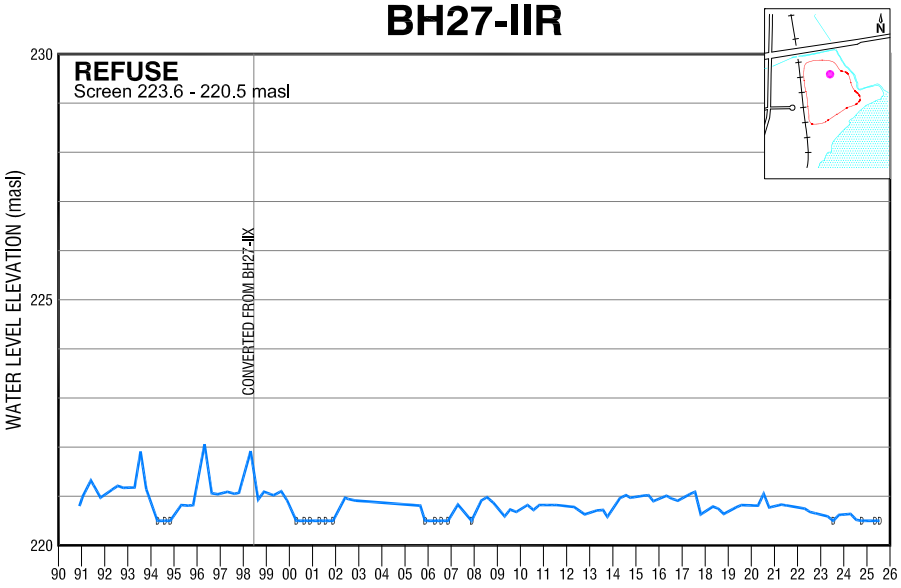
BH27-I



MP Elevation 233.24 masl

DATE	ELEVATION	DATE	ELEVATION
23-Aug-05	219.38	08-Oct-13	220.73
30-Aug-05	219.38	23-Apr-14	219.70
14-Nov-05	219.32	28-Jul-14	219.82
21-Nov-05	219.32	06-Oct-14	219.72
21-Apr-06	219.49	22-Apr-15	219.63
01-May-06	219.49	20-Jul-15	219.72
27-Jul-06	219.51	05-Oct-15	219.65
02-Aug-06	219.51	27-Apr-16	219.79
17-Apr-07	219.52	25-Jul-16	219.75
20-Nov-07	219.58	25-Oct-16	219.56
21-Apr-08	219.70	16-Apr-20	220.13
21-Jul-08	219.83	13-Jul-20	220.00
27-Oct-08	219.72	08-Oct-20	219.99
28-Apr-09	219.69	21-Apr-22	219.71
22-Jul-09	219.70	19-Jul-22	219.39
30-Oct-09	219.72	14-Oct-22	219.66
22-Apr-10	218.63	19-Apr-23	219.42
28-Jul-10	218.47	19-Jul-23	219.39
26-Oct-10	219.67	16-Oct-23	219.25
13-Apr-11	219.91	17-Apr-24	219.50
19-Jul-11	DRY	18-Jul-24	219.53
27-Apr-12	219.78	10-Oct-24	219.46
15-Oct-12	219.61	08-May-25	219.50
23-Apr-13	219.65	22-Jul-25	219.40
30-Jul-13	219.89	22-Oct-25	219.74

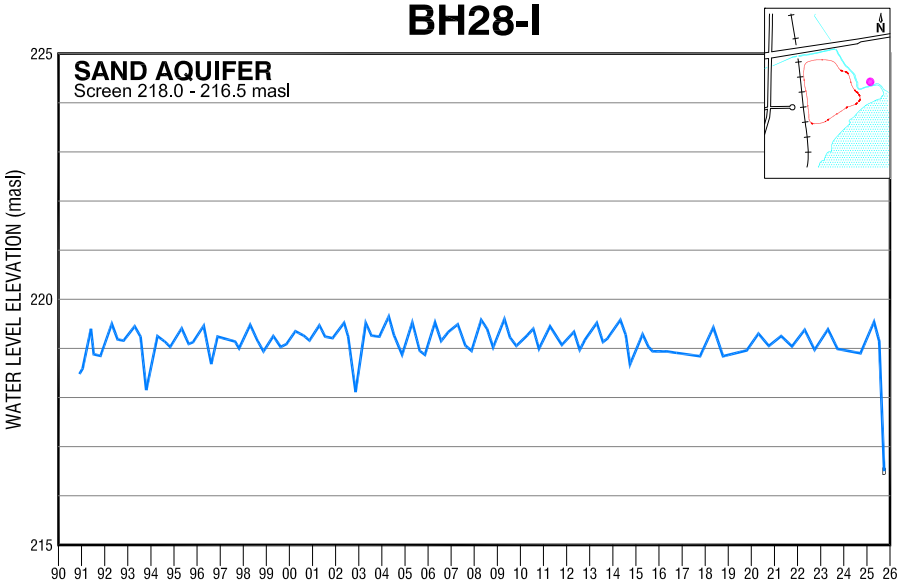
BH27-IIR



MP Elevation 233.38 masl

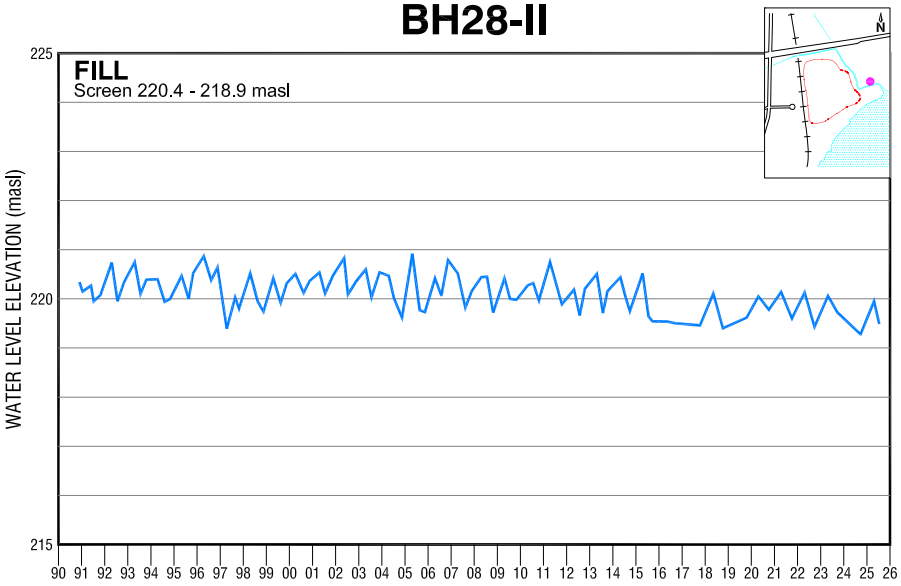
DATE	ELEVATION	DATE	ELEVATION
20-Nov-07	DRY	25-Oct-16	220.91
21-Apr-08	220.91	01-May-17	221.04
21-Jul-08	220.98	25-Jul-17	221.09
27-Oct-08	220.87	23-Oct-17	220.63
28-Apr-09	220.59	02-May-18	220.79
22-Jul-09	220.73	23-Jul-18	220.75
30-Oct-09	220.68	22-Oct-18	220.64
22-Apr-10	220.82	29-Apr-19	220.77
28-Jul-10	220.72	26-Jul-19	220.82
26-Oct-10	220.82	16-Apr-20	220.81
13-Apr-11	220.82	13-Jul-20	221.05
19-Jul-11	220.82	08-Oct-20	220.77
27-Apr-12	220.78	16-Apr-21	220.83
15-Oct-12	220.63	15-Jul-21	220.81
23-Apr-13	220.71	21-Apr-22	220.75
30-Jul-13	220.72	19-Jul-22	220.68
08-Oct-13	220.58	13-Oct-22	220.65
23-Apr-14	220.96	19-Apr-23	220.59
28-Jul-14	221.02	19-Jul-23	DRY
06-Oct-14	220.97	16-Oct-23	220.62
22-Apr-15	221.01	17-Apr-24	220.64
20-Jul-15	221.02	18-Jul-24	220.52
05-Oct-15	220.90	10-Oct-24	DRY
27-Apr-16	221.01	08-May-25	DRY
25-Jul-16	220.95	22-Jul-25	DRY

BH28-I



DATE	ELEVATION	DATE	ELEVATION
27-Apr-05	219.53	07-Oct-13	219.20
23-Aug-05	218.95	30-Apr-14	219.58
14-Nov-05	218.87	23-Jul-14	219.28
21-Apr-06	219.53	29-Sep-14	218.67
27-Jul-06	219.15	17-Apr-15	219.29
13-Nov-06	219.33	20-Jul-15	219.03
16-Apr-07	219.49	24-Sep-15	218.94
14-Aug-07	219.06	22-Apr-16	218.94
20-Nov-07	218.95	05-Oct-16	218.91
21-Apr-08	219.58	12-Oct-17	218.84
21-Jul-08	219.40	09-May-18	219.43
27-Oct-08	219.02	10-Oct-18	218.84
23-Apr-09	219.60	21-Oct-19	218.96
22-Jul-09	219.22	21-Apr-20	219.30
30-Oct-09	219.05	05-Oct-20	219.05
23-Apr-10	219.27	15-Apr-21	219.25
23-Jul-10	219.40	05-Oct-21	219.04
21-Oct-10	218.99	22-Apr-22	219.38
13-Apr-11	219.45	27-Sep-22	218.97
19-Oct-11	219.07	26-Apr-23	219.39
27-Apr-12	219.34	26-Sep-23	218.99
27-Jul-12	218.97	23-Sep-24	218.90
15-Oct-12	219.17	24-Apr-25	219.54
23-Apr-13	219.52	15-Jul-25	219.15
29-Jul-13	219.13	01-Oct-25	DRY

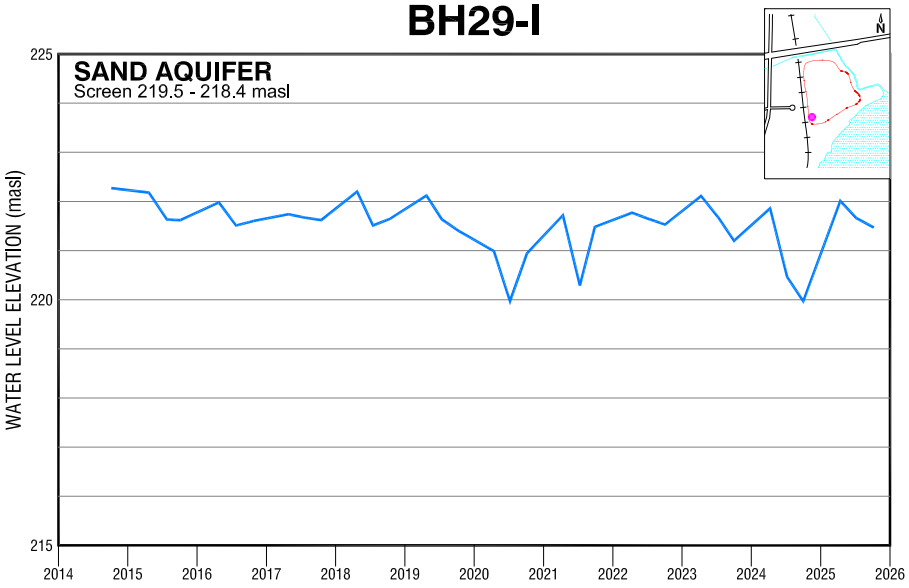
BH28-II



MP Elevation 221.85 masl

DATE	ELEVATION	DATE	ELEVATION
23-Aug-05	219.77	07-Oct-13	220.15
14-Nov-05	219.73	30-Apr-14	220.44
21-Apr-06	220.42	23-Jul-14	220.03
27-Jul-06	220.08	29-Sep-14	219.75
02-Aug-06	220.08	17-Apr-15	220.52
13-Nov-06	220.79	20-Jul-15	219.64
16-Apr-07	220.52	24-Sep-15	219.54
14-Aug-07	219.82	22-Apr-16	219.54
20-Nov-07	220.15	05-Oct-16	219.50
21-Apr-08	220.44	12-Oct-17	219.46
21-Jul-08	220.45	09-May-18	220.11
27-Oct-08	219.72	09-Oct-18	219.40
23-Apr-09	220.42	21-Oct-19	219.62
22-Jul-09	220.00	21-Apr-20	220.05
30-Oct-09	219.98	05-Oct-20	219.78
23-Apr-10	220.27	15-Apr-21	220.14
23-Jul-10	220.32	05-Oct-21	219.60
21-Oct-10	219.97	22-Apr-22	220.13
13-Apr-11	220.75	27-Sep-22	219.43
19-Oct-11	219.89	26-Apr-23	220.06
27-Apr-12	220.19	26-Sep-23	219.72
27-Jul-12	219.66	23-Sep-24	219.28
15-Oct-12	220.20	24-Sep-24	219.28
23-Apr-13	220.51	24-Apr-25	219.95
29-Jul-13	219.71	15-Jul-25	219.49

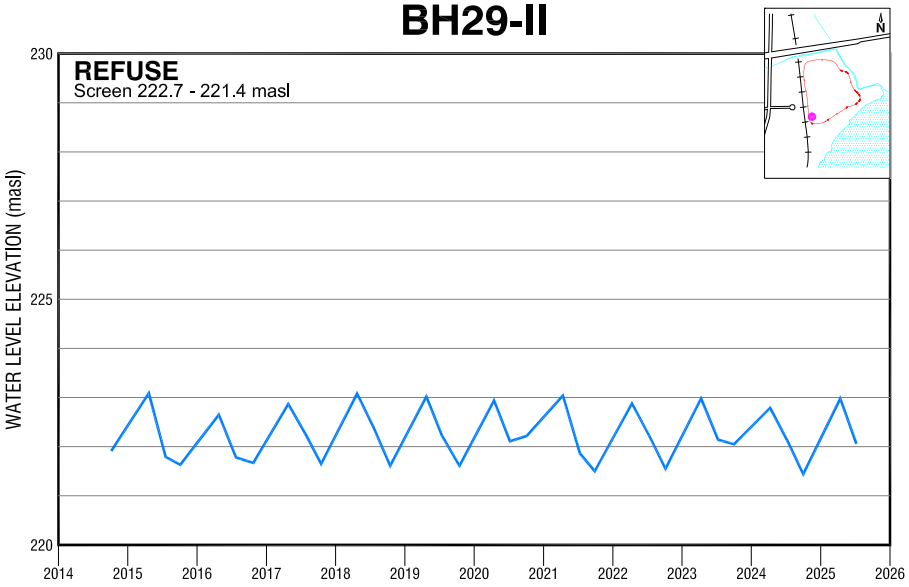
BH29-I



MP Elevation 224.42 masl

DATE	ELEVATION	DATE	ELEVATION
06-Oct-14	222.27	11-Apr-23	222.11
22-Apr-15	222.18	10-Jul-23	221.68
27-Jul-15	221.63	02-Oct-23	221.20
05-Oct-15	221.62	09-Apr-24	221.86
25-Apr-16	221.98	08-Jul-24	220.46
25-Jul-16	221.51	01-Oct-24	219.97
24-Oct-16	221.60	14-Apr-25	222.01
26-Apr-17	221.74	08-Jul-25	221.66
24-Jul-17	221.67	08-Oct-25	221.47
17-Oct-17	221.62		
24-Apr-18	222.20		
17-Jul-18	221.51		
16-Oct-18	221.65		
24-Apr-19	222.12		
16-Jul-19	221.63		
16-Oct-19	221.39		
14-Apr-20	220.99		
08-Jul-20	219.97		
05-Oct-20	220.94		
13-Apr-21	221.72		
12-Jul-21	220.29		
28-Sep-21	221.48		
12-Apr-22	221.77		
12-Jul-22	221.64		
04-Oct-22	221.53		

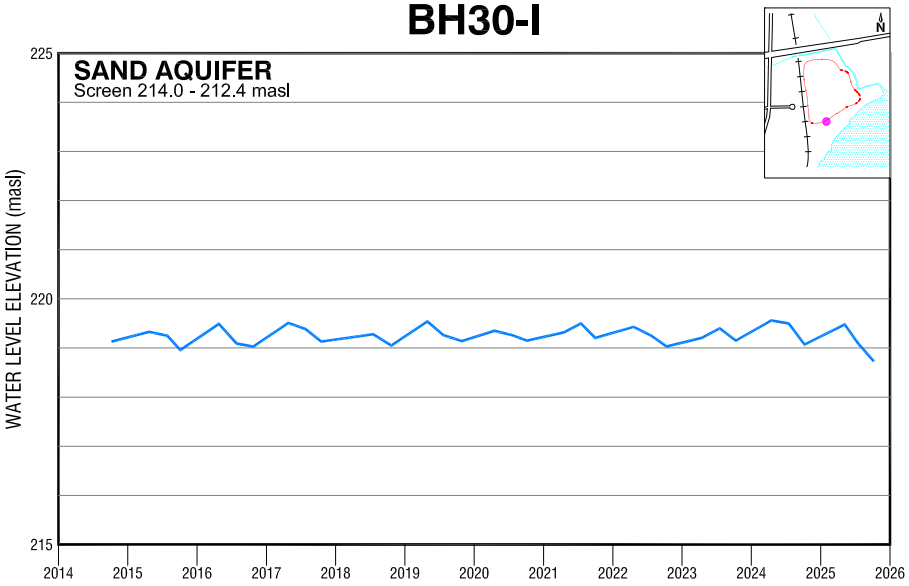
BH29-II



MP Elevation 224.49 masl

DATE	ELEVATION	DATE	ELEVATION
06-Oct-14	221.91	11-Apr-23	222.98
22-Apr-15	223.09	10-Jul-23	222.14
20-Jul-15	221.79	02-Oct-23	222.05
05-Oct-15	221.63	09-Apr-24	222.79
25-Apr-16	222.65	08-Jul-24	222.13
25-Jul-16	221.78	01-Oct-24	221.44
24-Oct-16	221.67	14-Apr-25	222.98
26-Apr-17	222.87	08-Jul-25	222.06
24-Jul-17	222.27		
17-Oct-17	221.65		
24-Apr-18	223.08		
17-Jul-18	222.42		
16-Oct-18	221.61		
24-Apr-19	223.02		
16-Jul-19	222.22		
16-Oct-19	221.61		
15-Apr-20	222.94		
08-Jul-20	222.11		
05-Oct-20	222.22		
13-Apr-21	223.04		
12-Jul-21	221.86		
28-Sep-21	221.50		
12-Apr-22	222.88		
11-Jul-22	222.23		
06-Oct-22	221.55		

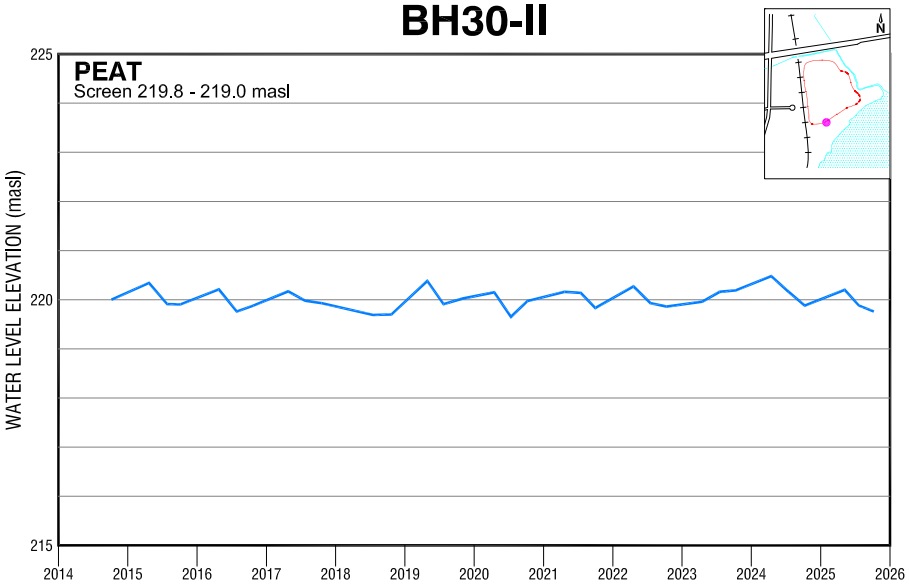
BH30-I



MP Elevation 222.43 masl

DATE	ELEVATION	DATE	ELEVATION
07-Oct-14	219.13	18-Jul-23	219.40
23-Apr-15	219.33	12-Oct-23	219.15
28-Jul-15	219.25	15-Apr-24	219.56
06-Oct-15	218.96	16-Jul-24	219.50
25-Apr-16	219.49	08-Oct-24	219.07
29-Jul-16	219.09	07-May-25	219.48
24-Oct-16	219.03	22-Jul-25	219.07
26-Apr-17	219.51	08-Oct-25	218.73
24-Jul-17	219.39		
18-Oct-17	219.13		
17-Jul-18	219.28		
22-Oct-18	219.05		
29-Apr-19	219.54		
24-Jul-19	219.26		
29-Oct-19	219.14		
16-Apr-20	219.35		
13-Jul-20	219.27		
07-Oct-20	219.15		
21-Apr-21	219.32		
16-Jul-21	219.50		
01-Oct-21	219.21		
20-Apr-22	219.43		
19-Jul-22	219.26		
12-Oct-22	219.03		
18-Apr-23	219.21		

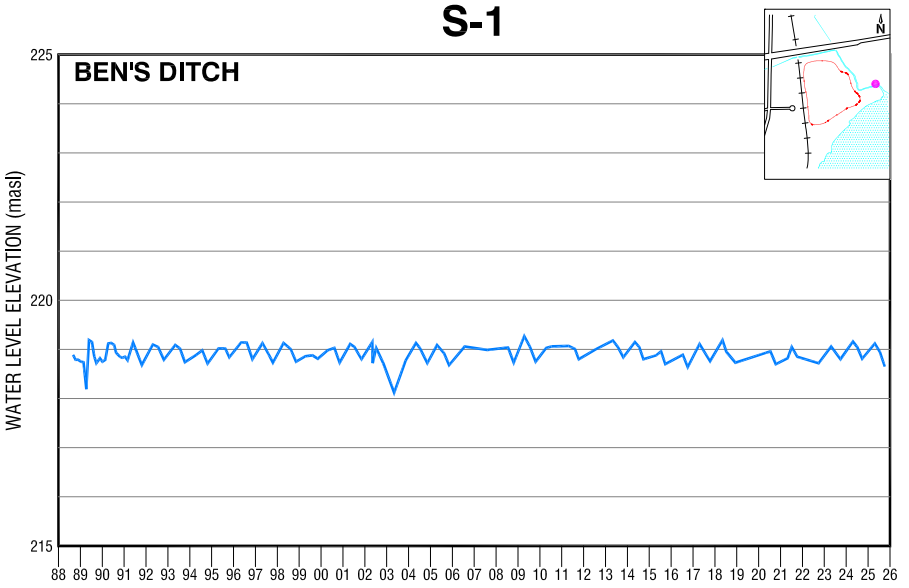
BH30-II



MP Elevation 222.44 masl

DATE	ELEVATION	DATE	ELEVATION
07-Oct-14	220.00	18-Jul-23	220.16
23-Apr-15	220.34	12-Oct-23	220.19
28-Jul-15	219.91	15-Apr-24	220.48
06-Oct-15	219.90	16-Jul-24	220.16
25-Apr-16	220.21	09-Oct-24	219.88
29-Jul-16	219.76	07-May-25	220.20
24-Oct-16	219.88	22-Jul-25	219.88
26-Apr-17	220.17	08-Oct-25	219.76
24-Jul-17	219.98		
18-Oct-17	219.93		
17-Jul-18	219.69		
22-Oct-18	219.70		
29-Apr-19	220.38		
24-Jul-19	219.91		
29-Oct-19	220.02		
16-Apr-20	220.15		
13-Jul-20	219.65		
07-Oct-20	219.97		
21-Apr-21	220.16		
16-Jul-21	220.14		
01-Oct-21	219.83		
20-Apr-22	220.27		
19-Jul-22	219.93		
12-Oct-22	219.86		
18-Apr-23	219.96		

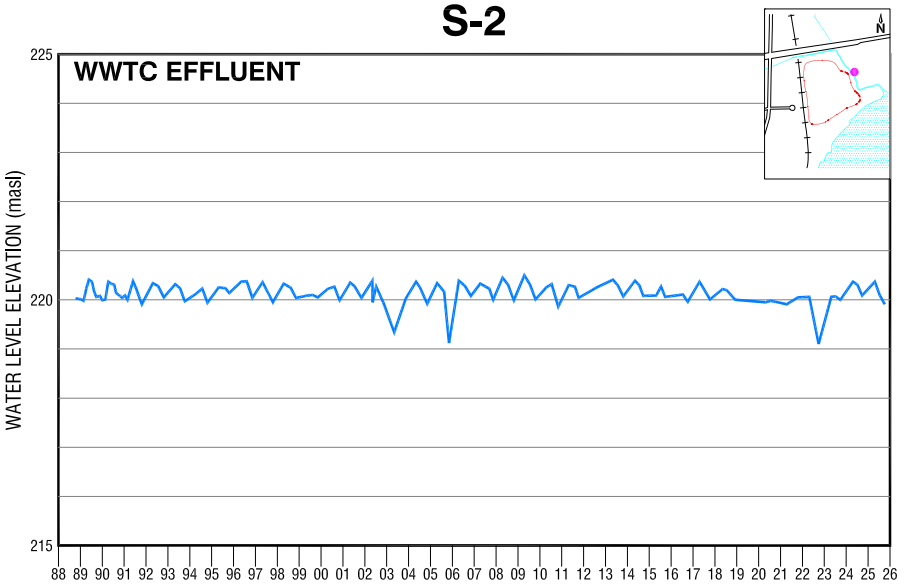
S-1



MP Elevation 221.14 masl

DATE	ELEVATION	DATE	ELEVATION
03-May-04	219.13	27-Apr-15	218.88
05-Jul-04	219.03	16-Jul-15	218.96
09-Nov-04	218.72	25-Sep-15	218.70
20-Apr-05	219.09	13-Jul-16	218.89
16-Aug-05	218.92	05-Oct-16	218.64
07-Nov-05	218.68	18-Apr-17	219.11
24-Jul-06	219.06	12-Oct-17	218.76
08-Aug-07	218.99	07-May-18	219.19
17-Jul-08	219.04	11-Jul-18	218.95
22-Oct-08	218.73	10-Dec-18	218.73
15-Apr-09	219.27	28-Apr-20	218.93
16-Jul-09	219.06	15-Jul-20	218.96
22-Oct-09	218.75	14-Oct-20	218.70
15-Apr-10	219.03	30-Apr-21	218.82
15-Jul-10	219.06	06-Jul-21	219.05
26-Apr-11	219.07	07-Oct-21	218.85
08-Aug-11	219.01	29-Sep-22	218.72
12-Oct-11	218.80	24-Apr-23	219.06
19-Jul-12	219.00	28-Sep-23	218.80
03-May-13	219.18	22-Apr-24	219.16
23-Jul-13	219.05	02-Jul-24	219.05
25-Oct-13	218.84	25-Sep-24	218.81
06-May-14	219.15	22-Apr-25	219.12
17-Jul-14	219.05	16-Jul-25	218.95
25-Sep-14	218.80	07-Oct-25	218.65

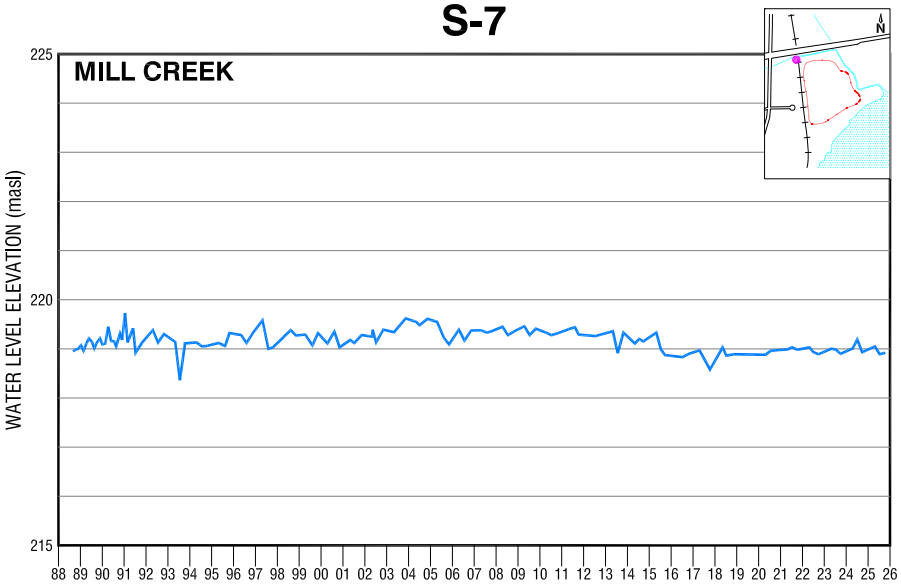
S-2



MP Elevation 221.02 masl

DATE	ELEVATION	DATE	ELEVATION
24-Jul-06	220.29	17-Jul-15	220.27
07-Nov-06	220.08	24-Sep-15	220.06
10-Apr-07	220.33	13-Jul-16	220.11
08-Sep-07	220.23	05-Oct-16	219.96
14-Nov-07	220.00	18-Apr-17	220.37
16-Apr-08	220.45	12-Oct-17	220.01
17-Jul-08	220.31	07-May-18	220.22
23-Oct-08	219.99	11-Jul-18	220.20
15-Apr-09	220.50	10-Dec-18	220.00
16-Jul-09	220.32	27-Apr-20	219.95
22-Oct-09	220.01	16-Jul-20	219.98
15-Apr-10	220.25	14-Oct-20	219.96
15-Jul-10	220.32	16-Apr-21	219.91
04-Nov-10	219.86	15-Oct-21	220.05
26-Apr-11	220.30	25-Apr-22	220.06
08-Aug-11	220.27	29-Sep-22	219.10
12-Oct-11	220.04	25-Apr-23	220.06
19-Jul-12	220.24	05-Jul-23	220.07
03-May-13	220.41	27-Sep-23	220.00
23-Jul-13	220.30	22-Apr-24	220.37
25-Oct-13	220.07	04-Jul-24	220.31
06-May-14	220.39	25-Sep-24	220.09
17-Jul-14	220.30	22-Apr-25	220.37
25-Sep-14	220.08	16-Jul-25	220.09
27-Apr-15	220.09	07-Oct-25	219.91

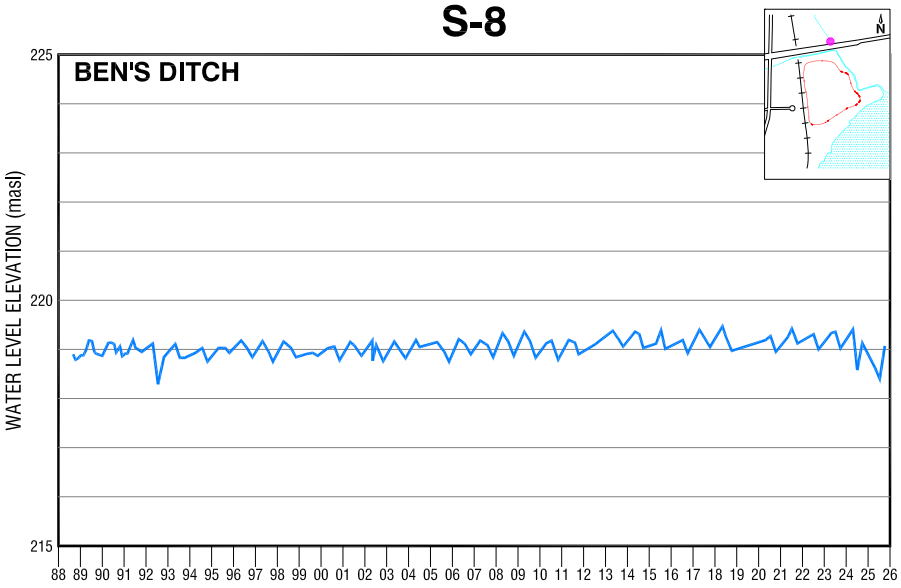
S-7



MP Elevation 220.21 masl

DATE	ELEVATION	DATE	ELEVATION
12-Apr-07	219.38	13-Jul-16	218.83
08-Aug-07	219.33	05-Oct-16	218.89
13-Nov-07	219.37	18-Apr-17	218.97
17-Apr-08	219.45	12-Oct-17	218.58
17-Jul-08	219.28	08-May-18	219.03
22-Oct-08	219.35	11-Jul-18	218.86
16-Apr-09	219.46	10-Nov-18	218.89
16-Jul-09	219.28	27-Apr-20	218.88
22-Oct-09	219.41	17-Jul-20	218.96
15-Apr-10	219.33	14-Oct-20	218.97
15-Jul-10	219.28	30-Apr-21	218.99
04-Nov-10	219.32	08-Jul-21	219.03
26-Apr-11	219.40	12-Oct-21	218.98
08-Aug-11	219.44	26-Apr-22	219.03
12-Oct-11	219.29	06-Jul-22	218.93
19-Jul-12	219.26	29-Sep-22	218.89
02-May-13	219.36	24-Apr-23	219.00
25-Jul-13	218.91	06-Jul-23	218.99
25-Oct-13	219.33	02-Oct-23	218.90
06-May-14	219.11	22-Apr-24	219.01
17-Jul-14	219.20	03-Jul-24	219.19
25-Sep-14	219.15	26-Sep-24	218.93
27-Apr-15	219.33	24-Apr-25	219.05
17-Jul-15	218.98	15-Jul-25	218.89
25-Sep-15	218.87	15-Oct-25	218.92

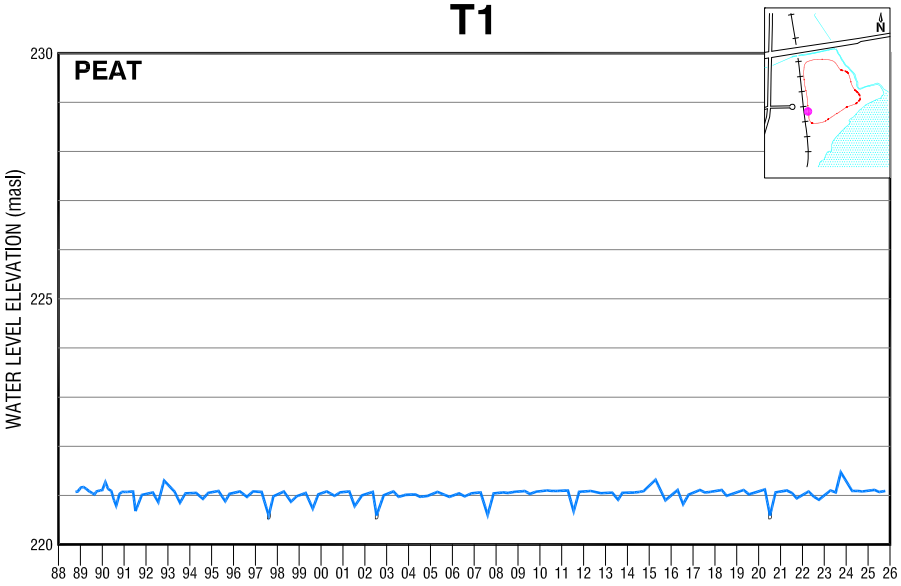
S-8



MP Elevation 219.89 masl

DATE	ELEVATION	DATE	ELEVATION
07-Nov-06	218.90	25-Sep-15	219.01
10-Apr-07	219.18	13-Jul-16	219.19
08-Aug-07	219.09	05-Oct-16	218.92
14-Nov-07	218.84	18-Apr-17	219.40
16-Apr-08	219.33	12-Oct-17	219.05
17-Jul-08	219.17	07-May-18	219.47
23-Oct-08	218.87	12-Jul-18	219.23
15-Apr-09	219.36	11-Oct-18	218.97
16-Jul-09	219.18	27-Apr-20	219.19
22-Oct-09	218.83	17-Jul-20	219.27
15-Apr-10	219.12	15-Oct-20	218.95
15-Jul-10	219.18	06-May-21	219.26
04-Nov-10	218.79	08-Jul-21	219.42
26-Apr-11	219.19	12-Oct-21	219.12
08-Aug-11	219.14	05-Jul-22	219.31
12-Oct-11	218.90	29-Sep-22	219.00
19-Jul-12	219.11	24-Apr-23	219.33
02-May-13	219.38	05-Jul-23	219.36
25-Jul-13	219.23	28-Sep-23	219.02
24-Oct-13	219.06	23-Apr-24	219.41
06-May-14	219.36	04-Jul-24	218.58
17-Jul-14	219.31	25-Sep-24	219.13
25-Sep-14	219.03	22-Apr-25	218.64
27-Apr-15	219.12	14-Jul-25	218.40
16-Jul-15	219.39	07-Oct-25	219.07

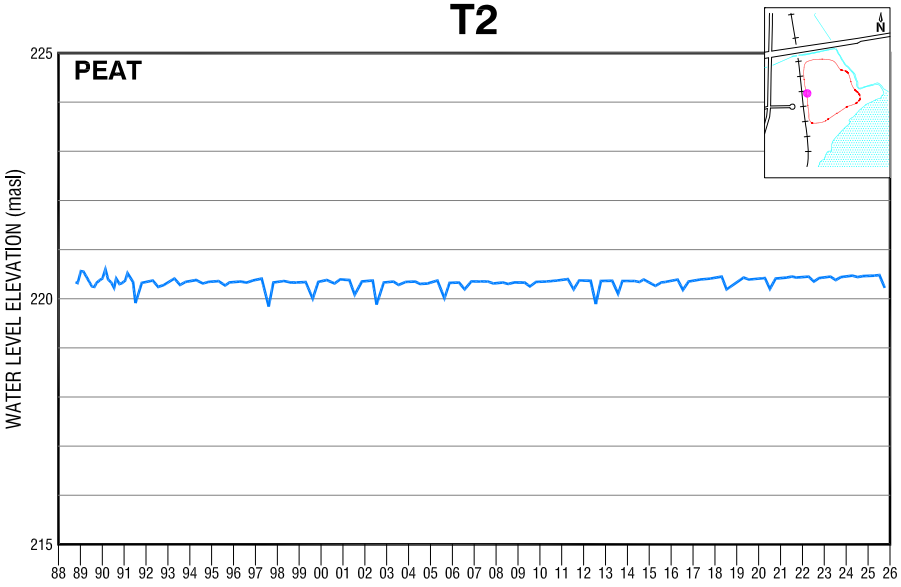
T1



MP Elevation 221.87 masl

DATE	ELEVATION	DATE	ELEVATION
21-Apr-08	221.06	24-Apr-17	221.11
21-Jul-08	221.05	19-Jul-17	221.06
27-Oct-08	221.07	16-Oct-17	221.07
20-Apr-09	221.09	23-Apr-18	221.11
20-Jul-09	221.03	17-Jul-18	220.99
26-Oct-09	221.07	23-Apr-19	221.11
23-Apr-10	221.10	24-Jul-19	221.02
23-Jul-10	221.09	14-Apr-20	221.12
18-Oct-10	221.09	09-Jul-20	DRY
13-Apr-11	221.10	09-Oct-20	221.06
19-Jul-11	220.68	14-Apr-21	221.10
17-Oct-11	221.07	08-Jul-21	221.05
27-Apr-12	221.09	28-Sep-21	220.94
15-Oct-12	221.04	13-Apr-22	221.08
22-Apr-13	221.05	13-Jul-22	220.97
30-Jul-13	220.91	04-Oct-22	220.91
08-Oct-13	221.05	12-Apr-23	221.10
30-Apr-14	221.06	11-Jul-23	221.06
21-Jul-14	221.07	03-Oct-23	221.47
30-Sep-14	221.09	10-Apr-24	221.09
15-Apr-15	221.32	12-Jul-24	221.09
28-Sep-15	220.90	02-Oct-24	221.08
19-Apr-16	221.11	15-Apr-25	221.11
19-Jul-16	220.82	08-Jul-25	221.07
18-Oct-16	221.01	14-Oct-25	221.09

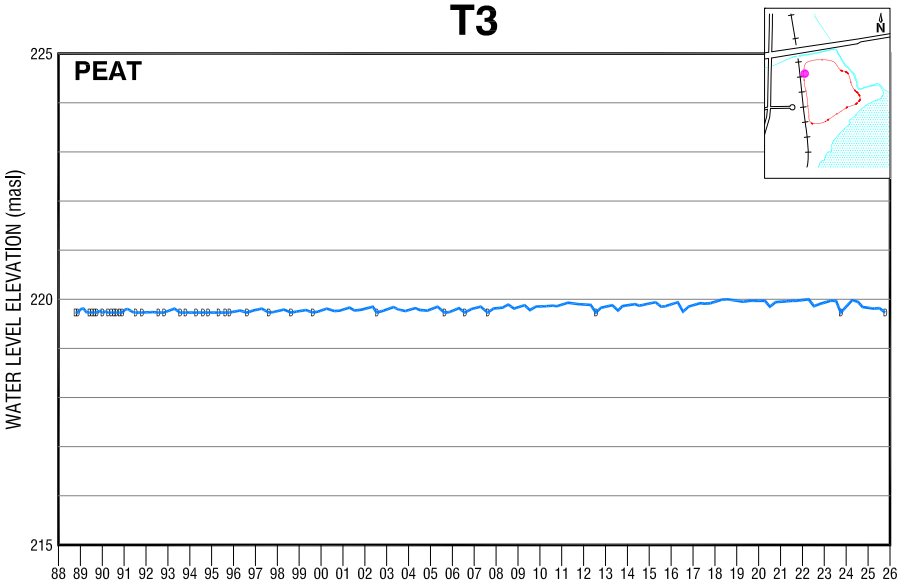
T2



MP Elevation 221.03 masl

DATE	ELEVATION	DATE	ELEVATION
21-Jul-08	220.30	18-Oct-16	220.35
27-Oct-08	220.33	24-Apr-17	220.39
20-Apr-09	220.33	16-Oct-17	220.41
20-Jul-09	220.25	23-Apr-18	220.45
26-Oct-09	220.34	16-Jul-18	220.19
23-Apr-10	220.35	24-Apr-19	220.43
23-Jul-10	220.36	24-Jul-19	220.39
18-Oct-10	220.37	14-Apr-20	220.42
13-Apr-11	220.40	08-Jul-20	220.20
19-Jul-11	220.19	09-Oct-20	220.41
17-Oct-11	220.37	14-Apr-21	220.43
27-Apr-12	220.37	07-Jul-21	220.45
23-Jul-12	219.89	28-Sep-21	220.43
15-Oct-12	220.36	12-Apr-22	220.45
22-Apr-13	220.37	12-Jul-22	220.35
30-Jul-13	220.10	03-Oct-22	220.42
08-Oct-13	220.36	12-Apr-23	220.45
30-Apr-14	220.36	11-Jul-23	220.38
21-Jul-14	220.34	02-Oct-23	220.44
29-Sep-14	220.39	10-Apr-24	220.47
15-Apr-15	220.26	12-Jul-24	220.44
20-Jul-15	220.33	04-Oct-24	220.46
28-Sep-15	220.34	15-Apr-25	220.47
19-Apr-16	220.39	08-Jul-25	220.48
17-Jul-16	220.18	06-Oct-25	220.22

T3

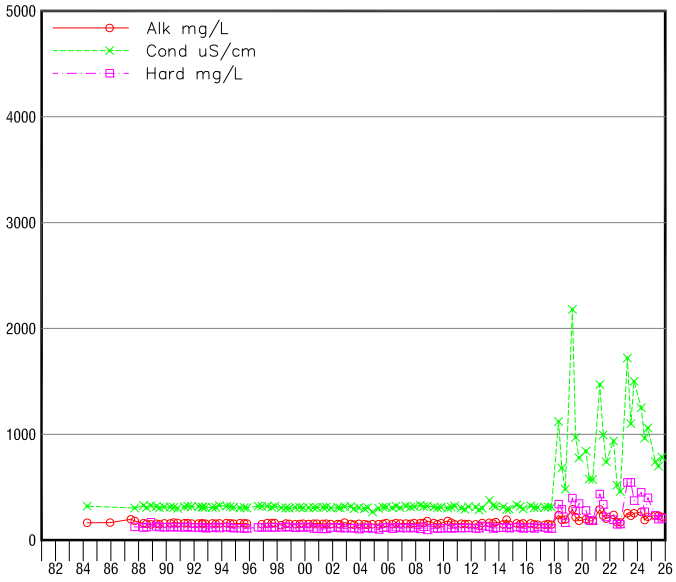


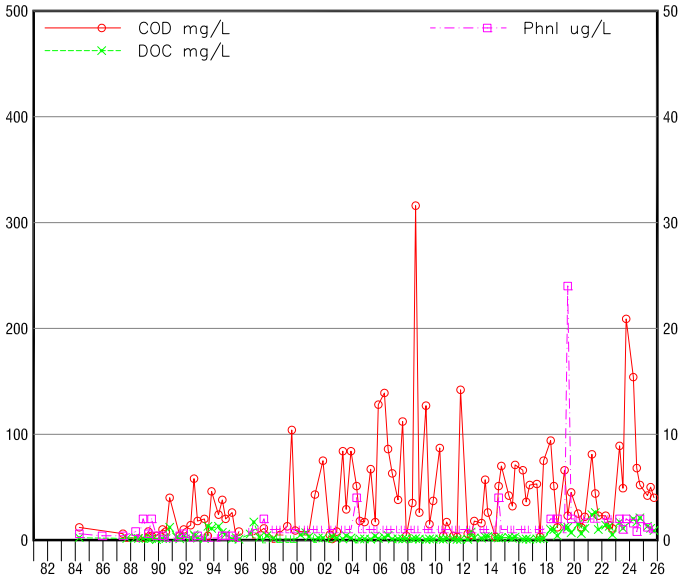
MP Elevation 220.20 masl

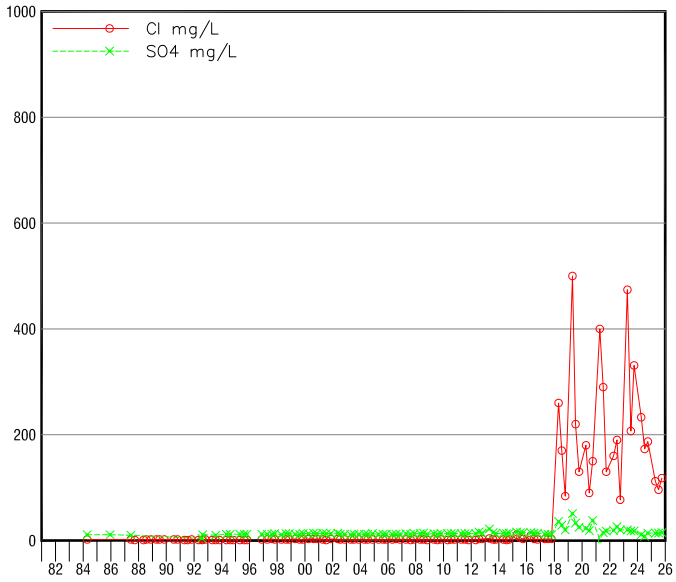
DATE	ELEVATION	DATE	ELEVATION
28-Oct-08	219.81	19-Jul-17	219.91
20-Apr-09	219.88	19-Oct-17	219.92
20-Jul-09	219.78	23-Apr-18	219.99
26-Oct-09	219.85	25-Apr-18	219.99
23-Apr-10	219.86	19-Jul-18	220.00
23-Jul-10	219.87	24-Apr-19	219.95
18-Oct-10	219.86	24-Jul-19	219.97
13-Apr-11	219.93	14-Apr-20	219.97
18-Oct-11	219.90	09-Jul-20	219.85
27-Apr-12	219.88	09-Oct-20	219.94
24-Jul-12	DRY	14-Apr-21	219.96
15-Oct-12	219.82	13-Jul-21	219.97
23-Apr-13	219.88	28-Sep-21	219.97
30-Jul-13	219.77	13-Apr-22	220.00
08-Oct-13	219.86	13-Jul-22	219.86
30-Apr-14	219.90	04-Oct-22	219.90
22-Jul-14	219.87	12-Apr-23	219.97
02-Oct-14	219.89	14-Jul-23	219.97
15-Apr-15	219.94	03-Oct-23	DRY
20-Jul-15	219.85	09-Apr-24	219.98
29-Sep-15	219.86	12-Jul-24	219.95
20-Apr-16	219.94	04-Oct-24	219.84
19-Jul-16	219.75	15-Apr-25	219.81
18-Oct-16	219.85	08-Jul-25	219.82
25-Apr-17	219.92	14-Oct-25	DRY

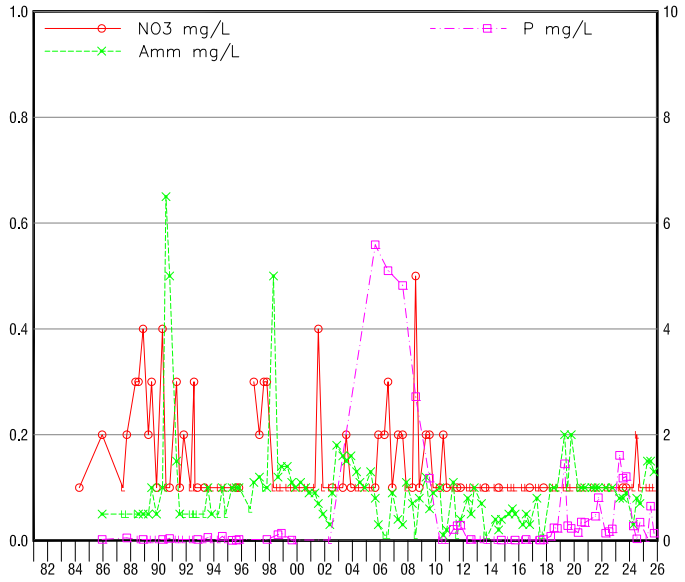
APPENDIX D

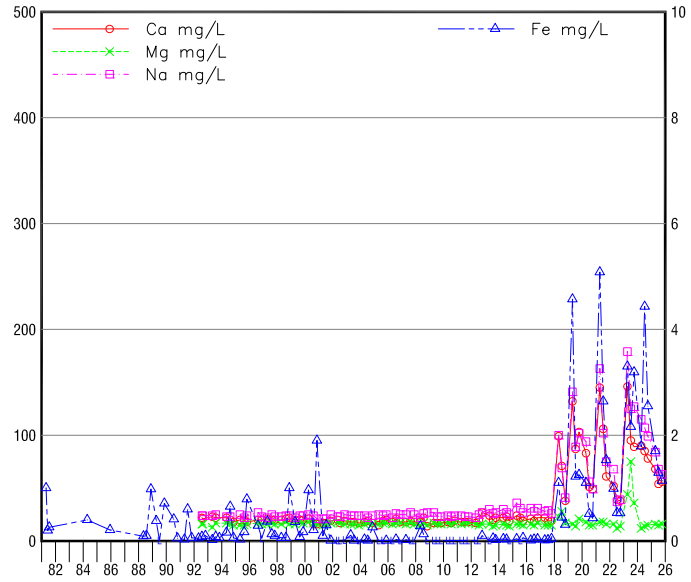
Water Quality, Major Ions and Indicators









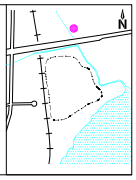


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH1-IR

FORMERLY 1-1
CONVERTED Jul 12

SAND AQUIFER

Screen 209.7 - 208.2 masl

22578520
28 Nov 25

wsp

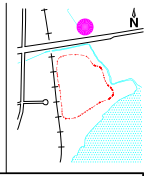
25G001

BH1-IR

SAND AQUIFER

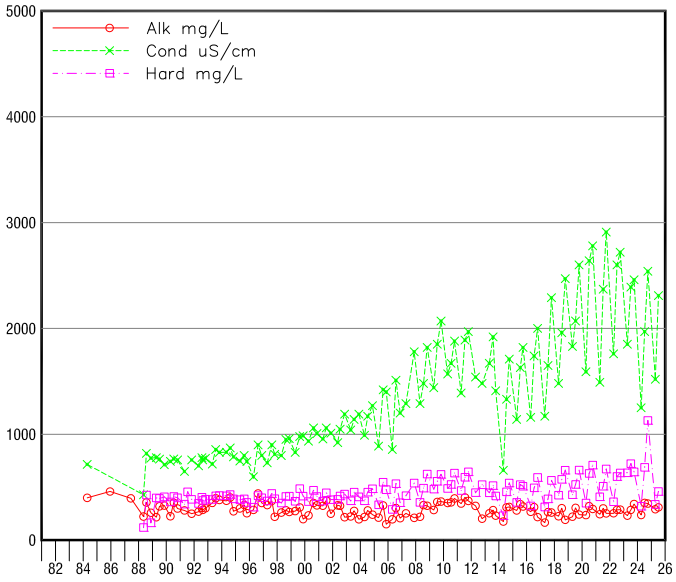
OBSERVATION WELL
Screen 209.7 - 208.2 masl

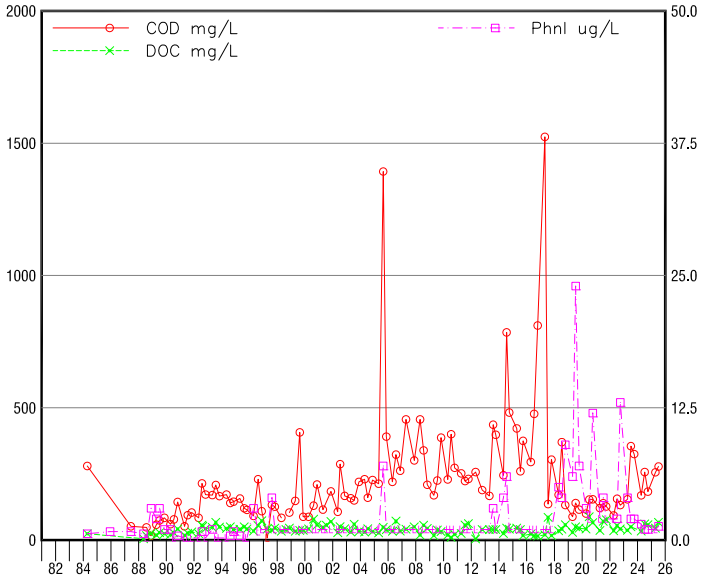
FORMERLY BH1-1
CONVERTED Jul 12

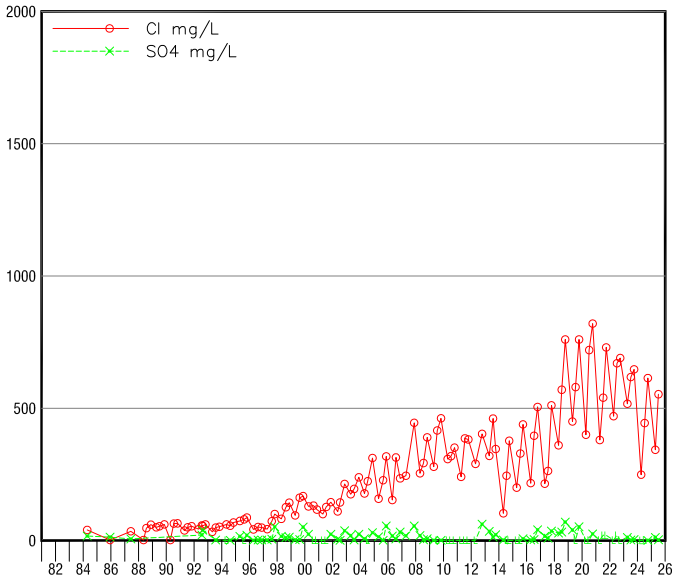


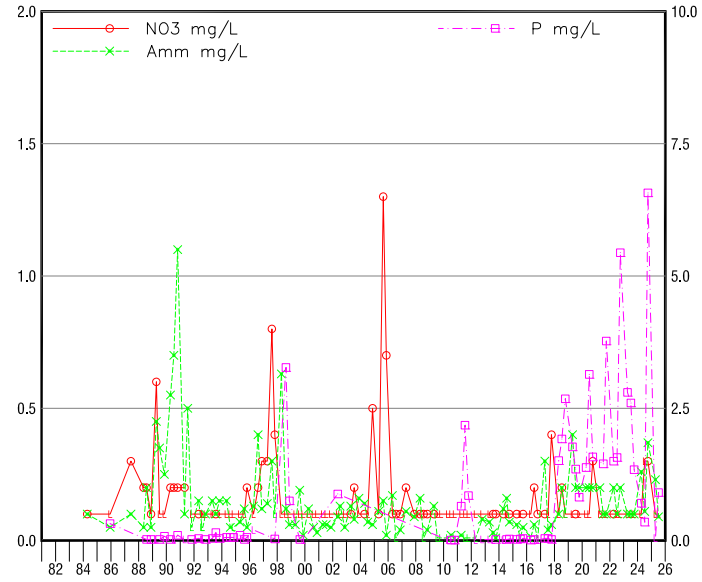
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
19-Apr-16	3163	157	324	119	8.0	9	15	21	16	31	1.8	0.013	32	66	0.8	0.2	<0.1	<0.1	0.03	<1	0.8
17-Jul-16	3199	149	306	110	8.1	3	14	19	15	28	1.5	0.03	26	36	1.0	0.3	<0.1	<0.1	0.05	<1	1.3
17-Oct-16	3291	146	307	126	8.0	2	14	22	17	31	1.6	0.035	42	52	0.8	0.7	0.1	0.1	0.03	<1	8.6
24-Apr-17	3326	144	310	118	8.1	3	12	22	15	28	1.5	0.016	57	53	1.1	0.4	<0.1	<0.1	0.08	<1	5.6
18-Jul-17	3392	151	313	110	8.1	3	12	19	15	29	1.5	0.018	34	3	1.2	0.3	<0.1	<0.1	<0.01	<1	3.3
17-Oct-17	3468	146	311	109	8.2	3	11	19	15	26	1.5	0.043	36	75	1.5	0.2	0.1	<0.1	<0.01	<1	3.2
23-Apr-18	3519	236	1120	339	7.6	260	36	99	23	100	3.2	**1.10**	348	94	10	0.6	<0.1	<0.1	<0.1	**2**	-5.8
16-Jul-18	3572	191	681	291	8.1	170	29	71	28	69	3.3	**0.443**	285	51	10	1.9	<0.1	<0.1	0.1	<2	-1.4
15-Oct-18	3645	194	480	164	8.1	84	20	38	17	41	1.9	**0.309**	95	12	4.0	<0.5	<0.1	<0.1	<0.1	**2**	-12.0
23-Apr-19	3697	290	2180	397	7.0	500	51	132	16	141	2.1	**4.57**	576	66	12	1.1	<0.1	<0.1	0.2	<1	-19.0
15-Jul-19	3474	216	970	276	7.4	220	33	87	14	89	2.1	**1.22**	347	23	12	0.7	<0.1	<0.1	<0.1	**24**	-7.9
15-Oct-19	3823	182	777	345	7.8	130	25	103	21	102	2.5	**1.25**	348	45	7.0	1.0	<0.1	<0.1	0.2	**2**	18.7
14-Apr-20	3859	198	841	280	8.1	180	23	83	18	94	2.3	**1.10**	308	25	15	<0.5	<0.1	<0.1	<0.1	<2	1.9
08-Jul-20	3911	181	576	187	8.0	90	19	51	15	56	1.8	**0.513**	177	12	6.0	<0.5	<0.1	<0.1	0.1	<2	-2.4
08-Oct-20	3967	181	573	183	7.9	150	38	49	15	49	1.9	**0.432**	146	22	11	0.6	<0.1	<0.1	0.1	<2	-19.1
13-Apr-21	4039	289	1470	435	7.0	400	<2	145	18	163	2.1	**5.08**	786	81	24	1.1	<0.1	<0.3	0.1	<2	-3.0
12-Jul-21	4093	231	993	337	7.9	290	15	106	18	102	2.3	**2.64**	463	44	26	0.9	<0.1	<0.1	0.1	<2	-7.0
29-Sep-21	4151	202	739	218	8.1	130	18	61	16	75	1.9	**1.53**	262	23	10	1.3	<0.1	<0.1	0.1	<2	-1.8
11-Apr-22	4217	238	937	193	7.8	160	19	52	16	68	1.7	**0.989**	207	23	14	<0.5	<0.1	<0.1	0.1	<2	-16.8
11-Jul-22	4285	168	519	149	8.0	190	26	39	12	37	1.5	**0.533**	145	14	13	0.7	<0.1	<0.1	<0.1	<2	-32.2
04-Oct-22	4361	167	459	152	8.0	77	20	38	14	39	1.6	**0.526**	122	11	5.0	<0.5	<0.1	<0.1	0.1	<2	-10.4
11-Apr-23	4413	254	1720	544	7.5	474	20	146	44	179	2.1	**3.30**	567	89	17	2.9	<0.1	0.2	0.08	**2**	0.0
10-Jul-23	4462	229	1100	545	7.6	207	18	95	75	125	1.8	**2.16**	422	49	11	2.0	0.1	<0.1	0.08	1	10.5
04-Oct-23	4539	253	1500	372	7.5	331	18	89	36	127	1.8	**3.19**	395	209		0.9	0.1	<0.1	0.09	**2**	-9.1
08-Apr-24	4612	266	1250	451	7.2	233	11	90	12	115	1.6	**1.79**	600	154	20	0.8	<0.1	<0.1	0.03	**1.6**	-6.6
08-Jul-24	4640	188	963	268	7.7	173	8	85	14	107	1.7	**4.43**	410	68	17	0.7	<0.2	<0.2	0.08	0.8	7.6
01-Oct-24	2064046	220	1060	399	7.6	187	14	78	15	99	1.8	**2.55**	356	52	21	3.2	<0.1	<0.1	0.07	**2**	-2.2
16-Apr-25	250864101	232	740	234	7.9	112	14	68	16	84	1.8	**1.70**	297	42	13	0.6	<0.1	<0.01	0.15	**1.2**	2.2
08-Jul-25	251839203	228	699	197	7.8	96	14	54	15	68	1.7	**1.29**	217	50	11	0.7	<0.1	<0.01	0.15	<1	-4.0
06-Oct-25	252881509	220	784	207	7.9	118	15	56	16	63	1.7	**1.14**	192	40	9.0	0.7	<0.1	<0.01	0.13	<1	-7.1
TOTAL SAMPLES		117	116	115	117	115	99	99	99	98	98	117	92	112	115	118	117	118	117	116	
AVERAGE 2025		227	741	213	7.9	109	14	59	16	72	1.7	1.377	235	44	11	0.7	<0.1	<0.01	0.14	<1	

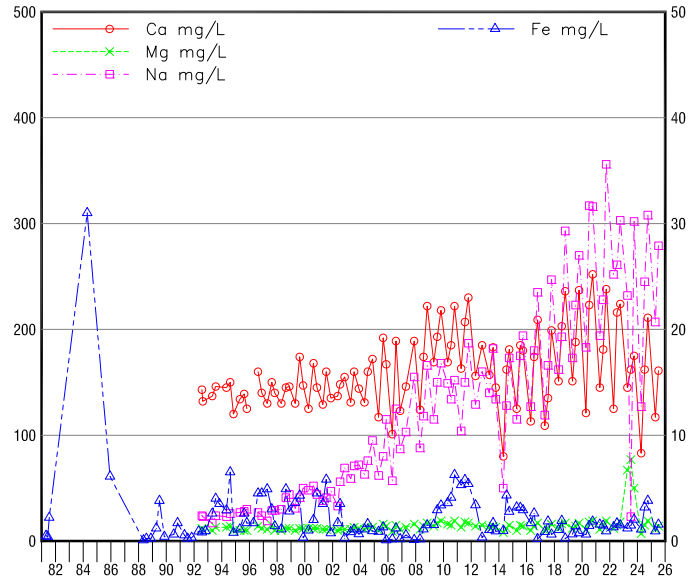
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



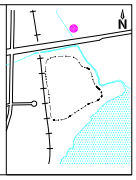








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH1-III

PEAT

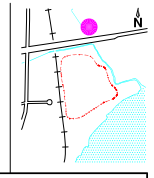
Screen 218.8 - 218.2 masl

22578520 28 Nov 25	wsp	25G002

BH1-III

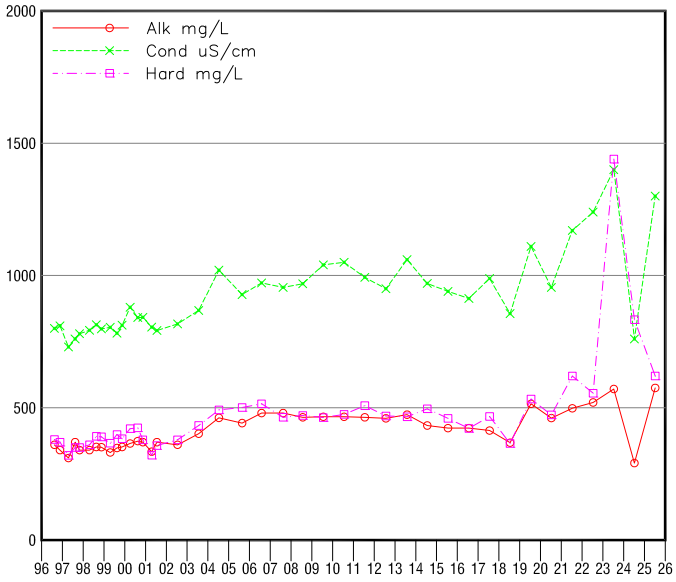
PEAT

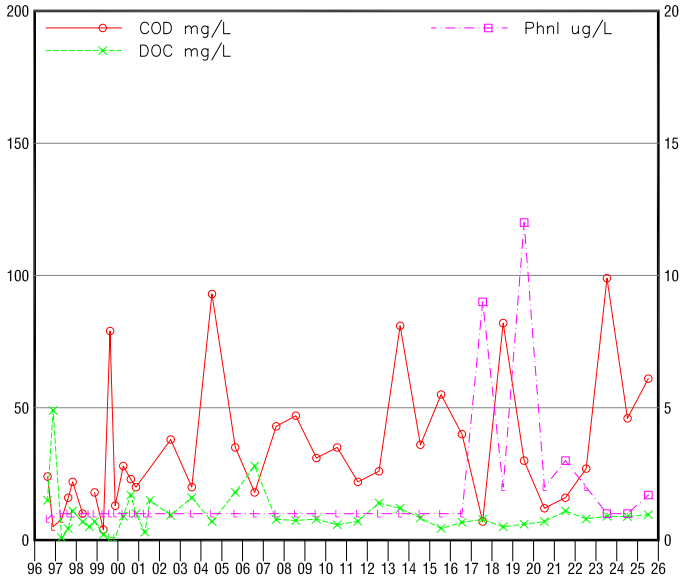
OBSERVATION WELL
Screen 218.8 - 218.2 masl

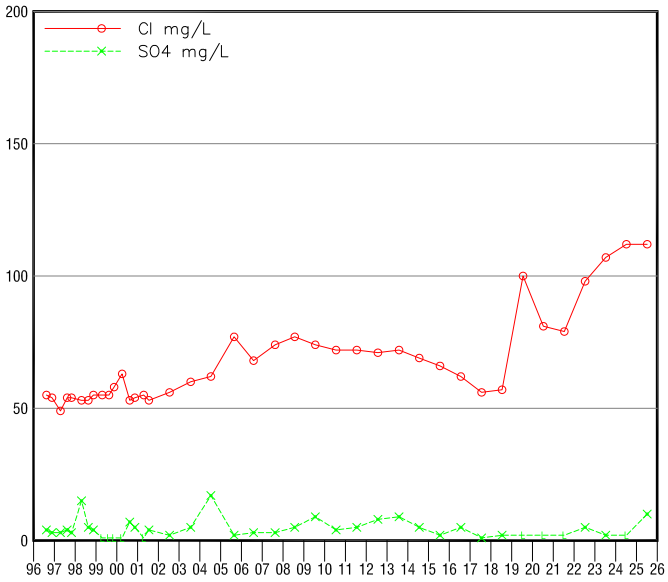


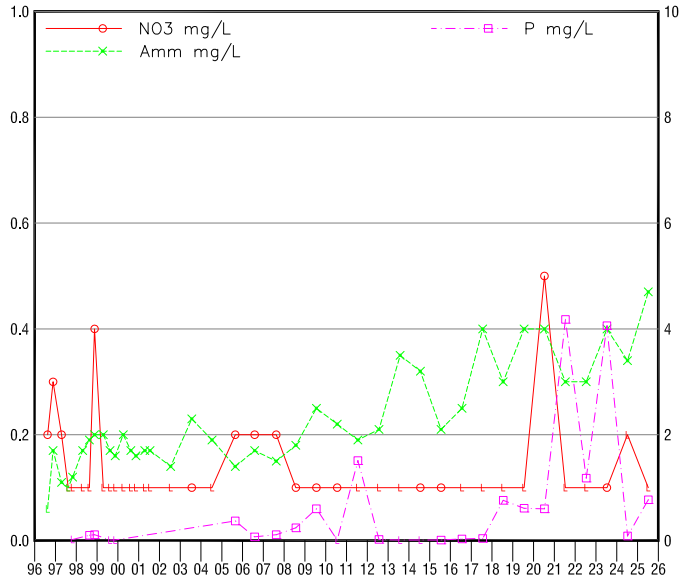
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
28-Sep-15	3092	317	1820	509	7.2	439	7	180	14	194	0.4	**2.91**	443	375	17	2.6	0.1	<0.1	0.05	<1	-0.5
19-Apr-16	3164	267	1160	323	7.3	217	2	113	10	127	0.3	**1.69**	360	295	23	1.8	<0.1	<0.1	<0.01	<1	2.7
17-Jul-16	3200	311	1740	493	7.3	396	4	174	14	180	0.3	**2.61**	399	477	16	2.7	0.2	<0.1	0.06	<1	0.8
17-Oct-16	3292	217	2000	591	7.7	505	41	209	17	235	0.3	0.197	375	811	15	1.9	0.1	<0.1	<0.01	<1	6.5
24-Apr-17	3327	165	1170	313	7.3	215	16	109	10	119	0.9	**0.864**	441	1524	20	2.6	0.1	0.2	0.3	<1	8.5
18-Jul-17	3393	264	1650	389	7.2	263	9	135	12	166	0.8	**1.86**	363	136	86	2.6	<0.1	<0.1	0.04	<1	7.7
17-Oct-17	3469	260	2290	564	7.4	511	36	199	16	247	<0.1	**0.613**	247	304	17	1.9	0.4	<0.1	0.06	<1	3.8
23-Apr-18	3520	225	1480	424	7.0	360	28	151	12	162	0.4	**1.04**	442	171	35	1.0	<0.1	<0.1	0.1	**5**	1.3
16-Jul-18	3573	301	1960	574	7.5	570	32	203	16	193	0.7	**1.91**	478	370	41	1.5	0.2	<0.1	0.2	**4**	-6.6
15-Oct-18	3646	191	2470	660	7.0	760	70	236	17	293	0.2	0.242	364	132	58	0.6	<0.1	<0.3	<0.1	**9**	-1.3
23-Apr-19	3698	221	1830	429	6.7	450	40	151	12	173	0.5	**0.637**	418	88	29	1.1	<0.1	<0.1	0.4	**6**	-5.4
15-Jul-19	3748	304	2070	525	6.7	580	<2	188	14	223	0.5	**1.40**	505	140	50	2.4	0.1	<0.1	0.2	**24**	-5.0
15-Oct-19	3824	241	2600	661	7.0	760	52	237	17	270	0.3	**0.737**	359	115	45	2.2	<0.1	<0.1	0.2	**7**	-4.4
14-Apr-20	3860	236	1590	349	6.9	400	<2	121	11	183	0.5	**0.617**	347	100	42	1.3	<0.1	<0.1	0.2	**3**	-3.3
08-Jul-20	3912	320	2640	630	7.1	720	<2	223	18	317	0.4	**1.44**	521	153	88	1.1	<0.1	<0.3	0.2	<2	-0.4
08-Oct-20	3968	294	2780	708	6.9	820	25	252	19	316	0.4	**1.84**	616	154	66	2.0	0.3	<0.3	0.2	**12**	-2.7
14-Apr-21	4040	244	1490	409	7.0	380	<2	145	11	194	0.5	**1.56**	369	121	36	1.5	<0.1	<0.3	0.2	<2	3.0
12-Jul-21	4094	299	2370	509	7.5	540	<20	181	14	228	<0.1	**1.46**	457	139	71	2.0	<0.1	<0.3	0.1	**4**	-2.5
29-Sep-21	4152	252	2910	671	7.8	730	<20	238	19	356	0.3	**0.919**	458	127	77	2.0	<0.1	<0.3	0.1	<2	6.0
11-Apr-22	4218	253	1760	362	7.3	470	<2	125	12	252	0.6	**1.30**	378	93	35	1.0	0.1	<0.1	0.2	<2	-0.1
11-Jul-22	4286	286	2600	600	7.2	670	<20	216	15	261	0.6	**1.67**	473	156	55	1.9	<0.1	<0.3	0.1	**2**	-2.5
04-Oct-22	4362	287	2720	634	6.7	690	<2	224	18	303	0.4	**1.49**	478	132	42	1.8	<0.1	<0.3	0.2	**13**	1.5
11-Apr-23	4414	231	1850	636	7.2	517	12	145	67	232	0.5	**1.20**	378	154	37	7.7	<0.1	0.6	0.1	**4**	8.1
10-Jul-23	4463	285	2390	722	7.3	618	2	162	77	23	0.6	**1.46**	473	355	50	6.0	<0.1	<0.1	0.1	**2**	2.2
04-Oct-23	4540	340	2460	644	7.3	647	4	175	50	302	1.6	**2.02**	476	325		2.8	<0.1	<0.1	0.1	**2**	-0.4
08-Apr-24	4613	237	1250	320	7.0	249	<0.5	83	7	127	1.0	**1.09**	273	169	34	1.3	<0.1	<0.1	0.26	**1.5**	-6.3
08-Jul-24	4641	351	1970	687	7.6	444	<2.5	162	15	245	1.4	**3.18**	452	257	61	1.8	<0.3	<0.3	0.11	1	1.6
01-Oct-24	2064047	345	2540	1130	7.3	614	0.5	211	19	308	1.3	**3.81**	570	183	58	30	0.3	<0.1	0.37	1	2.8
16-Apr-25	250864102	291	1520	337	7.3	343	12	117	11	207	0.6	**0.921**	321	256	45	4.3	<0.1	<0.05	0.23	<1	0.3
08-Jul-25	251839204	309	2310	459	7.0	553	3	161	14	279	<0.5	**1.55**	427	278	67	4.4	<0.1	<0.05	0.09	**1.3**	-0.9
TOTAL SAMPLES		114	112	112	114	115	98	96	96	95	95	115	90	110	112	115	114	115	115	114	
AVERAGE 2025		300	1915	398	7.2	448	8	139	13	243	<0.5	1.236	374	267	56	4.4	<0.1	<0.05	0.16	<1	

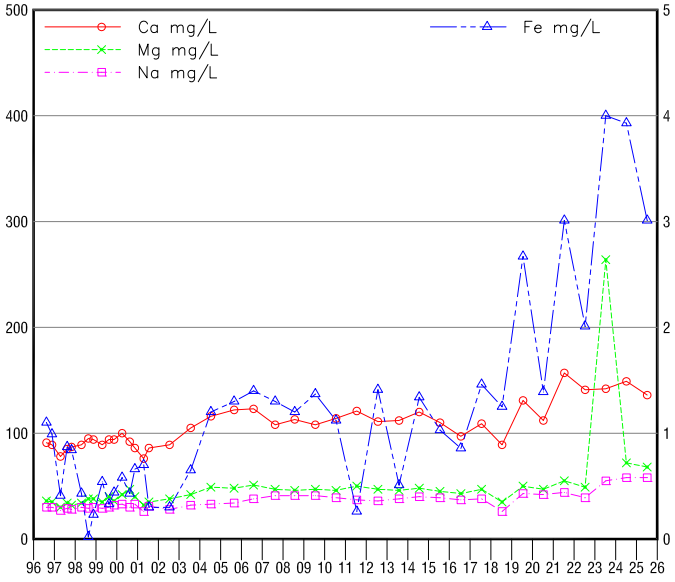
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



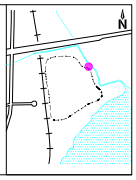








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH2-II

SAND AQUIFER

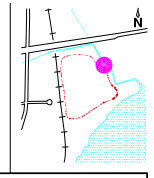
Screen 214.0 - 213.5 masl

22578520 28 Nov 25	wsp	25G003

BH2-II

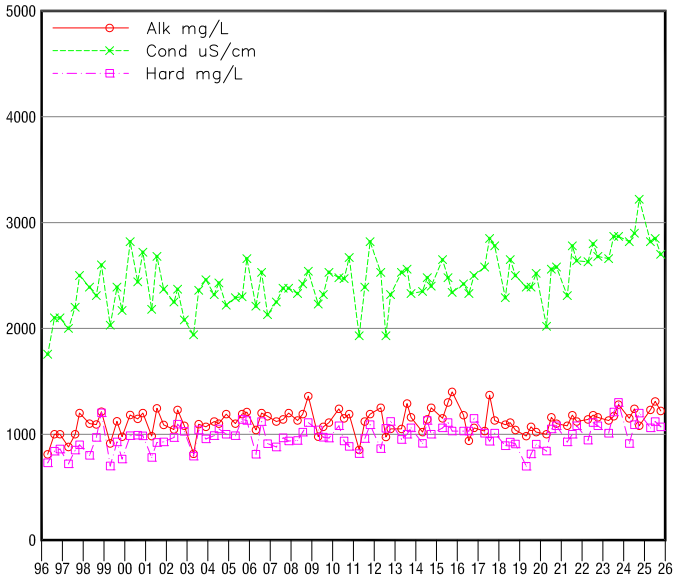
SAND AQUIFER

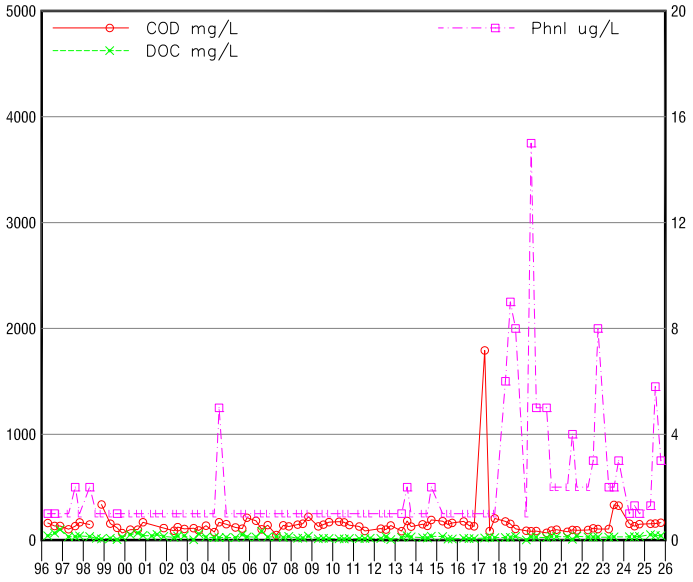
OBSERVATION WELL
Screen 214.0 - 213.5 masl

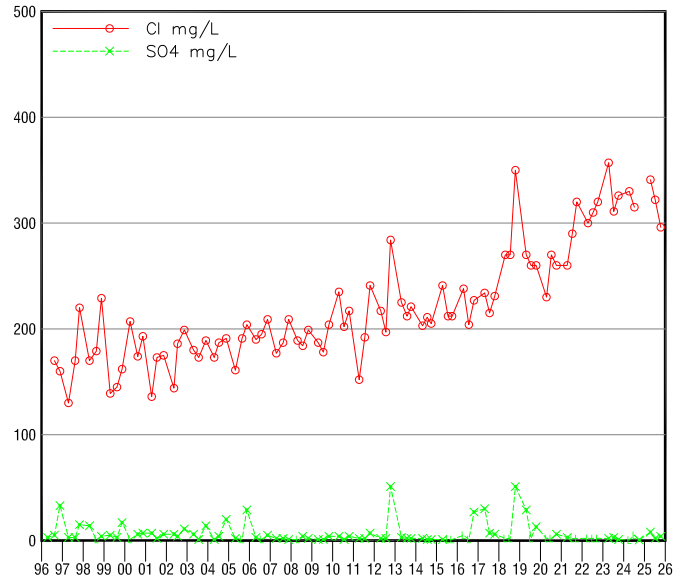


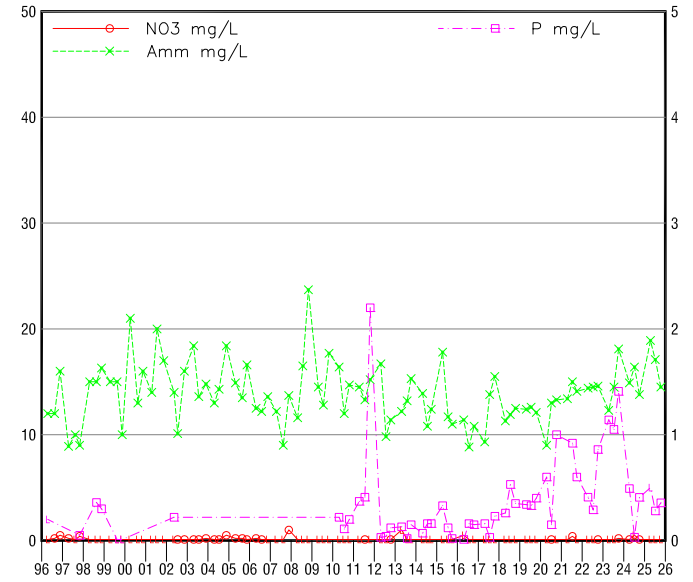
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
16-Nov-99	100987	352	812	383	7.3	58	<1	94	36	32	2.0	**0.44**	126	13	<1.0	0.2	<0.1	<0.1	0.16	<1	2.7
05-Apr-00	100988	365	880	421	7.2	63	<1	100	42	33	3.0	**0.58**	113	28	9.0	0.4	<0.1	<0.1	0.20	<1	4.8
16-Aug-00	100989	374	841	424	7.5	53	7	92	47	30	2.0	**0.43**	115	23	17	0.5	<0.1	<0.1	0.17	<1	3.8
14-Nov-00	100990	370	842	379	7.3	54	5	86	40	33	1.0	**0.66**	102	20	10	0.5	<0.1	<0.1	0.16	<1	0.3
19-Apr-01	100991	334	805	321	7.5	55	<1	76	32	26	2.0	**0.70**	95		3.0	0.5	<0.1	<0.1	0.17	<1	-3.7
19-Jul-01	100992	370	792	357	7.5	53	4	86	35	31	2.0	0.30	84		15	3.1	<0.1	<0.1	0.17	<1	-2.2
17-Jul-02	100993	360	817	379	7.2	56	2	89	38	28	1.9	0.30	81	38	9.4	0.4	<0.1	<0.1	0.14	<1	0.2
23-Jul-03	102541	402	868	433	7.7	60	5	105	42	32	2.3	**0.65**	110	20	16	0.5	0.1	<0.1	0.23	<1	1.7
13-Jul-04	1207	462	1020	492	7.4	62	17	116	49	33	2.5	**1.2**	122	93	7.0	0.5	<0.1	<0.1	0.19	<1	0.2
25-Aug-05	58253	442	928	501	8.0	77	2	122	48	34	2.4	**1.3**	118	35	18	0.7	0.2	<0.1	0.14	<1	2.5
01-Aug-06	6813	480	972	515	7.3	68	3	123	51	38	2.6	**1.40**	133	18	28	0.6	0.2	<0.1	0.17	<1	2.2
15-Aug-07	78153	480	955	464	7.5	74	3	108	47	41	2.7	**1.30**	139	43	7.8	0.6	0.2	<0.1	0.15	<1	-2.6
25-Jul-08	87253	464	969	471	7.3	77	5	113	46	41	4.1	**1.20**	126	47	7.4	0.9	0.1	<0.1	0.18	<1	-0.8
21-Jul-09	B09-229	466	1040	463	6.9	74	9	108	47	41	3.3	**1.37**	145	31	7.9	1.0	0.1	<0.1	0.25	<1	-1.8
21-Jul-10	2080	466	1050	475	7.7	72	4	114	46	39	3.2	**1.12**	142	35	5.8	0.9	0.1	<0.1	0.22	<1	-0.5
20-Jul-11	2243	464	993	508	7.5	72	5	121	50	37	2.8	0.26	153	22	7.1	0.9	<0.1	<0.1	0.19	<1	1.9
25-Jul-12	2444	460	950	469	7.8	71	8	111	47	36	2.9	**1.41**	161	26	14	1.6	<0.1	<0.1	0.21	<1	-1.1
01-Aug-13	2623	474	1060	466	7.6	72	9	112	46	38	3.0	**0.51**	136	81	12	0.9	<0.1	<0.1	0.35	<1	-2.4
22-Jul-14	2834	433	970	496	7.8	69	5	120	48	40	3.2	**1.34**	133	36	8.4	0.9	0.1	<0.1	0.32	<1	5.0
21-Jul-15	3034	423	940	460	7.8	66	2	110	45	39	2.9	**1.03**	136	55	4.4	1.5	0.1	<0.1	0.21	<1	3.0
22-Jul-16	3201	423	913	422	7.9	62	5	97	43	37	2.6	**0.857**	90	40	6.7	1.1	<0.1	<0.1	0.25	<1	-1.0
21-Jul-17	3394	414	989	467	7.9	56	1	109	47	38	2.6	**1.46**	129	7	7.8	1.0	<0.1	<0.1	0.4	**9**	5.9
16-Jul-18	3574	368	856	365	8.0	57	2	89	35	26	2.6	**1.25**	104	82	5.0	<0.5	<0.1	<0.1	0.3	<2	-2.4
19-Jul-19	3749	515	1110	533	7.5	100	<2	131	50	43	3.1	**2.67**	146	30	6.0	1.3	<0.1	<0.1	0.4	**12**	-1.5
10-Jul-20	3913	461	955	473	7.4	81	<2	112	47	42	2.9	**1.39**	139	12	7.0	<0.5	0.5	<0.1	0.4	<2	-0.4
14-Jul-21	4095	498	1170	620	8.0	79	<2	157	55	44	3.6	**3.01**	171	16	11	0.6	<0.1	<0.1	0.3	**3**	8.6
14-Jul-22	4287	520	1240	555	7.9	98	5	141	49	39	2.9	**2.01**	163	27	8.0	1.0	<0.1	<0.1	0.3	<2	-1.3
13-Jul-23	4464	571	1400	1440	7.5	107	2	142	264	55	3.4	**4.00**	186	99	9.0	1.6	0.1	<0.1	0.4	1	9.8
09-Jul-24	4642	291	760	833	7.8	112	<2	149	72	58	3.4	**3.93**	195	46	8.9	0.6	<0.2	<0.2	0.34	1	28.4
09-Jul-25	251839215	575	1300	620	7.7	112	10	136	68	58	3.5	**3.01**	194	61	9.6	1.0	<0.1	<0.01	0.47	**1.7**	1.0
TOTAL SAMPLES		40	40	40	40	40	40	40	40	40	40	40	40	37	40	40	40	40	40	40	
AVERAGE 2025																					

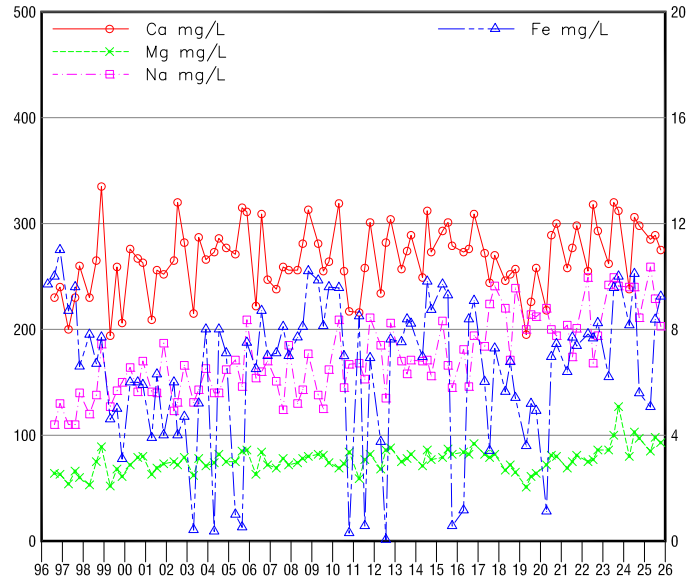
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



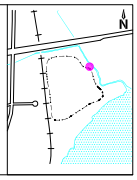








L	Concentration Reported Less Than
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	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH2-III

PEAT

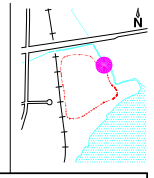
Screen 219.0 - 216.6 masl

22578520 28 Nov 25	wsp	25G004

BH2-III

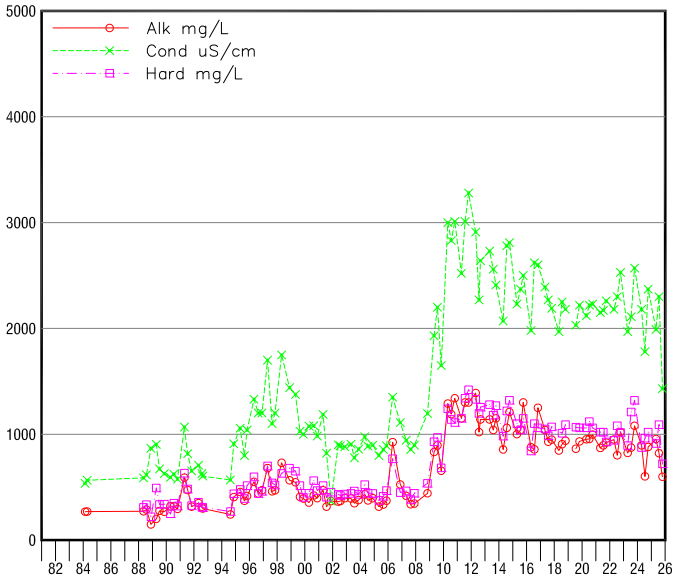
PEAT

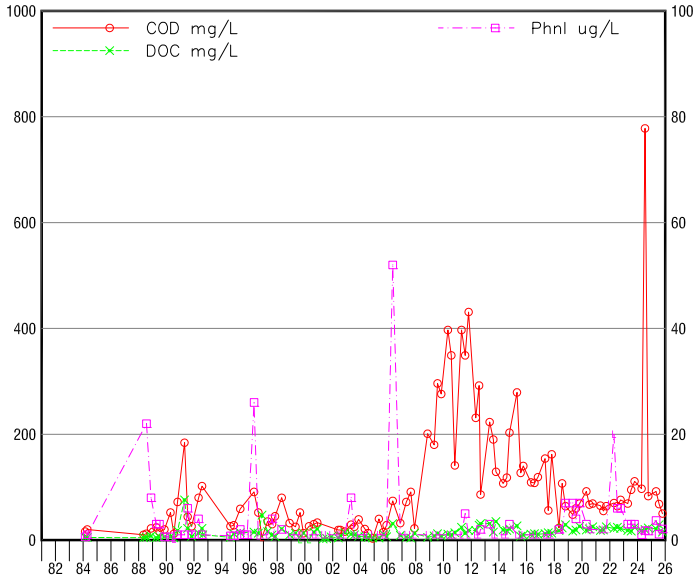
OBSERVATION WELL
Screen 219.0 - 216.6 masl

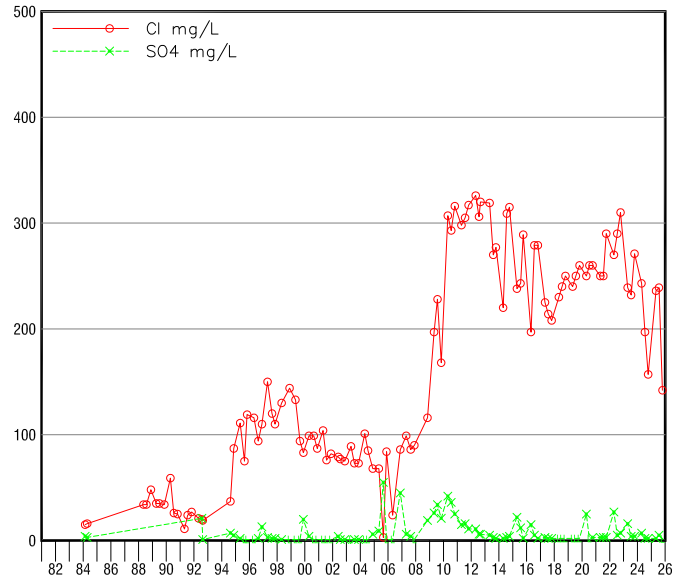


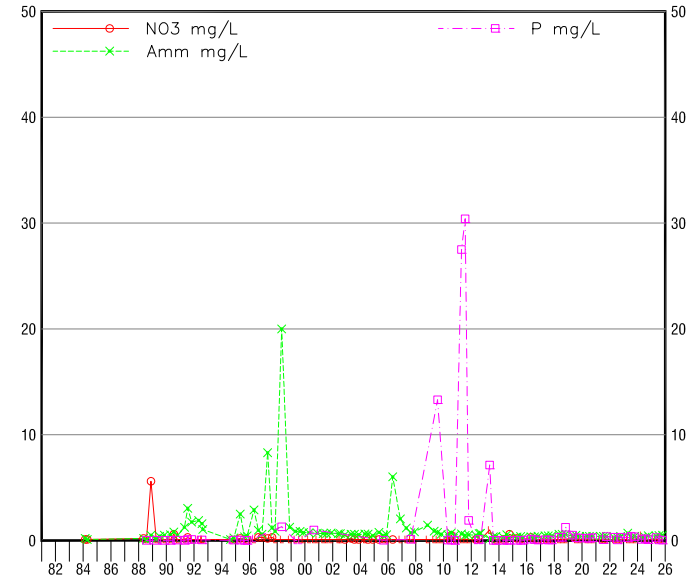
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
20-Apr-16	3165	1180	2420	1030	7.4	238	<5	273	84	181	36	**1.16**	1180	176	17	14.0	<0.5	<0.5	11.4	<1	-0.2
22-Jul-16	3202	938	2330	1030	7.4	204	<1	276	82	146	21	**8.38**	882	138	14	13.6	<0.1	<0.1	8.83	<1	7.3
20-Oct-16	3293	1060	2500	1150	7.6	227	27	309	92	194	33	**9.08**	1070	130	14	11.9	<0.1	<0.1	10.8	<1	8.5
25-Apr-17	3328	1030	2580	1010	7.4	234	30	272	82	184	30	**6.02**	986	1792	19	11.1	<0.1	<0.1	9.32	<1	3.7
21-Jul-17	3395	1370	2850	934	7.9	215	7	244	79	224	61	**3.41**	1130	85	25	15.6	<0.1	<0.1	13.8	<1	-3.9
19-Oct-17	3470	1130	2780	1010	7.6	231	6	270	82	241	72	**7.28**	1240	204	23	17.0	<0.1	<0.1	15.5	<1	7.4
23-Apr-18	3521	1090	2290	892	7.3	270	<2	246	67	220	66	**5.64**	1160	176	24	12.2	<0.1	<0.3	11.3	**6**	1.1
19-Jul-18	3575	1110	2650	926	7.5	270	<2	252	72	171	48	**6.77**	1110	153	26	14.0	<0.1	<0.1	11.9	**9**	-2.6
18-Oct-18	3647	1040	2500	908	7.2	350	51	257	65	239	71	**5.41**	1130	105	35	12.5	<0.1	<0.1	12.5	**8**	-0.4
26-Apr-19	3699	982	2390	698	6.9	270	29	195	51	200	57	**3.59**	866	88	2.0	13.8	<0.1	<0.1	12.4	<1	-5.2
19-Jul-19	3750	1070	2390	814	7.2	260	<2	226	61	214	70	**5.19**	1100	83	30	15.2	<0.1	<0.3	12.6	**15**	-0.4
18-Oct-19	3825	1020	2520	906	7.2	260	13	258	64	212	70	**4.92**	1120	85	27	15.6	<0.1	<0.1	12.1	**5**	3.8
16-Apr-20	3861	1000	2020	841	7.1	230	<2	218	72	220	58	**1.12**	1030	68	22	9.5	<0.1	<0.1	9.0	**5**	3.7
10-Jul-20	3914	1160	2560	1050	7.0	270	<2	289	81	200	39	**6.96**	1080	89	33	12.7	0.1	<0.3	13	<2	1.8
08-Oct-20	3969	1100	2580	1080	7.2	260	6	300	80	194	37	**7.45**	1070	98	33	15.0	<0.1	<0.3	13.3	<2	4.4
16-Apr-21	4041	1080	2310	927	7.5	260	3	258	69	204	52	**6.39**	1130	78	30	14.9	<0.1	<0.3	13.4	<2	0.1
14-Jul-21	4096	1180	2780	1000	7.9	290	<2	277	75	174	40	**7.69**	1010	96	7.0	16.1	0.4	<0.3	15.0	**4**	-3.0
29-Sep-21	4153	1120	2640	1080	7.9	320	<2	298	81	201	36	**7.38**	982	92	37	15.1	<0.1	<0.3	14.1	<2	0.3
14-Apr-22	4219	1140	2630	944	7.6	300	<2	255	75	249	49	**7.82**	1140	95	28	15.3	<0.1	<0.3	14.4	<2	1.6
14-Jul-22	4288	1180	2800	1110	7.6	310	<2	318	77	168	33	**7.66**	1080	111	28	16.0	<0.1	<0.3	14.5	**3**	-1.1
05-Oct-22	4363	1160	2680	1080	6.9	320	<2	293	86	194	30	**8.24**	1020	104	28	15.9	0.1	<0.3	14.6	**8**	0.0
13-Apr-23	4415	1130	2660	1010	7.3	357	2	262	86	242	50	**6.20**	1060	104	27	17.3	<0.1	2.0	12.3	**2**	0.6
13-Jul-23	4465	1170	2870	1210	7.5	311	3	320	100	249	42	**9.57**	1200	332	30	20.8	<0.1	<0.1	14.5	**2**	12.4
03-Oct-23	4541	1280	2870	1300	7.4	326	1	312	127	241	33	**10.0**	925	325		17.5	0.2	<0.1	18.1	**3**	8.5
10-Apr-24	4614	1150	2820	912	6.8	330	<0.5	238	80	240	43	**8.16**	1070	154	31	14.4	0.1	<0.1	14.9	1	-1.5
09-Jul-24	4643	1240	2900	1090	7.8	315	<5	306	103	240	35	**10.1**	1060	131	32	14.5	<0.5	<0.5	16.4	**1.3**	4.2
02-Oct-24	2064048	1080	3220	1200	7.4	*173*	0.6	298	97	211	27	**5.59**	836	150	34	19.5	0.1	<0.1	13.8	1	12.3
16-Apr-25	250864103	1230	2820	1060	7.4	341	8	285	85	259	49	**5.07**	948	154	51	20.6	<0.1	<0.05	18.9	**1.3**	0.9
09-Jul-25	251839216	1310	2850	1120	7.1	322	2	289	98	229	36	**8.37**	981	156	43	22.2	<0.1	<0.05	17.1	**5.8**	-0.6
14-Oct-25	252965911	1220	2700	1070	7.4	296	4	275	93	203	30	**9.24**	879	164	40	22.7	<0.1	<0.05	14.5	**3**	-0.6
TOTAL SAMPLES		90	90	90	90	88	90	89	89	89	89	90	90	86	89	90	90	90	90	90	
AVERAGE 2025		1253	2790	1083	7.3	320	5	283	92	230	38	7.560	936	158	45	21.8	<0.1	<0.05	16.8	3.37	

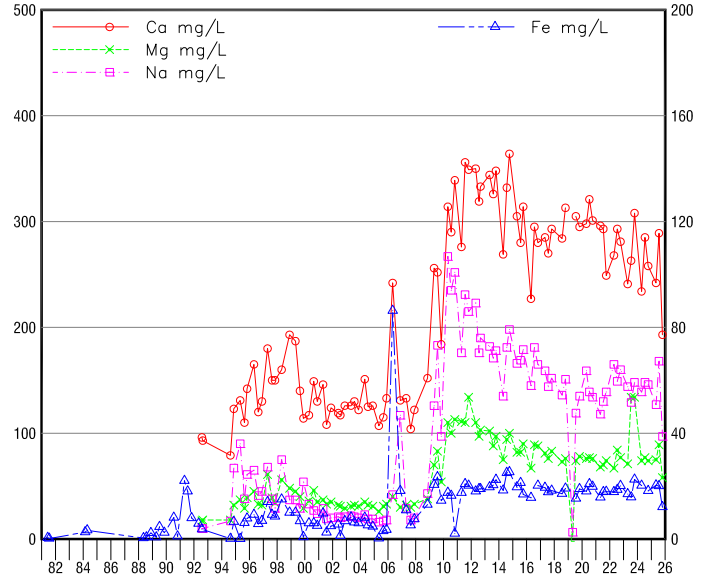
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









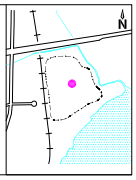


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH3-IR

FORMERLY 3-IRX
CONVERTED Jul 08

SAND AQUIFER

Screen 216.4 - 214.9 masl

22578520
28 Nov 25

wsp

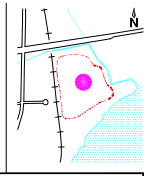
25G005

BH3-IR

SAND AQUIFER

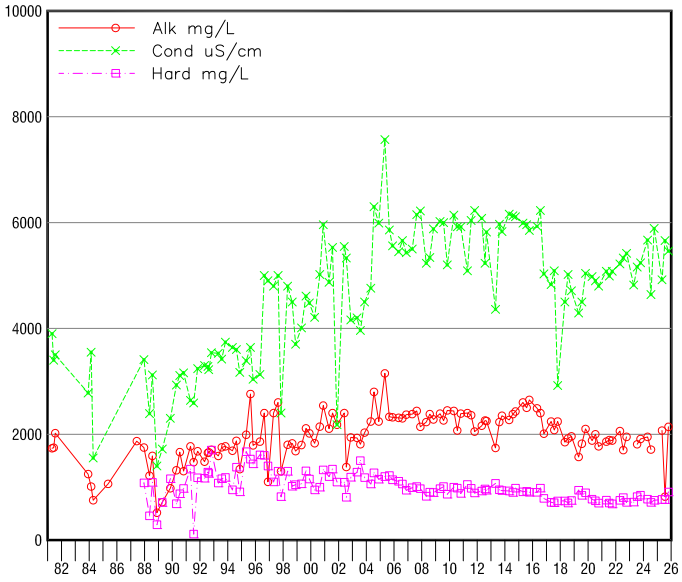
OBSERVATION WELL
Screen 216.4 - 214.9 masl

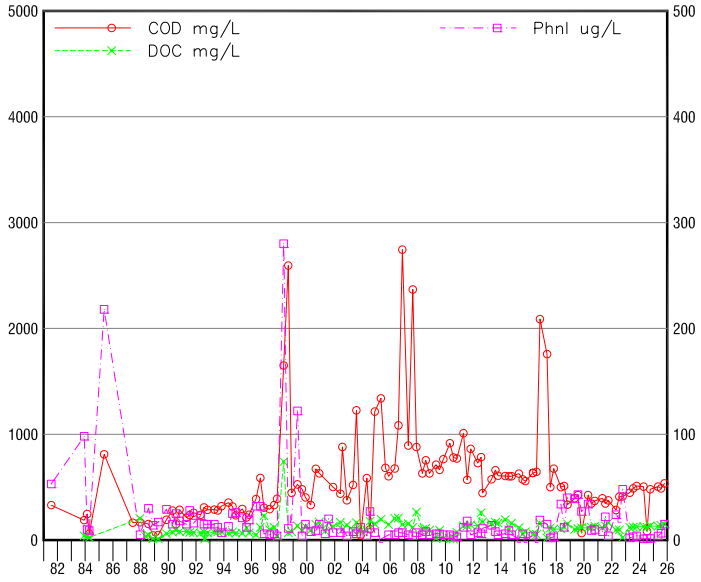
FORMERLY BH3-IRX
CONVERTED Jul 08

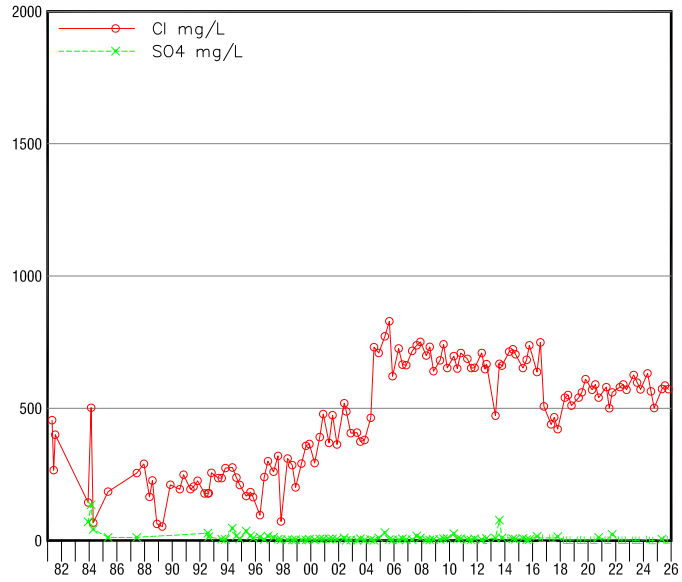


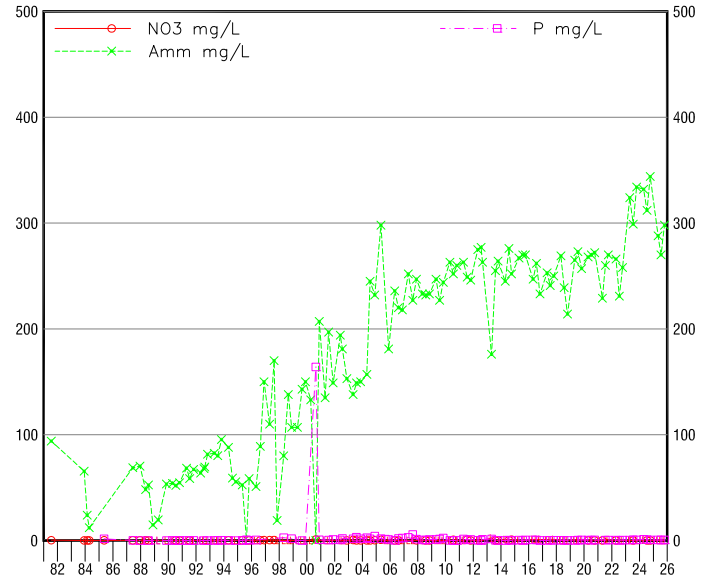
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
26-Apr-16	3176	877	1980	842	7.2	197	15	227	67	145	3.1	**15.6**	1640	109	11	1.7	0.3	<0.1	0.35	<1	0.8
25-Jul-16	3218	857	2620	1100	7.3	279	5	295	89	181	3.2	*0.098*	1940	108	12	1.9	<0.1	<0.1	0.35	<1	8.9
25-Oct-16	3304	1250	2600	1060	7.4	279	2	280	88	165	3.0	**20.2**	2210	119	11	2.0	0.1	<0.1	0.41	<1	-5.9
01-May-17	3343	1040	2390	1050	7.1	225	3	285	81	159	2.9	**19.4**	2070	154	12	2.2	<0.1	<0.1	0.45	<1	2.5
25-Jul-17	3411	929	2270	986	7.3	214	2	270	76	144	2.8	**17.7**	1830	56	14	1.6	<0.1	<0.1	0.45	<1	4.1
23-Oct-17	3485	949	2190	1070	7.1	208	2	293	83	152	3.3	**18.3**	2040	162	13	1.4	<0.1	<0.1	0.44	<1	7.4
01-May-18	3536	846	1970		7.1	230	<2							23	18	0.6	<0.1	<0.1	0.60	**2**	
24-Jul-18	3593	906	2250	1010	6.8	240	<2	284	73	136	3.4	**17.1**	1920	107	23	<0.5	<0.1	<0.1	0.60	<2	3.8
22-Oct-18	3660	939	2180	1090	7.4	250	<2	313	76	151	3.7	**19.1**	2180	64	29	0.7	<0.1	<0.1	0.60	**7**	6.3
29-Apr-19	3712	*432*	*1480*	*15*	8.1	240	<2	*5*	<1	6.4	1.8	*0.01*	0.2	48	17	1.4	<0.3	<0.3	0.4	**7**	-91.9
23-Jul-19	3768	863	2030	1066	6.7	250	<2	305	74	119	2.9	**15.3**	1870	60	19	1.6	<0.1	<0.3	0.5	**4**	5.5
28-Oct-19	3838	932	2220	1060	6.8	260	<2	295	78	135	2.7	**18.9**	1830	69	26	1.4	<0.1	<0.3	0.4	**7**	3.4
24-Apr-20	3874	952	2120	1060	6.9	250	25	298	76	159	3.0	**18.0**	1920	92	19	1.2	<0.1	<0.1	0.4	**3**	4.0
13-Jul-20	3932	955	2220	1120	7.0	260	<2	321	77	139	3.1	**20.8**	1990	67	21	1.3	<0.1	<0.3	0.4	<2	5.1
06-Oct-20	3970	997	2230	1060	7.0	260	3	301	76	134	2.9	**19.8**	1950	69	25	0.8	<0.1	<0.3	0.4	<2	1.0
29-Apr-21	4042	871	2150	1020	7.4	250	3	296	68	118	2.7	**15.7**	1810	65	18	1.2	<0.1	<0.3	0.4	<2	4.1
16-Jul-21	4097	895	2170	1020	6.9	250	3	293	70	130	3.9	**17.8**	1920	55	19	1.4	<0.1	<0.1	0.4	<2	4.4
01-Oct-21	4154	921	2260	927	7.4	290	3	249	74	139	2.5	**17.9**	1790	64	25	1.5	<0.1	<0.3	0.4	<2	-1.7
21-Apr-22	4220	950	2180	943	6.7	270	27	268	67	165	2.5	**17.8**	1680	70	22	1.2	<0.1	<0.1	0.3	<20	-0.8
19-Jul-22	4306	801	2300	1080	7.4	290	5	293	84	149	2.5	**18.6**	1960	64	24	1.0	<0.1	<0.3	0.3	**6**	8.5
13-Oct-22	4376	1020	2530	1017	7.2	310	7	281	77	160	2.6	**20.1**	1850	76	22	1.2	<0.1	<0.3	0.4	**6**	-2.0
19-Apr-23	4428	824	1970	893	7.0	239	16	241	71	144	2.8	**17.0**	1440	69	18	5.2	<0.1	<0.1	0.7	**3**	2.8
19-Jul-23	4483	874	2110	1210	7.1	232	4	263	134	129	2.4	**15.8**	1350	95	17	4.0	<0.1	<0.1	0.3	**3**	8.5
16-Oct-23	4554	1080	2570	1320	7.1	271	4	308	134	148	2.6	**22.5**	1850	111	24	1.8	<0.1	<0.1	0.4	**3**	6.9
18-Apr-24	4591	895	2180	874	6.9	243	7	234	74	139	2.6	**20.2**	1700	97	18	1.4	<0.5	<0.5	0.29	1	-0.6
17-Jul-24	4661	602	1780	963	7.6	197	2	285	77	148	2.7	*1.84*	1830	778	20	1.5	<0.1	<0.1	0.33	**1.8**	21.3
10-Oct-24	2067111	880	2370	1020	7.2	157	2	258	74	146	2.7	**18.2**	1760	83	23	4.3	<0.1	<0.1	0.46	**1.7**	8.3
05-May-25	251086501	955	1990	912	6.9	236	2	242	75	127	2.2	**20.3**	1570	92	21	1.5	<0.1	<0.05	0.43	**3.7**	-2.4
22-Jul-25	252003101	820	2300	1090	6.9	239	5	289	89	168	2.9	**20.0**	1910	68	29	1.5	<0.1	<0.05	0.48	**1.1**	12.6
22-Oct-25	253042601	598	1430	720	7.6	142	<1.5	193	58	97	2.7	**12.1**	978	50	15	1.3	<0.1	<0.05	0.50	**2.1**	9.1
TOTAL SAMPLES		107	107	104	109	108	95	91	92	92	92	104	88	102	106	107	108	108	107	106	
AVERAGE 2025		791	1907	907	7.1	206	2	241	74	131	2.6	17.47	1486	70	22	1.4	<0.1	<0.05	0.47	2.30	

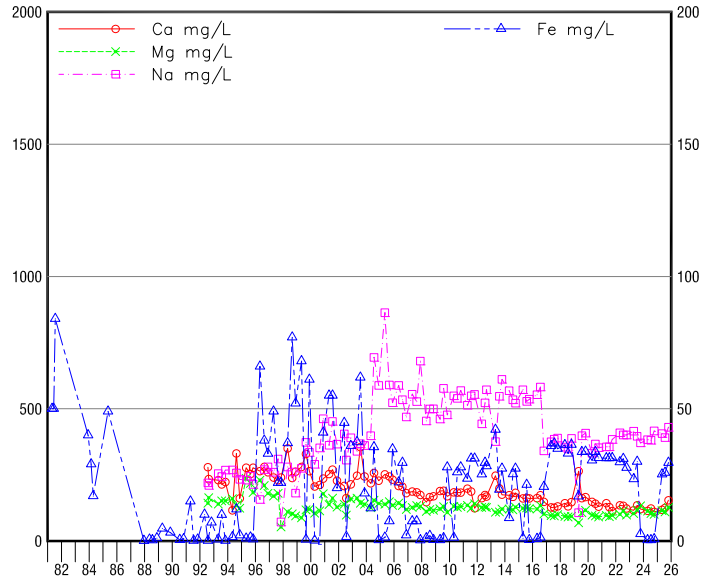
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



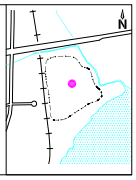








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH3-IIR

FORMERLY 3-IIRX
CONVERTED Sep 16

REFUSE

Screen 222.5 - 218.4 masl

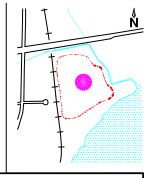
22578520 28 Nov 25	wsp	25G006

BH3-IIR

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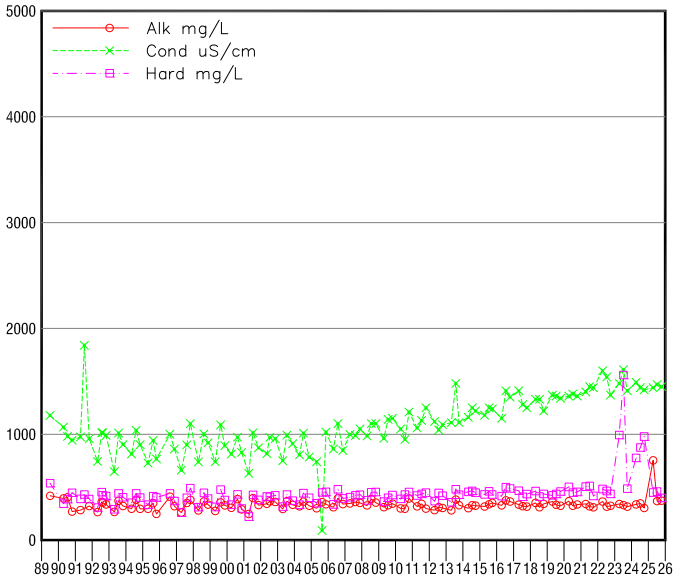
LEACHATE WELL
Screen 222.5 - 218.4 masl

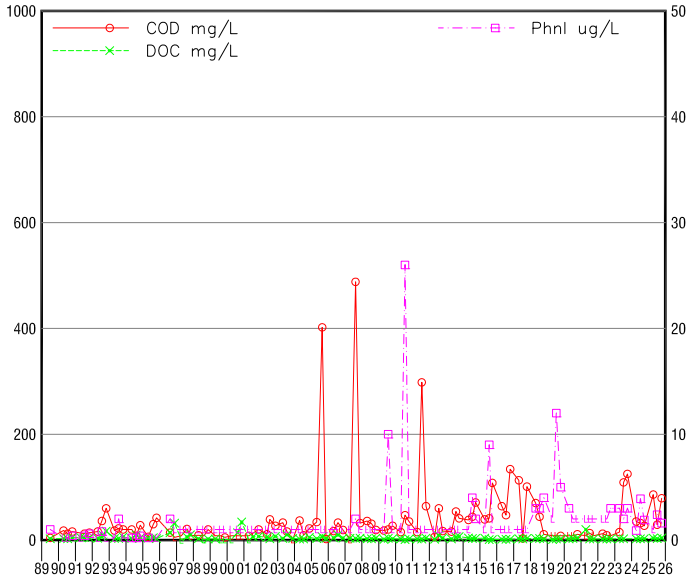
FORMERLY BH3-IIRX
CONVERTED Sep 16

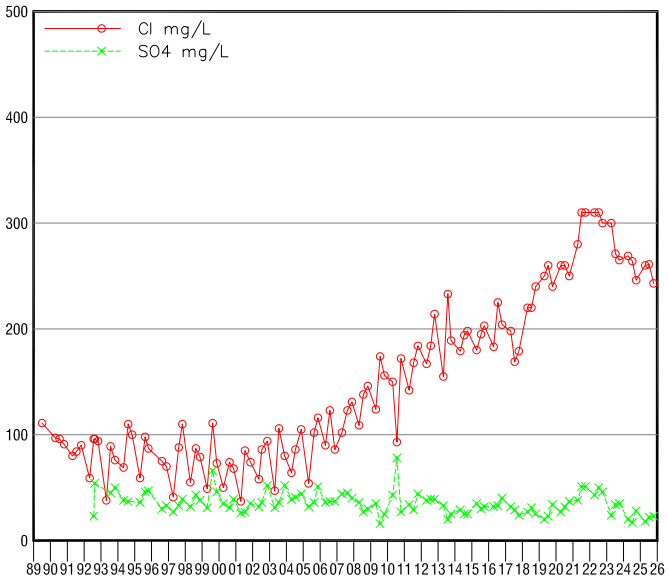


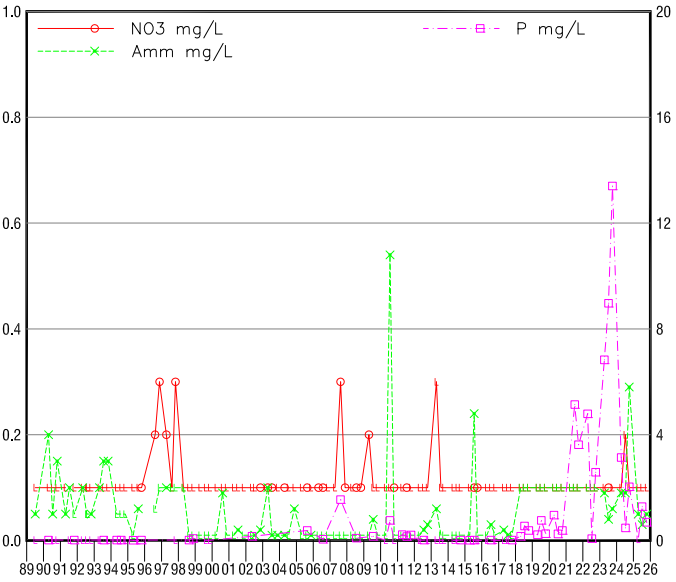
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
27-Apr-16	3177	2490	5930	902	7.4	637	16	162	121	553	162	**0.813**	331	634	58	273	<1	<1	247	**4**	-3.1
25-Jul-16	3219	2400	6230	982	7.6	749	<10	173	134	582	173	**1.31**	317	645	52	316	<1	<1	262	<1	-0.7
25-Oct-16	3305	2010	5030	788	7.5	507	<10	148	102	341	128	**20.5**	2450	2088	158	262	<1	<1	233	**19**	-3.0
02-May-17	3344	2240	4830	713	7.5	439	<10	127	96	375	151	**35.9**	610	1757	19	267	<0.5	<0.5	253	**15**	-3.0
25-Jul-17	3412	2080	5090	705	7.4	466	<10	126	95	385	149	**36.9**	324	500	114	241	<0.5	<0.5	241	**2**	-1.4
23-Oct-17	3486	2240	2920	739	7.3	421	15	131	100	389	166	**34.9**	333	675	104	253	<1	<1	250	**3**	-1.7
01-May-18	3537	1850	4500	740	7.4	540	<2	143	93	355	171	**36.3**	335	500	104	280	<0.1	<0.3	269	**34**	2.7
24-Jul-18	3594	1920	5020	701	7.0	550	<2	131	91	348	166	**33.1**	300	511	124	282	<0.1	<0.3	239	**12**	-2.1
22-Oct-18	3661	1960	4710	747	7.3	510	<2	147	93	388	180	**36.4**	354	335	153	277	<0.1	<0.3	214	**40**	-0.5
29-Apr-19	3713	1570	4290	942	8.4	540	<2	264	69	107	2.7	**16.9**	1600	395	101	260	<0.6	<0.3	265	**39**	-3.9
23-Jul-19	3769	1820	4500	844	6.9	560	<2	162	107	398	201	**33.7**	311	425	109	296	<0.1	<0.3	273	**43**	7.0
28-Oct-19	3839	2100	5040	893	7.0	610	<2	166	116	408	160	**33.8**	341	66	116	268	<0.6	<0.3	257	**27**	0.1
16-Apr-20	3875	1880	4980	772	7.4	570	<2	148	98	332	173	**30.5**	307	425	114	275	0.1	<0.3	268	**34**	0.8
13-Jul-20	3933	2000	4900	743	6.9	590	<2	141	95	367	183	**33.7**	259	345	120	283	<0.6	<0.3	270	**9**	-0.5
06-Oct-20	3971	1770	4800	698	7.1	540	12	130	91	353	161	**31.4**	258	370	132	262	0.1	<0.3	272	**10**	3.0
29-Apr-21	4043	1860	5080	754	7.4	580	<2	143	97	356	176	**31.3**	275	395	116	274	0.1	<0.3	229	**8**	-18.6
16-Jul-21	4098	1890	4990	699	6.9	500	<2	128	92	356	154	**31.3**	244	345	134	286	<0.6	<0.3	260	**22**	-2.3
01-Oct-21	4155	1880	5080	683	7.4	560	23	113	97	384	159	**31.4**	290	375	165	280	<0.6	<0.3	270	**4**	-2.6
21-Apr-22	4221	2060	5220	751	6.9	580	<2	135	101	409	162	**29.8**	281	284	95	286	0.1	<0.3	266	**24**	-0.4
19-Jul-22	4307	1700	5330	802	7.5	590	<2	133	114	401	178	**31.1**	299	410	97	262	<0.1	<0.3	231	<20	4.7
13-Oct-22	4377	1950	5420	711	7.7	570	<2	123	98	401	154	**27.7**	259	412	23	267	<0.1	<0.1	258	**48**	0.0
19-Apr-23	4429	*<2*	4820	717	6.8	626	<1	116	104	415	172	**23.4**	203	447	120	341	<0.1	<0.1	324	**2**	55.0
19-Jul-23	4484	1810	5160	820	6.9	597	<1	135	117	396	172	**30.0**	281	488	123	343	0.1	<0.1	299	**3**	-8.6
16-Oct-23	4555	1910	5240	849	7.0	571	<1	121	133	371	160	**2.63**	278	511	125	309	<0.1	<0.1	334	**4**	-15.5
18-Apr-24	4592	1950	5670	772	7.1	632	<5	114	113	383	153	**0.354**	272	505	127	288	<0.5	<0.5	332	**1.1**	2.1
17-Jul-24	4662	1710	4640	711	7.2	564	<0.5	123	104	381	167	**0.351**	262	83	120	296	0.1	<0.1	312	**1.5**	7.2
10-Oct-24	2067112	*<2*	5890	752	7.2	501	<0.5	110	101	416	162	**0.720**	242	480	134	346	0.1	<0.1	344	**1.6**	62.2
05-May-25	251086502	2070	4920	768	7.2	573	5	118	115	406	156	**25.2**	286	505	130	334	<0.2	<0.1	288	**3.8**	0.8
22-Jul-25	252003102	820	5660	765	7.1	586	<3	125	110	391	152	**25.8**	296	488	139	438	<0.2	<0.1	270	**6.4**	6.0
22-Oct-25	253042602	2140	5460	908	7.4	572	<3	154	127	430	164	**29.6**	376	535	151	306	<0.2	<0.1	298	**15**	1.2
TOTAL SAMPLES		121	121	115	120	122	105	101	101	101	101	120	93	118	117	119	121	120	119	117	
AVERAGE 2025		1677	5347	814	7.2	577	<3	132	117	409	157	26.87	319	509	140	359	<0.2	<0.1	285	8	

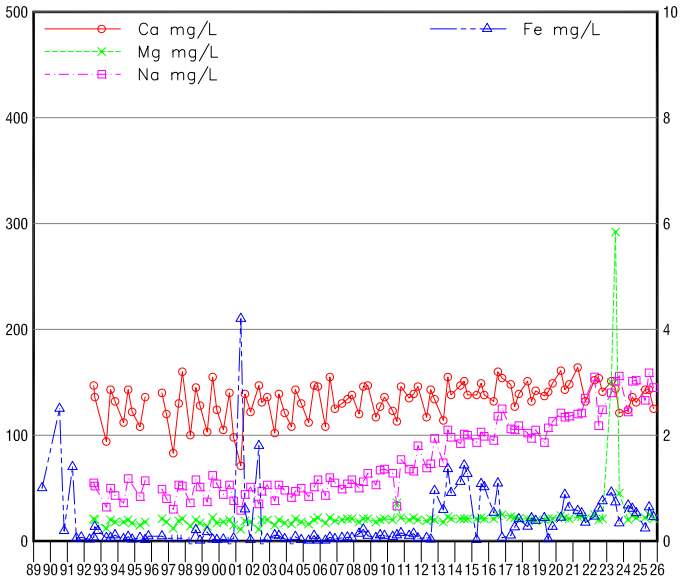
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









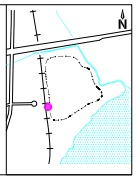


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH4-IIR

FORMERLY 4-II
CONVERTED Sep 16

SAND AQUIFER

Screen 219.9 - 218.3 masl

22578520
28 Nov 25

wsp

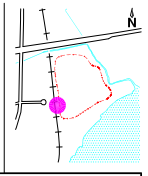
25G007

BH4-IIR

SAND AQUIFER

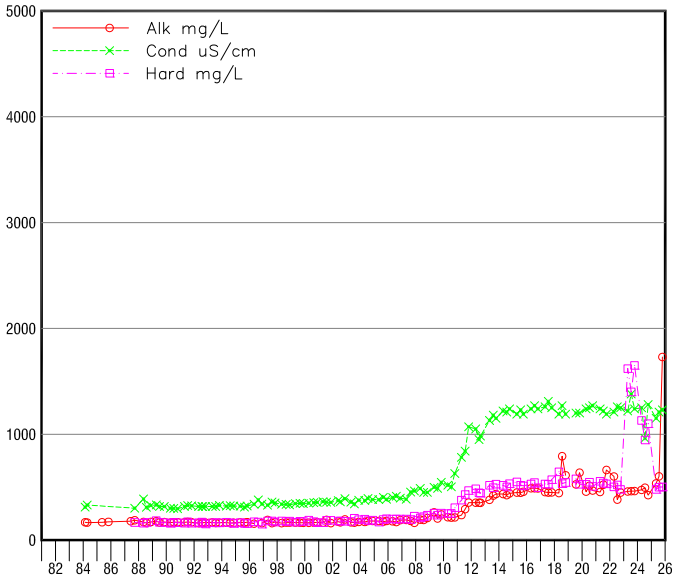
OBSERVATION WELL
Screen 219.9 - 218.3 masl

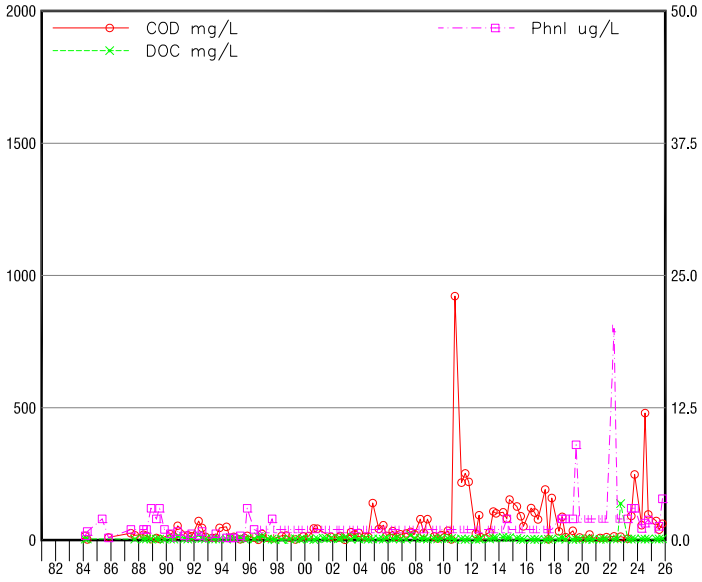
FORMERLY BH4-II
CONVERTED Sep 16

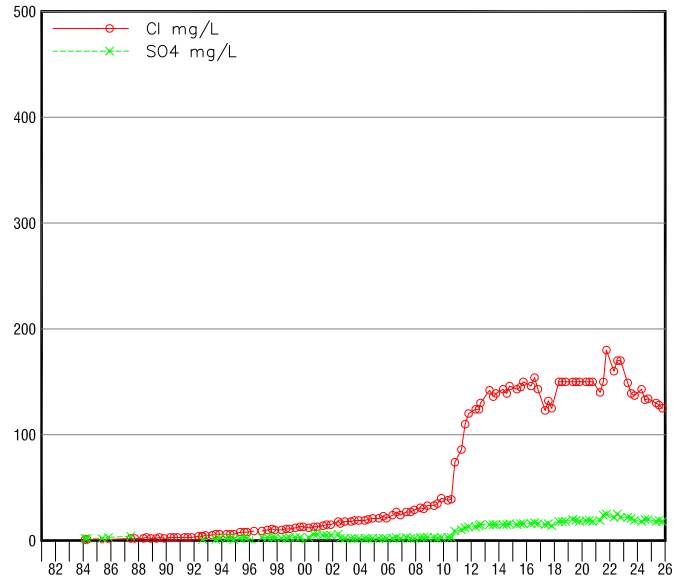


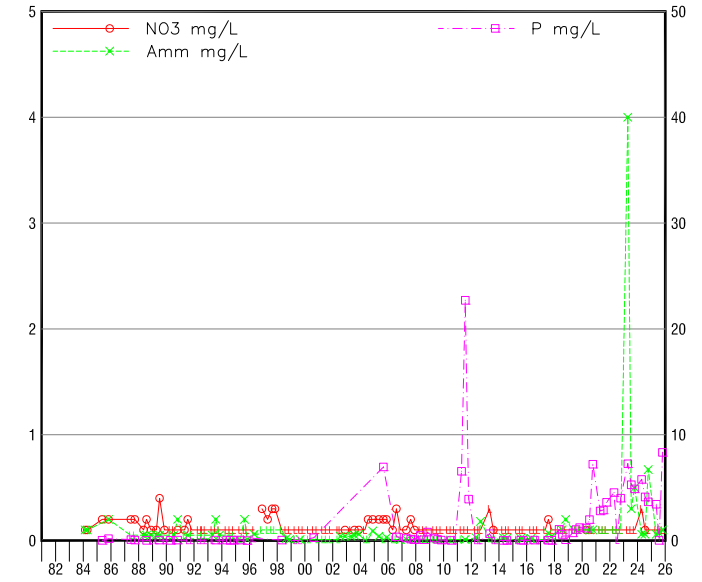
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
19-Apr-16	3166	328	1150	415	7.7	183	32	132	21	95	1.3	**0.535**	45	64	1.5	0.3	<0.1	<0.1	<0.01	<1	0.9
19-Jul-16	3203	375	1410	499	7.8	225	33	160	24	118	1.5	**1.09**	60	47	1.5	0.4	<0.1	<0.1	0.03	<1	2.2
18-Oct-16	3294	364	1350	487	7.9	204	40	154	25	125	4.1	0.059	227	134	1.5	0.8	<0.1	<0.1	<0.01	<1	5.2
24-Apr-17	3329	335	1410	466	7.7	198	32	148	23	106	1.6	0.105	137	113	2.6	0.4	<0.1	0.1	0.02	<1	3.7
19-Jul-17	3396	320	1280	409	7.7	169	29	127	22	105	4.7	0.261	163	3	2.2	0.4	<0.1	<0.1	0.01	<1	4.4
16-Oct-17	3471	316	1250	434	7.8	179	24	139	21	109	2.8	**0.413**	129	101	3.1	0.3	<0.1	<0.1	<0.01	<1	6.8
23-Apr-18	3522	351	1330	463	7.4	220	27	151	21	102	2.0	0.271	113	70	3.0	<0.5	<0.1	<0.1	<0.1	**3**	0.3
17-Jul-18	3576	310	1330	411	7.8	220	31	132	20	97	2.5	**0.431**	102	44	3.0	<0.5	<0.1	<0.1	<0.1	**3**	-1.6
16-Oct-18	3648	342	1220	436	7.4	240	25	142	19	105	2.2	**0.384**	102	11	2.0	<0.5	<0.1	<0.1	<0.1	**4**	-2.7
23-Apr-19	3700	364	1370	422	7.1	250	20	137	20	93	1.6	**0.436**	121	<8	1.0	<0.5	<0.1	<0.1	<0.1	<2	-7.5
15-Jul-19	3751	333	1360	436	7.2	260	23	141	21	107	2.2	0.035	113	<8	2.0	<0.5	<0.1	<0.1	<0.1	**12**	-3.2
17-Oct-19	3826	324	1340	459	7.5	240	34	149	21	113	2.2	0.27	93	8	2.0	<0.5	<0.1	<0.1	<0.1	**5**	1.0
14-Apr-20	3862	367	1360	502	7.4	260	27	161	24	121	1.8	**0.442**	116	<8	2.0	<0.5	<0.1	<0.1	<0.1	**3**	0.7
09-Jul-20	3915	324	1380	448	7.6	260	32	143	22	117	1.8	**0.876**	107	<8	3.0	<0.5	<0.1	<0.1	<0.1	<2	-0.9
13-Oct-20	9372	336	1360	455	7.5	250	37	148	21	118	2.3	**0.632**	111	11	4.0	<0.5	<0.1	<0.1	<0.1	<2	-0.4
14-Apr-21	4044	341	1400	505	7.5	280	38	164	23	120	1.8	**0.571**	136	<8	20	<0.5	<0.1	<0.1	<0.1	<2	0.1
08-Jul-21	4099	318	1450	511	7.4	310	51		23	121	2.1	**0.526**	165	13	2.0	<0.5	<0.1	<0.1	<0.1	<2	-1.8
28-Sep-21	4156	309	1440	417	8.0	310	51	132	21	135	2.1	**0.347**	125	<8	2.0	0.6	<0.1	<0.1	<0.1	<2	-5.3
14-Apr-22	4222	364	1600	482	7.7	310	43	152	25	155	2.0	**0.462**	128	12	2.0	<0.5	<0.1	<0.1	<0.1	<2	-1.0
13-Jul-22	4289	316	1540	464	7.8	310	50	154	20	109	1.9	**0.617**	101	9	2.0	0.6	<0.1	<0.1	<0.1	<2	-6.3
04-Oct-22	4364	324	1370	436	7.3	300	46	141	21	124	2.1	**0.753**	105	<8	2.0	<0.5	<0.1	<0.1	<0.1	**3**	-5.3
12-Apr-23	4416	341	1480	993	7.6	300	24	151	150	140	1.9	**0.920**	109	15	2.5	2.4	<0.1	0.3	0.09	**3**	24.6
11-Jul-23	4466	330	1610	1560	7.6	271	34	144	292	151	2.3	**0.732**	95	109	2.4	3.5	0.1	<0.1	0.04	**2**	6.8
03-Oct-23	4542	316	1410	486	7.7	265	35	121	45	156	2.1	**0.336**	53	125		<0.4	<0.1	<0.1	0.06	**3**	5.3
10-Apr-24	4615	337	1490	776	7.4	269	20	124	20	122	1.7	**0.673**	102	35	2.2	0.3	<0.1	<0.1	0.09	0.9	-5.4
11-Jul-24	4644	346	1440	875	7.9	264	17	136	24	151	2.0	**0.611**	105	32	2.3	0.2	<0.2	<0.2	0.09	**3.9**	2.2
02-Oct-24	2064049	303	1420	978	7.6	246	28	131	22	152	2.3	**0.530**	94	27	2.6	2.1	<0.1	<0.1	0.29	**1.9**	5.1
15-Apr-25	250864104	753	1440	449	7.8	260	18	143	22	133	1.8	0.240	122	86	3.7	0.8	<0.1	<0.05	0.05	<1	-21.3
08-Jul-25	251839209	368	1470	458	7.5	261	22	143	25	159	2.4	**0.638**	85	29	2.8	0.2	<0.1	<0.05	0.03	**2.4**	3.2
14-Oct-25	252965912	372	1450	398	7.7	243	23	125	21	145	2.2	**0.454**	108	79	4.0	0.3	<0.1	<0.05	0.05	**1.6**	-1.7
TOTAL SAMPLES		108	109	109	109	109	98	98	99	98	98	108	92	106	108	108	108	109	108	108	
AVERAGE 2025		498	1453	435	7.7	255	21	137	23	146	2.1	0.4440	105	65	3.5	0.4	<0.1	<0.05	0.04	1.33	

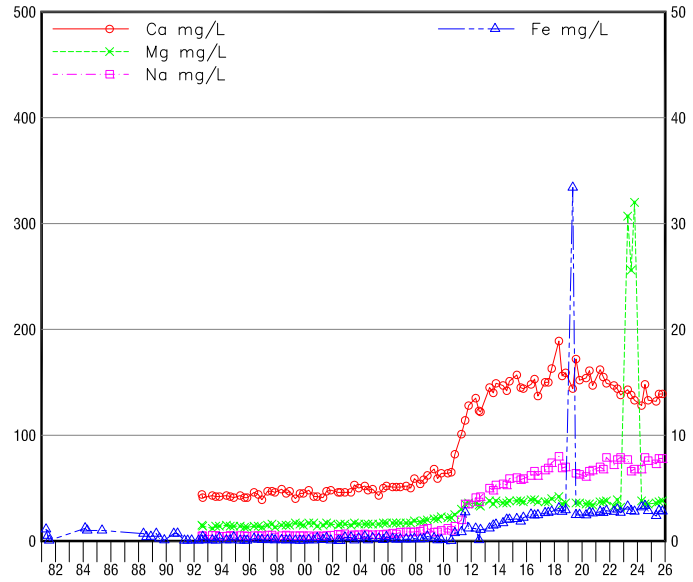
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









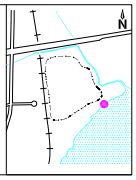


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH5-IR

FORMERLY 5-I
CONVERTED Oct 10

SAND AQUIFER

Screen 211.8 - 211.3 masl

22578520
28 Nov 25

wsp

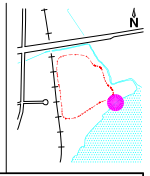
25G008

BH5-IR

SAND AQUIFER

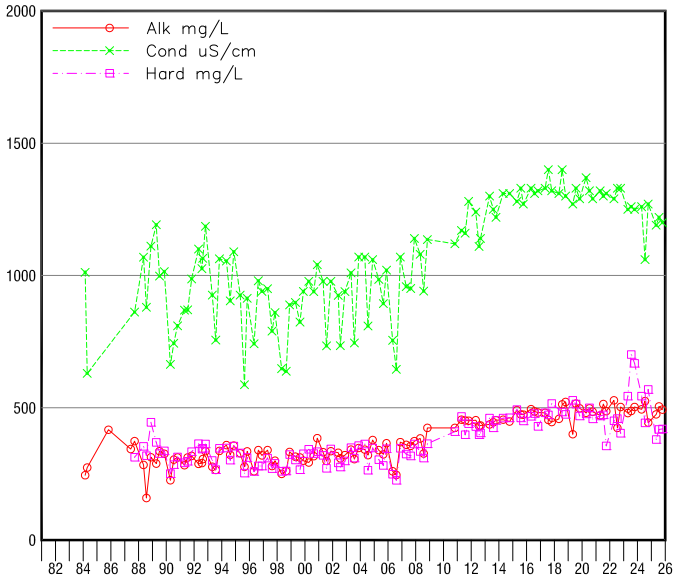
OBSERVATION WELL
Screen 211.8 - 211.3 masl

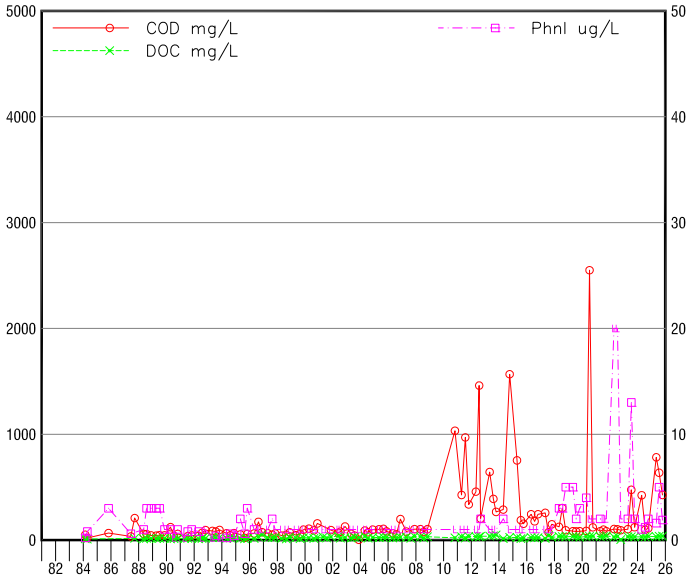
FORMERLY BH5-I
CONVERTED Oct 10

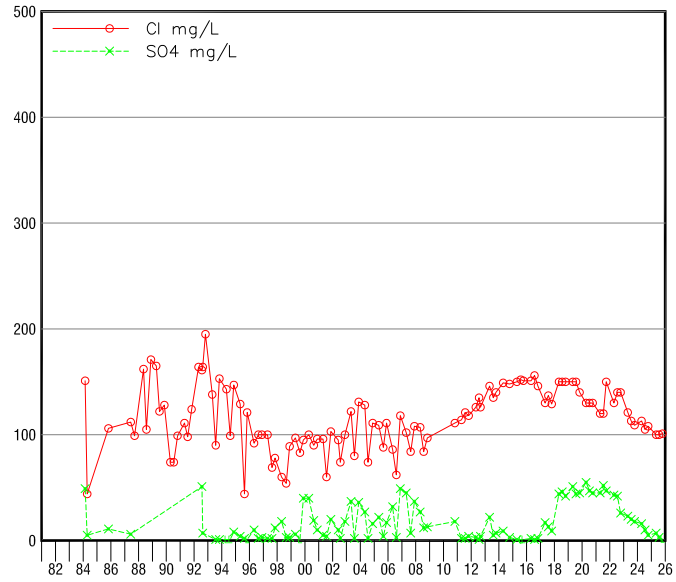


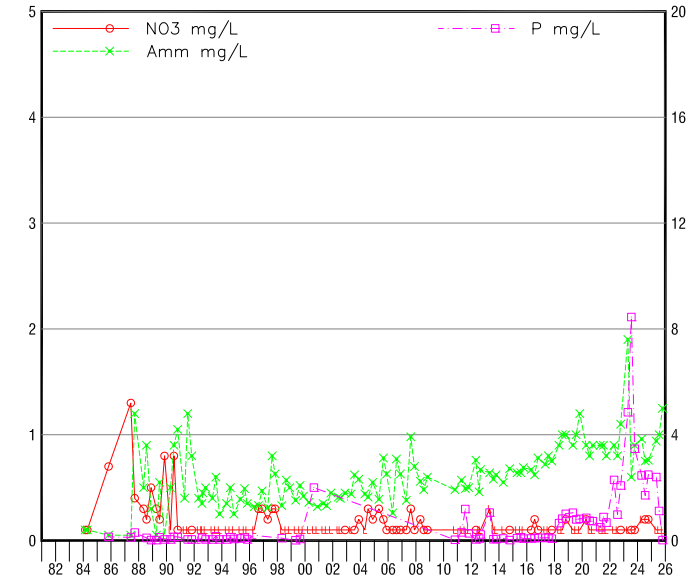
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
27-Apr-16	3178	489	1240	530	7.8	146	16	148	39	62	2.0	**2.50**	222	121	2.9	1.0	<0.1	<0.1	0.02	<1	-2.9
28-Jul-16	3220	489	1270	543	7.8	154	17	153	39	66	1.9	**2.42**	222	104	2.3	3.1	<0.1	<0.1	<0.01	<1	-1.8
26-Oct-16	3306	488	1240	495	7.9	143	16	137	37	62	1.8	**2.45**	224	78	2.3	0.2	<0.1	<0.1	<0.01	<1	-4.9
03-May-17	3345	453	1260	530	7.7	123	15	150	37	67	1.8	**2.64**	242	191	1.3	0.8	<0.1	<0.1	<0.01	<1	3.2
27-Jul-17	3413	449	1310	527	7.8	132	16	150	37	69	2.0	**2.67**	235	3	3.2	0.4	0.2	<0.1	0.07	<1	2.4
24-Oct-17	3487	450	1250	571	7.7	125	14	163	40	74	2.2	**2.78**	263	159	3.6	0.2	<0.1	<0.1	0.04	<1	7.2
02-May-18	3538	444	1190	645	7.8	150	18	189	42	80	2.9	**3.10**	303	33	4.0	<0.5	<0.1	<0.1	<0.1	<2	10.5
26-Jul-18	3595	792	1270	533	7.3	150	18	156	35	69	2.5	**2.76**	249	88	8.0	<0.5	<0.1	<0.1	0.1	**2**	-19.2
25-Oct-18	3662	612	1190	544	7.9	150	18	159	36	70	2.4	**2.92**	241	11	3.0	<0.5	<0.1	<0.1	0.2	**2**	-8.8
01-May-19	3714	*310*	*975*	*758*	8.2	150	20	144	*97*	*351*	*169*	**33.4**	344	35	2.0	<0.5	<0.1	<0.1	<0.1	**2**	53.8
26-Jul-19	3770	526	1200	578	7.3	150	19	172	36	64	2.2	**2.46**	228	<8	3.0	1.2	<0.1	<0.1	<0.1	**9**	-1.9
29-Oct-19	3840	637	1200	527	7.4	150	18	152	36	63	2.2	**2.47**	216	10	4.0	<0.5	<0.1	<0.1	<0.1	<2	-12.3
17-Apr-20	3876	457	1240	526	7.9	150	19	154	35	61	2.3	**2.43**	210	<8	3.0	0.9	0.1	<0.1	<0.1	<2	-1.3
14-Jul-20	3934	513	1250	546	7.6	150	19	161	35	66	2.3	**2.69**	223	21	4.0	<0.5	<0.1	<0.1	0.1	<2	-3.2
08-Oct-20	3973	468	1270	507	7.9	150	18	147	34	67	2.3	**2.62**	223	<8	2.0	<0.5	<0.1	<0.1	0.1	<2	-2.8
21-Apr-21	4045	454	1240	555	7.9	140	19	162	37	70	2.3	**2.76**	245	8	3.0	0.6	<0.1	<0.1	<0.1	<2	3.2
16-Jul-21	4100	523	1220	538	7.3	150	24	155	37	68	3.2	**2.66**	215	<8	4.0	<0.5	<0.1	<0.1	<0.1	<2	-4.4
06-Oct-21	4157	662	1190	531	7.3	180	25	149	38	79	2.2	**2.86**	254	11	3.0	<0.5	<0.1	<0.1	<0.1	<2	-13.6
21-Apr-22	4223	601	1210	503	7.4	160	22	147	33	72	2.1	**2.77**	238	14	4.0	<0.5	<0.1	<0.1	<0.1	<20	-11.7
20-Jul-22	4308	382	1260	521	8.1	170	25	144	39	77	2.0	**2.98**	236	<8	4.0	<0.5	<0.1	<0.1	<0.1	<2	3.9
13-Oct-22	4378	449	1250	478	8.1	170	22	138	32	79	2.2	**2.68**	226	13	138	<0.5	<0.1	<0.1	<0.1	<2	-3.6
20-Apr-23	4430	459	1220	1620	7.5	149	22	143	307	77	2.6	**3.26**	257	5	3.7	3.0	<0.1	<0.1	4.0	**2**	44.7
20-Jul-23	4485	462	1380	1400	7.6	139	21	138	256	66	2.1	**2.84**	231	91	3.4	1.4	<0.1	<0.1	0.3	**3**	1.6
16-Oct-23	4556	463	1240	1650	7.7	137	19	133	320	68	2.5	**2.78**	199	248	4.1	0.6	<0.1	<0.1	0.5	**3**	4.4
18-Apr-24	4593	474	1250	1130	7.3	143	18	128	38	68	2.3	**3.19**	250	56	4.2	<0.2	<0.3	<0.3	0.06	**1.1**	-4.7
18-Jul-24	4663	495	961	946	7.4	133	20	148	35	79	2.3	**3.32**	263	480	3.4	1.1	0.1	<0.1	0.06	**1.6**	-0.6
10-Oct-24	2067113	424	1280	1100	7.6	134	20	133	35	76	2.1	**2.84**	245	97	3.7	4.5	<0.1	<0.1	0.67	**1.9**	1.3
08-May-25	251086503	536	1150	479	7.7	130	18	132	36	73	2.1	**2.37**	224	72	3.9	0.5	<0.1	<0.05	0.06	<1	-6.5
22-Jul-25	252003111	602	1210	500	7.5	128	19	139	37	78	2.1	**2.86**	246	39	3.9	0.3	<0.1	<0.05	0.07	**1.3**	-8.5
20-Oct-25	253042608	1730	1230	502	7.5	125	18	139	38	78	2.2	**2.80**	221	62	4.9	1.5	<0.1	<0.05	0.10	**3.9**	-47.8
TOTAL SAMPLES		119	117	114	120	120	103	101	100	100	100	120	93	115	118	119	120	121	119	119	
AVERAGE 2025		956	1197	494	7.6	128	18	137	37	76	2.1	2.677	230	58	4.2	0.8	<0.1	<0.05	0.08	1.73	

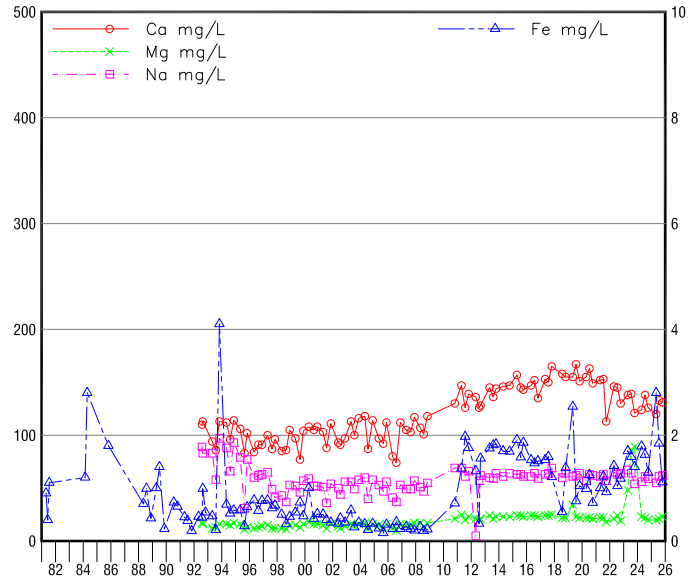
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









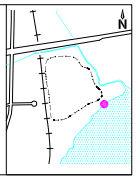


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH5-IIIR

FORMERLY 5-III
CONVERTED Oct 10

PEAT

Screen 218.0 - 217.4 masl

22578520
28 Nov 25

wsp

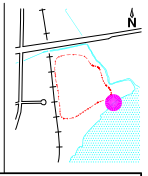
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BH5-IIIR

PEAT

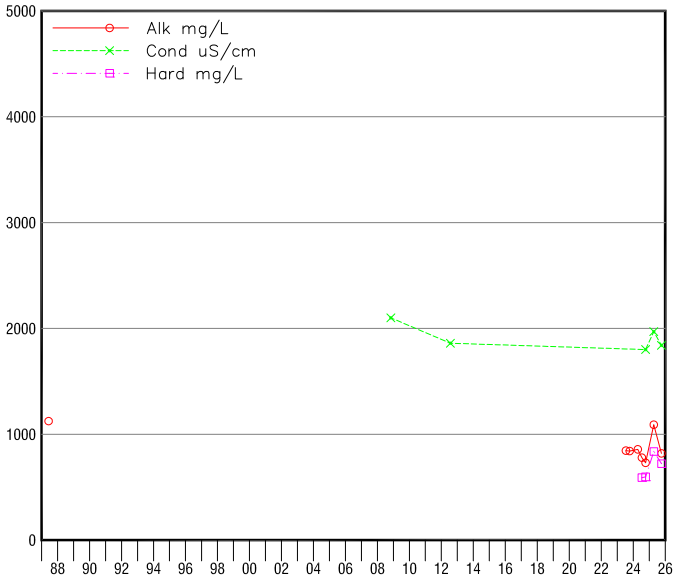
OBSERVATION WELL
Screen 218.0 - 217.4 masl

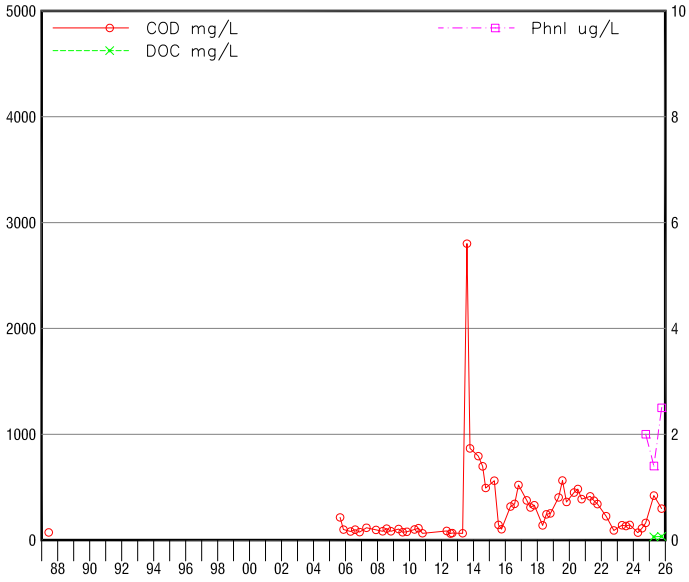
FORMERLY BH5-III
CONVERTED Oct 10

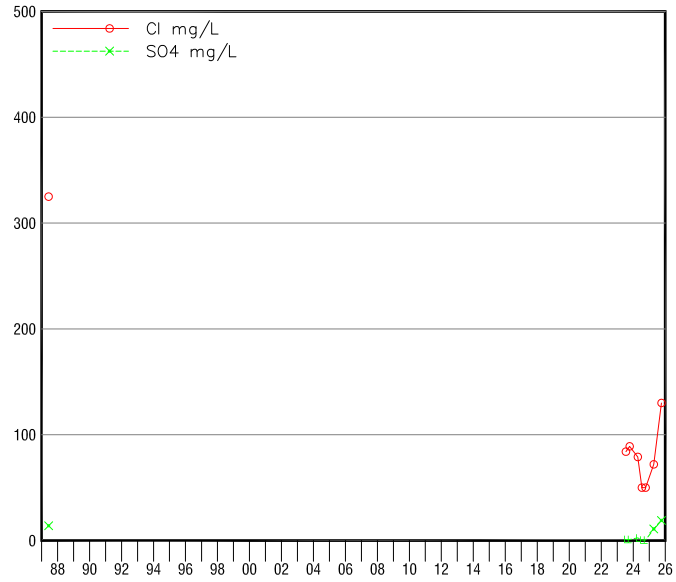


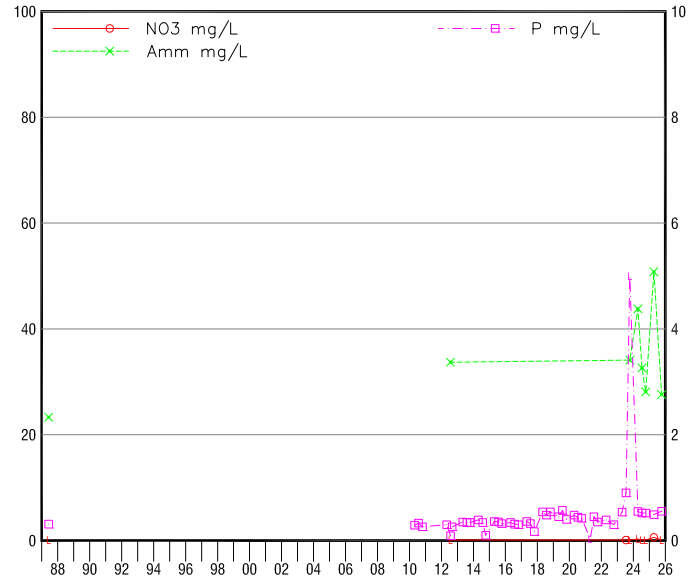
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
27-Apr-16	3179	495	1330	468	7.6	151	2	147	24	61	70	**1.53**	227	244	24	3.7	0.1	<0.1	0.67	<1	-1.2
27-Jul-16	3221	486	1310	478	7.6	156	1	152	24	64	69	**1.47**	212	177	21	3.3	0.2	<0.1	0.62	<1	0.2
26-Oct-16	3307	482	1320	430	7.6	146	2	135	23	59	70	**1.51**	201	244	22	3.6	0.1	<0.1	0.78	<1	-2.6
03-May-17	3346	481	1330	481	7.5	130	17	153	24	63	78	**1.53**	237	257	15	3.7	<0.1	<0.1	0.72	<1	2.9
27-Jul-17	3414	454	1400	473	7.6	137	13	150	24	64	75	**1.59**	229	73	42	3.2	<0.1	<0.1	0.8	<1	3.9
24-Oct-17	3488	446	1320	516	7.5	129	9	165	25	69	78	**1.21**	253	149	25	2.8	0.1	<0.1	0.75	<1	9.4
02-May-18	3539	458	1310		7.5	150	44							125	34	2.0	<0.1	<0.1	0.9	**3**	
26-Jul-18	3596	513	1400	484	7.1	150	46	158	22	60	96	**0.547**	196	303	33	2.5	<0.1	<0.1	1.0	**3**	-1.9
25-Oct-18	3663	522	1300	475	7.5	150	42	155	22	64	94	**1.38**	238	93	30	1.4	0.2	<0.1	1.0	**5**	-2.3
01-May-19	3715	400	1270	528	8.3	150	51	155	34	61	2.2	**2.54**	219	84	35	2.5	<0.1	<0.1	0.9	**5**	0.4
26-Jul-19	3771	516	1330	514	7.0	150	44	167	23	62	95	**0.754**	223	82	31	3.1	<0.1	<0.1	1.0	**2**	0.0
29-Oct-19	3841	498	1290	469	7.4	140	45	151	22	64	96	**1.04**	217	83	27	3.1	<0.1	<0.1	1.2	**3**	-0.4
17-Apr-20	3877	481	1370	477	7.7	130	55	155	22	57	101	**0.986**	230	87	33	3.3	0.2	<0.1	0.9	**4**	0.9
14-Jul-20	3935	498	1320	500	7.2	130	47	163	22	63	99	**1.25**	220	2550	34	2.6	<0.1	<0.1	0.8	<2	2.5
08-Oct-20	3974	485	1290	458	7.8	130	45	149	21	62	96	**0.722**	208	120	37	2.3	<0.1	<0.1	0.9	<2	0.3
22-Apr-21	4046	471	1320	469	7.8	120	45	152	22	61	106	**1.00**	229	84	33	2.8	<0.1	<0.1	0.9	**2**	3.5
16-Jul-21	4101	514	1300	473	7.2	120	52	153	22	63	99	**1.22**	205	99	33	3.0	<0.1	<0.1	0.9	<2	0.3
30-Sep-21	4158	487	1310	356	8.1	150	47	113	18	57	84	**0.924**	180	83	39	2.6	<0.1	<0.1	0.8	<2	-11.5
21-Apr-22	4224	528	1290	451	7.1	130	43	146	21	65	91	**1.42**	222	104	29	2.5	<0.1	<0.1	0.9	<20	-2.8
20-Jul-22	4309	424	1330	459	7.8	140	42	145	24	63	90	**1.04**	235	101	35	1.8	<0.1	<0.1	0.8	<20	3.7
13-Oct-22	4379	503	1330	404	7.9	140	26	130	19	64	85	**1.18**	193	93	4.0	2.7	0.1	<0.1	1.1	<2	-5.1
20-Apr-23	4431	480	1250	544	7.3	121	23	138	48	67	88	**1.70**	257	103	32	20.8	<0.1	<0.1	1.9	**2**	9.1
20-Jul-23	4486	488	1260	701	7.4	113	20	139	86	64	80	**1.59**	211	475	31	53.0	0.1	<0.1	0.6	**13**	7.9
16-Oct-23	4557	503	1250	668	7.6	109	18	121	89	54	77	**1.40**	192	121	30	9.9	0.1	<0.1	0.9	**2**	1.7
18-Apr-24	4594	494	1260	544	7.1	113	16	124	23	56	72	**1.79**	268	423	31	3.3	<0.2	<0.2	0.96	1	-3.4
18-Jul-24	4664	525	1060	443	7.2	105	10	138	22	61	76	**1.63**	236	97	30	15	0.2	<0.1	0.75	**1.2**	-1.1
10-Oct-24	2067114	444	1270	569	7.6	108	5	126	20	59	75	**1.29**	200	111	35	20.8	0.2	<0.1	0.76	**2**	1.9
08-May-25	251086504	475	1190	380	7.6	100	7	120	20	55	66	**2.80**	226	782	31	18.8	<0.1	0.06	0.94	**1.6**	-2.0
22-Jul-25	252003112	505	1220	418	7.5	100	3	133	21	61	87	**1.84**	206	636	36	14.5	<0.1	<0.05	1.00	**5**	2.3
20-Oct-25	253042609	493	1200	420	7.9	101	<1.5	131	23	62	75	**1.11**	205	426	38	18.7	<0.1	<0.05	1.25	**1.9**	1.5
TOTAL SAMPLES		114	112	109	113	114	98	94	94	94	94	113	86	109	112	112	114	114	113	112	
AVERAGE 2025		491	1203	406	7.7	100	3	128	21	59	76	1.917	212	615	35	17.3	<0.1	<0.05	1.06	3	

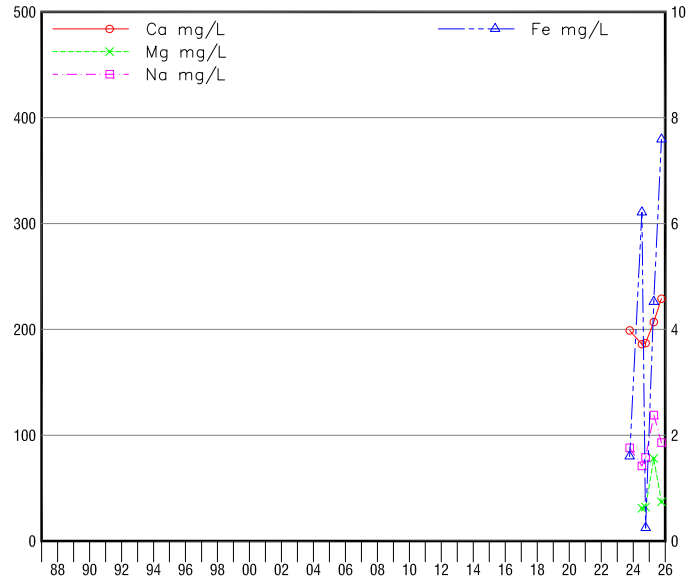
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









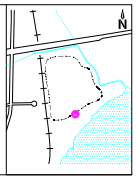


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH6R

FORMERLY 6X
CONVERTED Jul 13

PEAT

Screen 219.4 - 217.9 masl

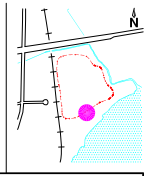
22578520 28 Nov 25	wsp	25G010

BH6R

PEAT

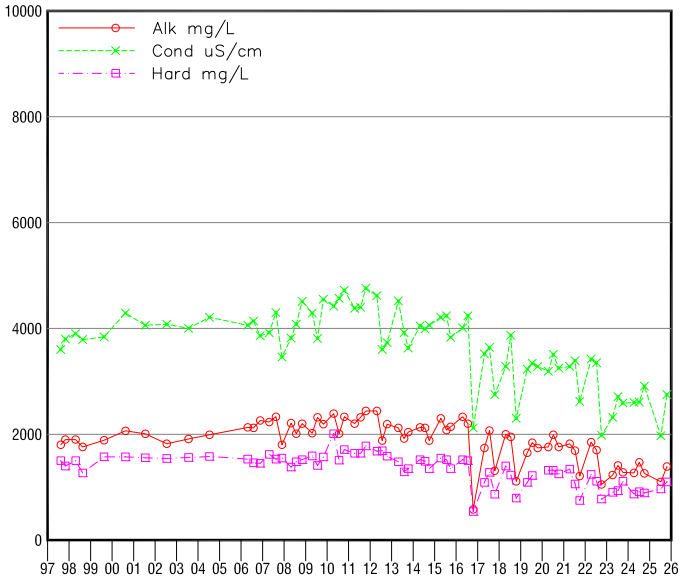
OBSERVATION WELL
Screen 219.4 - 217.9 masl

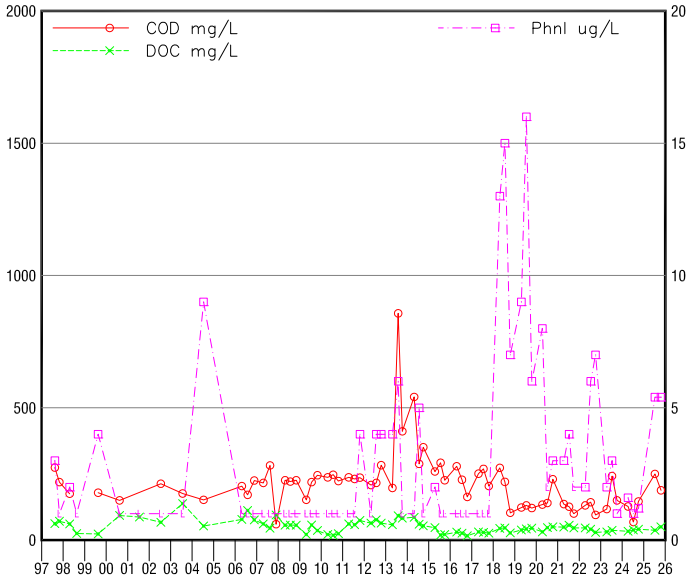
FORMERLY BH6X
CONVERTED Jul 13

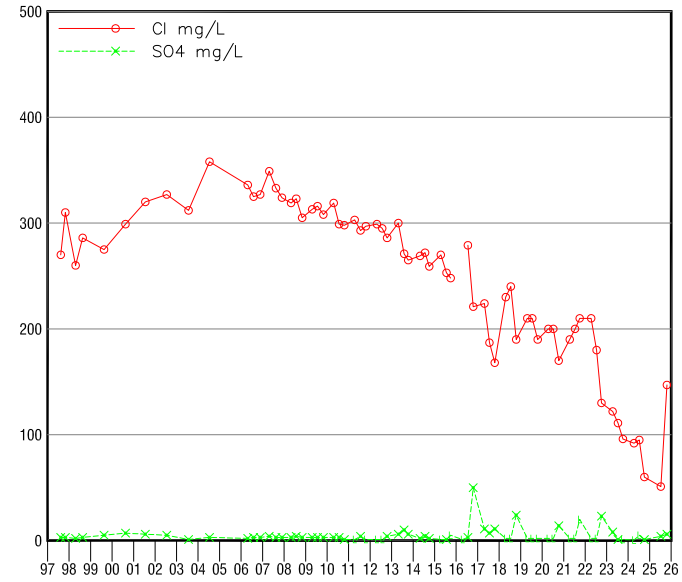


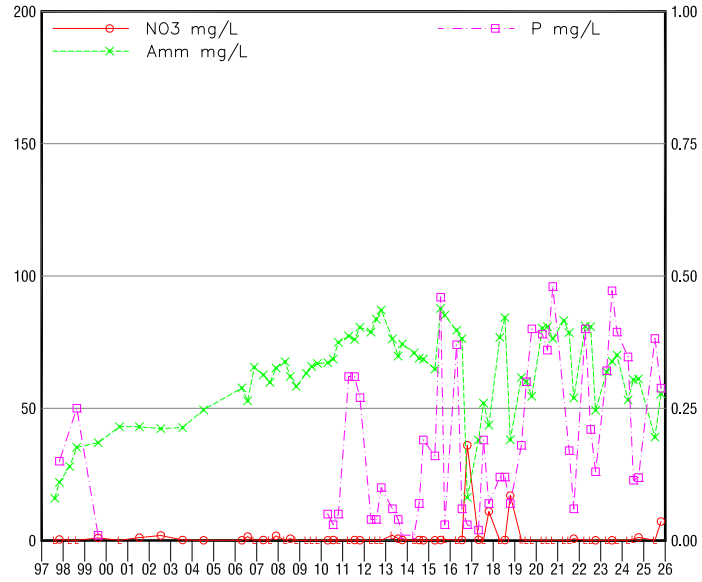
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
28-Jul-15	3055													143							
06-Oct-15	3109													102							
27-Apr-16	3180													317							
29-Jul-16	3222													342							
26-Oct-16	3308													520							
02-May-17	3347													375							
25-Jul-17	3415													308							
23-Oct-17	3489													329							
01-May-18	3540													139							
25-Jul-18	3597													243							
25-Oct-18	3664													252							
01-May-19	3716													403							
26-Jul-19	3772													563							
29-Oct-19	3842													360							
17-Apr-20	3878													449							
14-Jul-20	3936													482							
07-Oct-20	3975													387							
21-Apr-21	4047													413							
16-Jul-21	4102													372							
04-Oct-21	4159													340							
20-Apr-22	4225													225							
13-Oct-22	4380													91							
18-Apr-23	4432													140							
18-Jul-23	4487	845			6.9	84	<1							133			0.1	<0.1			2.7
12-Oct-23	4558	841			6.8	89	<1	199		88	28	**1.60**	796	143			<0.1	<0.1	34.1		4.4
15-Apr-24	4595	857			7.0	79	<2.5							70			<0.3	<0.3	43.8		
17-Jul-24	4665	779		590	6.8	50	<0.5	186	31	71	27	**6.21**	820	111			<0.1	<0.1	32.6		3.3
10-Oct-24	2067115	730	1800	597	7.3	50	<0.5	187	32	79	27	0.248	872	162		35.3	<0.1	<0.1	28.1	**2**	6.1
15-Apr-25	250864105	1090	1970	837	7.7	72	11	207	78	119	58	**4.52**	506	420	30	62.1	0.6	0.5	50.8	**1.4**	4.7
08-Oct-25	252881508	819	1840	722	7.0	130	19	229	37	93	35	**7.59**	1000	297	35	38.3	<0.1	<0.05	27.6	**2.5**	2.9
TOTAL SAMPLES		8	5	4	9	8	8	5	4	5	5	5	5	57	2	5	9	9	8	3	
AVERAGE 2025		955	1905	780	7.4	101	15	218	58	106	47	6.055	753	359	33	50.2	0.3	0.3	39.2	1.95	

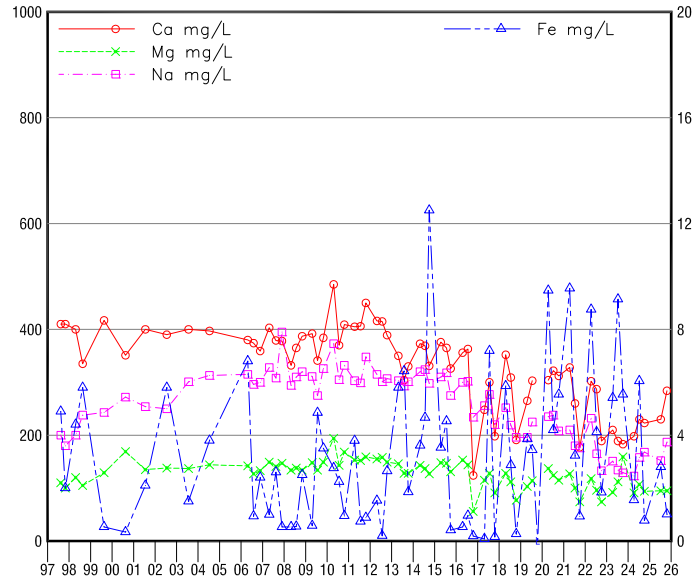
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



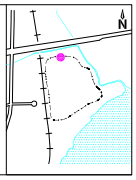








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH8R

FORMERLY 8X
CONVERTED Jul 13

PEAT

Screen 219.0 - 217.4 masl

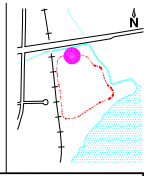
22578520 28 Nov 25	wsp	25G011

BH8R

PEAT

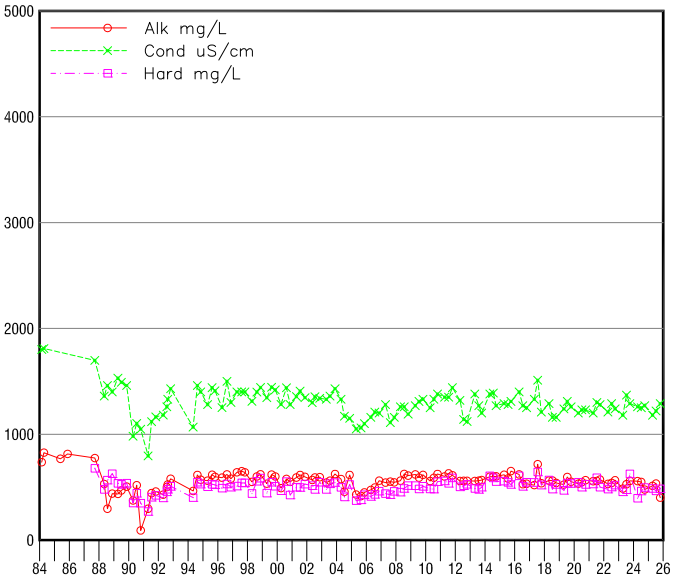
OBSERVATION WELL
Screen 219.0 - 217.4 masl

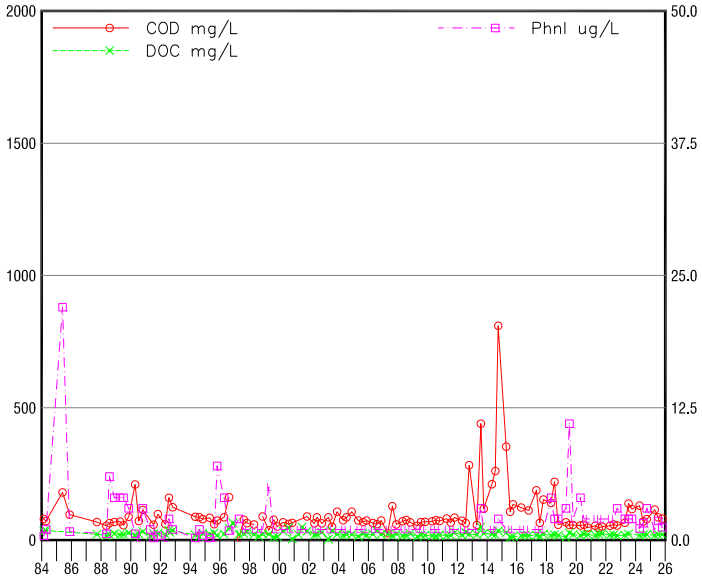
FORMERLY BH8X
CONVERTED Jul 13

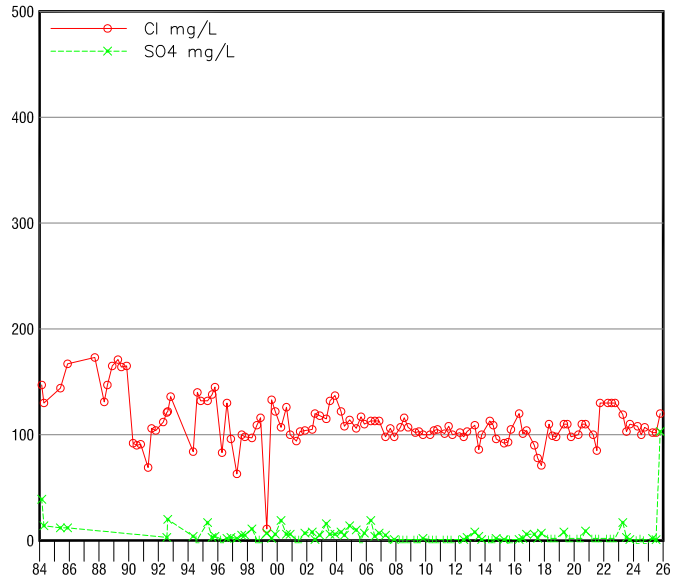


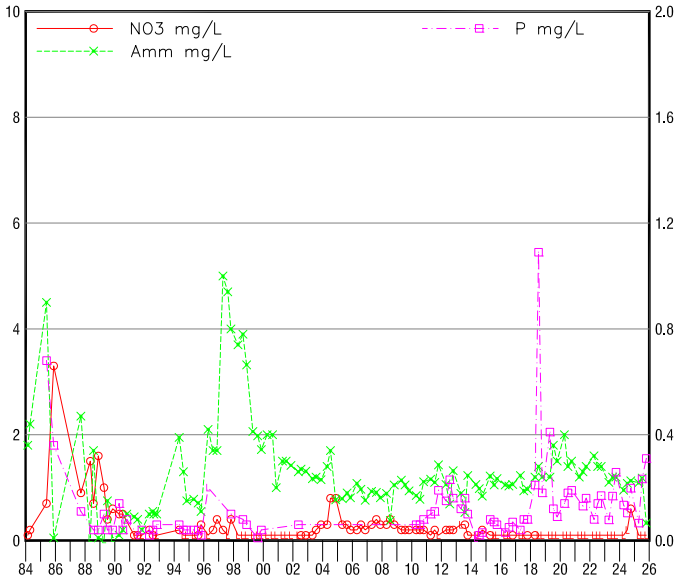
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	PhnI ug/L	Ion B %
	PWQO											0.3								1	
30-Sep-15	3095	2140	3830	1350	7.7	248	<5	326	131	275	113	**0.41**	772	226	21	92.7	<0.5	<0.5	85.1	<1	-1.8
20-Apr-16	3167	2330	4010	1520	7.6	*26*	<1	356	153	300	111	**0.53**	793	279	30	87.9	<0.1	<0.1	79.5	<1	4.7
19-Jul-16	3204	2200	4240	1500	7.7	279	3	363	144	302	117	**0.963**	765	228	26	107	0.2	<0.1	76.3	<1	-0.3
18-Oct-16	3295	579	2120	539	7.7	221	50	124	56	234	96	0.186	211	163	16	18.5	36	<0.1	16.3	<1	6.9
26-Apr-17	3330	1740	3520	1090	7.5	224	11	248	115	256	103	0.081	424	251	31	38.7	0.3	<0.1	38	<1	-3.8
20-Jul-17	3397	2070	3640	1280	7.6	187	7	300	128	277	116	**7.19**	772	269	29	65.2	<0.1	<0.1	51.9	<1	-2.5
18-Oct-17	3472	1310	2750	867	7.6	168	11	198	91	220	110	0.155	352	204	26	50.5	11	<0.1	43.6	<1	1.5
23-Apr-18	3523	2000	3280	1400	7.2	230	<2	352	128	252	120	**5.86**	941	273	44	78.0	<0.1	<0.3	76.8	**13**	1.5
18-Jul-18	3577	1950	3870	1230	7.9	240	<2	309	112	219	118	**2.87**	787	220	46	86.9	0.2	<0.1	84.3	**15**	-2.7
17-Oct-18	3649	1110	2300	793	7.3	190	24	191	77	196	100	0.268	289	103	27	38.1	17	0.3	38.1	**7**	0.7
24-Apr-19	3701	1650	3230	1090	7.0	210	<2	265	103	196	98	**3.85**	671	123	38	62.2	<0.3	<0.3	61.6	**9**	-2.1
18-Jul-19	3752	1840	3340	1220	7.1	210	<2	303	114	225	114	**3.44**	823	131	42	65.6	<0.1	<0.3	60.1	**16**	-1.3
18-Oct-19	3827	1740	3280	*<1*	7.2	190	<2	*<1*	*<1*	*0.2*	*<0.1*	<0.007	<0.1	121	45	63.2	<0.1	<0.3	54.5	**6**	-82.3
15-Apr-20	3863	1760	3190	1320	7.1	200	<2	304	137	235	114	**9.47**	832	134	31	73.4	<0.1	<0.3	80.3	**8**	5.6
09-Jul-20	3916	1990	3510	1320	7.1	200	<2	322	124	238	109	**4.20**	796	140	47	81.6	<0.1	<0.3	80.8	<2	-0.1
09-Oct-20	3976	1760	3250	1250	7.2	170	14	312	115	208	107	**5.54**	778	230	50	79.8	<0.1	<0.3	76.3	**3**	2.7
14-Apr-21	4048	1820	3280	1340	7.4	190	<2	328	127	210	110	**9.55**	958	136	49	85.8	<0.1	<0.3	83.1	**3**	-3.7
13-Jul-21	4103	1690	3390	1060	7.8	200	<2	260	100	180	104	**3.23**	628	126	56	84.8	<0.1	<0.3	78.6	**4**	-4.1
30-Sep-21	4160	1210	2620	747	7.9	210	<20	177	74	176	97	**0.934**	420	100	46	54.6	0.7	<0.3	53.9	<2	-9.2
13-Apr-22	4226	1850	3420	1240	7.6	210	<2	302	118	232	97	**8.75**	807	131	46	77.2	<0.1	<0.3	81.0	**2**	0.6
14-Jul-22	4290	1700	3350	1110	7.9	180	<2	287	96	165	98	**4.12**	658	143	41	82.9	<0.1	<0.3	80.8	**6**	-1.6
05-Oct-22	4365	1050	1980	775	7.0	130	23	189	74	133	79	**1.84**	455	95	29	50.4	0.1	0.1	49.2	**7**	3.3
13-Apr-23	4417	1230	2320	904	7.0	122	8	210	92	151	79	**5.41**	547	117	31	75.5	<0.1	0.2	63.7	**2**	5.4
12-Jul-23	4467	1410	2710	934	7.2	111	1	189	112	134	81	**9.14**	608	242	37	76.3	0.1	<0.1	67.7	**3**	-4.6
04-Oct-23	4543	1280	2590	1110	7.2	96	<1	183	159	129	70	**5.54**	539	150		62.4	<0.1	<0.1	70.1	1	2.1
09-Apr-24	4616	1270	2600	870	7.1	92	<0.5	198	91	123	69	**1.55**	699	127	33	54.8	<0.1	<0.1	53.1	**1.6**	0.6
09-Jul-24	4645	1470	2610	913	7.8	95	<5	230	107	158	87	**6.05**	608	68	38	56.9	<0.5	<0.5	60.8	1	2.9
03-Oct-24	2064050	1260	2910	891	7.7	60	0.9	223	94	168	85	**0.774**	482	146	41	73.1	1.2	<0.1	61.1	**1.2**	9.6
09-Jul-25	251839211	1100	1970	965	7.2	51	4	230	95	152	65	**2.80**	595	250	37	59.2	<0.1	0.1	39.1	**5.4**	13.0
20-Oct-25	253042610	1390	2750	1100	7.5	147	6	284	95	187	58	**1.01**	496	188	50	55.9	7.2	0.2	55.4	**5.4**	4.4
TOTAL SAMPLES		69	69	68	69	68	69	68	68	68	68	69	69	67	68	69	69	69	69	69	
AVERAGE 2025		1245	2360	1033	7.4	99	5	257	95	170	62	1.905	546	219	44	57.6	3.6	0.2	47.3	5.40	

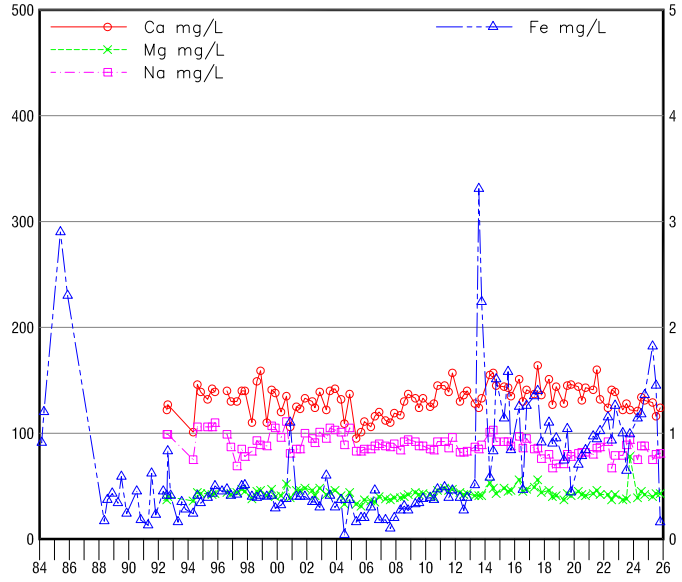
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









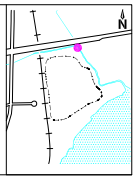


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH10R

FORMERLY 10
CONVERTED Jul 13

PEAT

Screen 218.8 - 217.2 masl

22578520
28 Nov 25

wsp

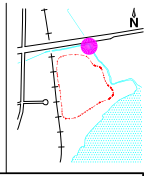
25G012

BH10R

PEAT

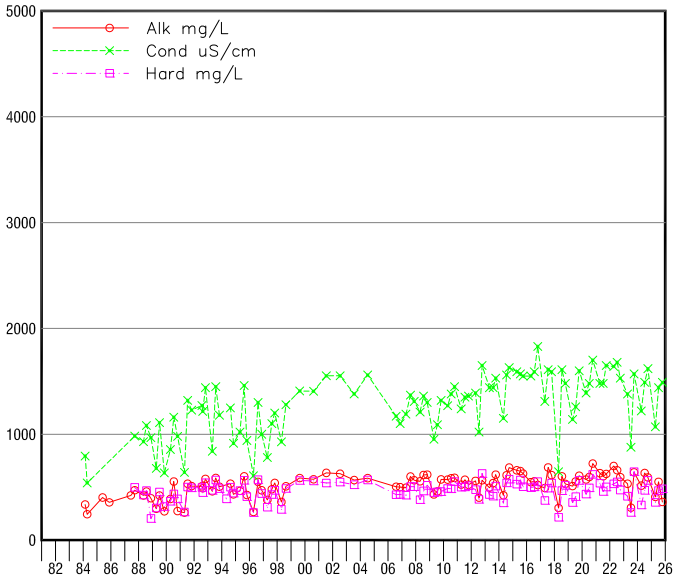
OBSERVATION WELL
Screen 218.8 - 217.2 masl

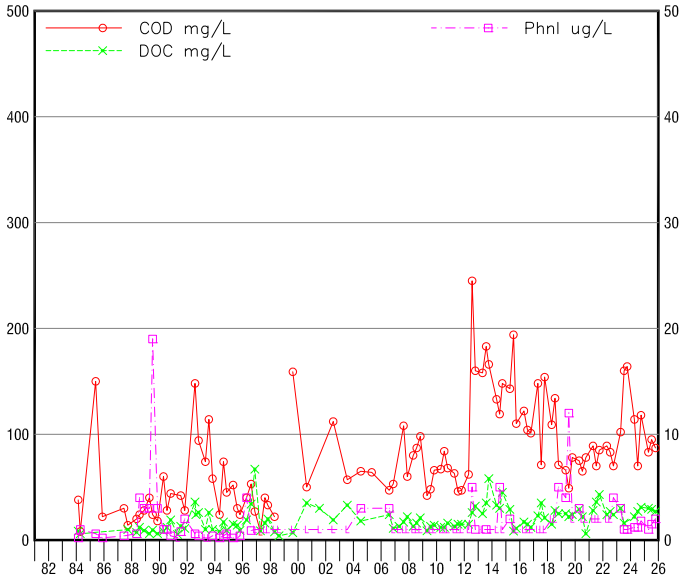
FORMERLY BH10
CONVERTED Jul 13

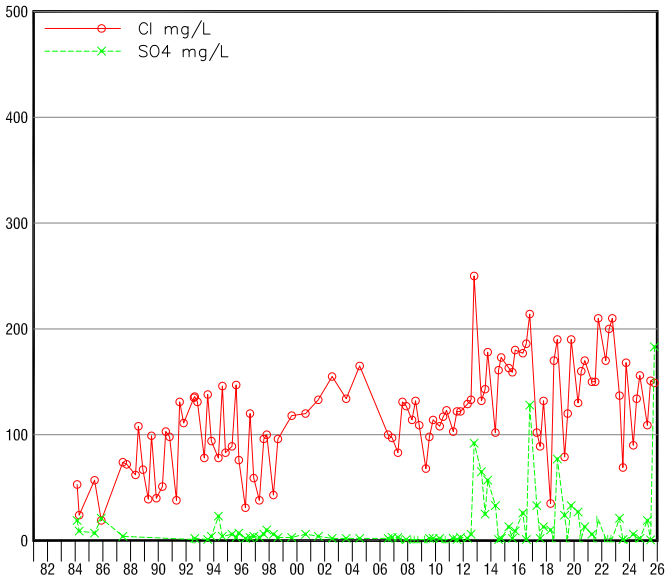


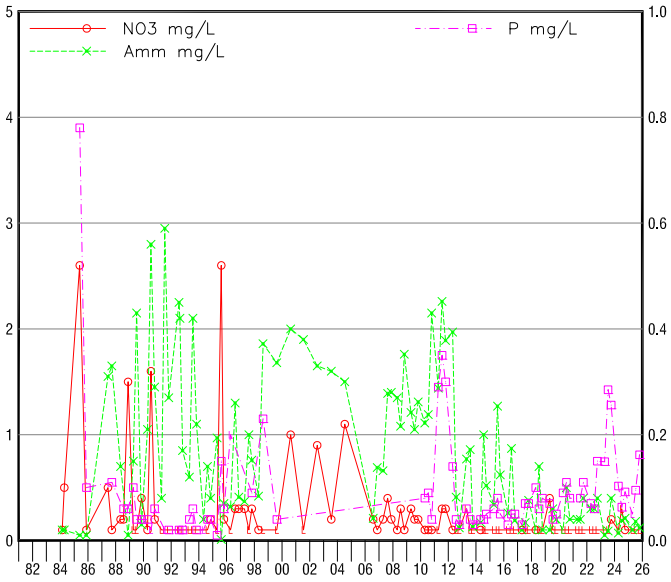
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
20-Apr-16	3168	620	1400	607	7.9	120	1	151	56	97	21	**1.25**	360	123	16	2.7	<0.1	<0.1	1.05	<1	3.7
20-Jul-16	3205	528	1270	508	7.9	101	2	130	45	86	26	**0.466**	311		18	4.3	<0.1	<0.1	1.03	<1	4.4
19-Oct-16	3296	532	1250	546	7.9	104	6	141	47	95	25	**1.26**	336	112	17	2.5	0.1	<0.1	1.06	<1	7.1
27-Apr-17	3331	519	1330	544	7.8	90	6	137	49	85	18	**1.35**	344	188	18	2.6	<0.1	<0.1	1.23	<1	7.5
20-Jul-17	3398	717	1510	643	7.9	78	2	164	56	86	24	**1.40**	451	65	15	2.8	<0.1	<0.1	0.94	<1	2.1
18-Oct-17	3473	537	1210	520	7.8	71	7	136	44	76	24	**0.913**	385	153	22	2.5	0.1	<0.1	0.97	<1	5.6
23-Apr-18	3524	562	1290	568	7.8	110	<2	151	46	80	21	**1.10**	395	140	18	1.8	0.1	<0.1	1.2	**4**	3.8
18-Jul-18	3578	563	1160	481	7.8	99	<2	127	40	67	24	**0.902**	358	220	20	2.4	<0.1	<0.1	1.4	**2**	-2.8
17-Oct-18	3650	540	1160	526	7.8	98	<2	144	41	71	22	**0.952**	359	58	18	2.1	<0.1	<0.1	1.2	**2**	2.8
25-Apr-19	3702	524	1240	470	7.8	110	8	128	37	71	21	**0.742**	304	67	11	2.4	<0.1	<0.1	1.2	**3**	-2.1
18-Jul-19	3753	596	1310	538	7.7	110	<2	145	43	80	25	**1.04**	389	57	28	3.1	<0.1	<0.1	1.8	**11**	0.2
18-Oct-19	3828	551	1260	534	8.0	98	<2	146	41	78	24	**0.442**	355	57	21	2.5	<0.1	<0.1	1.5	<2	3.6
15-Apr-20	3864	533	1200	547	7.5	100	<2	144	45	81	26	**0.703**	362	55	18	2.5	<0.1	<0.1	2.0	**4**	6.3
10-Jul-20	3917	548	1230	500	7.6	110	<2	131	42	82	21	**0.784**	318	58	23	1.0	<0.1	<0.1	1.4	<2	0.7
09-Oct-20	3977	566	1230	526	7.6	110	9	143	41	82	22	**0.840**	343	47	21	2.9	<0.1	<0.1	1.5	<2	0.6
14-Apr-21	4049	556	1200	530	8.0	100	<2	141	43	80	23	**0.970**	329	54	18	2.2	<0.1	<0.1	1.2	<2	3.4
13-Jul-21	4104	558	1300	588	8.1	85	<2	160	46	86	24	**0.943**	363	46	22	2.1	<0.1	<0.1	1.3	<2	9.1
30-Sep-21	4161	572	1280	500	8.2	130	<2	132	42	87	24	**1.02**	350	51	24	2.7	<0.1	<0.1	1.4	<2	-1.7
13-Apr-22	4227	531	1210	481	7.9	130	<2	124	42	92	23	**1.15**	455	54	19	2.9	<0.1	<0.1	1.6	<2	0.4
13-Jul-22	4291	540	1290	502	8.1	130	<2	141	37	67	21	**0.931**	358	59	20	2.8	<0.1	<0.1	1.4	<2	-3.0
05-Oct-22	4366	565	1240	519	7.8	130	<2	139	42	79	22	**1.26**	365	55	17	2.3	<0.1	<0.1	1.4	**3**	-1.5
13-Apr-23	4418	486	1180	456	7.6	119	17	122	37	79	22	**1.00**	342	65	19	4.3	<0.1	0.2	1.1	**2**	-0.7
13-Jul-23	4468	528	1370	476	7.6	103	3	128	38	89	24	**0.645**	363	138	23	3.6	<0.1	<0.1	1.2	**2**	10.3
05-Oct-23	4544	559	1290	625	7.8	110	1	122	78	94	22	**0.990**	295	117		4.8	<0.1	<0.1	1.2	**2**	8.5
11-Apr-24	4617	557	1260	395	7.7	108	<0.5	121	39	75	19	**1.14**	356	130	18	1.7	<0.1	<0.1	0.95	**1.1**	-3.8
11-Jul-24	4646	549	1250	463	7.9	100	<2	134	45	88	21	**1.18**	340	70	20	1.7	<0.2	<0.2	1.08	**1.6**	3.8
03-Oct-24	2064051	477	1270	497	7.9	107	<0.5	131	42	88	21	**1.36**	359	79	21	4.3	0.6	<0.1	1.13	**3**	7.0
15-Apr-25	250864106	512	1180	488	7.8	102	2	129	40	75	15	**1.82**	433	115	18	2.9	<0.1	<0.05	1.09	<1	1.1
09-Jul-25	251839214	534	1220	465	8.3	102	0.8	116	43	80	19	**1.45**	372	86	21	3.1	<0.1	0.04	1.18	**1.8**	-0.7
20-Oct-25	253042611	401	1290	485	7.5	120	103	124	43	81	21	0.159	122	81	21	2.4	<0.1	<0.05	0.33	**1.2**	1.1
TOTAL SAMPLES		117	115	113	116	117	101	97	97	96	96	118	93	110	114	116	116	116	117	115	
AVERAGE 2025		482	1230	479	7.9	108	35	123	42	79	18	1.143	309	94	20	2.8	<0.1	<0.05	0.87	1.00	

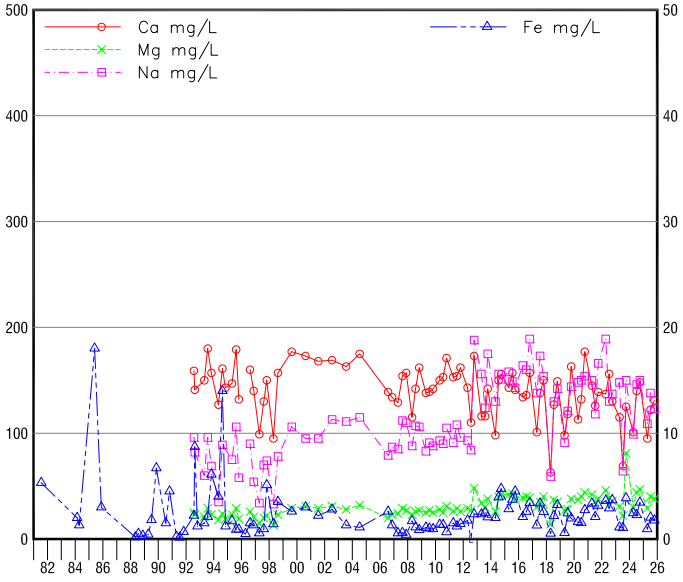
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









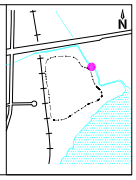


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH11R

FORMERLY 11
CONVERTED Jul 12

PEAT

Screen 218.9 - 217.7 masl

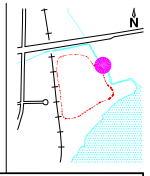
22578520 28 Nov 25	wsp	25G013

BH11R

PEAT

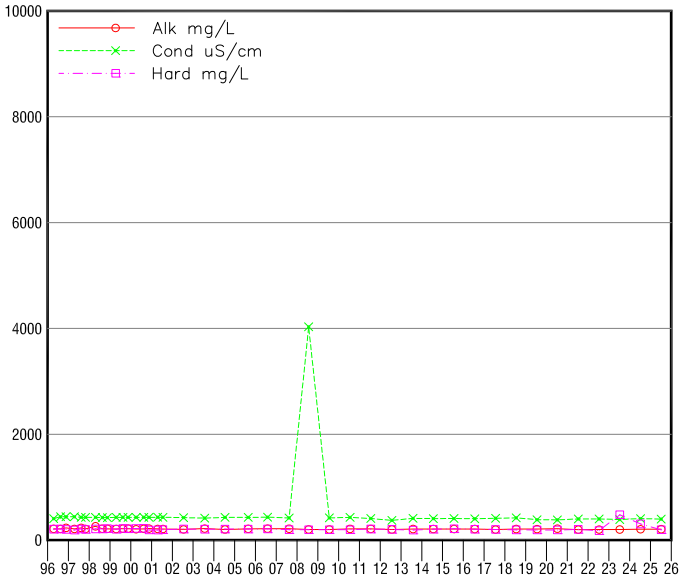
OBSERVATION WELL
Screen 218.9 - 217.7 masl

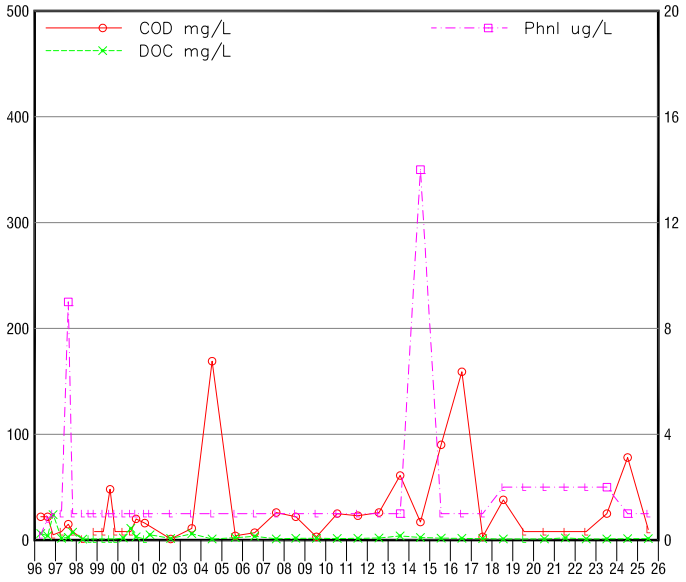
FORMERLY BH11
CONVERTED Jul 12

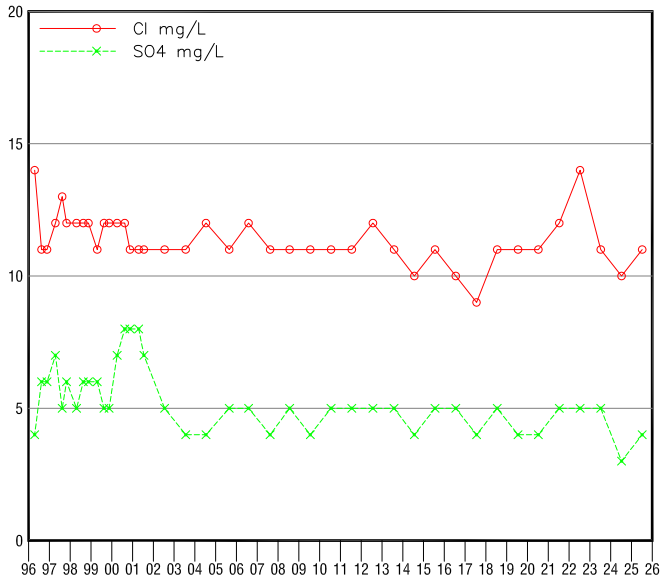


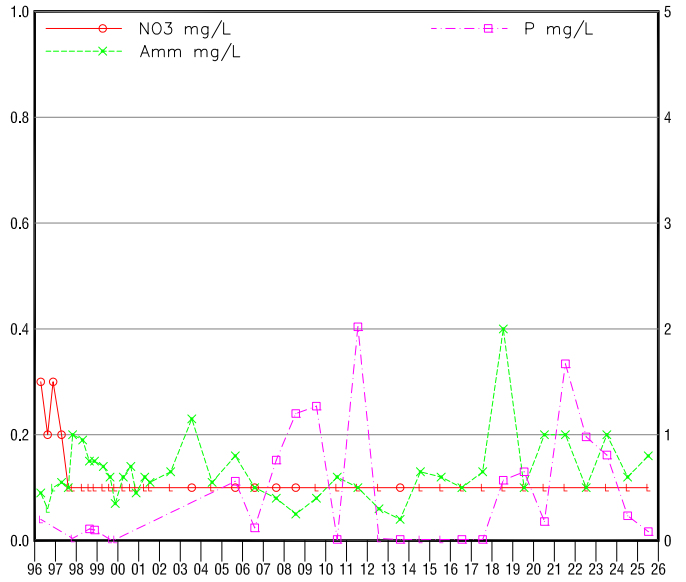
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
21-Apr-16	3169	547	1550	495	7.7	177	26	134	39	164	33	**2.08**	324	122	17	1.8	<0.1	<0.1	0.26	<1	4.4
22-Jul-16	3206	555	1590	503	7.6	186	1	136	40	160	38	**2.57**	328	104	15	2.7	<0.1	<0.1	0.87	<1	5.2
20-Oct-16	3297	520	1830	553	7.6	214	128	157	39	189	39	**3.41**	338	101	12	1.8	<0.1	<0.1	0.19	<1	3.3
25-Apr-17	3332	492	1310	374	7.7	102	33	101	30	138	27	**1.29**	209	148	23	1.7	0.1	<0.1	0.1	<1	3.1
21-Jul-17	3399	686	1610	491	7.6	89	2	138	35	173	29	**3.37**	617	71	35	2.2	<0.1	<0.1	0.17	<1	5.5
19-Oct-17	3474	614	1590	539	7.6	132	13	150	40	154	34	**2.55**	302	154	21	2.0	<0.1	<0.1	0.38	<1	6.3
23-Apr-18	3525	303	646	215	7.3	35	10	63	14	59	10	**0.516**	72	109	15	0.9	0.1	<0.1	<0.1	<2	−0.1
19-Jul-18	3579	602	1610	467	7.7	170	<2	127	37	130	37	**2.17**	295	134	28	2.4	<0.1	<0.1	0.7	<2	−2.2
18-Oct-18	3651	531	1480	517	7.1	190	77	149	35	142	36	**3.22**	319	71	25	<0.5	<0.1	<0.1	0.1	**5**	−0.1
26-Apr-19	3703	510	1140	355	7.0	79	24	98	27	91	23	**0.568**	148	66	25	1.4	0.4	<0.1	0.1	**4**	−5.1
18-Jul-19	3754	553	1260	410	7.3	120	<2	118	28	121	26	**2.44**	319	49	22	1.5	<0.1	<0.1	0.3	**12**	−0.7
18-Oct-19	3829	608	1600	564	7.5	190	33	163	38	144	32	**1.95**	265	78	24	1.4	<0.1	<0.1	0.2	<2	0.6
16-Apr-20	3865	572	1390	434	7.4	130	27	113	37	148	33	**1.60**	211	75	29	1.0	<0.1	<0.1	<0.1	**3**	1.3
10-Jul-20	3918	596	1480	494	7.3	160	<2	132	40	150	34	**1.51**	252	65	22	0.8	<0.1	<0.1	0.5	<2	2.8
09-Oct-20	3878	723	1700	621	7.5	170	13	177	44	154	35	**2.73**	362	78	6.0	1.7	<0.1	<0.1	0.2	<2	1.6
16-Apr-21	4050	632	1480	537	7.8	150	6	145	42	150	36	**3.35**	334	89	28	1.4	<0.1	<0.1	0.2	<2	2.9
12-Jul-21	4105	603	1480	459	7.8	150	<2	126	35	118	34	**2.09**	285	70	36	1.8	<0.1	<0.1	0.2	<2	−3.0
29-Sep-21	4162	625	1650	502	8.1	210	<20	139	38	166	32	**3.14**	326	85	43	1.9	<0.1	<0.1	0.4	<2	−0.3
14-Apr-22	4228	700	1640	531	7.6	170	<2	137	46	189	38	**3.62**	316	89	24	1.4	<0.1	<0.1	0.3	<2	2.9
14-Jul-22	4292	660	1680	549	7.7	200	<2	156	39	130	33	**2.90**	336	83	27	1.7	<0.1	<0.1	0.3	<2	−3.4
05-Oct-22	4367	595	1530	473	7.5	210	<2	130	36	137	25	**3.67**	394	70	24	1.4	<0.1	<0.1	0.4	**4**	−4.8
13-Apr-23	4419	532	1380	414	7.6	137	21	115	31	148	26	**1.10**	172	102	30	3.2	<0.1	0.3	0.05	**3**	1.7
13-Jul-23	4469	306	877	261	7.6	69	1	69	22	64	12	**1.04**	156	160	16	3.0	<0.1	<0.1	0.09	1	6.8
03-Oct-23	4545	640	1570	646	7.7	168	<1	125	81	150	23	**3.85**	386	164		3.3	0.2	<0.1	0.4	1	5.3
11-Apr-24	4618	514	1220	332	7.2	90	6	101	30	99	22	**2.45**	242	114	22	1.2	<0.1	<0.1	0.07	**1.2**	−1.7
09-Jul-24	4647	634	1490	470	7.9	134	<2.5	140	44	146	30	**2.26**	328	70	27	1.1	<0.3	<0.3	0.19	**1.2**	4.0
02-Oct-24	2064052	592	1620	564	7.6	156	2	148	47	150	30	**3.45**	353	118	31	3.8	0.1	<0.1	0.21	**1.8**	6.8
16-Apr-25	250864107	408	1070	356	7.7	109	19	95	29	109	24	**0.937**	156	83	30	1.6	<0.1	<0.05	0.10	1	3.7
09-Jul-25	251839217	550	1440	467	7.2	151	0.6	122	40	138	32	**2.02**	255	95	29	2.2	<0.1	<0.02	0.18	**1.5**	2.9
20-Oct-25	253042606	360	1490	484	7.2	149	183	131	38	123	25	**1.76**	276	87	27	1.9	<0.1	<0.05	0.12	**2**	1.6
TOTAL SAMPLES		102	99	98	101	103	87	83	83	82	82	101	76	99	99	101	102	103	102	101	
AVERAGE 2025		439	1333	436	7.4	136	68	116	36	123	27	1.572	229	88	29	1.9	<0.1	<0.05	0.13	2	

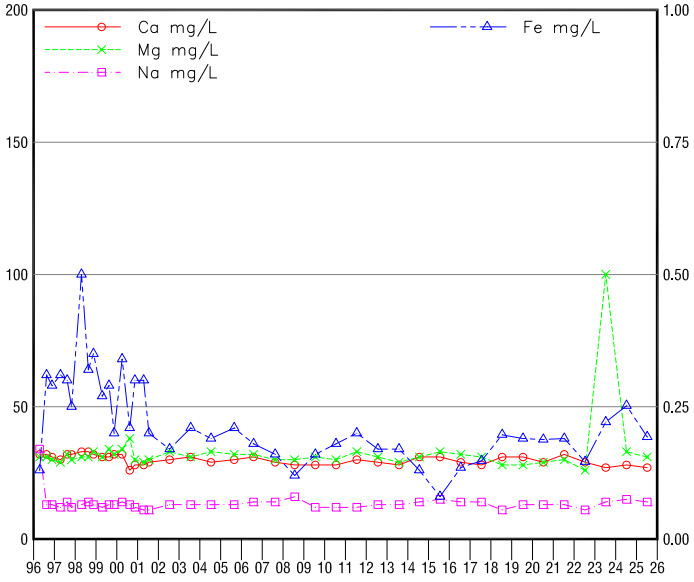
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









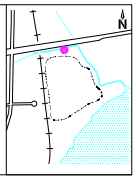


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH14-I

SAND AQUIFER

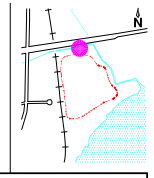
Screen 208.5 - 207.8 masl

22578520 28 Nov 25	wsp	25G014

BH14-I

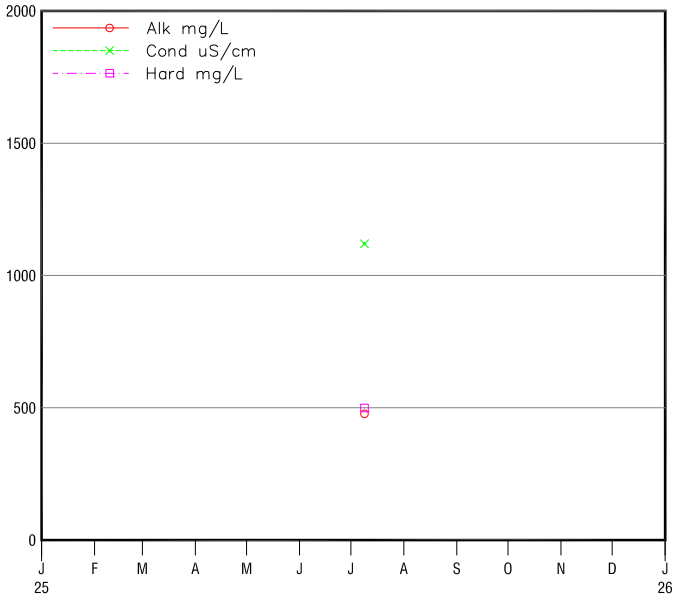
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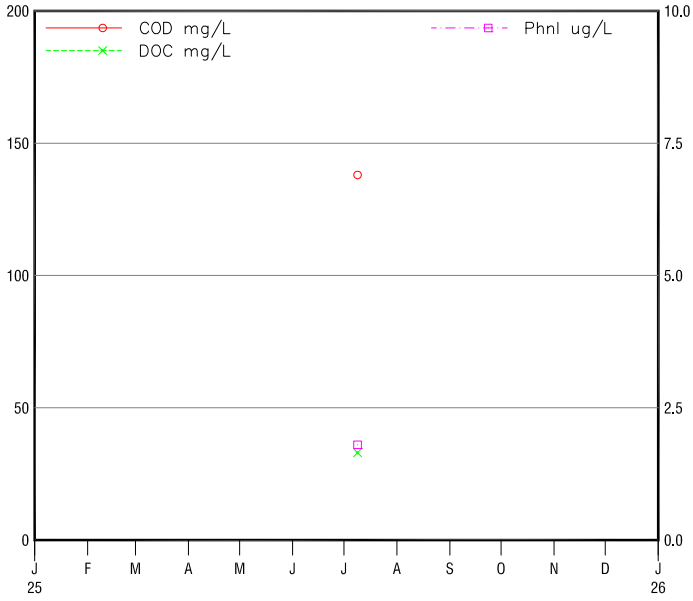
OBSERVATION WELL
Screen 208.5 - 207.8 masl

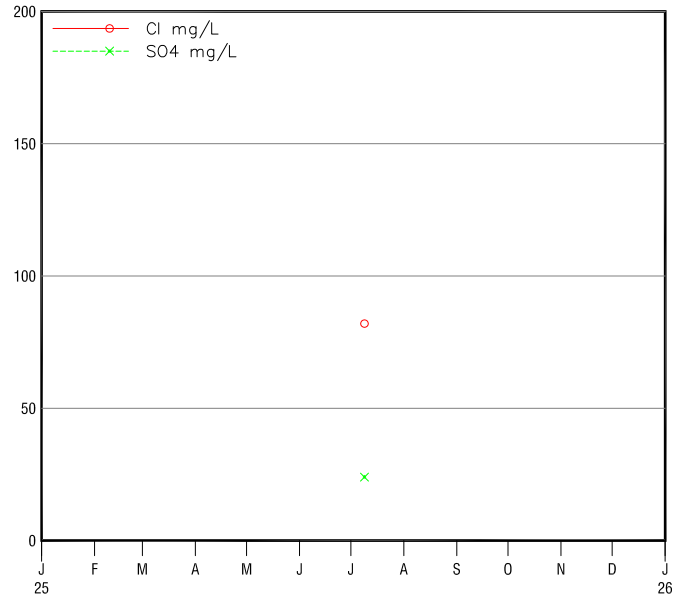


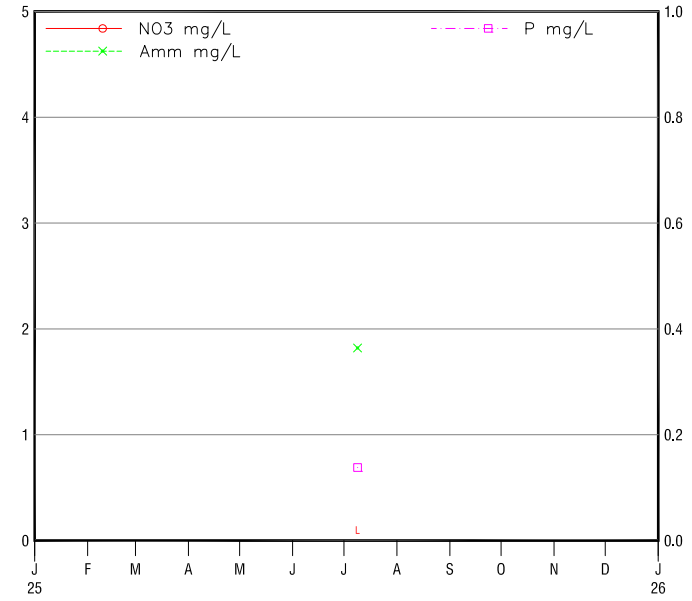
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
16-Nov-99	100109	216	429	214	7.9	12	5	32	32	13	2.0	0.20	32	<8	<1.0	0.1	<0.1	<0.1	0.07	<1	1.6
05-Apr-00	100110	204	429	218	7.8	12	7	32	34	14	2.0	**0.34**	10	<8	2.0	0.2	<0.1	<0.1	0.12	<1	5.3
16-Aug-00	100111	213	430	221	8.0	12	8	26	38	13	2.0	0.21	13	<8	11	0.3	<0.1	<0.1	0.14	<1	3.0
16-Nov-00	100112	216	429	191	6.5	11	8	28	30	12	2.0	0.30	5	20	3.0	0.2	<0.1	<0.1	0.09	<1	-3.6
19-Apr-01	100113	210	431	190	8.1	11	8	28	29	11	2.0	0.30	18	16	<1.0	0.2	<0.1	<0.1	0.12	<1	-3.8
19-Jul-01	100114	209	430	196	8.0	11	7	29	30	11	2.0	0.20	5		5.0	0.3	<0.1	<0.1	0.11	<1	-1.9
18-Jul-02	100115	201	424	208	7.8	11	5	30	33	13	1.8	0.17	<5	1	1.5	0.2	<0.1	<0.1	0.13	<1	4.4
23-Jul-03	102492	216	415	205	8.1	11	4	31	31	13	1.8	0.21	9	11	6.0	0.4	0.1	<0.1	0.23	<1	0.2
14-Jul-04	1213	200	428	207	7.9	12	4	29	33	13	1.7	0.19	9	169	1.0	0.2	<0.1	<0.1	0.11	<1	4.0
26-Aug-05	58263	212	428	207	8.4	11	5	30	32	13	0.2	0.21	9	4	2.2	0.2	0.1	<0.1	0.16	<1	0.7
01-Aug-06	6813	215	432	211	7.9	12	5	31	32	14	1.9	0.18	9	7	3.6	3.0	0.1	<0.1	0.10	<1	1.1
15-Aug-07	78153	214	418	196	8.0	11	4	29	30	14	2.0	0.16	9	26	1.1	0.2	0.1	<0.1	0.08	<1	-1.0
23-Jul-08	87233	200	4030	195	8.0	11	5	28	30	16	3.6	0.12	9	22	1.7	0.3	0.1	<0.1	0.05	<1	2.7
21-Jul-09	B09-236	200	419	195	7.6	11	4	28	31	12	2.0	0.16	9	3	1.7	0.2	<0.1	<0.1	0.08	<1	1.6
21-Jul-10	2086	211	428	195	8.0	11	5	28	30	12	1.7	0.18	4	25	1.5	0.3	<0.1	<0.1	0.12	<1	-2.0
20-Jul-11	2249	211	408	208	7.9	11	5	30	33	12	2.0	0.20	8	23	1.6	0.2	<0.1	<0.1	0.10	<1	1.8
25-Jul-12	2450	200	372	202	8.1	12	5	29	31	13	1.9	0.17	13	26	1.9	0.5	<0.1	<0.1	0.06	<1	2.0
01-Aug-13	2629	208	410	189	8.0	11	5	28	29	13	1.7	0.17	5	61	3.9	0.4	0.1	<0.1	0.04	1	-2.0
23-Jul-14	2840	209	406	204	8.0	10	4	31	31	14	1.9	0.13	10	17	2.4	0.5	<0.1	<0.1	0.13	**14**	2.4
22-Jul-15	3040	209	407	213	7.9	11	5	31	33	15	1.8	0.08	10	90	1.8	0.6	<0.1	<0.1	0.12	<1	4.0
20-Jul-16	3207	208	403	204	8.1	10	5	29	32	14	1.6	0.135	9	159	1.6	0.3	<0.1	<0.1	0.1	<1	2.2
20-Jul-17	3400	198	412	200	8.2	9	4	28	31	14	1.7	0.148	10	3	1.3	0.7	<0.1	<0.1	0.13	<1	3.6
18-Jul-18	3580	208	420	193	8.2	11	5	31	28	11	2.1	0.197	10	38	1.0	<0.5	<0.1	<0.1	0.4	<2	-1.7
19-Jul-19	3755	207	385	191	8.2	11	4	31	28	13	1.9	0.19	8.4	<8	<1.0	<0.5	<0.1	<0.1	0.1	<2	-0.6
10-Jul-20	3919	215	382	191	8.1	11	4	29	29	13	1.9	0.188	10	<8	1.0	<0.5	<0.1	<0.1	0.2	<2	-2.8
13-Jul-21	4106	197	399	202	8.1	12	5	32	30	13	1.8	0.190	8.9	<8	2.0	<0.5	<0.1	<0.1	0.2	<2	2.9
13-Jul-22	4293	198	399	178	8.2	14	5	29	26	11	1.7	0.146	8.6	<8	1.0	<0.5	<0.1	<0.1	0.1	<2	-4.2
12-Jul-23	4470	199	388	478	7.9	11	5	27	100	14	1.9	0.221	9.0	25	1.1	0.9	<0.1	<0.1	0.2	**2**	10.1
11-Jul-24	4648	204	406	305	8.1	10	3	28	33	15	1.8	0.252	8.1	78	1.3	0.3	<0.1	<0.1	0.12	1	3.9
09-Jul-25	251839212	205	396	194	8.4	11	4	27	31	14	1.9	0.193	9.0	<10	1.4	0.2	<0.1	<0.01	0.16	<1	0.4
TOTAL SAMPLES		41	41	41	41	41	41	41	41	41	41	41	41	39	41	41	41	41	41	41	
AVERAGE 2025																					

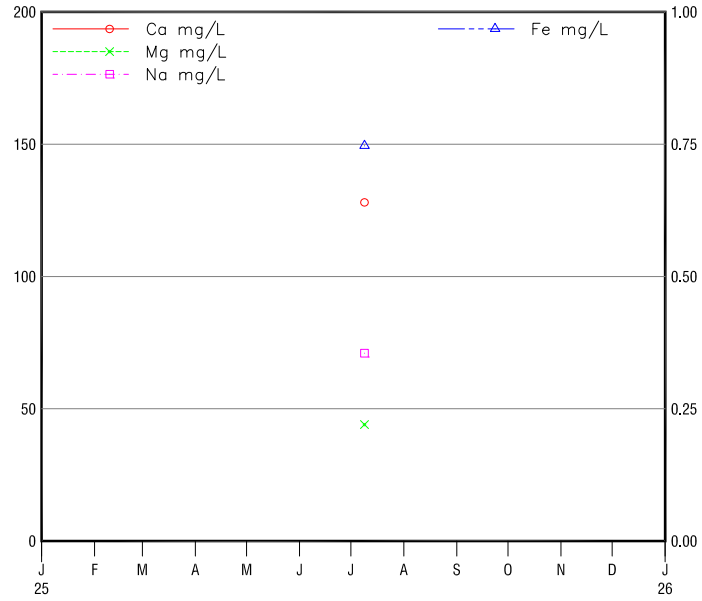
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



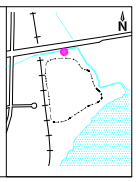








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH14-IIR

UPPER CONFINING LAYER

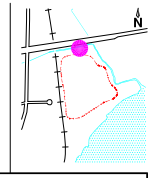
Screen 214.3 - 213.6 masl

22578520 28 Nov 25	wsp	25G015

BH14-IIR

UPPER CONFINING LAYER

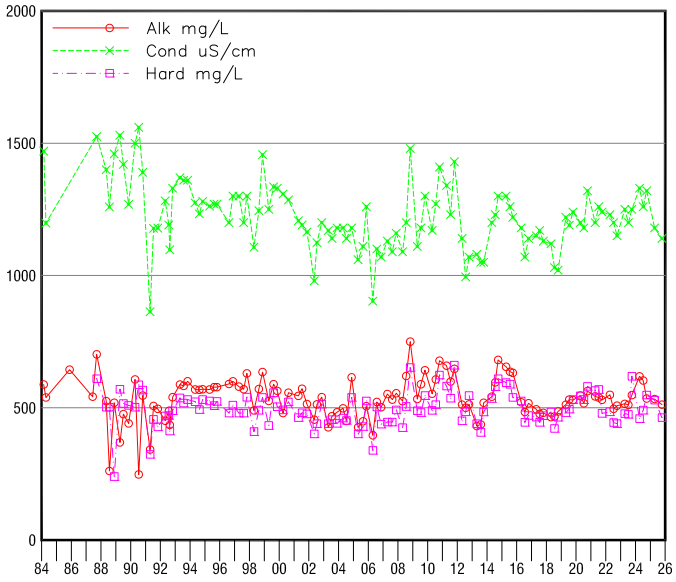
OBSERVATION WELL
Screen 214.3 - 213.6 masl

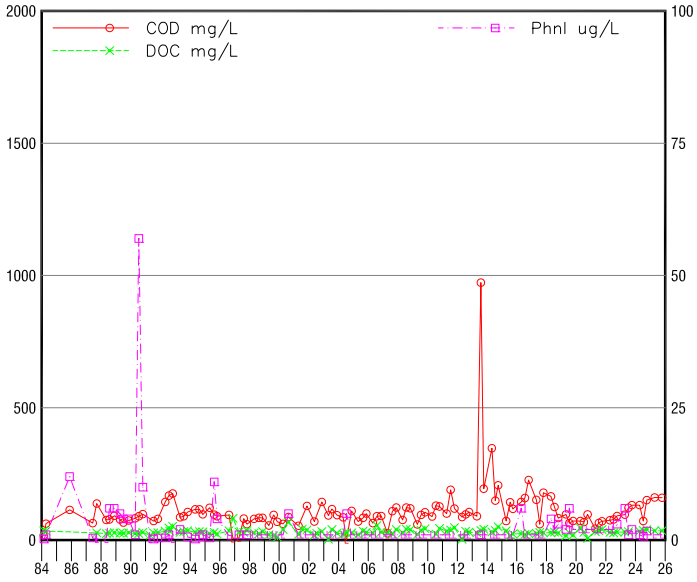


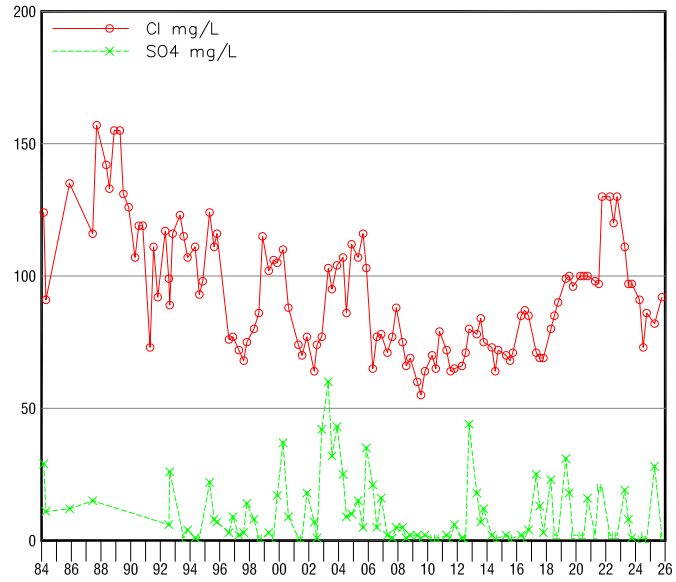
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	PhnI ug/L	Ion B %
	PWQO											0.3								1	
09-Jul-25	251839213	477	1120	499	8.1	82	24	128	44	71	21	**0.747**	437	138	33	4.8	<0.1	<0.02	1.82	**1.8**	5.3

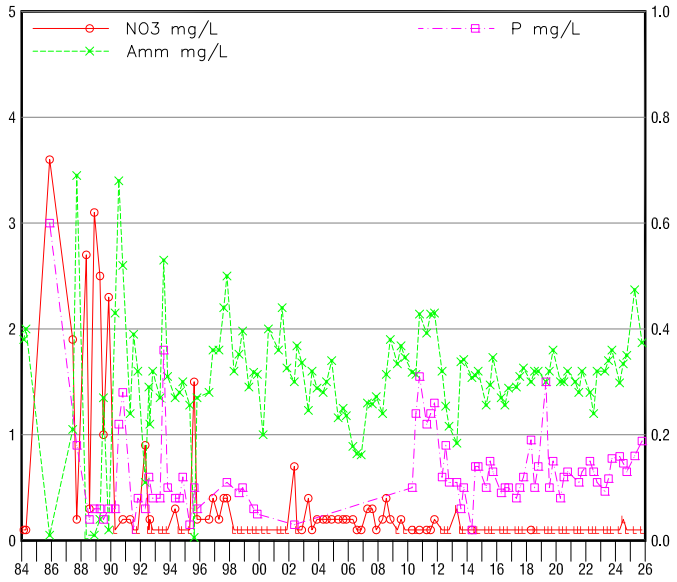
TOTAL SAMPLES	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
AVERAGE 2025																					

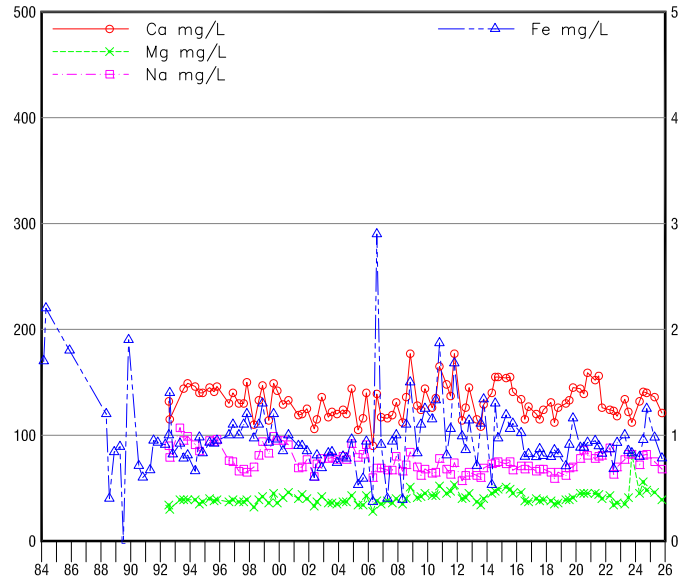
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









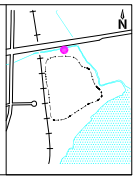


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH14-IIIR

FORMERLY 14-III
CONVERTED Jul 13

PEAT

Screen 218.9 - 217.3 masl

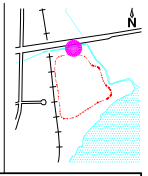
22578520 28 Nov 25	wsp	25G016

BH14-IIIR

PEAT

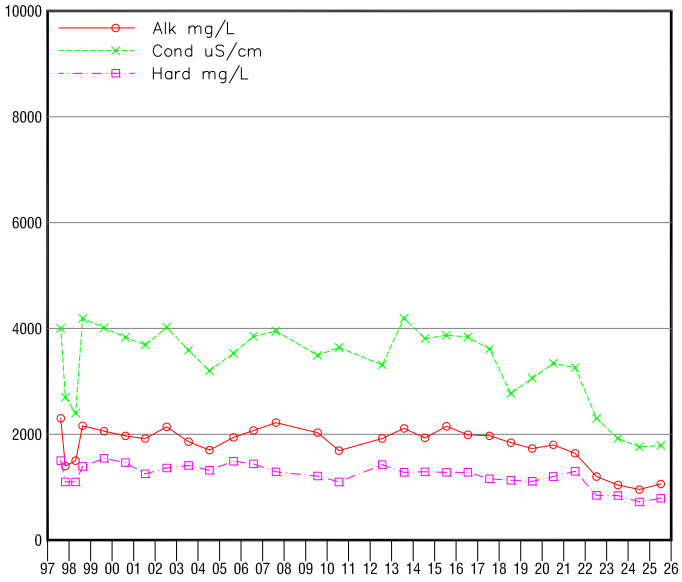
OBSERVATION WELL
Screen 218.9 - 217.3 masl

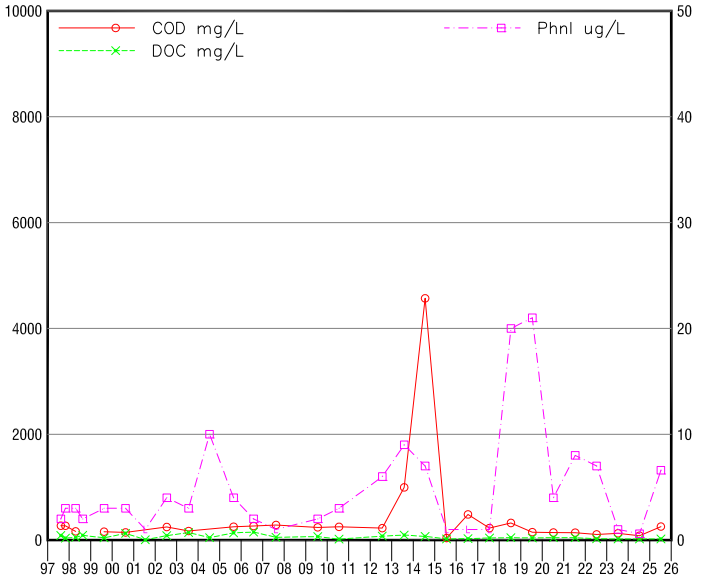
FORMERLY BH14-III
CONVERTED Jul 13

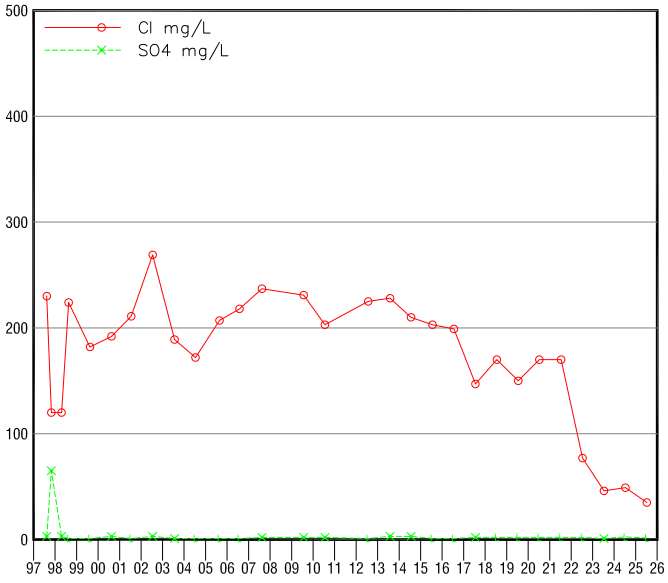


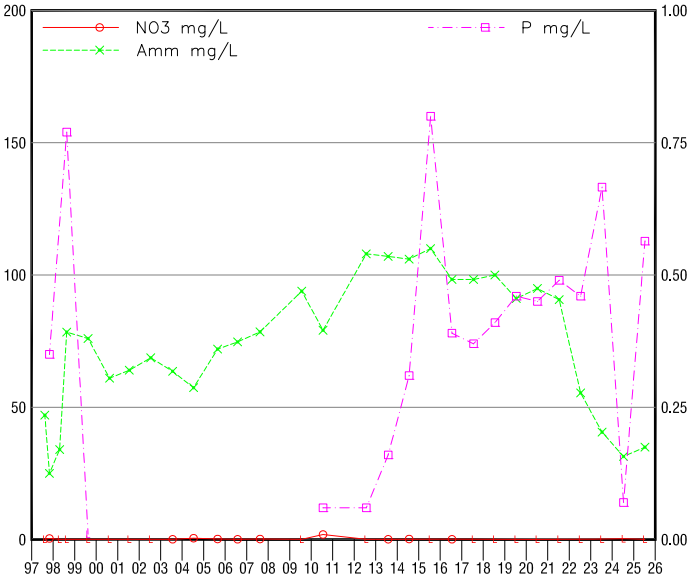
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
29-Sep-15	3098	632	1220	539	7.7	71	<1	141	45	67	24	**1.11**	489	118	23	4.3	<0.1	<0.1	1.73	<1	-0.7
20-Apr-16	3170	521	1180	526	7.8	85	2	134	46	71	24	**1.02**	487	144	24	3.5	<0.1	<0.1	1.35	**6**	5.4
20-Jul-16	3208	484	1070	445	7.8	87	<1	115	38	68	21	**0.796**	413	159	21	4.1	<0.1	<0.1	1.28	<1	1.4
19-Oct-16	3298	517	1140	471	7.9	85	4	127	37	71	23	**0.823**	421	227	25	4.2	<0.1	<0.1	1.44	<1	1.5
27-Apr-17	3333	494	1150	465	7.7	71	25	120	40	66	20	**0.794**	428	152	25	3.2	<0.1	<0.1	1.45	<1	1.6
20-Jul-17	3401	477	1170	445	7.7	69	13	115	38	68	22	**0.869**	419	60	29	3.3	<0.1	<0.1	1.55	<1	3.2
18-Oct-17	3475	481	1130	470	7.7	69	3	124	39	68	24	**0.805**	425	179	28	3.5	<0.1	<0.1	1.63	<1	6.0
23-Apr-18	3526	465	1120	484	7.5	80	23	131	38	65	23	**0.795**	430	165	28	2.7	0.1	<0.1	1.5	**4**	4.7
18-Jul-18	3581	467	1030	422	7.4	85	<2	112	35	59	23	**0.859**	389	125	30	3.8	<0.1	<0.1	1.6	<2	0.2
17-Oct-18	3652	486	1020	464	7.5	90	<2	126	36	65	22	**0.821**	378	83	27	2.3	<0.1	<0.1	1.6	**3**	2.1
25-Apr-19	3704	512	1220	482	7.5	99	31	130	39	62	22	**0.708**	450	97	16	2.6	<0.1	<0.1	1.5	**2**	-2.2
18-Jul-19	3756	531	1190	495	7.5	100	18	133	39	69	22	**0.91**	445	64	27	3.4	<0.1	<0.1	1.6	**6**	-0.9
18-Oct-19	3830	529	1240	531	7.5	96	<2	145	41	70	24	**1.16**	415	72	19	3.2	<0.1	<0.1	1.8	<2	4.2
15-Apr-20	3866	546	1200	545	7.3	100	<2	144	45	78	24	**0.883**	425	72	46	2.9	<0.1	<0.1	1.5	<2	4.5
10-Jul-20	3920	517	1180	531	7.2	100	<2	139	45	86	25	**0.881**	494	68	29	1.4	<0.1	<0.1	1.5	<2	7.0
09-Oct-20	3979	563	1320	581	7.6	100	16	159	45	81	26	**0.930**	473	97	6.0	3.7	<0.1	<0.1	1.6	<2	5.1
14-Apr-21	4051	543	1200	565	7.7	98	<2	152	45	78	25	**0.946**	462	43	32	2.6	<0.1	<0.1	1.5	<2	3.4
13-Jul-21	4107	539	1260	569	8.0	97	<20	156	44	80	25	**0.896**	513	65	35	2.4	<0.1	<0.1	1.4	<2	7.5
30-Sep-21	4163	530	1240	479	8.1	130	<20	126	40	81	25	**0.825**	419	71	40	3.2	<0.1	<0.1	1.6	<2	-1.4
12-Apr-22	4229	549	1230	485	7.8	130	<2	124	43	88	23	**0.868**	452	75	29	2.4	<0.1	<0.1	1.4	<2	-1.5
13-Jul-22	4294	496	1200	444	7.7	120	<2	123	34	63	19	**0.680**	385	78	27	2.4	<0.1	<0.1	1.2	<2	-4.1
05-Oct-22	4368	508	1150	440	7.4	130	<2	118	36	70	20	**0.928**	347	91	30	2.8	<0.1	<0.1	1.6	**3**	-4.9
13-Apr-23	4420	515	1250	478	7.7	111	19	134	35	77	22	**1.00**	436	96	30	5.2	<0.1	0.1	1.6	**6**	-0.7
12-Jul-23	4471	511	1200	475	7.5	97	8	122	41	82	23	**0.852**	449	122	32	6.7	<0.1	<0.1	1.7	1	10.0
05-Oct-23	4546	548	1250	619	7.6	97	1	112	82	82	21	**0.830**	339	132		3.1	<0.1	<0.1	1.8	**2**	7.8
11-Apr-24	4619	619	1330	459	7.3	91	<0.5	132	45	72	20	**0.797**	504	132	33	2.6	<0.1	<0.1	1.49	1	-3.1
11-Jul-24	4649	603	1260	491	7.8	73	<2	141	56	81	23	**0.956**	472	72	36	2.3	<0.2	<0.2	1.67	0.7	5.9
03-Oct-24	2064053	535	1320	548	7.5	86	<0.5	140	48	82	23	**1.25**	408	151	40	5.9	<0.1	<0.1	1.75	**1.7**	7.5
16-Apr-25	250864108	533	1180	529	7.9	82	28	136	46	75	21	**0.978**	451	161	35	6.0	<0.1	<0.05	2.37	<1	3.5
14-Oct-25	252965913	512	1140	463	8.1	92	<1.5	121	39	68	18	**0.782**	351	160	35	4.5	<0.1	<0.05	1.87	<1	0.1
TOTAL SAMPLES		117	115	113	115	117	100	97	98	97	97	114	90	113	113	114	116	117	116	115	
AVERAGE 2025		523	1160	496	8.0	87	14	129	43	72	20	0.8800	401	161	35	5.3	<0.1	<0.05	2.12	<1	

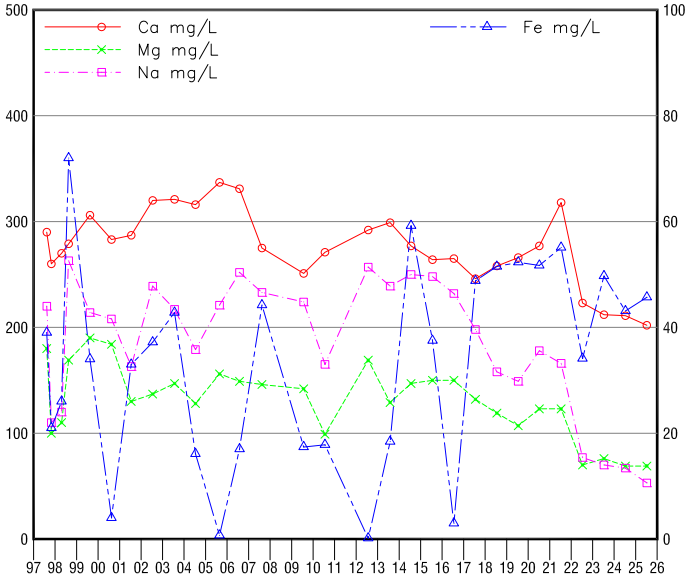
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









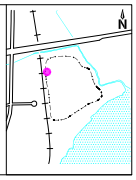


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH15-IIIR

FORMERLY 15-IIIX
CONVERTED Jul 13

FILL

Screen 219.4 - 217.9 masl

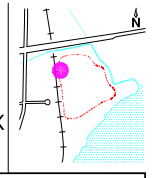
22578520 28 Nov 25	wsp	25G017

BH15-IIIR

FILL

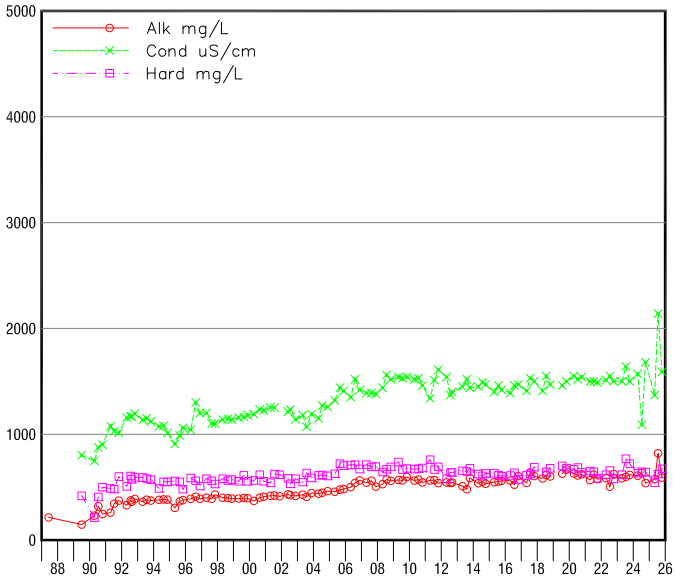
OBSERVATION WELL
Screen 219.4 - 217.9 masl

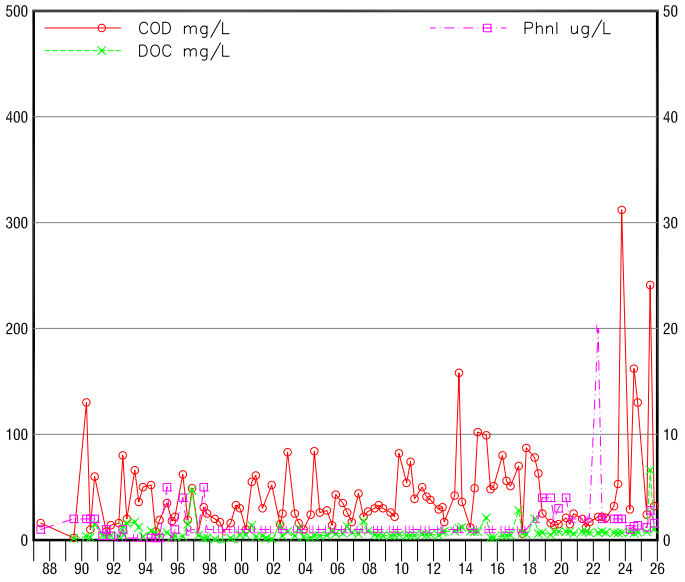
FORMERLY BH15-IIIX
CONVERTED Jul 13

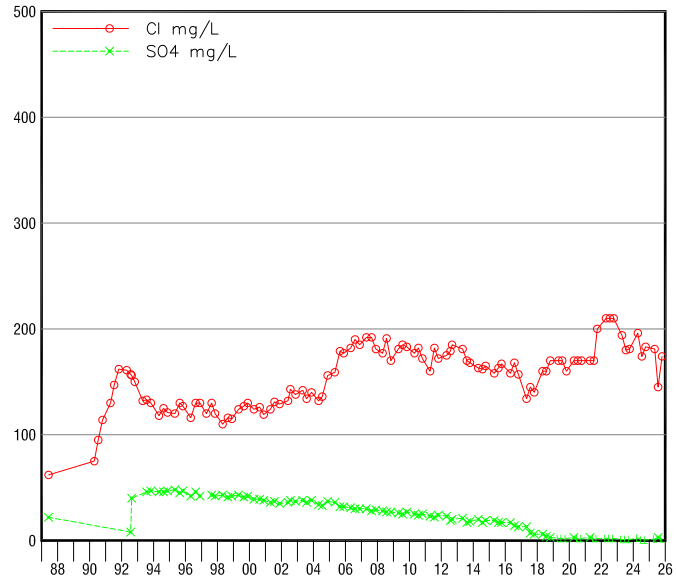


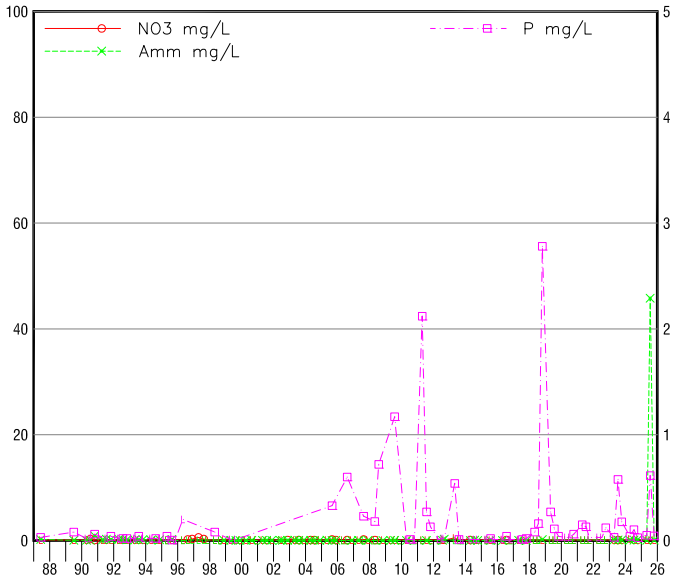
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
13-Aug-97	100167	2300	4000	1500	7.2	230	3	290	180	220	110	**39.0**	1200	271	86	78.0	<0.1	<1	47.0	**2**	-6.1
30-Oct-97	100168	1400	2700	1100	7.1	120	65	260	100	110	53	**21.0**	770	270	37	47.0	0.4	<0.5	25.0	**3**	-4.6
21-Apr-98	100169	1500	2400	1100	6.9	120	3	270	110	120	56	**26.0**	920	164	50	43.0	<0.1	<0.5	34.0	**3**	-2.8
19-Aug-98	100170	2160	4190	1392	6.5	224	<1	279	169	263	129	**72.0**	1350	*1141*	90	80.9	<0.1	<0.1	78.4	**2**	2.6
17-Aug-99	100171	2058	4010	1546	6.9	182	<1	306	190	214	111	**34.0**	1260	158	42	81.0	<0.1	<0.1	76.0	**3**	4.2
16-Aug-00	100172	1969	3830	1464	7.0	192	3	283	184	208	94	**4.0**	1200	144	127	76.0	<0.1	<0.1	61.0	**3**	0.4
18-Jul-01	100173	1918	3690	1252	6.8	211	<1	287	130	163	82	**33.0**	686		6.0	63.0	<0.1	<0.1	64.0	<1	-5.1
17-Jul-02	100174	2140	4020	1363	7.0	269	3	320	137	239	105	**37.2**	1150	247	84	86.4	<0.1	<0.1	68.7	**4**	-4.0
23-Jul-03	102496	1860	3590	1410	7.1	189	1	321	147	217	98	**42.8**	1000	171	142	82.4	0.1	<0.1	63.6	**3**	4.1
13-Jul-04	1215	1700	3200	1320	7.2	172	<1	316	128	179	84	**16.1**	892		45	64.8	0.5	<0.1	57.4	**10**	2.6
25-Aug-05	58253	1940	3530	1490	7.2	207	<1	337	156	221	105	**0.68**	839	252	137	86.3	0.2	<0.1	72.0	**4**	2.7
31-Jul-06	67313	2070	3850	1440	7.1	218	<1	331	149	252	108	**17.0**	844	265	151	88.2	0.1	<0.1	74.7	**2**	1.0
16-Aug-07	78163	2220	3950	1290	7.1	237	2	275	146	233	116	**44.2**	1000	285	52	98.5	0.2	<0.1	78.5	<1	-5.2
24-Jul-09	B09-238	2030	3490	1210	6.8	231	2	251	142	224	111	**17.4**	994	240	66	105	<0.1	<0.1	93.9	**2**	-3.3
21-Jul-10	2088	1690	3640	1100	7.4	203	2	271	99	165	70	**17.8**	779	250	18	81.1	1.9	<0.1	79.1	**3**	-3.6
25-Jul-12	2452	1920	3310	1425	8.0	225	<1	292	169	257	130	0.14	919	225	74	107	<0.1	<0.1	108	**6**	6.3
01-Aug-13	2631	2110	4190	1280	7.0	228	3	299	129	239	99	**18.4**	1890	995	94	107	0.1	<0.1	107	**9**	-2.0
22-Jul-14	2842	1930	3810	1290	7.1	210	3	277	147	250	130	**59.2**	887	4568	70	124	0.2	<0.1	106	**7**	5.6
22-Jul-15	3042	2150	3870	1280	7.3	203	<1	264	150	248	124	**37.5**	849	38	20	132	<0.1	<0.1	110	<1	0.0
19-Jul-16	3209	1990	3840	1280	7.3	199	<1	265	150	232	119	**2.96**	858	484	27	145	0.1	<0.1	98.3	<1	0.5
20-Jul-17	3402	1970	3610	1160	7.3	147	2	246	132	198	109	**48.8**	893	226	39	109	<0.1	<0.1	98.3	<1	-0.3
19-Jul-18	3582	1840	2770	1130	6.9	170	<2	258	119	158	114	**51.5**	1020	323	45	107	<0.1	<0.1	100	**20**	-0.1
17-Jul-19	3757	1730	3060	1110	6.8	150	<2	266	107	149	94	**52.3**	1150	149	40	92.9	<0.1	<0.3	91.1	**21**	0.7
09-Jul-20	3921	1800	3340	1200	6.8	170	<2	277	123	178	100	**51.7**	1080	142	46	94.7	<0.1	<0.3	94.9	**4**	2.5
14-Jul-21	4108	1640	3260	1300	7.3	170	<2	318	123	166	109	**55.1**	1160	140	45	94.4	<0.1	<0.3	90.7	**8**	8.0
13-Jul-22	4295	1200	2300	845	7.2	77	<2	223	70	77	56	**34.1**	1060	106	24	57.6	<0.1	<0.3	55.4	**7**	1.4
12-Jul-23	4472	1040	1920	841	6.7	46	1	212	76	70	43	**49.7**	1300	128	21	44.4	<0.1	<0.1	40.6	1	6.4
11-Jul-24	4650	954	1760	722	7.5	49	<2.5	211	69	67	37	**43.1**	1280	81	21	25.7	<0.3	<0.3	31.4	0.6	7.7
09-Jul-25	251839210	1060	1790	790	6.9	35	<1.5	202	69	53	35	**45.7**	1270	255	22	51.6	<0.1	<0.05	34.9	**6.6**	2.2
TOTAL SAMPLES		29	29	29	29	29	29	29	29	29	29	29	29	26	29	29	29	29	29	29	
AVERAGE 2025																					

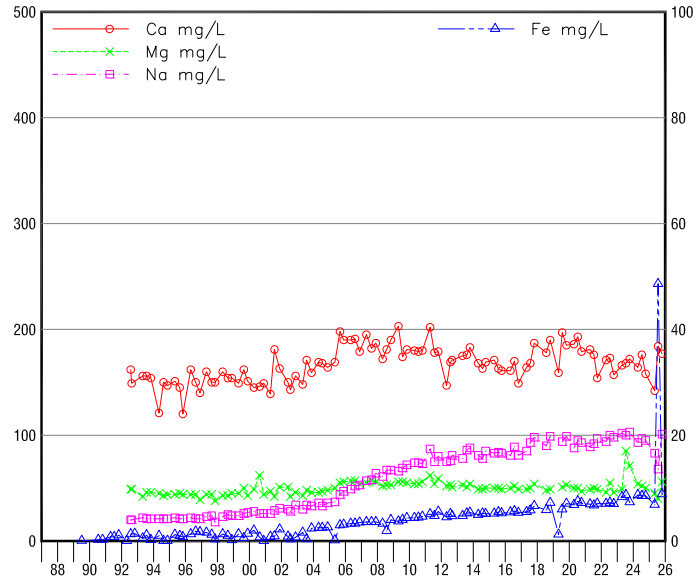
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



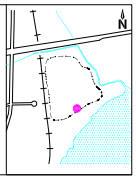








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH16-I

SAND AQUIFER

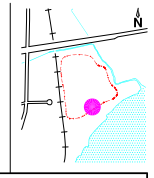
Screen 207.1 - 206.3 masl

22578520 28 Nov 25	wsp	25G018

BH16-I

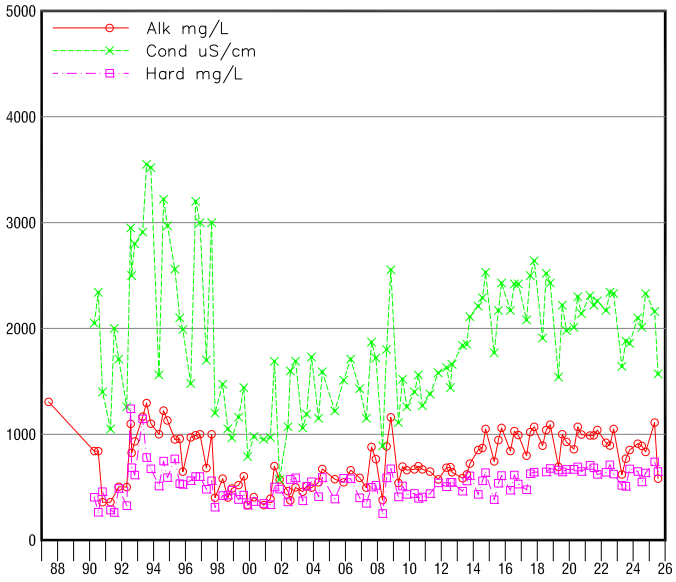
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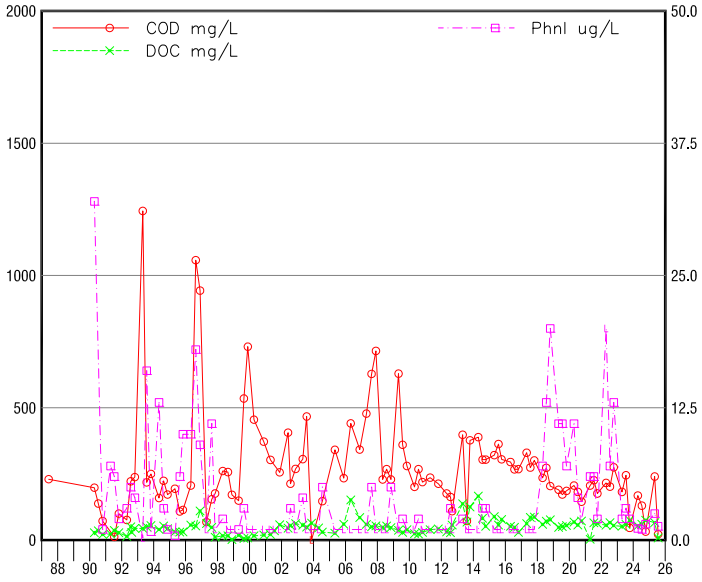
OBSERVATION WELL
Screen 207.1 - 206.3 masl

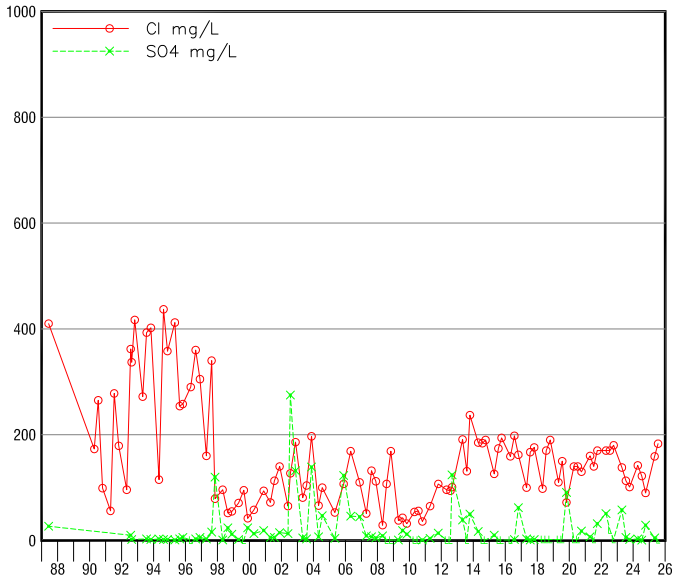


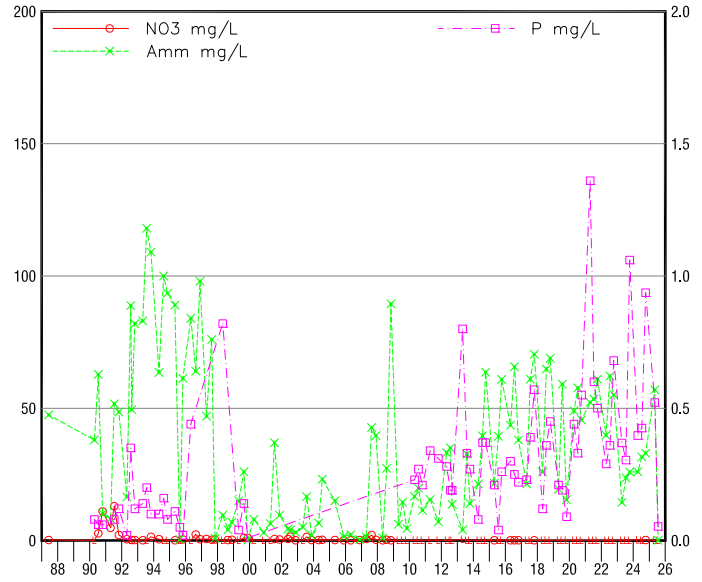
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	PhnI ug/L	Ion B %
	PWQO											0.3								1	
27-Apr-16	3181	562	1390	610	7.6	158	17	161	50	81	2.7	**5.43**	58	80	4.2	0.5	<0.1	<0.1	0.02	<1	-0.3
27-Jul-16	3223	523	1460	636	7.7	168	14	170	52	89	2.8	**5.64**	63	56	4.2	1.3	0.1	<0.1	<0.01	<1	4.7
26-Oct-16	3309	604	1470	573	7.7	157	13	149	49	81	2.5	**5.36**	59	51	4.6	0.5	<0.1	<0.1	<0.01	<1	-4.4
01-May-17	3348	539	1410	611	7.5	134	13	164	49	85	2.5	**5.51**	60	70	28	0.6	<0.1	<0.1	0.05	<1	4.4
25-Jul-17	3416	640	1530	625	7.6	145	7	168	50	93	2.7	**5.79**	60	6	6.4	0.5	<0.1	<0.1	<0.01	<1	-0.3
23-Oct-17	3490	605	1500	689	7.6	140	6	187	54	98	3.0	**6.62**	68	87	5.5	0.6	<0.1	<0.1	0.01	<1	6.3
01-May-18	3541	582	1410		7.5	160	6							78	20	<0.5	<0.1	<0.1	<0.1	<2	
25-Jul-18	3598	615	1550	644	7.4	160	4	178	48	90	3.4	**5.86**	62	63	6.0	<0.5	<0.1	<0.1	<0.1	<2	0.8
23-Oct-18	3665	601	1470	678	7.3	170	3	190	49	99	3.6	**7.23**	69	25	7.0	<0.5	<0.1	<0.1	0.2	**4**	3.8
01-May-19	3717	*304*	*1110*	*490*	8.3	170	<2	159	*23*	*60*	*93*	**1.24**	234	16	5.0	0.7	<0.1	<0.1	<0.1	**4**	15.8
24-Jul-19	3773	627	1460	701	7.0	170	<2	197	51	94	3.1	**5.98**	67	14	8.0	0.7	<0.1	<0.1	<0.1	<2	3.3
29-Oct-19	3843	666	1500	680	7.2	160	<2	185	53	99	3.1	**7.06**	70	15	8.0	0.6	<0.1	<0.1	<0.1	**3**	1.4
17-Apr-20	3879	628	1550	669	7.8	170	3	186	50	88	3.2	**6.84**	64	21	8.0	<0.5	<0.1	<0.1	<0.1	**4**	0.6
14-Jul-20	3937	610	1520	686	7.4	170	<2	193	50	95	3.3	**7.51**	65	15	8.0	0.7	<0.1	<0.1	<0.1	<2	3.7
07-Oct-20	3980	621	1540	640	7.8	170	<2	179	47	93	3.3	**7.21**	65	25	6.0	<0.5	<0.1	<0.1	<0.1	<2	0.2
21-Apr-21	4052	567	1500	652	7.7	170	3	181	49	89	3.2	**6.95**	69	20	8.0	0.6	<0.1	<0.1	<0.1	<2	3.6
16-Jul-21	4109	619	1500	645	7.3	170	<2	176	50	92	3.8	**6.73**	62	12	8.0	0.6	<0.1	<0.1	<0.1	<2	0.6
01-Oct-21	4164	576	1490	585	7.8	200	<2	154	49	97	2.9	**7.08**	65	17	7.0	0.7	<0.1	<0.1	<0.1	<2	-2.3
20-Apr-22	4230	585	1510	618	7.3	210	<2	171	46	94	2.8	**7.03**	63	22	7.0	<0.5	<0.1	<0.1	<0.1	<20	-2.2
18-Jul-22	4311	504	1550	657	8.0	210	<2	173	55	100	2.8	**7.23**	70	22	8.0	0.7	<0.1	<0.1	<0.1	**2**	5.6
12-Oct-22	4381	625	1500	579	7.3	210	<2	157	46	98	2.9	**7.02**	57	21	7.0	<0.5	<0.1	<0.1	<0.1	<2	-6.2
18-Apr-23	4433	583	1500	617	7.3	194	<1	166	49	102	3.6	**8.30**	67	32	7.0	3.1	<0.1	<0.1	0.1	**2**	0.1
18-Jul-23	4488	598	1640	769	7.5	180	<1	168	85	100	3.1	**8.71**	61	53	6.7	1.8	0.1	<0.1	0.09	**2**	6.6
11-Oct-23	4559	616	1500	721	7.2	181	<1	172	71	103	3.4	**7.34**	61	312	7.1	<0.2	<0.1	<0.1	0.1	**2**	7.9
15-Apr-24	4596	608	1570	633	7.1	196	<2.5	164	54	93	3.3	**8.69**	79	29	7.6	0.8	<0.3	<0.3	0.07	1	-1.7
16-Jul-24	4666	635	1090	644	7.4	174	<0.5	176	52	97	3.2	**8.54**	69	162	6.6	3.3	<0.1	<0.1	0.09	**1.3**	0.2
10-Oct-24	2067116	538	1680	642	7.6	183	<0.5	158	50	95	3.2	**8.54**	67	130	7.4	1.3	<0.1	<0.1	0.17	**1.4**	1.8
05-May-25	251086506	576	1370	542	7.5	181	<1.5	142	45	83	2.5	**6.86**	59	24	7.7	0.4	<0.1	<0.05	0.04	**1.2**	-6.1
22-Jul-25	252003108	820	2140	624	7.2	145	3	184	40	68	178	**48.6**	890	241	66	67.8	<0.1	<0.05	45.8	**2.8**	9.9
20-Oct-25	253042605	590	1590	673	7.8	174	<1.5	177	56	101	3.2	**8.87**	70	32	10	0.6	<0.1	<0.05	0.07	**1.6**	4.3
TOTAL SAMPLES		110	108	108	110	110	100	100	99	99	99	107	92	108	110	110	111	111	111	110	
AVERAGE 2025		662	1700	613	7.5	167	<1.5	168	47	84	61	21.44	340	99	28	22.9	<0.1	<0.05	15.3	1.87	

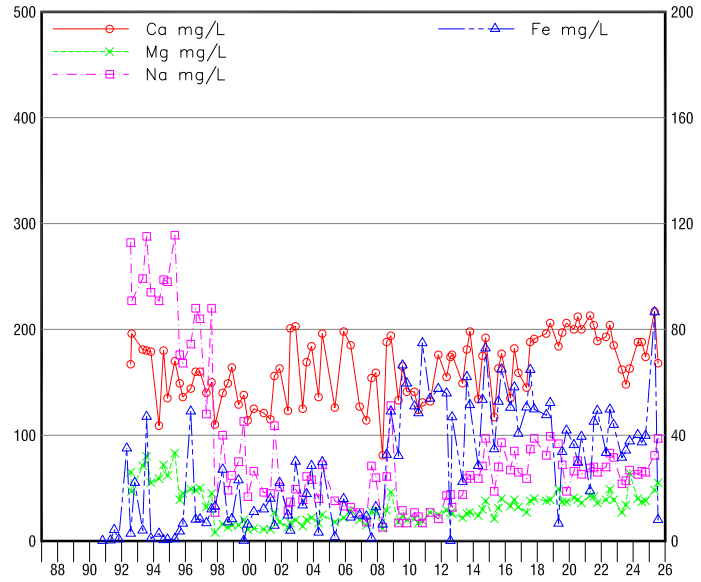
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









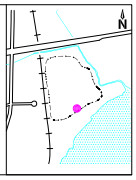


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH16-IVR

FORMERLY 16-IV
CONVERTED May 11

REFUSE

Screen 221.3 - 219.7 masl

22578520
28 Nov 25

wsp

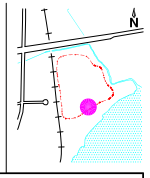
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BH16-IVR

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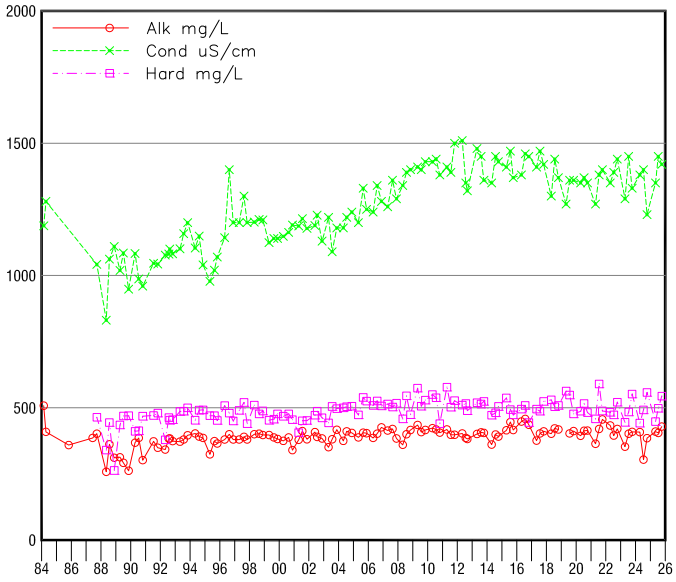
LEACHATE WELL
Screen 221.3 - 219.7 masl

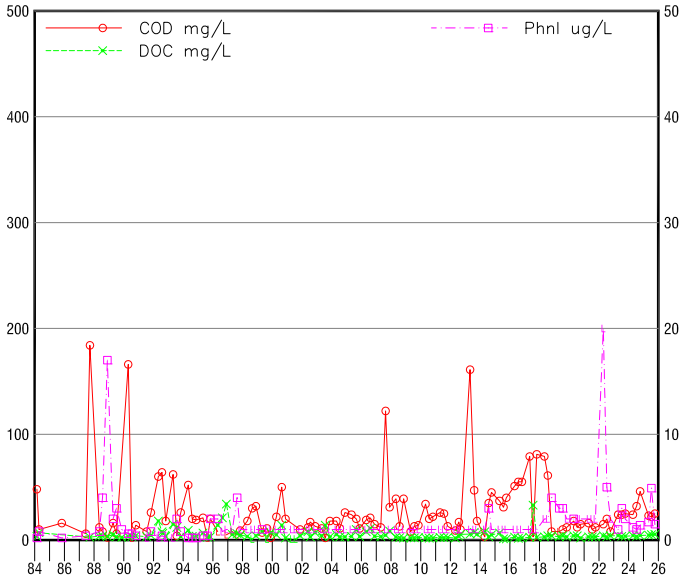
FORMERLY BH16-IV
CONVERTED May 11

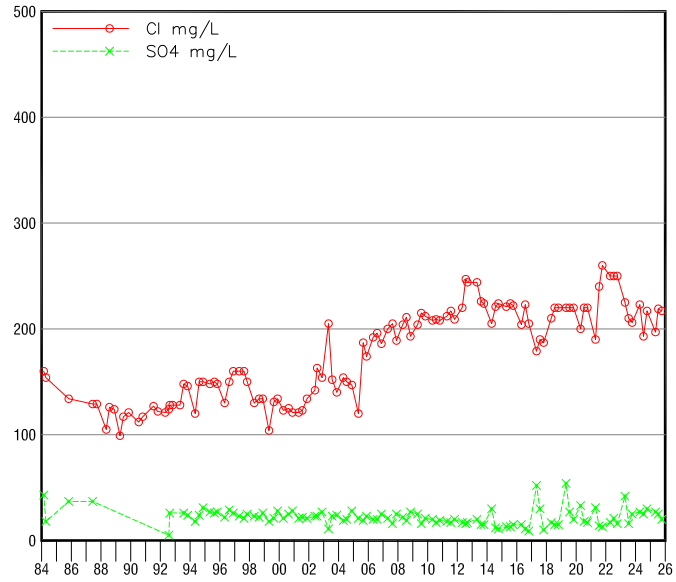


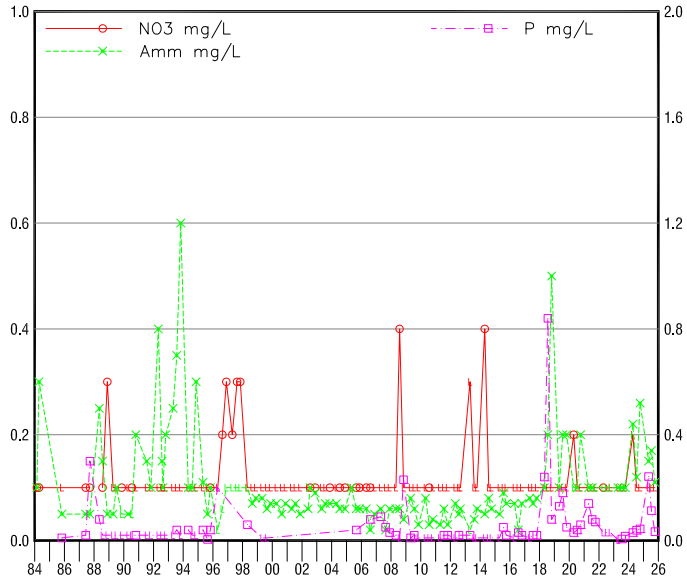
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
08-Oct-15	3111	1060	2430	609	7.1	194	<1	177	40	93	185	**64.9**	570	305	78	79.0	<0.1	<0.1	60.9	<1	1.7
27-Apr-16	3182	841	2170	471	7.1	159	<1	135	33	67	228	**50.4**	607	295	52	48.8	0.1	<0.1	43.6	<1	4.1
27-Jul-16	3224	1030	2420	615	7.3	198	2	182	39	85	213	**58.1**	736	267	48	73.5	0.1	<0.1	65.7	<1	3.7
26-Oct-16	3310	992	2420	529	7.2	162	62	159	32	65	270	**40.6**	982	268	29	41.6	0.1	<0.1	38.0	<1	-2.4
01-May-17	3349	797	2080	475	7.1	100	3	145	27	59	300	**50.5**	707	330	62	25.9	<0.1	<0.1	21.4	<1	10.1
25-Jul-17	3417	1020	2500	627	7.2	167	1	188	38	87	213	**64.7**	532	274	86	62.0	<0.1	<0.1	61.0	<1	6.2
23-Oct-17	3491	1070	2640	642	7.1	176	2	191	40	97	219	**49.8**	673	301	87	70.7	0.1	<0.1	70.4	<1	5.5
01-May-18	3542	892	1910		6.9	98	<2							235	59	25.1	<0.1	<0.1	25.9	**7**	
25-Jul-18	3599	1040	2520	644	6.7	170	<2	196	38	81	236	**47.6**	708	273	71	74.2	<0.1	<0.3	64.8	**13**	5.9
23-Oct-18	3666	1090	2430	676	7.4	190	<2	206	39	99	229	**52.2**	643	204	77	77.0	<0.1	<0.3	68.9	**20**	5.7
01-May-19	3718	692	1540	661	8.4	110	<2	184	49	92	3.5	**6.57**	68	190	48	23.3	<0.1	<0.3	19.4	**11**	5.6
25-Jul-19	3774	1000	2220	644	6.9	150	<2	197	37	72	244	**33.7**	795	172	51	66.5	<0.1	<0.3	59.1	**11**	6.7
30-Oct-19	3844	928	1980	667	6.7	72	91	206	37	47	286	**41.8**	1250	186	55	19.1	<0.1	<0.3	15.4	**7**	5.9
17-Apr-20	3880	858	2010	668	7.3	140	<2	200	41	66	215	**36.3**	765	206	68	52.0	<0.1	<0.3	49	**11**	11.4
14-Jul-20	3938	1070	2300	691	6.8	140	<2	212	39	76	228	**29.6**	593	182	57	55.5	<0.1	<0.3	57.7	**4**	5.2
07-Oct-20	3981	997	2140	648	7.0	130	18	200	36	63	242	**39.4**	942	145	72	49.4	<0.1	<0.3	45.6	<2	5.1
21-Apr-21	4053	988	2310	706	7.3	160	7	213	43	69	217	**18.8**	1030	206	3.0	62.7	<0.1	<0.3	52.2	**6**	-1.2
16-Jul-21	4110	989	2220	683	6.8	140	<2	204	42	70	200	**45.1**	714	226	65	57.6	<0.1	<0.3	53.5	**6**	6.9
04-Oct-21	4165	1040	2260	620	6.8	170	32	189	36	65	194	**49.3**	819	176	63	61.6	<0.1	<0.3	61.0	**2**	0.1
20-Apr-22	4231	919	2170	640	6.9	170	51	193	39	70	183	**33.3**	1090	216	56	43.9	<0.1	<0.1	39.8	<20	0.7
18-Jul-22	4312	893	2340	711	7.5	170	<20	204	49	83	206	**49.7**	796	202	66	67.1	<0.1	<0.1	62.2	**7**	12.8
12-Oct-22	4382	1050	2330	624	7.0	180	<2	185	39	79	175	**43.9**	640	275	55	66.3	<0.1	<0.1	55.1	**13**	-0.3
18-Apr-23	4434	619	1640	517	6.6	138	58	162	27	54	162	**31.5**	887	182	52	25.2	<0.1	<0.1	14.4	**2**	4.1
18-Jul-23	4489	769	1880	508	7.0	113	6	148	34	57	173	**34.2**	547	245	59	32.7	<0.1	<0.1	23.7	**3**	3.0
11-Oct-23	4560	851	1860	672	6.7	101	2	163	64	67	197	**37.7**	545	46	75	27.3	<0.1	<0.1	25.9	**2**	6.9
15-Apr-24	4597	911	2100	648	6.8	142	3	188	40	63	164	**40.1**	957	168	54	23.3	<0.3	<0.3	26.0	**1.1**	1.3
16-Jul-24	4667	890	2010	550	6.9	122	0.6	188	37	66	204	**37.3**	800	130	60	36.6	<0.1	<0.1	31.6	1	6.4
10-Oct-24	2067117	833	2330	634	7.2	90	29	174	38	65	197	**39.8**	816	32	75	41.7	0.2	<0.1	33.0	**1.5**	8.4
05-May-25	251086507	1110	2160	738	6.9	159	5	217	48	81	182	**86.5**	962	240	66	80.8	<0.1	<0.05	57.0	**2.5**	1.1
22-Jul-25	252003109	580	1570	647	7.4	183	<1.5	168	55	97	3.0	**7.99**	65	22	8.1	0.9	<0.1	<0.05	0.06	**1.3**	2.0
TOTAL SAMPLES		103	103	102	103	104	95	94	94	94	94	99	86	100	103	102	104	101	104	101	
AVERAGE 2025		845	1865	693	7.2	171	3	193	52	89	93	47.25	514	131	37	40.9	<0.1	<0.05	28.5	1.90	

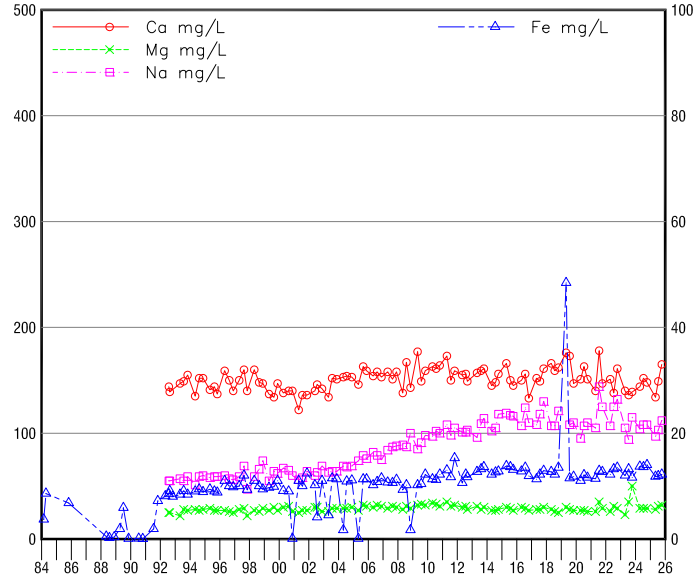
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









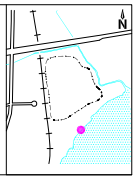


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH17-III

SAND AQUIFER

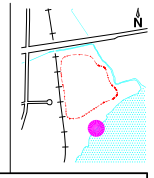
Screen 215.2 - 214.6 masl

22578520 28 Nov 25	wsp	25G020

BH17-III

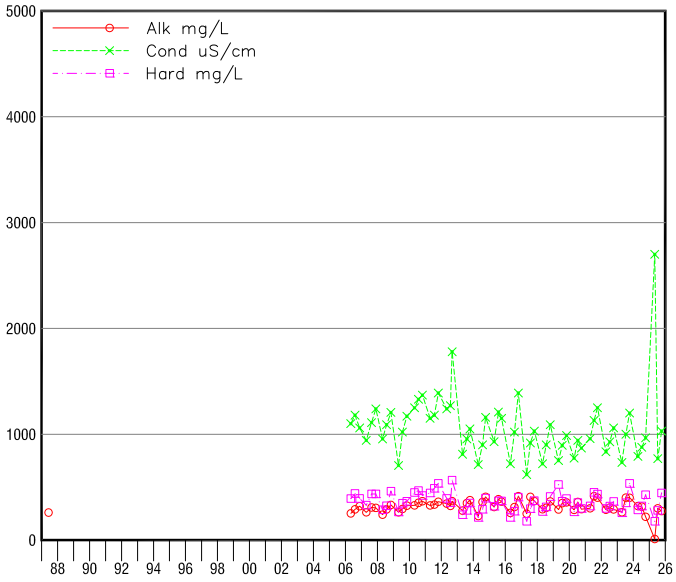
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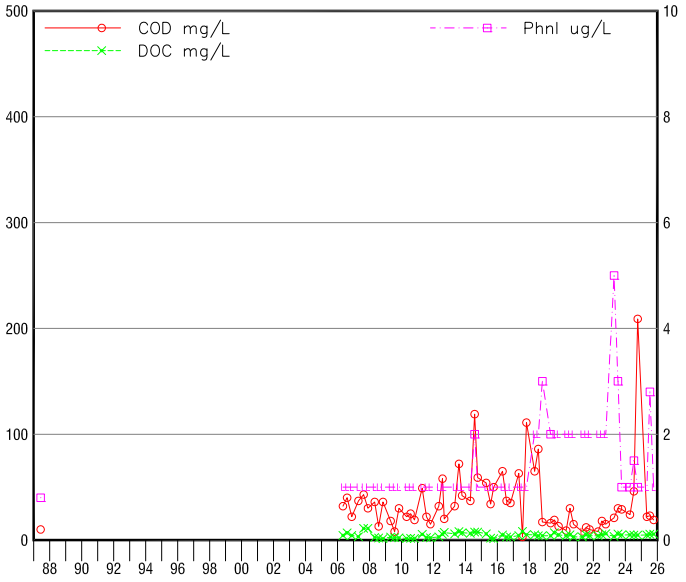
OBSERVATION WELL
Screen 215.2 - 214.6 masl

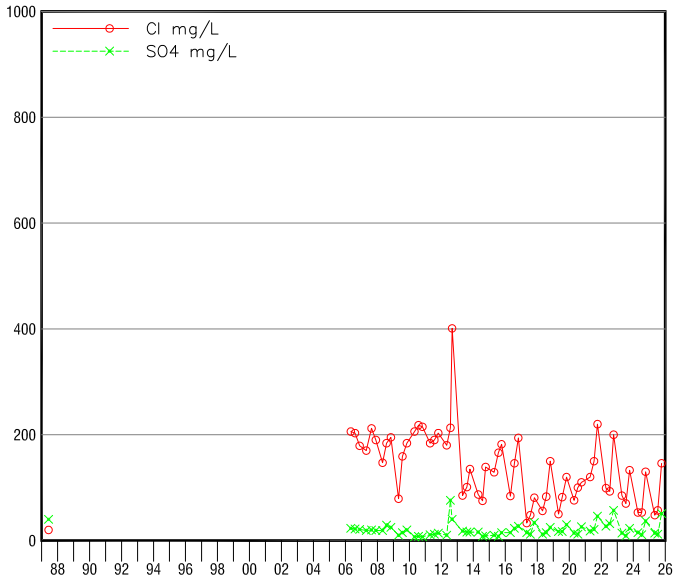


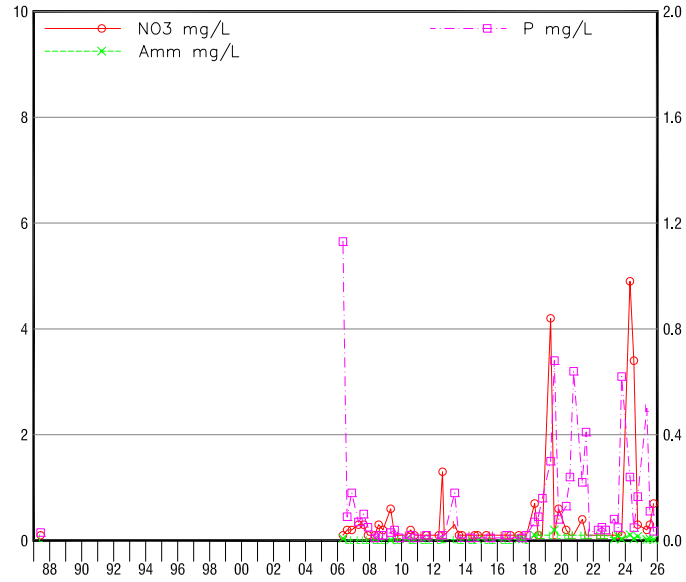
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
28-Jul-16	3225	458	1460	509	7.7	223	11	156	29	124	1.1	**13.5**	1130	55	1.6	0.8	<0.1	<0.1	0.02	<1	1.3
25-Oct-16	3311	436	1450	444	7.8	205	9	133	27	110	1.0	**11.9**	1030	55	2.0	0.6	<0.1	<0.1	0.07	<1	-2.0
03-May-17	3350	376	1410	495	7.5	179	52	152	28	108	0.9	**11.3**	1140	79	2.7	0.5	<0.1	<0.1	0.08	<1	4.8
26-Jul-17	3418	403	1470	487	7.7	190	30	149	28	118	1.1	**12.2**	1130	3	33	0.7	<0.1	<0.1	0.07	<1	4.4
23-Aug-17	3418													3							
25-Oct-17	3492	411	1420	524	7.6	187	10	161	30	130	1.4	**12.9**	1210	81	2.6	0.3	<0.1	<0.1	0.08	<1	9.8
30-Apr-18	3543	402	1300	530	7.8	210	17	166	28	107	1.3	**12.7**	1180	79	3.0	<0.5	<0.1	<0.1	0.1	<2	4.7
24-Jul-18	3600	422	1440	504	7.2	220	15	159	26	107	1.4	**12.2**	1140	61	4.0	<0.5	<0.1	<0.1	0.2	<2	0.9
24-Oct-18	3667	418	1370	509	7.6	220	15	162	25	121	1.5	**13.5**	1220	8	4.0	0.7	<0.1	<0.1	0.5	**4**	3.5
30-Apr-19	3719	*235*	1270	563	8.2	220	54	176	30	*40*	*237*	**48.4**	1060	<8	3.0	0.6	<0.1	<0.1	0.1	**3**	26.7
25-Jul-19	3775	403	1360	548	7.1	220	27	173	28	108	1.3	**11.5**	1380	10	4.0	1.2	<0.1	<0.1	0.2	**3**	4.1
30-Oct-19	3845	412	1360	477	7.3	220	20	147	27	110	1.3	**11.8**	1130	12	3.0	<0.5	<0.1	<0.1	0.2	<2	-0.1
20-Apr-20	3881	394	1350	487	7.8	200	33	151	27	95	1.4	**11.0**	1140	18	4.0	0.6	0.2	<0.1	<0.1	**2**	0.6
15-Jul-20	3939	413	1370	516	7.2	220	18	163	27	107	1.3	**12.1**	1160	12	4.0	0.7	<0.1	<0.1	0.1	<2	2.0
06-Oct-20	3982	414	1350	482	7.8	220	17	151	26	110	1.3	**11.6**	1160	15	2.0	<0.5	<0.1	<0.1	0.2	<2	0.2
22-Apr-21	4054	364	1270	458	7.7	190	31	140	26	105	1.2	**11.4**	1300	16	3.0	0.7	<0.1	<0.1	0.1	<2	4.3
20-Jul-21	4111	420	1380	590	7.4	240	14	178	35	144	1.4	**12.9**	1360	10	3.0	0.5	<0.1	<0.1	0.1	<2	9.9
07-Oct-21	4166	456	1400	488	7.1	260	13	147	29	125	1.2	**12.7**	1290	12	3.0	<0.5	<0.1	<0.1	<0.1	<2	-1.8
19-Apr-22	4232	433	1350	483	7.6	250	17	151	26	107	1.1	**12.2**	1220	15	4.0	<0.5	0.1	<0.1	<0.1	<20	-3.8
15-Jul-22	4313	395	1390	473	7.7	250	21	138	31	125	1.0	**13.2**	1240	20	3.0	<0.5	<0.1	<0.1	<0.1	**5**	0.4
11-Oct-22	4383	420	1440	521	8.0	250	16	161	29	132	1.3	**13.5**	1350	8	4.0	<0.5	<0.1	<0.1	<0.1	<2	3.1
18-Apr-23	4435	353	1290	445	7.4	225	42	140	23	105	1.3	**12.0**	1190	24	4.2	2.3	<0.1	<0.1	0.1	1	-1.3
17-Jul-23	4490	402	1450	484	7.6	210	16	136	35	94	1.0	**13.2**	1280	24	3.4	1.4	<0.1	<0.1	0.1	**3**	5.2
10-Oct-23	4561	409	1330	552	7.4	206	25	139	50	115	1.2	**11.6**	1140	25	3.6	<0.2	<0.1	<0.1	0.1	**2**	3.3
16-Apr-24	4598	408	1380	442	7.1	223	27	144	29	104	1.2	**13.7**	1450	24	4.2	0.4	<0.2	<0.2	0.22	**1.2**	-1.2
15-Jul-24	4668	304	1400	492	7.4	193	25	152	29	108	1.2	**13.6**	1350	32	3.4	6.1	<0.1	<0.1	0.12	1	11.7
10-Oct-24	2067118	385	1230	558	7.6	217	30	148	29	108	1.2	**14.0**	1450	46	4.3	2.4	<0.1	<0.1	0.26	**1.4**	2.0
07-May-25	251086508	410	1350	448	7.6	197	27	134	28	97	0.9	**11.8**	1270	23	4.7	0.4	<0.1	<0.05	0.15	**1.7**	-2.1
15-Jul-25	251923701	405	1450	498	7.2	219	25	149	31	103	1.0	**11.9**	1300	22	5.1	0.5	<0.1	<0.05	0.17	**4.9**	0.7
09-Oct-25	252881506	429	1420	544	7.8	217	20	165	32	112	1.2	**12.2**	1530	25	5.4	0.3	<0.1	<0.05	0.11	**1.5**	3.8
TOTAL SAMPLES		118	117	115	117	118	104	101	101	100	100	116	93	115	117	119	118	119	119	117	
AVERAGE 2025		415	1407	497	7.5	211	24	149	30	104	1.0	11.97	1367	23	5.1	0.4	<0.1	<0.05	0.14	2.70	

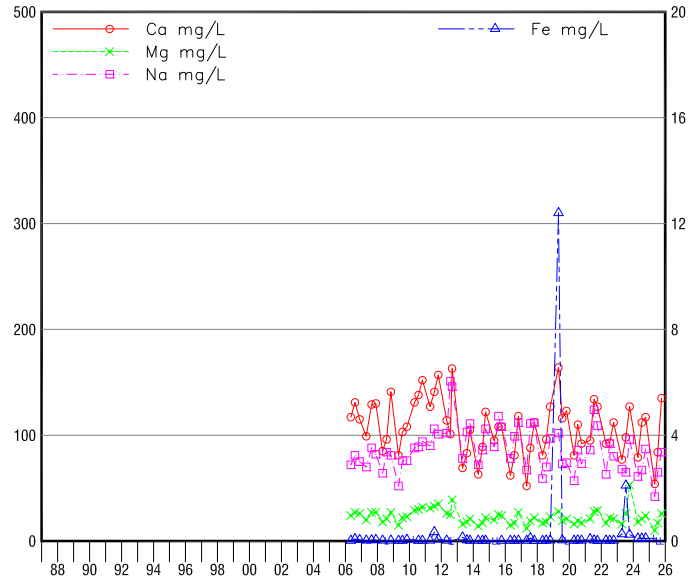
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









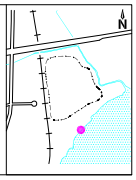


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH17-IVR

FORMERLY 17-IV
CONVERTED Jul 12

UPPER CONFINING LAYER

Screen 219.3 - 217.8 masl

22578520
28 Nov 25

wsp

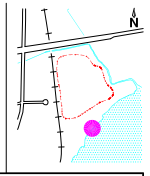
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BH17-IVR

UPPER CONFINING LAYER

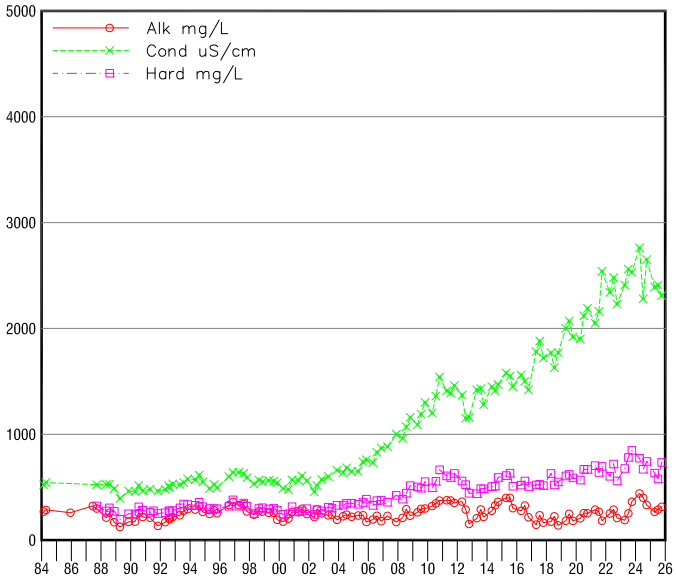
OBSERVATION WELL
Screen 219.3 - 217.8 masl

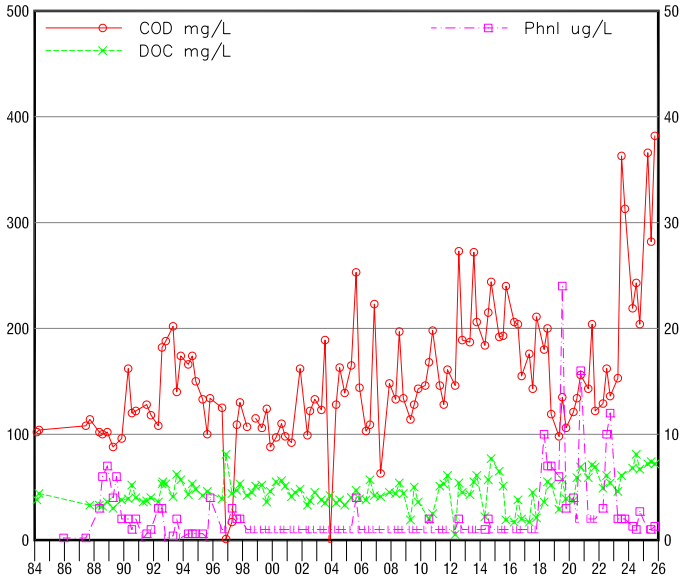
FORMERLY BH17-IV
CONVERTED Jul 12

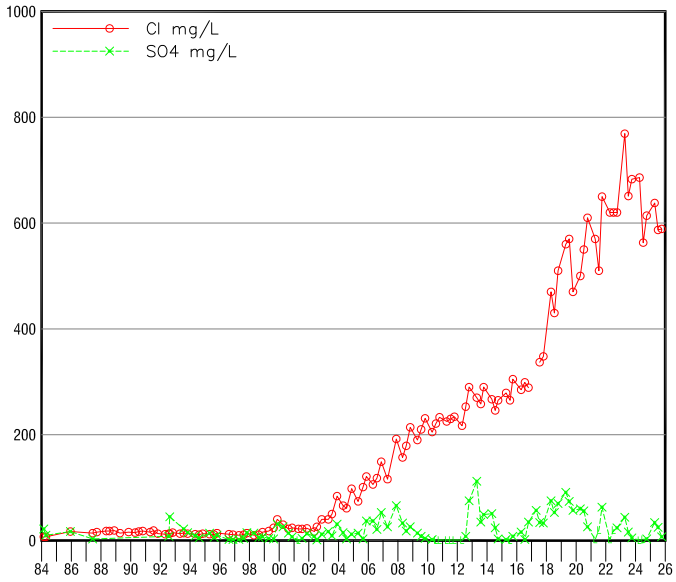


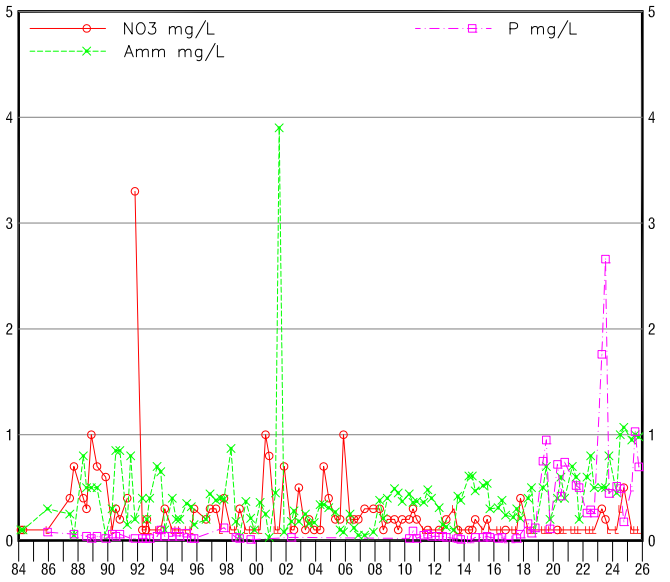
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
26-Apr-16	3184	257	721	214	7.7	84	15	62	15	78	0.6	0.01	6	65	4.8	0.7	<0.1	<0.1	<0.01	<1	0.1
28-Jul-16	3226	312	1020	273	7.9	146	23	81	17	99	1.2	0.014	69	37	2.9	0.4	<0.1	<0.1	<0.01	<1	-4.6
25-Oct-16	3312	415	1390	406	7.8	194	27	118	27	112	1.2	0.019	160	35	2.9	0.7	0.1	<0.1	<0.01	<1	-4.4
03-May-17	3351	249	619	178	7.8	33	15	52	12	67	0.4	0.012	43	63	4.2	0.4	0.1	<0.1	0.03	<1	2.2
26-Jul-17	3419	408	918	297	7.8	48	12	88	19	111	1.4	0.107	662	3	8.1	0.7	<0.1	<0.1	0.03	<1	5.2
25-Oct-17	3493	368	1030	372	7.8	81	34	112	22	112	1.1	0.008	112	111	5.1	0.4	<0.1	<0.1	<0.01	<1	9.0
30-Apr-18	3544	291	721	270	8.2	56	12	81	17	59	0.7	0.007	13	65	5.0	0.5	0.7	<0.1	0.1	<2	2.2
24-Jul-18	3601	305	899	314	7.6	83	15	96	18	70	0.9	0.016	210	86	4.0	<0.5	0.1	<0.1	<0.1	<2	3.8
24-Oct-18	3668	365	1090	411	7.9	150	25	127	23	97	1.3	0.024	27	17	4.0	0.6	<0.1	<0.1	<0.1	**3**	2.2
30-Apr-19	3720	289	751	525	8.3	50	17	164	28	102	1.2	**12.4**	1290	16	4.0	0.6	4.2	<0.1	<0.1	**2**	32.8
25-Jul-19	3776	349	895	367	7.2	82	17	116	19	73	0.9	0.032	707	19	7.0	1.1	<0.1	<0.1	0.2	<2	4.6
30-Oct-19	3846	356	988	392	7.4	120	30	123	21	74	0.8	<0.007	27	13	5.0	0.6	0.6	<0.1	<0.1	<2	0.2
20-Apr-20	3882	285	774	267	8.0	76	14	81	16	57	0.5	0.012	11	9	4.0	0.6	0.2	<0.1	<0.1	<2	-1.3
15-Jul-20	3940	360	942	354	7.6	100	12	110	19	86	1.2	0.026	236	30	5.0	<0.5	<0.1	<0.1	<0.1	<2	3.1
06-Oct-20	3983	292	869	298	8.0	110	26	92	17	73	1.3	0.019	167	15	3.0	<0.5	<0.1	<0.1	<0.1	<2	-1.2
22-Apr-21	4055	300	958	322	7.9	120	18	95	21	86	0.4	0.070	76	<8	3.0	<0.5	0.4	<0.1	<0.1	<2	1.5
20-Jul-21	4112	414	1130	451	7.5	150	21	134	28	124	1.4	0.026	61	12	5.0	0.5	<0.1	<0.1	<0.1	<2	5.5
07-Oct-21	4167	401	1250	434	7.5	220	46	127	29	109	1.3	0.007	38	10	4.0	<0.5	<0.1	<0.1	<0.1	<2	-6.3
19-Apr-22	4233	287	834	298	7.7	99	27	92	17	63	0.5	0.015	22	8	4.0	<0.5	<0.1	<0.1	<0.1	<2	-1.5
15-Jul-22	4314	307	928	321	7.9	93	32	93	22	92	0.9	0.009	37	18	5.0	<0.5	<0.1	<0.1	<0.1	<2	5.5
11-Oct-22	4384	290	1060	365	7.8	200	57	112	21	80	0.8	0.015	96	15	6.0	<0.5	<0.1	<0.1	<0.1	<2	-7.3
18-Apr-23	4436	263	733	258	7.5	85	14	77	16	68	0.6	0.262	19	21	3.4	4.4	<0.1	<0.1	0.03	**5**	1.2
17-Jul-23	4491	401	1000	352	7.7	70	9	98	26	65	0.9	**2.10**	44	30	5.7	1.8	<0.1	0.2	0.09	**3**	2.6
10-Oct-23	4562	400	1200	535	7.9	133	23	127	53	96	0.7	0.242	16	29	4.8	0.8	0.1	<0.1	0.03	1	9.2
16-Apr-24	4599	321	790	285	7.3	53	15	79	18	61	0.6	0.098	16	24	4.9	1	4.9	<0.1	0.11	1	-2.8
15-Jul-24	4669	316	877	322	7.8	53	11	112	21	67	0.8	0.094	15	46	4.7	1.2	3.4	<0.1	0.03	**1.5**	10.6
10-Oct-24	2067119	220	966	428	7.7	130	37	117	24	87	0.9	0.099	32	209	4.7	1.7	0.3	<0.1	0.08	1	13.5
07-May-25	251086509	10	2700	177	6.8	48	14	54	10	42	<0.5	<0.1	16	22	4.8	0.6	0.2	<0.01	0.02	<1	48.3
15-Jul-25	251923702	300	769	280	7.5	57	12	84	17	65	0.7	<0.01	139	23	5.5	0.7	0.3	<0.01	0.03	**2.8**	3.4
09-Oct-25	252881507	274	1030	445	8.0	146	51	135	26	84	0.8	<0.01	75	19	5.6	0.4	0.7	<0.05	0.02	<1	8.1
TOTAL SAMPLES		61	60	60	60	61	61	60	60	60	60	60	60	61	60	61	61	61	61	61	
AVERAGE 2025		195	1500	301	7.4	84	26	91	18	64	0.5	<0.01	77	21	5.3	0.6	0.4	<0.05	0.02	<1	

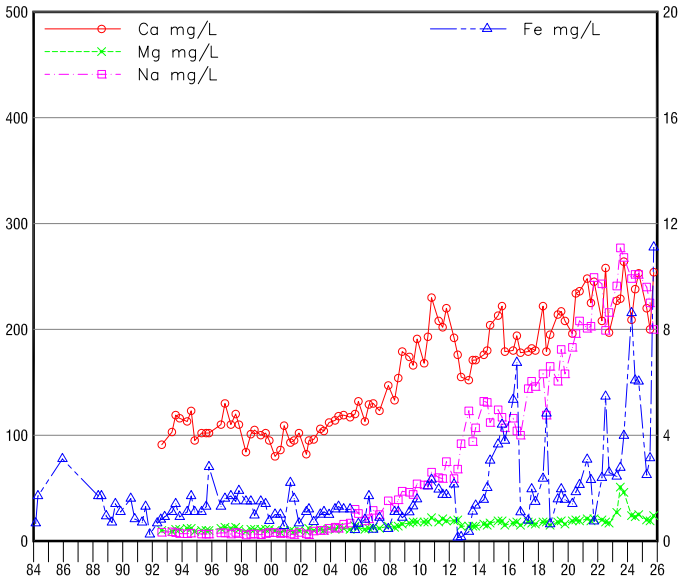
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









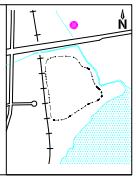


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH18R

FORMERLY 18
CONVERTED Jul 12

PEAT

Screen 218.7 - 217.5 masl

22578520
28 Nov 25

wsp

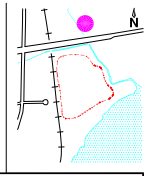
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BH18R

PEAT

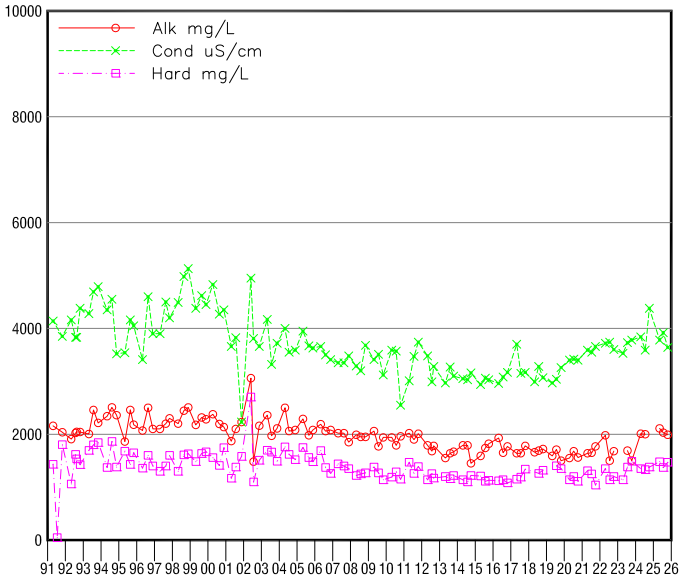
OBSERVATION WELL
Screen 218.7 - 217.5 masl

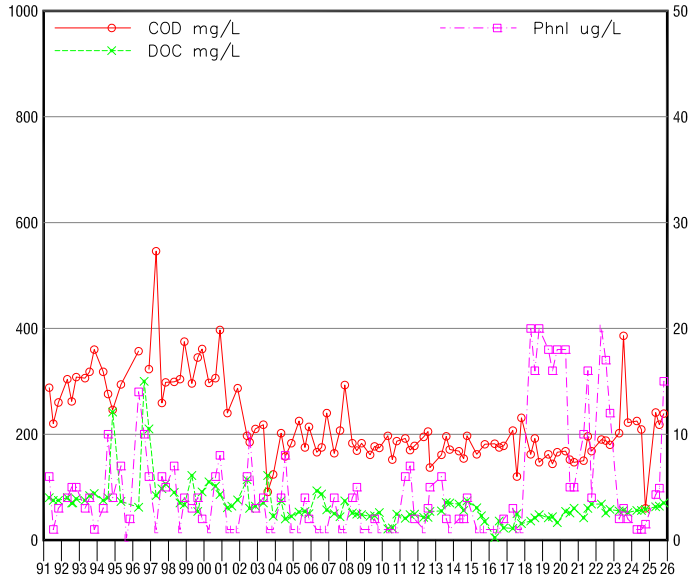
FORMERLY BH18
CONVERTED Jul 12

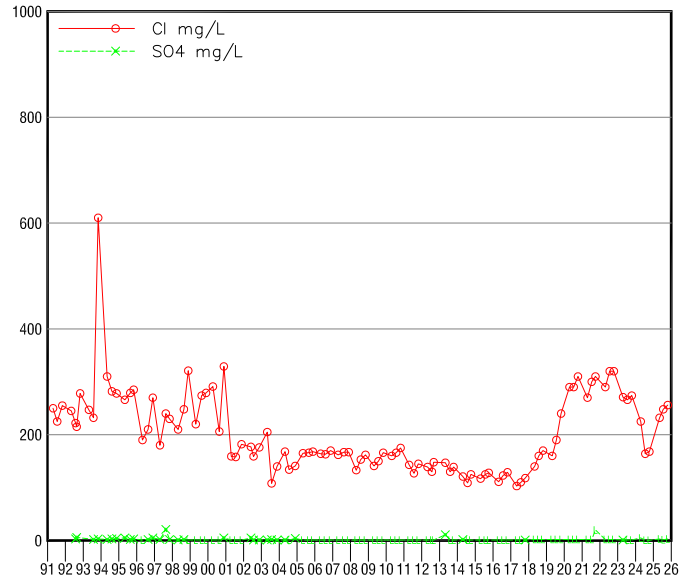


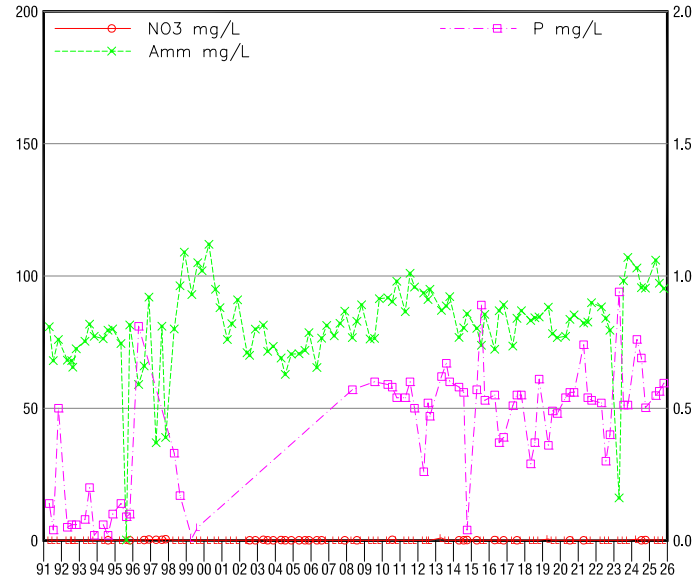
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
19-Apr-16	3171	276	1560	519	7.2	285	16	180	17	116	0.2	**5.34**	556	206	17	2.6	<0.1	<0.1	0.31	<1	6.0
19-Jul-16	3210	326	1500	558	7.2	299	2	194	18	104	0.1	**6.74**	575	204	38	4.3	<0.1	<0.1	0.38	<1	3.1
17-Oct-16	3299	216	1420	506	7.3	289	35	178	15	100	0.2	**1.09**	392	155	20	2.2	0.1	<0.1	0.24	<1	4.8
24-Apr-17	3334	145	1780	521	7.1	<1	57	179	18	144	0.3	**0.776**	387	176	17	2.4	<0.1	<0.1	0.22	<1	60.8
18-Jul-17	3403	234	1880	526	7.2	337	34	182	17	151	0.2	**1.96**	445	143	45	3.0	<0.1	<0.1	0.3	<1	7.0
17-Oct-17	3476	164	1720	515	7.1	348	33	180	16	146	0.3	**1.48**	354	211	21	2.3	0.4	<0.1	0.21	<1	9.6
23-Apr-18	3527	174	1770	629	6.7	470	75	222	18	158	0.3	**2.36**	544	180	36	1.3	<0.1	<0.1	0.4	**10**	3.3
16-Jul-18	3583	224	1630	521	6.7	430	53	179	18	119	0.4	**4.82**	505	200	55	2.6	<0.1	<0.1	0.5	**7**	-5.7
15-Oct-18	3653	139	1770	549	6.8	510	70	195	15	165	0.8	**0.632**	335	119	52	1.0	<0.1	<0.1	<0.1	**7**	-0.9
23-Apr-19	3705	182	2000	606	6.8	560	91	214	18	151	0.4	**1.58**	548	98	29	1.9	<0.1	<0.1	0.5	**6**	-6.2
15-Jul-19	3758	248	2070	621	6.6	570	74	217	19	181	0.4	**1.96**	791	135	57	1.6	<0.1	<0.1	0.7	**24**	-5.1
15-Oct-19	3831	181	1920	587	6.9	470	57	208	16	158	0.4	**1.56**	405	106	39	1.8	<0.1	<0.1	0.2	**3**	1.6
14-Apr-20	3867	205	1900	567	6.8	500	60	196	19	183	0.4	**1.40**	589	121	37	1.4	0.1	<0.1	0.4	**4**	-0.1
09-Jul-20	3922	254	2120	668	6.8	550	56	234	20	196	0.3	**1.85**	576	134	59	1.6	<0.1	<0.3	0.60	<2	0.5
08-Oct-20	3984	253	2190	667	6.8	610	26	236	19	208	0.3	**2.12**	735	156	69	2.4	<0.1	<0.3	0.4	**16**	-0.7
13-Apr-21	4056	287	2050	703	6.6	570	<2	248	21	201	0.3	**3.08**	1030	143	59	2.2	<0.1	<0.3	0.7	<2	2.2
16-Jul-21	4113	268	2160	639	6.7	510	<20	225	19	203	0.4	**2.31**	856	204	71	2.5	<0.1	<0.1	0.6	<2	4.8
29-Sep-21	4168	183	2540	696	7.8	650	63	245	21	249	0.6	**0.742**	461	122	69	2.0	<0.1	<0.3	0.2	<2	3.3
11-Apr-22	4234	251	2340	603	7.1	620	<2	208	20	243	0.3	**2.39**	820	129	49	1.8	<0.1	<0.3	0.6	**3**	0.5
11-Jul-22	4296	288	2480	719	7.1	620	<20	258	18	199	0.3	**5.46**	615	162	61	2.7	<0.1	<0.3	0.8	**10**	0.1
04-Oct-22	4369	208	2230	559	6.8	620	24	197	17	216	0.2	**2.59**	464	136	54	2.1	<0.1	<0.3	0.5	**12**	-3.3
11-Apr-23	4421	188	2410	677	7.1	769	44	227	27	241	0.3	**2.44**	651	153	46	5.7	0.3	1.5	0.5	**2**	-4.4
10-Jul-23	4473	252	2560	781	6.8	651	16	229	51	277	0.3	**2.77**	815	363	61	5.4	0.2	<0.1	0.5	**2**	5.4
04-Oct-23	4547	362	2530	847	7.0	683	5	264	46	268	0.4	**3.98**	785	313		4.1	<0.1	<0.1	0.8	**2**	3.6
09-Apr-24	4620	440	2760	773	6.6	686	<0.5	209	24	248	0.5	**8.62**	1130	219	68	3.5	<0.1	<0.1	0.45	**1.3**	-9.0
08-Jul-24	4651	400	2280	669	7.5	563	<2.5	238	23	252	0.7	**6.07**	1250	243	81	3.1	<0.3	<0.3	1.00	1	2.3
02-Oct-24	2064054	331	2650	743	7.1	614	3	253	25	252	0.7	**6.03**	578	204	67	7.3	0.5	<0.1	1.07	**2.7**	3.8
16-Apr-25	250864109	265	2390	633	7.2	638	34	220	20	240	<0.5	**2.50**	686	366	72	8.1	<0.1	0.06	0.95	<1	-1.5
08-Jul-25	251839205	288	2410	578	7.0	587	25	200	19	225	<0.5	**3.13**	779	282	74	10.7	<0.1	0.05	1.00	1	-2.7
06-Oct-25	252881503	314	2310	734	7.1	589	7	254	24	200	0.6	**11.1**	707	382	72	3.5	<0.1	<0.05	0.98	**1.3**	1.9
TOTAL SAMPLES		116	113	113	115	116	101	98	98	97	97	113	91	112	112	116	116	116	116	114	
AVERAGE 2025		289	2370	648	7.1	605	22	225	21	222	<0.5	5.58	724	343	73	7.4	<0.1	<0.05	0.98	<1	

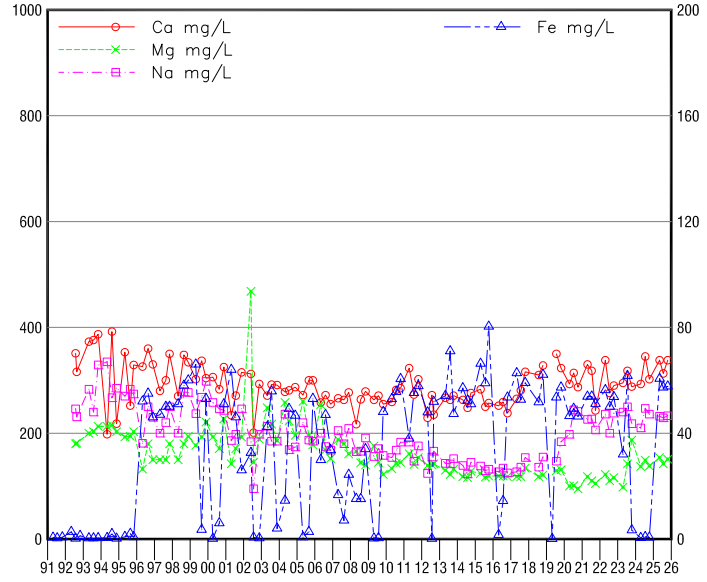
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









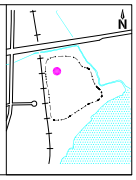


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH20R

FORMERLY 20
CONVERTED Nov 90

REFUSE

Screen 219.8 - 218.3 masl

22578520
28 Nov 25

wsp

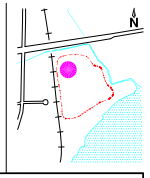
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BH20R

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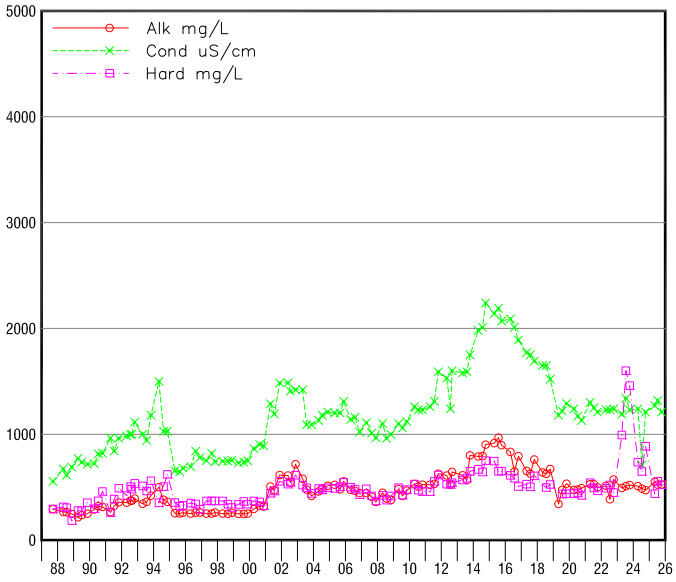
LEACHATE WELL
Screen 219.8 - 218.3 masl

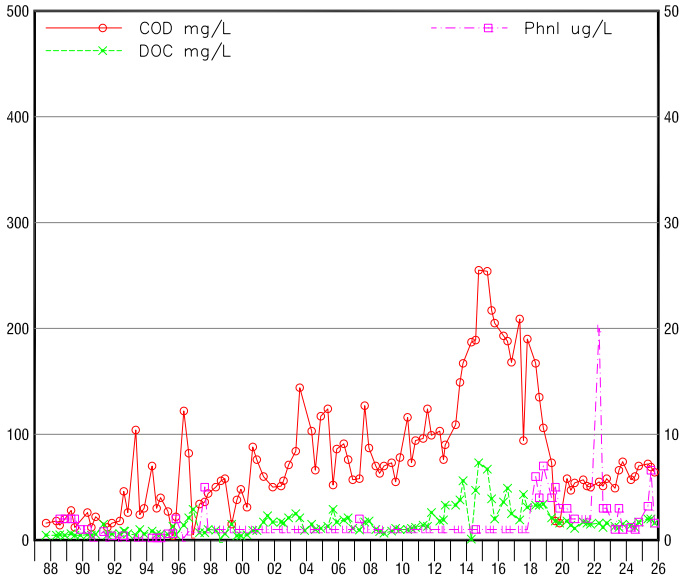
FORMERLY BH20
CONVERTED Nov 90

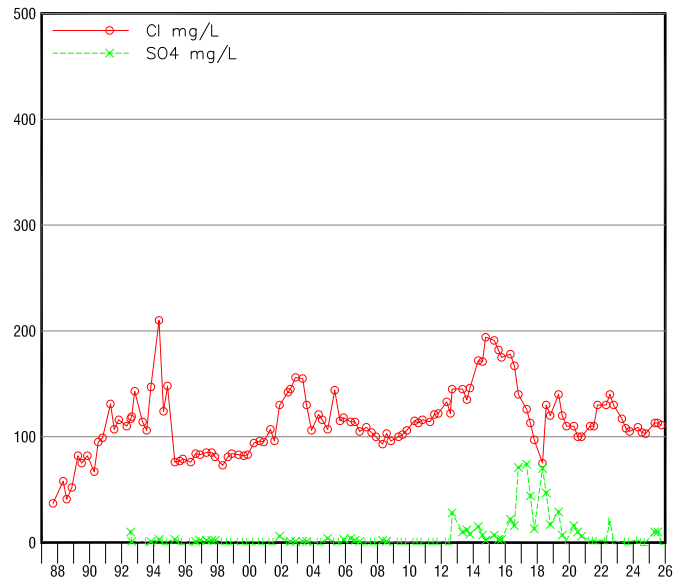


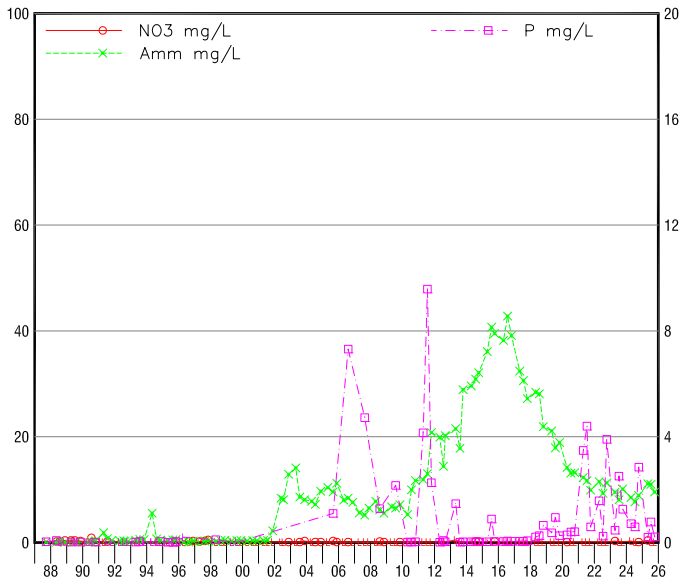
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
25-Apr-16	3185	1930	2960	1120	7.2	111	<1	252	119	127	79	**1.57**	1130	182	4.6	83.9	0.2	<0.1	72.3	<1	-8.6
25-Jul-16	3227	1650	3080	1140	7.3	123	<1	259	119	134	83	**14.4**	1090	175	36	101	<0.1	<0.1	86.9	<1	1.3
24-Oct-16	3313	1770	3170	1080	7.3	129	<1	238	118	125	79	**53.5**	1170	178	23	97.7	0.1	<0.1	89.1	**2**	-2.2
01-May-17	3352	1640	3700	1150	7.2	103	<1	265	118	127	77	**62.7**	1250	207	22	79.0	<0.1	0.8	73.5	**3**	3.1
24-Jul-17	3420	1640	3150	1190	7.2	110	<1	281	118	136	79	**52.7**	1220	120	50	84.2	0.1	<0.1	84	<1	4.9
23-Oct-17	3494	1780	3170	1340	7.2	118	1	316	134	154	93	**59.0**	1460	231	31	87.1	<0.1	<0.1	86.9	<1	6.3
02-May-18	3545	1660	2990		6.8	140	<2							162	36	85.8	<0.1	<0.3	83.2	**20**	
26-Jul-18	3602	1690	3280	1260	6.8	160	<2	310	118	136	89	**51.7**	1350	192	42	89.0	<0.1	<0.3	84.2	**16**	3.7
22-Oct-18	3669	1720	3070	1320	7.3	170	<2	328	121	155	97	**62.1**	1470	147	48	91.2	<0.1	<0.3	84.5	**20**	5.6
29-Apr-19	3721	1590	2970	*281*	7.1	160	<2	*88*	*15*	*50*	*0.6*	0.031	8.5	162	42	87.2	<0.6	<0.3	88.2	**18**	-44.0
23-Jul-19	3777	1710	3040	1404	6.7	190	<2	350	129	147	97	**53.5**	1590	144	44	87.4	<0.1	<0.3	78.2	**16**	5.9
28-Oct-19	3847	1500	3260	1350	6.9	240	<2	323	131	184	83	**57.3**	1370	166	33	82.0	<0.1	<0.3	76.7	**18**	9.6
16-Apr-20	3883	1550	3400	1140	7.3	290	<2	293	100	198	91	**46.5**	1170	168	54	84.2	<0.1	0.2	77.2	**18**	2.3
13-Jul-20	3941	1680	3420	1200	6.7	290	<2	314	101	244	100	**49.3**	1260	152	51	84.3	0.1	<0.3	83.6	**5**	3.6
07-Oct-20	3985	1560	3400	1110	7.5	310	<2	287	95	241	92	**46.3**	1240	147	60	90.5	<0.1	<0.3	85.3	**5**	3.4
21-Apr-21	4057	1640	3590	1310	7.4	270	<2	330	118	226	100	**53.8**	1550	150	42	86.4	0.1	<0.3	82.2	**10**	1.2
16-Jul-21	4114	1650	3550	1250	6.8	300	<2	318	110	227	85	**53.9**	1440	196	60	87.3	<0.1	<0.3	82.6	**16**	3.6
01-Oct-21	4169	1770	3660	1040	7.2	310	<20	243	105	206	85	**51.1**	1160	168	68	92.4	<0.1	<0.3	89.9	**4**	-5.2
21-Apr-22	4235	1980	3720	1350	6.8	290	<2	338	122	236	102	**56.3**	1300	190	68	93.7	<0.1	<0.3	88.3	<20	0.4
20-Jul-22	4315	1500	3740	1140	7.4	320	<2	276	110	200	83	**50.0**	1370	188	51	89.4	<0.1	<0.3	84.0	**17**	3.0
13-Oct-22	4385	1680	3600	1200	6.8	320	<2	290	116	238	84	**53.7**	1260	180	58	91.4	<0.1	<0.3	79.5	**12**	1.8
19-Apr-23	4437	*<2*	3530	1140	6.7	271	1	295	98	240	105	**32.0**	1270	202	55	146	<0.1	<0.1	16.1	**2**	66.6
19-Jul-23	4492	1690	3730	1380	6.8	266	<1	318	142	250	102	**61.7**	1250	386	56	123	<0.1	<0.1	98.2	**3**	7.7
16-Oct-23	4563	1500	3780	1490	7.0	274	<1	288	187	218	93	**3.35**	721	222	52	85.0	<0.1	<0.1	107	**2**	0.3
17-Apr-24	4600	2010	3840	1350	6.7	225	<5	293	137	210	102	**0.411**	1270	225	56	89.4	<0.5	<0.5	103	1	-1.6
18-Jul-24	4670	2000	3590	1330	6.9	164	<0.5	345	149	247	113	**0.779**	1380	209	56	111	0.1	<0.1	95.6	1	5.7
10-Oct-24	2067120	*<2*	4380	1380	7.1	168	<0.5	302	138	236	98	**0.570**	1330	60	58	107	0.2	<0.1	95.4	**1.5**	81.3
08-May-25	251086510	2110	3780	1480	7.2	232	<3	338	154	232	99	**60.6**	1320	241	63	123	<0.2	<0.1	106	**4.3**	0.8
22-Jul-25	252003105	2030	3920	1370	7.0	248	<1.5	313	142	229	93	**57.3**	1300	218	64	117	<0.1	<0.05	97.3	**4.9**	1.1
22-Oct-25	253042604	1990	3640	1470	7.3	256	<3	338	151	233	95	**57.7**	1320	239	70	113	<0.2	<0.1	95.2	**15**	0.1
TOTAL SAMPLES		103	105	104	105	106	100	99	99	99	99	104	92	100	104	106	106	106	106	105	
AVERAGE 2025		2043	3780	1440	7.2	245	<3	330	149	231	96	58.53	1313	233	66	118	<0.2	<0.1	100	8	

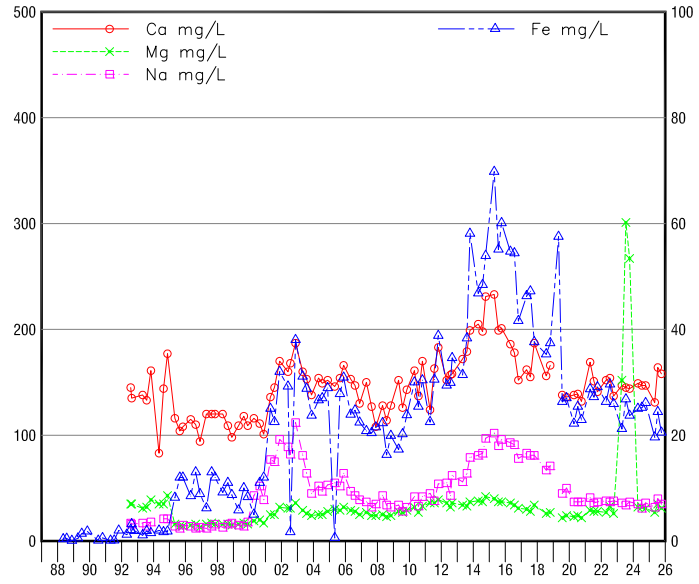
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









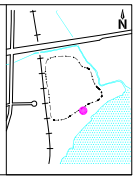


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH21-IR

FORMERLY 21-I
CONVERTED Mar 95

SAND AQUIFER

Screen 216.0 - 215.2 masl

22578520
28 Nov 25

wsp

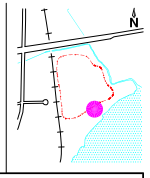
25G024

BH21-IR

SAND AQUIFER

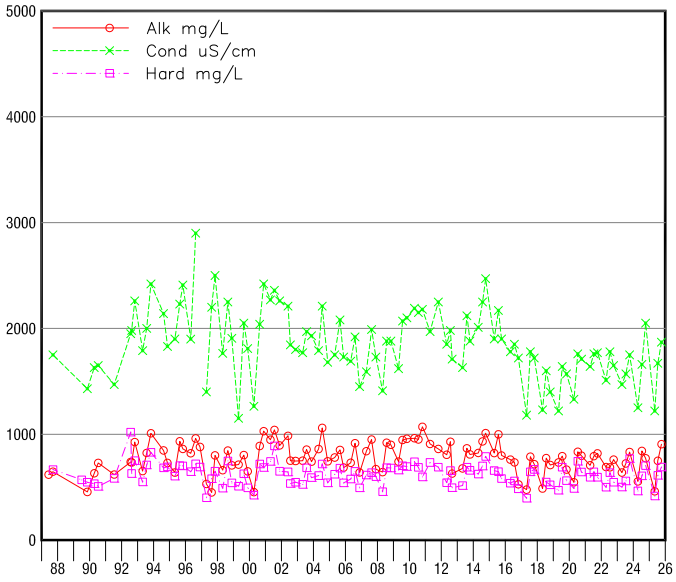
OBSERVATION WELL
Screen 216.0 - 215.2 masl

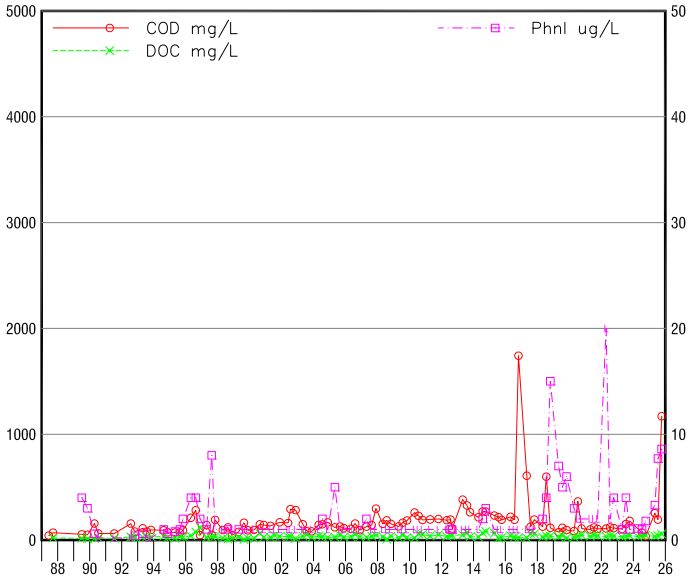
FORMERLY BH21-I
CONVERTED Mar 95

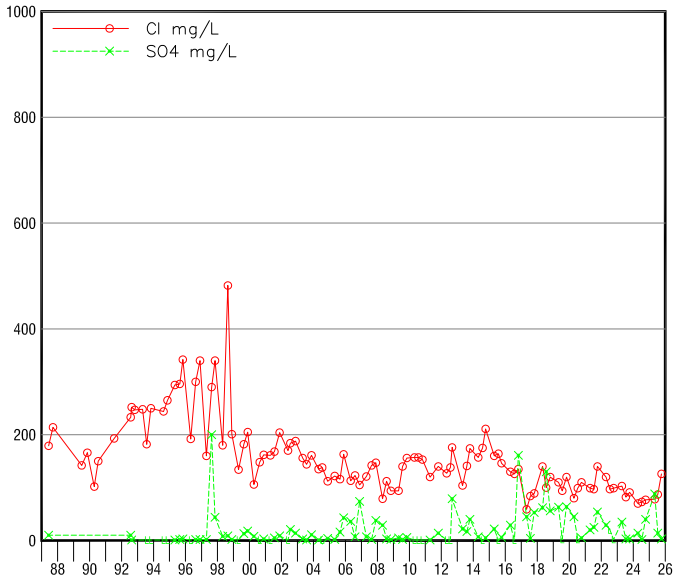


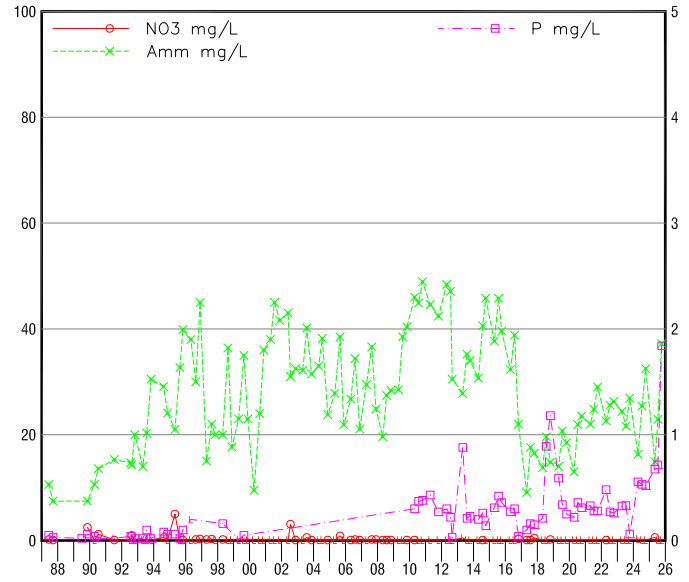
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
26-Apr-16	3186	833	2090	612	7.2	178	22	186	36	93	110	**54.7**	1100	193	36	43.5	<0.1	<0.1	38.2	<1	3.6
28-Jul-16	3228	647	2010	584	7.5	167	16	178	34	91	111	**54.4**	1050	188	49	42.9	<0.1	<0.1	42.8	<1	13.3
26-Oct-16	3314	792	1890	506	7.4	140	71	152	31	78	106	**41.6**	928	168	25	49.3	<0.1	<0.1	39.1	<1	-1.7
02-May-17	3353	653	1770	528	7.2	126	74	162	30	83	101	**46.3**	943	209	19	33.9	<0.1	<0.1	32.4	<1	6.6
26-Jul-17	3421	628	1750	503	7.4	113	44	155	28	81	97	**47.2**	906	94	43	31.0	<0.1	<0.1	30.6	<1	8.9
24-Oct-17	3495	761	1690	607	7.4	97	13	187	34	81	113	**37.6**	1040	190	31	28.5	<0.1	<0.1	27.2	<1	9.0
30-Apr-18	3546	639	1650		7.2	75	70							167	33	25.7	<0.1	<0.1	28.4	**6**	
23-Jul-18	3603	626	1650	496	6.9	130	47	156	26	67	99	**35.3**	887	135	33	30.0	<0.1	<0.1	28.1	**4**	4.2
23-Oct-18	3670	671	1520	525	7.5	120	17	166	27	71	107	**37.4**	940	106	34	30.4	<0.1	<0.1	21.9	**7**	5.7
01-May-19	3722	341	1180	*1320*	8.3	140	29	*322*	*125*	*152*	*97*	**57.5**	1430	73	21	23.8	<0.1	<0.1	21.1	**4**	54.9
25-Jul-19	3778	473	1220	435	6.9	120	7	138	22	45	84	**26.3**	862	18	18	19.5	<0.1	<0.1	17.9	**5**	7.3
30-Oct-19	3848	533	1290	439	7.0	110	<2	136	24	50	76	**27.0**	770	16	16	18.7	<0.1	<0.1	18.9	**3**	5.0
17-Apr-20	3884	474	1240	440	7.7	110	16	138	23	37	73	**22.2**	774	58	18	20.2	0.1	<0.1	14.2	**3**	4.3
14-Jul-20	3942	477	1170	445	7.0	100	10	139	24	37	69	**25.4**	803	47	14		<0.1	<0.1	13.1	<2	5.7
07-Oct-20	3398	490	1130	422	7.8	100	6	132	22	37	66	**22.9**	786	54	11	13.8	<0.1	<0.1	13.2	**2**	2.8
22-Apr-21	4058	528	1300	541	7.5	110	<2	169	29	41	71	**28.7**	1060	57	17	13.5	<0.1	<0.1	12.3	<2	8.1
16-Jul-21	4115	529	1250	492	7.1	110	<2	151	28	36	61	**27.2**	939	51	16	13.7	<0.1	<0.1	11.7	<2	4.6
07-Oct-21	4170	498	1210	465	6.9	130	<2	141	28	37	61	**29.1**	971	50	15	12.0	<0.1	<0.1	9.9	<2	2.3
20-Apr-22	4236	513	1230	490	7.3	130	<2	152	27	38	52	**26.3**	990	55	16	11.9	<0.1	<0.1	11.5	<20	2.2
18-Jul-22	4316	385	1230	521	8.0	140	<20	154	33	37	58	**29.6**	998	51	12	10.4	<0.1	<0.1	9.3	**3**	13.3
11-Oct-22	4386	572	1240	448	7.2	130	<2	137	26	38	48	**25.9**	917	58	16	12.4	<0.1	<0.1	11.3	**3**	-5.4
17-Apr-23	4438	492	1190	993	7.2	117	0	147	152	36	47	**21.2**	978	49	13	13.8	0.3	<0.1	9.5	1	29.3
17-Jul-23	4493	510	1340	1600	7.4	108	<1	145	301	34	43	**26.8**	973	66	12	11.5	<0.1	<0.1	8.1	**3**	3.8
11-Oct-23	4564	520	1230	1460	7.1	105	<1	144	267	37	45	**23.7**	924	74	15	10.2	<0.1	<0.1	10.1	1	6.1
17-Apr-24	4601	509	1240	736	7.1	109	<2.5	149	32	35	41	**25.0**	1170	57	14	7.7	<0.3	<0.3	8.51	**1.2**	3.4
17-Jul-24	4671	486	710	648	7.2	104	<0.5	147	32	31	39	**25.2**	1020	60	12	9.9	<0.1	<0.1	7.69	1	4.1
10-Oct-24	2067121	472	1210	886	7.5	103	<0.5	147	31	36	42	**26.1**	1120	70	17	12.3	0.1	<0.1	8.90	**1.7**	6.7
07-May-25	251086511	550	1270	437	8.0	113	10	131	27	32	36	**19.6**	867	72	20	13.9	0.4	0.9	11.1	**3.2**	-7.0
16-Jul-25	251923703	523	1320	555	7.6	113	10	164	35	40	42	**24.4**	1070	69	20	14.6	<0.1	<0.05	11.0	**6.6**	6.1
08-Oct-25	252881501	524	1210	522	7.5	111	<1.5	158	31	35	41	**20.5**	1010	64	16	11.6	<0.1	<0.05	9.54	**1.6**	2.9
TOTAL SAMPLES		116	116	114	116	116	100	99	99	98	99	113	92	111	116	114	116	116	116	113	
AVERAGE 2025		532	1267	505	7.7	112	7	151	31	36	40	21.50	982	68	19	13.4	0.1	0.3	10.5	3.80	

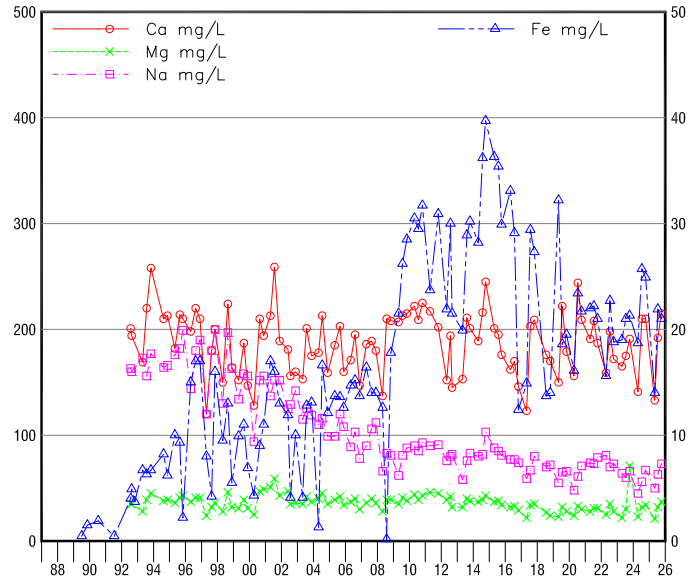
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









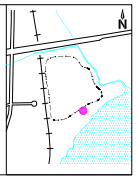


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH21-IIR

FORMERLY 21-II
CONVERTED Mar 19

PEAT

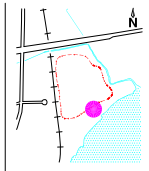
22578520 28 Nov 25	wsp	25G025

BH21-IIR

PEAT

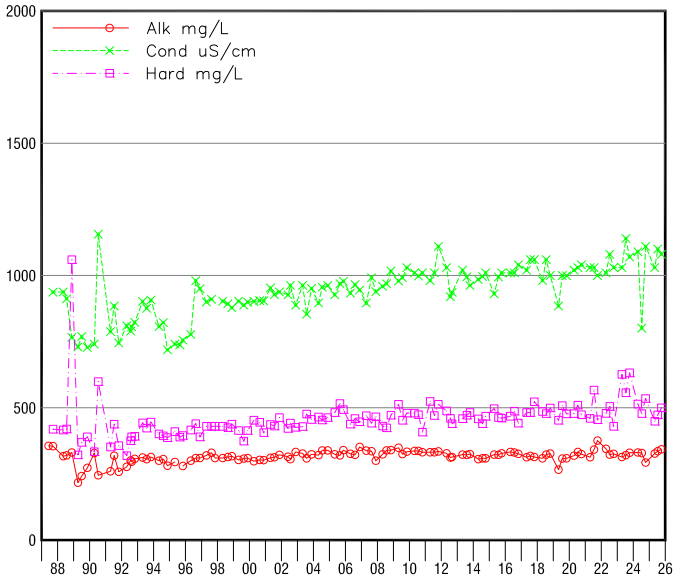
OBSERVATION WELL

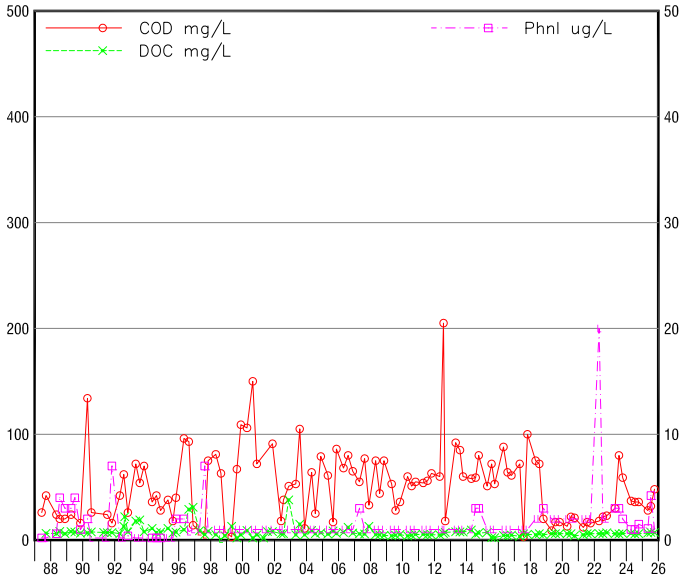
FORMERLY BH21-II
CONVERTED Mar 19

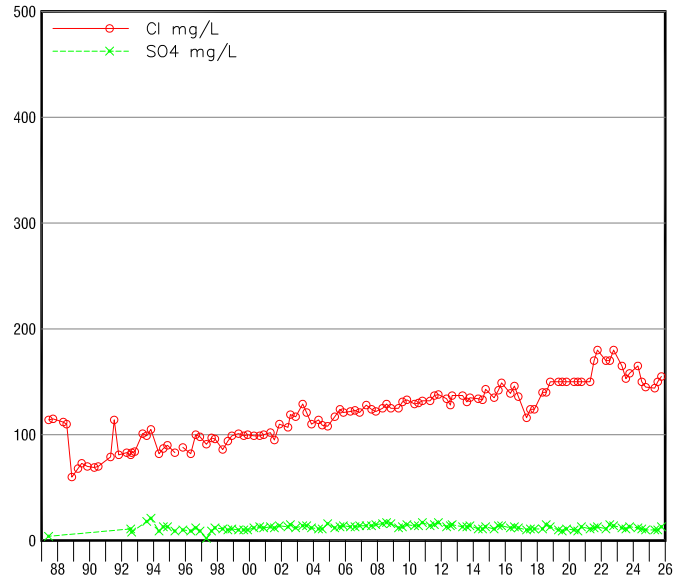


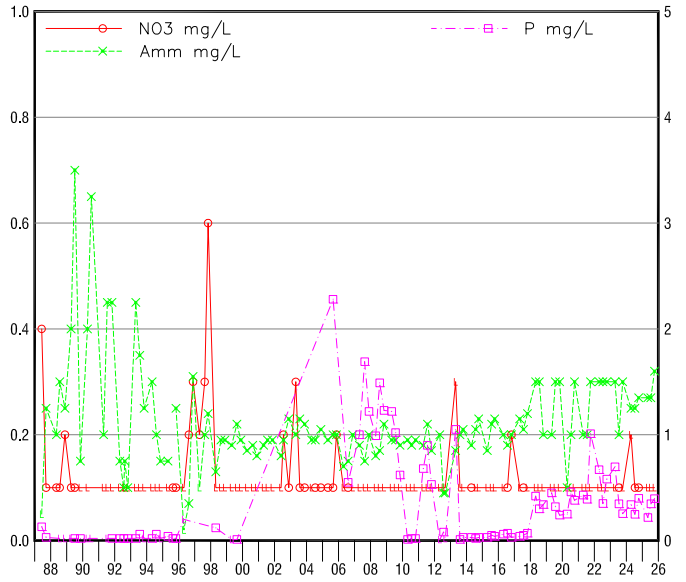
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
26-Apr-16	3187	760	1780	537	7.3	130	29	162	32	77	112	**33.1**	785	219	40	36.7	<0.1	<0.1	32.3	<1	2.4
28-Jul-16	3229	734	1850	559	7.5	126	<1	170	33	77	119	**29.1**	761	192	28	44.2	<0.1	<0.1	38.8	<1	8.0
26-Oct-16	3315	527	1720	485	7.4	135	161	146	29	74	101	**12.4**	711	1742	23	30.3	0.3	<0.1	22.0	<1	-0.6
02-May-17	3354	476	1180	396	7.6	59	45	123	22	59	71	**14.9**	574	608	21	12.5	0.1	<0.1	9.1	<1	5.4
26-Jul-17	3422	788	1780	645	7.5	84	4	203	34	67	104	**29.4**	822	126	62	21.4	0.1	<0.1	17.6	<1	6.7
24-Oct-17	3496	717	1720	668	7.4	89	53	209	35	80	115	**27.3**	917	194	59	19.7	0.5	<0.1	16.5	<1	9.8
30-Apr-18	3547	487	1230		7.4	140	62							127	29	14.2	<0.1	<0.1	13.8	**2**	
23-Jul-18	3604	774	1600	548	6.9	100	130	176	27	70	112	**13.7**	575	599	41	23.6	<0.1	<0.1	19.6	**4**	-5.5
23-Oct-18	3671	709	1400	522	7.5	120	56	170	24	72	110	**14.0**	743	116	37	18.6	0.2	<0.1	14.8	**15**	-2.1
01-May-19	3723	733	1220	471	8.3	110	63	150	23	55	91	**32.2**	906	74	31	17.8	<0.1	<0.1	14	**7**	-8.0
25-Jul-19	3779	793	1640	688	6.9	94	<2	222	32	65	123	**18.6**	981	116	44	21.8	<0.1	<0.1	20.7	**5**	8.3
30-Oct-19	3849	666	1570	561	7.1	120	64	179	28	66	93	**19.5**	732	95	19	23.6	<0.1	<0.1	18.5	**6**	1.3
17-Apr-20	3885	546	1330	488	7.6	80	45	156	24	48	78	**16.1**	711	85	27	15.5	<0.1	<0.1	13	**3**	4.1
14-Jul-20	3943	834	1760	745	7.0	99	<2	244	33	61	114	**23.4**	978	365	37	22.3	<0.1	<0.1	21.9	<2	8.0
07-Oct-20	3987	797	1710	643	7.5	110	5	209	30	71	98	**21.7**	922	109	47	24.8	<0.1	<0.1	23.5	<2	4.4
22-Apr-21	4059	706	1640	593	7.6	99	20	191	28	74	106	**22.0**	902	100	34	23.6	<0.1	<0.1	22.0	<2	4.7
16-Jul-21	4116	793	1760	645	7.2	97	25	208	31	73	109	**22.2**	918	119	45	28.8	<0.1	<0.1	24.8	<2	5.8
07-Oct-21	4171	819	1770	594	6.9	140	54	187	31	79	107	**21.0**	920	105	40	30.3	<0.1	<0.1	29.0	<2	-1.4
20-Apr-22	4237	690	1510	499	7.0	120	29	159	25	81	82	**15.6**	724	109	33	24.7	0.1	<0.1	22.6	<20	-0.1
18-Jul-22	4317	687	1780	637	7.8	97	<20	198	35	70	111	**22.7**	856	120	41	27.3	<0.1	<0.1	25.6	<2	12.7
11-Oct-22	4387	760	1650	547	7.2	99	<2	172	28	73	88	**18.8**	804	113	38	29.1	<0.1	<0.1	26.3	**4**	2.4
17-Apr-23	4439	638	1470	501	7.0	103	35	165	22	64	88	**19.0**	770	105	30	29.3	<0.1	<0.1	24.4	1	3.3
17-Jul-23	4494	724	1570	559	7.1	82	3	175	30	60	84	**21.0**	765	151	37	28.1	<0.1	<0.1	21.6	**4**	5.3
11-Oct-23	4565	832	1750	770	7.0	91	3	191	71	66	86	**21.3**	801	180	43	27.6	<0.1	<0.1	26.9	1	4.4
17-Apr-24	4602	554	1250	464	7.1	70	14	141	23	45	63	**18.7**	836		33	15.1	<0.3	<0.3	16.3	**1.1**	3.6
17-Jul-24	4672	842	1660	607	6.9	73	2	210	32	56	87	**25.7**	991	70	42	30.1	<0.1	<0.1	25.4	1	3.9
10-Oct-24	2067122	773	2050	704	7.3	77	40	210	34	67	102	**24.9**	1040	36	45	39.1	<0.1	<0.1	32.5	**1.8**	8.8
07-May-25	251086512	460	1220	416	8.1	78	88	133	21	50	67	**14.0**	686	254	34	21.8	0.6	0.3	14.9	**3.3**	1.8
16-Jul-25	251923704	749	1670	612	6.9	87	14	192	32	63	90	**21.9**	855	193	42	34.4	<0.1	<0.05	22.9	**7.7**	5.3
08-Oct-25	252881502	906	1870	690	7.1	126	3	215	37	73	115	**21.0**	939	1170	57	58.8	<0.1	<0.05	37.2	**8.6**	3.6
TOTAL SAMPLES		106	104	105	105	107	99	98	98	98	98	103	91	104	106	107	106	106	106	104	
AVERAGE 2025		705	1587	573	7.4	97	35	180	30	62	91	18.97	827	539	44	38.3	0.2	0.1	25.0	6.53	

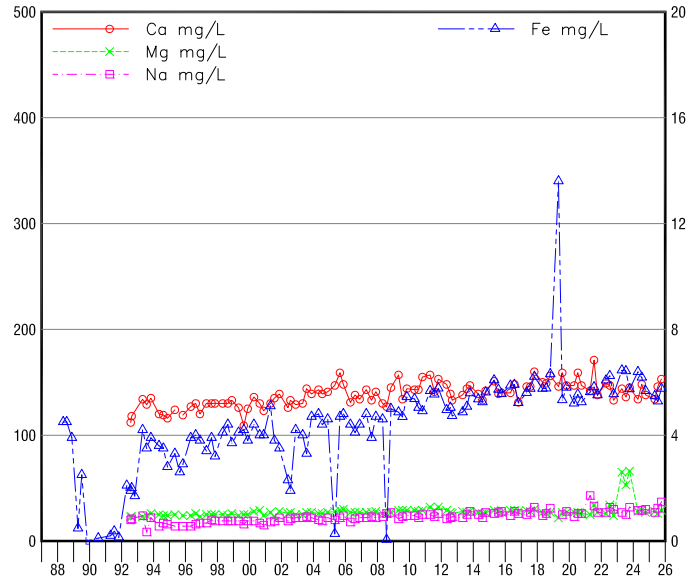
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









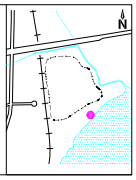


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH22-IR

FORMERLY 22-I
CONVERTED Jul 88

SAND AQUIFER

Screen 216.8 - 216.1 masl

22578520
28 Nov 25

wsp

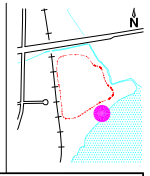
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BH22-IR

SAND AQUIFER

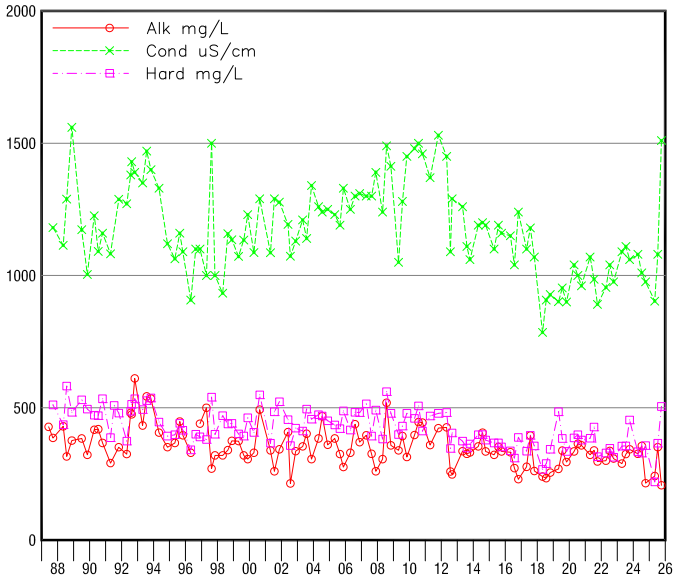
OBSERVATION WELL
Screen 216.8 - 216.1 masl

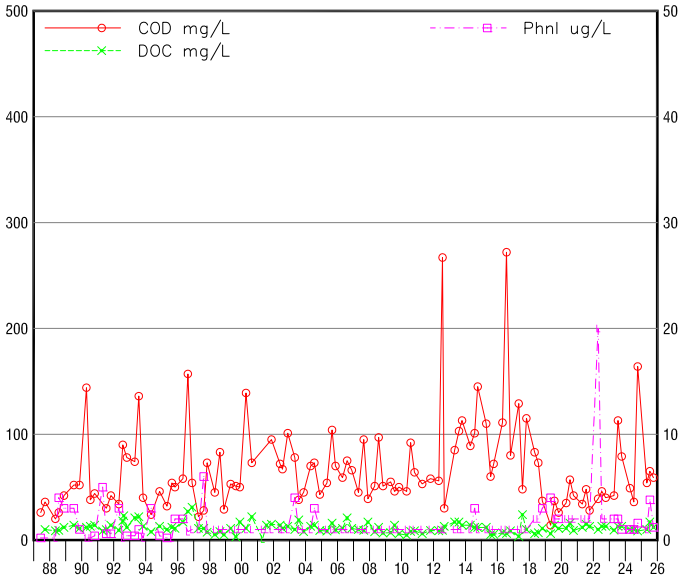
FORMERLY BH22-I
CONVERTED Jul 88

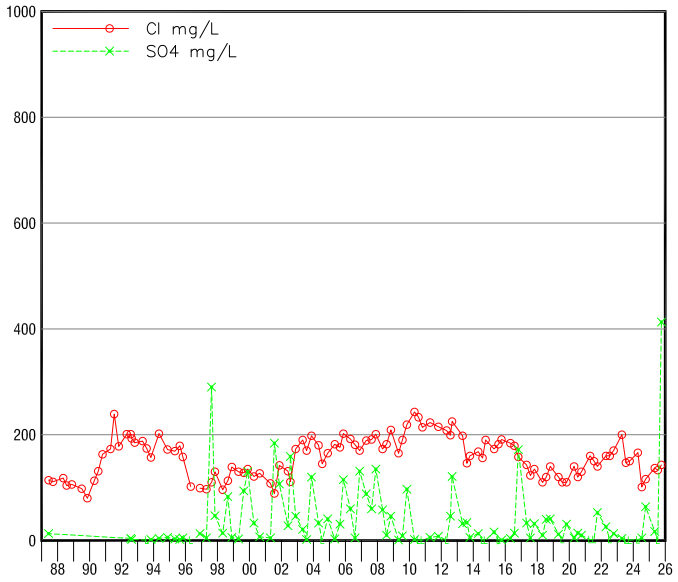


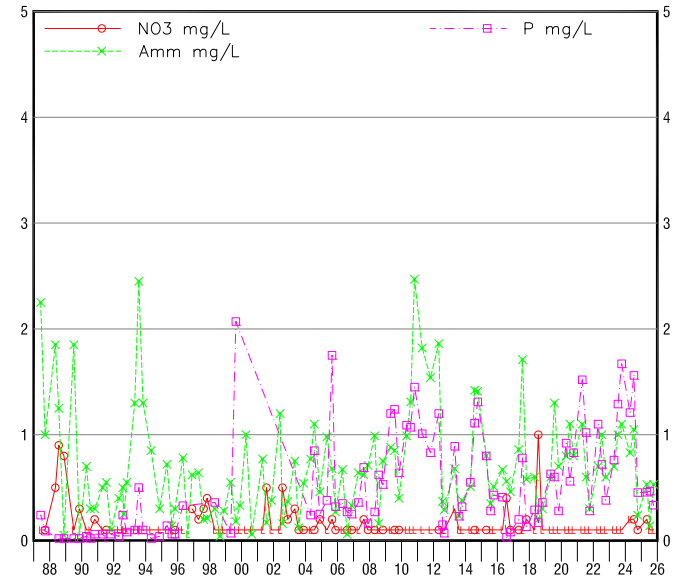
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
26-Apr-16	3188	333	1010	468	7.7	139	12	140	29	24	0.7	**5.88**	2940	88	4.4	0.9	<0.1	<0.1	0.2	<1	-0.8
28-Jul-16	3230	331	1010	487	7.8	146	13	148	29	28	0.8	**5.91**	3050	64	4.2	1.4	0.1	<0.1	0.18	<1	1.0
25-Oct-16	3316	326	1040	442	7.8	136	12	131	28	26	0.7	**5.22**	2760	61	4.7	0.9	0.2	<0.1	0.2	<1	-2.0
02-May-17	3355	313	1020	482	7.6	116	10	146	29	25	0.6	**5.60**	3000	72	3.5	1.1	<0.1	<0.1	0.23	<1	6.1
26-Jul-17	3423	318	1060	482	7.8	124	11	146	28	27	0.8	**5.76**	2820	3	5.8	0.9	0.1	<0.1	0.21	<1	4.4
25-Oct-17	3497	314	1060	523	7.6	124	11	160	30	32	0.9	**6.21**	3300	100	5.4	0.5	<0.1	<0.1	0.24	<1	9.5
30-Apr-18	3548	309	981	486	7.3	140	11	150	27	24	0.9	**5.76**	2780	75	5.0	<0.5	<0.1	<0.1	0.3	<2	3.0
23-Jul-18	3605	323	1060	478	7.6	140	15	149	26	26	0.9	**5.77**	2960	72	6.0	0.9	<0.1	<0.1	0.3	<2	1.1
24-Oct-18	3672	327	1000	499	7.6	150	13	156	27	31	1.0	**6.31**	3140	20	5.0	<0.5	<0.1	<0.1	0.2	**3**	2.6
30-Apr-19	3724	266	885	453	8.1	150	10	146	22	*73*	*86*	**13.6**	649	9	6.0	<0.5	<0.1	<0.1	0.2	<2	21.1
26-Jul-19	3780	308	1000	508	7.4	150	9	159	27	25	0.9	**5.33**	2950	17	6.0	0.8	<0.1	<0.1	0.3	<2	4.1
30-Oct-19	3850	309	999	477	7.3	150	11	147	27	28	1.0	**5.80**	2860	17	6.0	0.6	<0.1	<0.1	0.3	<2	1.8
20-Apr-20	3886	319	1020	478	7.8	150	10	147	27	23	1.1	**5.20**	2650	13	6.0	0.6	<0.1	<0.1	0.1	<2	-0.2
15-Jul-20	3944	333	1030	510	7.2	150	9	159	27	26	1.0	**5.54**	2840	22	6.0	0.8	<0.1	<0.1	0.2	<2	2.1
06-Oct-20	3988	325	1040	474	7.8	150	13	147	26	26	1.0	**5.25**	2720	21	4.0	<0.5	<0.1	<0.1	0.3	<2	-0.7
22-Apr-21	4060	313	1030	460	7.8	150	11	142	25	43	1.8	**5.63**	2440	12	5.0	0.6	<0.1	<0.1	0.2	<2	4.0
20-Jul-21	4117	342	1030	567	7.2	170	12	171	34	33	1.0	**5.82**	3270	17	6.0	<0.5	<0.1	<0.1	0.2	<2	5.5
07-Oct-21	4172	376	1000	455	7.1	180	13	138	27	27	0.9	**5.51**	3040	16	6.0	<0.5	<0.1	<0.1	0.3	<2	-8.5
19-Apr-22	4238	345	1010	479	7.3	170	11	149	26	27	0.8	**6.07**	3330	18	6.0	<0.5	<0.1	<0.1	0.3	<20	-3.9
15-Jul-22	4318	323	1080	505	7.7	170	15	147	34	32	0.8	**6.24**	4050	22	6.0	<0.5	<0.1	<0.1	0.3	<2	0.9
11-Oct-22	4388	326	1030	430	7.4	180	14	133	24	30	0.8	**5.55**	3000	23	7.0	0.5	<0.1	<0.1	0.3	<2	-7.9
17-Apr-23	4440	314	1030	626	7.4	165	12	144	65	27	1.0	**6.45**	2850	30	5.9	3.1	<0.1	<0.1	0.3	**3**	11.2
17-Jul-23	4495	321	1140	557	7.5	153	11	136	53	25	0.8	**6.42**	3180	80	5.7	1.8	0.1	<0.1	0.2	**3**	3.2
10-Oct-23	4566	330	1070	632	7.4	158	13	145	66	32	1.0	**5.74**	3270	59	6.3	<0.2	<0.1	<0.1	0.3	**2**	4.3
16-Apr-24	4603	331	1090	514	7.3	165	12	134	28	29	0.8	**6.39**	3510	37	6.4	0.7	<0.2	<0.2	0.25	1	-4.4
15-Jul-24	4673	329	801	478	7.5	150	11	148	29	29	0.9	**6.18**	3370	36	5.7	1.4	0.1	<0.1	0.25	1	1.2
10-Oct-24	2067123	293	1110	535	7.6	145	10	138	27	30	1.0	**5.67**	3220	36	6.0	1.3	0.1	<0.1	0.27	**1.5**	2.6
07-May-25	251086513	327	1030	449	7.7	144	10	134	28	27	0.8	**5.48**	2670	28	6.6	0.5	<0.1	<0.02	0.27	**1.1**	-1.4
15-Jul-25	251923705	336	1100	473	7.3	150	10	146	26	31	0.8	**5.28**	3040	32	7.3	0.6	<0.1	<0.05	0.27	**4.2**	-0.4
06-Oct-25	252881504	343	1080	500	7.5	155	13	153	29	37	1.0	**5.76**	3390	48	7.1	0.6	<0.1	<0.05	0.32	<1	2.1
TOTAL SAMPLES		115	114	115	115	115	100	100	100	99	99	113	93	111	115	115	115	114	115	115	
AVERAGE 2025		335	1070	474	7.5	150	11	144	28	32	0.9	5.507	3033	36	7.0	0.6	<0.1	<0.05	0.29	1.77	

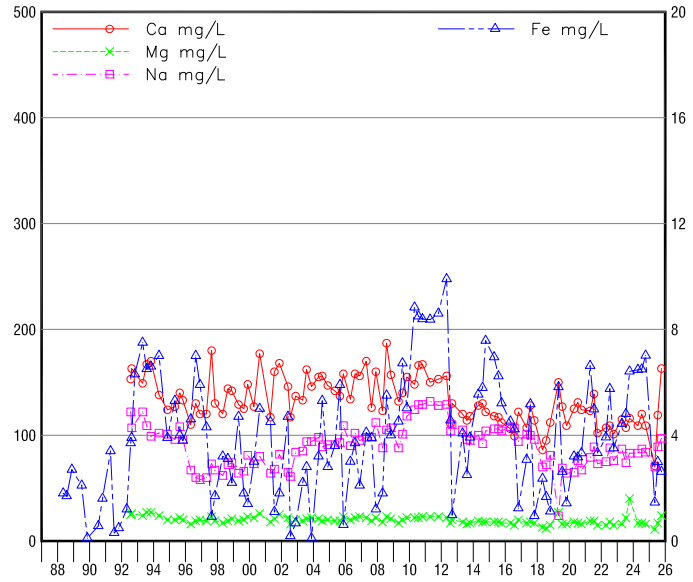
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









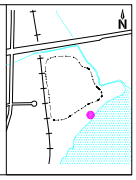


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH22-IIR

FORMERLY 22-II
CONVERTED May 19

PEAT

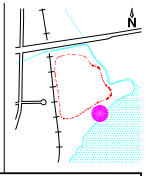
22578520 28 Nov 25	wsp	25G027

BH22-IIR

PEAT

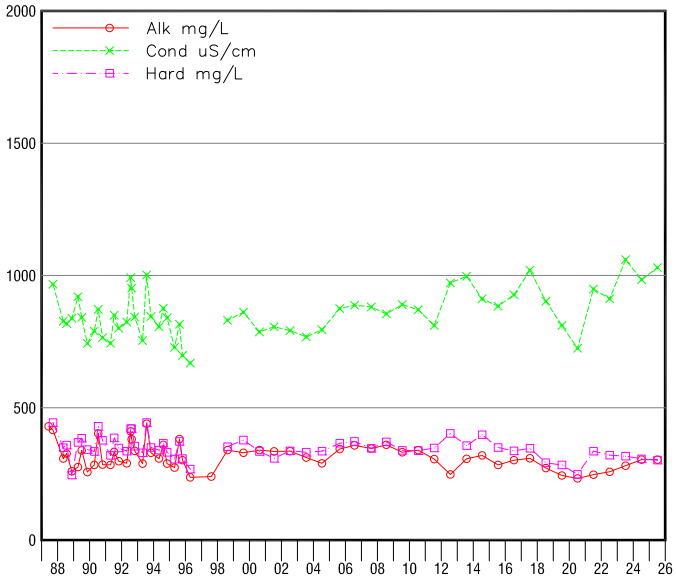
OBSERVATION WELL

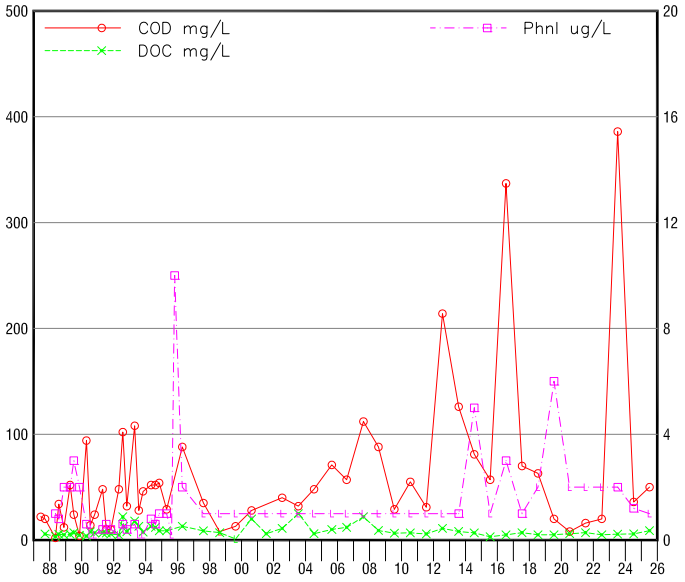
FORMERLY BH22-II
CONVERTED May 19

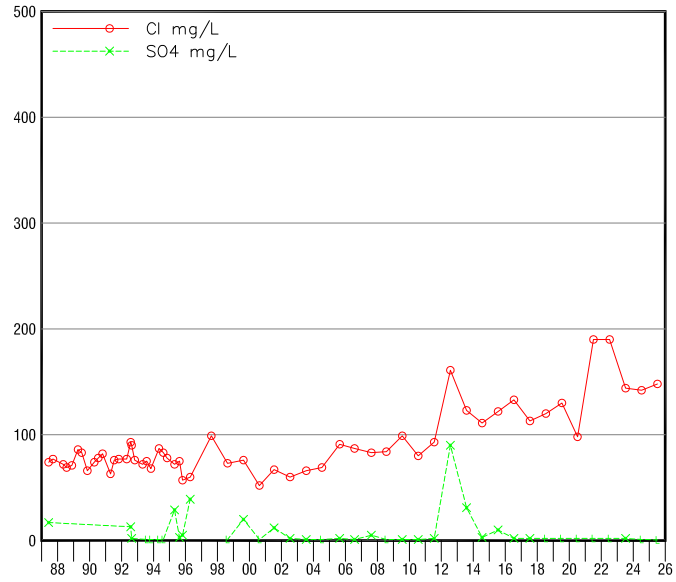


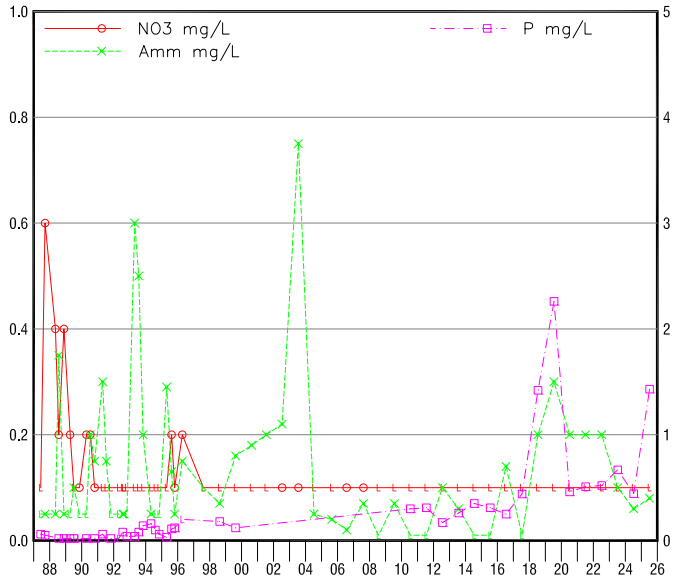
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
26-Apr-16	3189	332	1150	337	7.6	184	4	106	17	108	3.6	**4.52**	372	111	6.8	1.6	<0.1	<0.1	0.67	<1	-0.9
28-Jul-16	3231	272	1040	310	7.7	179	14	99	15	107	2.2	**4.22**	432	272	6.2	2.1	0.4	0.5	0.56	<1	1.2
25-Oct-16	3317	230	1240	388	7.7	158	172	122	20	94	4.9	**1.24**	394	80	8.8	1.7	0.1	<0.1	0.46	<1	-2.5
02-May-17	3356	277	1100	336	7.5	143	33	107	17	101	5.1	**3.07**	389	129	3.5	2.3	0.1	<0.1	0.86	<1	5.4
26-Jul-17	3424	395	1180	396	7.7	123	5	128	18	100	6.5	**5.17**	469	48	24	3.6	<0.1	<0.1	1.71	<1	5.1
25-Oct-17	3498	261	1070	356	7.5	135	32	114	17	96	5.9	**0.95**	330	115	10	1.3	0.2	<0.1	0.58	<1	8.4
30-Apr-18	3549	240	785	267	7.3	110	10	86	13	70	4.3	**2.36**	314	83	6.0	0.9	<0.1	<0.1	0.60	<2	3.2
23-Jul-18	3606	234	907	289	7.3	120	40	95	12	72	4.2	**1.67**	201	73	7.0	0.7	1.0	<0.1	0.2	<2	0.4
24-Oct-18	3673	255	928	343	7.4	140	41	112	15	81	3.9	**1.12**	324	37	11	1.0	<0.1	<0.1	0.3	**3**	3.0
30-Apr-19	3725	269	901	485	8.4	120	12	150	27	24	0.9	**5.82**	2670	14	6.0	0.9	<0.1	<0.1	0.60	**4**	10.1
26-Jul-19	3781	338	953	384	7.4	110	<2	127	16	69	6.1	**2.62**	365	37	14	1.8	<0.1	<0.1	1.3	<2	5.5
30-Oct-19	3851	295	900	335	7.2	110	31	109	16	64	3.4	**1.43**	357	26	11	1.4	<0.1	<0.1	0.7	**2**	0.4
20-Apr-20	3887	335	1040	386	7.8	140	5	125	18	65	3.7	**3.20**	413	35	11	1.8	<0.1	<0.1	0.8	<2	0.3
15-Jul-20	3945	364	1000	398	7.3	120	14	131	17	76	4.0	**3.16**	391	57	16	2.0	<0.1	<0.1	1.1	<2	2.6
06-Oct-20	3989	358	961	378	7.8	130	10	124	16	67	3.5	**3.32**	421	42	9.0	1.4	<0.1	<0.1	0.8	<2	-1.5
22-Apr-21	4061	322	1070	385	7.7	160	<2	123	19	79	3.9	**6.62**	505	34	12	2.2	<0.1	<0.1	1.1	<2	3.1
20-Jul-21	4118	339	986	427	7.3	150	<2	139	19	89	3.6	**4.98**	450	48	15	1.6	<0.1	<0.1	0.6	<2	8.0
07-Oct-21	4173	297	891	315	6.9	140	53	102	15	73	3.2	**3.33**	364	28	13	0.6	<0.1	<0.1	0.3	<2	-5.5
19-Apr-22	4239	300	955	329	7.5	160	26	107	15	75	3.2	**3.92**	385	39	10	1.1	<0.1	<0.1	0.7	<20	-4.4
15-Jul-22	4319	337	1040	347	7.7	160	<2	109	18	88	3.7	**5.75**	454	46	13	1.6	<0.1	<0.1	1.0	<2	-0.5
11-Oct-22	4389	308	976	313	7.4	170	13	101	15	76	3.5	**3.51**	357	40	13	1.0	<0.1	<0.1	0.6	<2	-6.7
17-Apr-23	4441	289	1090	355	7.5	200	4	115	16	87	3.9	**4.43**	406	42	9.3	5.7	<0.1	<0.1	0.7	**2**	-1.6
17-Jul-23	4496	325	1110	356	7.6	147	<1	107	22	74	3.9	**4.80**	398	113	13	3.8	<0.1	<0.1	1.0	**2**	1.8
10-Oct-23	4567	343	1060	454	7.3	150	<1	116	40	83	4.0	**6.41**	400	79	13	1.4	<0.1	<0.1	1.1	1	5.5
16-Apr-24	4604	326	1080	334	7.3	166	<1.5	109	17	83	4.0	**6.47**	475	49	10	1.7	<0.2	<0.2	0.83	1	-1.6
15-Jul-24	4674	356	1010	329	7.4	101	5	120	17	87	4.1	**6.49**	411	36	10	3.6	0.2	<0.1	1.05	1	6.9
10-Oct-24	2067124	215	976	357	7.7	116	64	109	16	84	2.6	**7.01**	437	164	8.6	2.3	0.1	<0.1	0.24	**1.6**	9.4
07-May-25	251086514	242	903	220	7.8	137	17	71	11	70	3.2	**1.46**	200	54	10	1.7	0.2	0.2	0.53	<1	-8.9
15-Jul-25	251923706	351	1080	366	7.4	133	<0.6	119	17	89	2.0	**2.99**	346	65	17	1.4	<0.1	<0.02	0.14	**3.8**	2.7
06-Oct-25	252881505	207	1510	505	8.0	143	413	163	24	97	2.4	**2.62**	690	59	12	1.2	<0.1	<0.05	0.53	**1.2**	-7.3
TOTAL SAMPLES		111	111	112	111	112	97	98	98	98	98	110	91	109	112	113	112	113	113	111	
AVERAGE 2025		267	1164	364	7.7	138	143	118	17	85	2.5	2.357	412	59	13	1.4	<0.1	0.1	0.40	1.67	

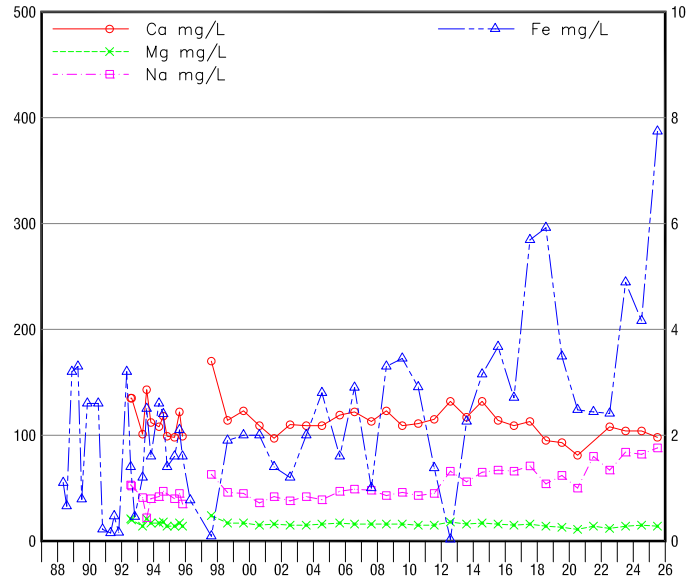
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



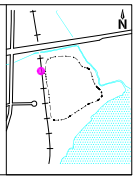








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH23

PEAT

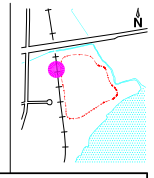
Screen 219.7 - 218.2 masl

22578520 28 Nov 25	wsp	25G028

BH23

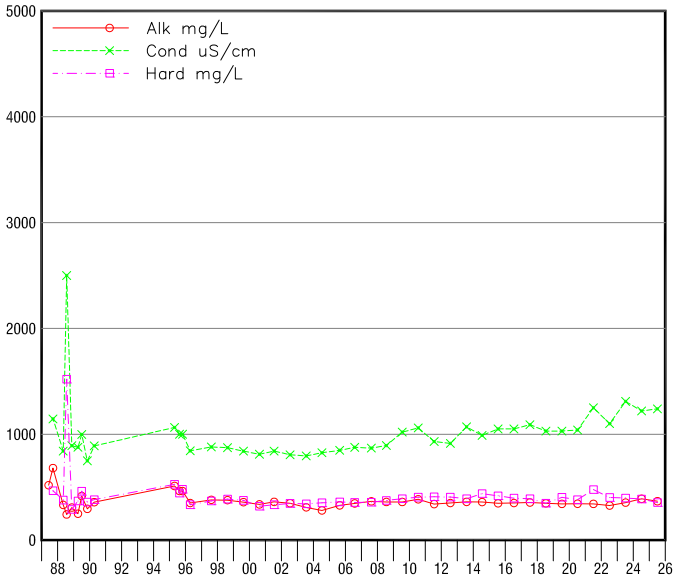
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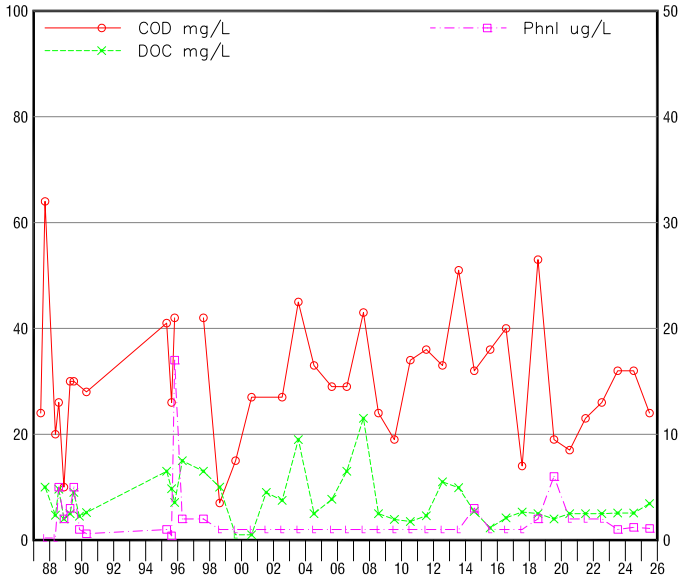
OBSERVATION WELL
Screen 219.7 - 218.2 masl

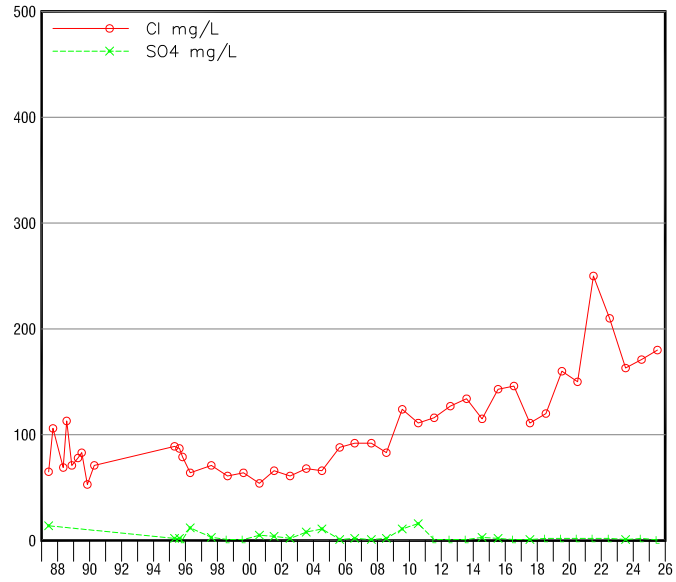


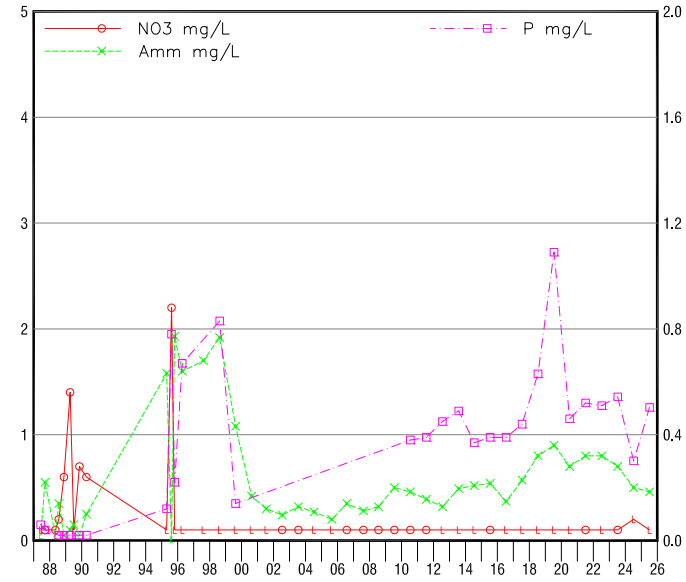
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
17-Apr-96	100728	237	669	268	7.6	60	39	*89*	*13*	*95*	*4.0*	**0.77**	220	88	13	0.2	0.2	<0.1	0.15	**2**	14.8
13-Aug-97	100729	240	*1200*	*520*	7.2	99	*320*	170	24	63	6.0	0.09	100	35	8.7	1.0	<0.1	<0.1	<0.10	<1	-3.2
19-Aug-98	100730	340	831	353	6.6	73	<1	114	17	46	5.3	**1.9**	670	<8	7.0	0.7	<0.1	<0.1	0.07	<1	2.6
17-Aug-99	100731	330	861	378	7.1	76	20	123	17	45	4.0	**2.0**	569	13	<1.0	0.6	<0.1	<0.1	0.16	<1	3.4
16-Aug-00	100732	340	787	335	7.2	52	<1	109	15	36	4.0	**2.0**	464	28	20	1.0	<0.1	<0.1	0.18	<1	1.0
18-Jul-01	100733	335	806	309	7.2	67	12	97	16	42	3.0	**1.4**	679		6.0	0.8	<0.1	<0.1	0.20	<1	-4.2
17-Jul-02	100734	336	792	337	7.3	60	2	110	15	38	3.3	**1.2**	478	40	11	0.7	0.1	<0.1	0.22	<1	0.4
22-Jul-03	102529	312	768	332	7.6	66	1	109	15	42	3.9	**2.0**	710	32	25	1.7	0.1	<0.1	0.75	<1	3.6
14-Jul-04	1217	290	795	336	7.1	69	<1	109	16	39	2.6	**2.8**	740	48	6.0	1.3	<0.1	<0.1	0.05	<1	5.4
24-Aug-05	58243	344	875	366	8.3	91	2	119	17	47	3.9	**1.6**	449	71	10	1.9	<0.1	<0.1	0.04	<1	0.3
28-Jul-06	67283	358	888	373	7.1	87	1	122	16	49	3.3	**2.9**	603	57	12	1.2	0.1	<0.1	0.02	<1	0.5
16-Aug-07	78163	346	881	347	7.6	83	5	113	16	48	4.2	**1.00**	511	112	22	2.9	0.1	<0.1	0.07	<1	-0.9
24-Jul-08	87243	360	855	371	7.3	84	<1	123	16	43	3.9	**3.30**	761	88	9.0	1.7	<0.1	<0.1	<0.01	<1	0.4
23-Jul-09	B09-225	332	890	339	7.1	99	1	109	16	46	3.0	**3.45**	936	29	6.5	1.1	<0.1	<0.1	0.07	<1	-2.6
22-Jul-10	2090	340	871	338	7.6	80	1	111	15	43	3.8	**2.91**	1690	55	6.8	0.9	<0.1	<0.1	<0.01	<1	-0.7
22-Jul-11	2253	306	811	348	7.4	93	2	115	15	45	3.5	**1.38**	1080	31	5.8	0.9	<0.1	<0.1	<0.01	<1	2.2
25-Jul-12	2454	248	972	403	8.0	161	90	132	18	66	3.4	0.03	363	214	11	1.0	<0.1	<0.1	0.10	<1	-1.5
31-Jul-13	2633	307	997	357	7.5	123	31	117	16	56	2.5	**2.26**	1310	126	8.1	0.8	<0.1	<0.1	0.06	1	-2.5
21-Jul-14	2844	320	912	398	7.6	111	3	132	17	65	2.6	**3.15**	1780	81	6.8	1.3	<0.1	<0.1	<0.01	**5**	7.3
20-Jul-15	3044	284	884	350	7.6	122	10	114	16	67	2.4	**3.67**	1130	57	3.1	1.5	<0.1	<0.1	<0.01	<1	4.5
17-Jul-16	3211	302	927	337	7.8	133	2	109	15	66	3.2	**2.71**	1470	337	4.9	0.9	<0.1	<0.1	0.14	**3**	-0.5
17-Jul-17	3404	309	1020	347	7.8	113	2	113	16	71	2.1	**5.69**	2710	70	7.0	0.8	<0.1	<0.1	<0.01	1	5.0
16-Jul-18	3584	272	903	292	7.8	120	<2	95	14	54	1.9	**5.92**	1040	63	5.0	0.6	<0.1	<0.1	0.2	<2	-1.8
17-Jul-19	3759	244	811	284	7.4	130	<2	93	13	62	2.6	**3.49**	774	20	5.0	<0.5	<0.1	<0.1	0.3	**6**	0.5
08-Jul-20	3923	233	725	248	7.5	98	<2	81	11	50	2.1	**2.48**	516	8	6.0	<0.5	<0.1	<0.1	0.2	<2	-0.8
07-Jul-21	4119	247	949	336	7.8	190	<2		14	80	2.7	**2.44**	653	16	7.0	0.8	<0.1	<0.1	0.2	<2	0.7
12-Jul-22	4297	258	912	321	7.4	190	<2	108	12	67	2.0	**2.41**	520	20	5.0	1.0	<0.1	<0.1	0.2	<2	-5.2
11-Jul-23	4474	281	1060	317	7.7	144	2	104	14	84	2.0	**4.89**	882	386	5.6	6.3	<0.1	<0.1	0.1	**2**	7.2
10-Jul-24	4652	304	984	307	7.9	142	<1	104	15	82	2.4	**4.16**	614	36	5.8	0.4	<0.1	<0.1	0.06	**1.2**	0.7
08-Jul-25	251839206	304	1030	302	7.8	148	<0.6	98	14	88	1.5	**7.74**	1010	50	8.9	1.2	<0.1	<0.02	0.08	<1	0.1
TOTAL SAMPLES		57	55	55	56	57	39	39	40	39	39	53	33	53	54	57	57	56	57	54	
AVERAGE 2025																					

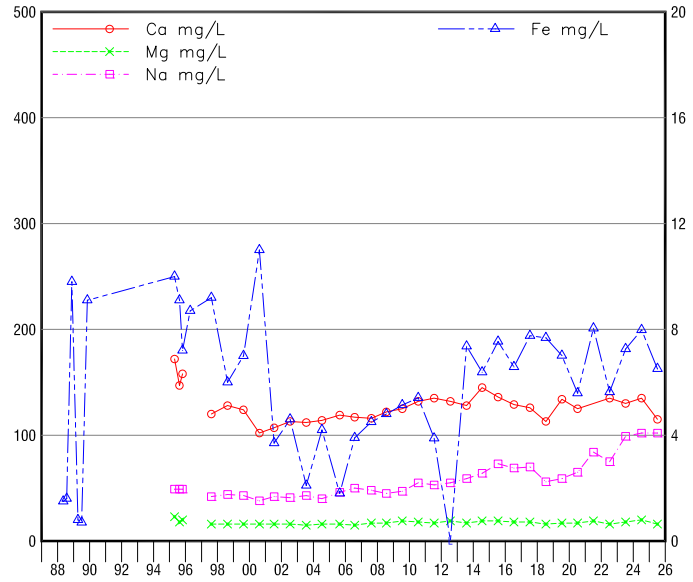
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









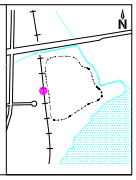


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH24R

FORMERLY 24
CONVERTED Apr 95

PEAT

Screen 220.9 - 220.1 masl

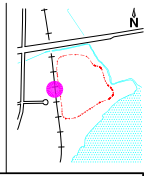
22578520 28 Nov 25	wsp	25G029

BH24R

PEAT

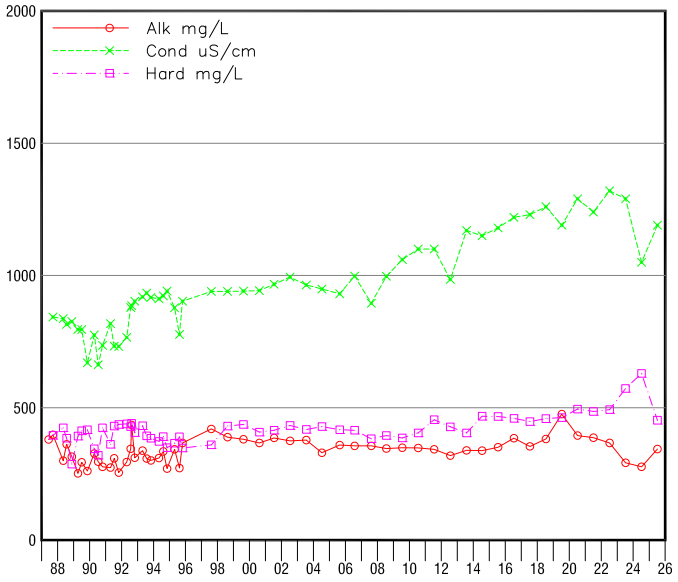
OBSERVATION WELL
Screen 220.9 - 220.1 masl

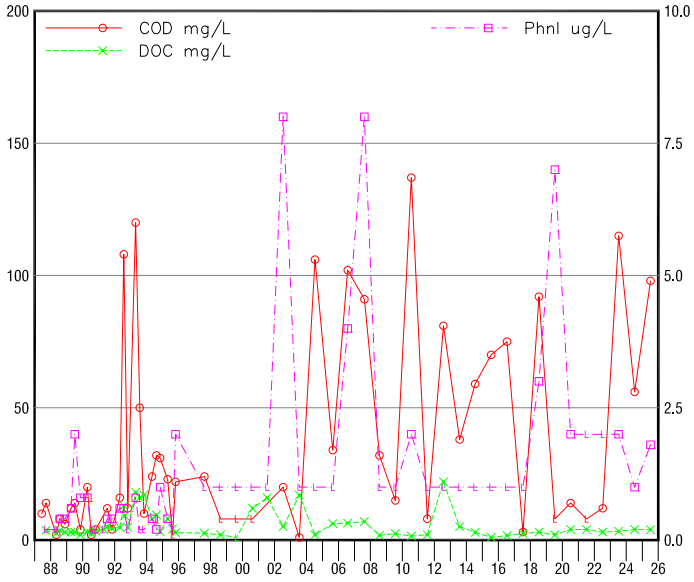
FORMERLY BH24
CONVERTED Apr 95

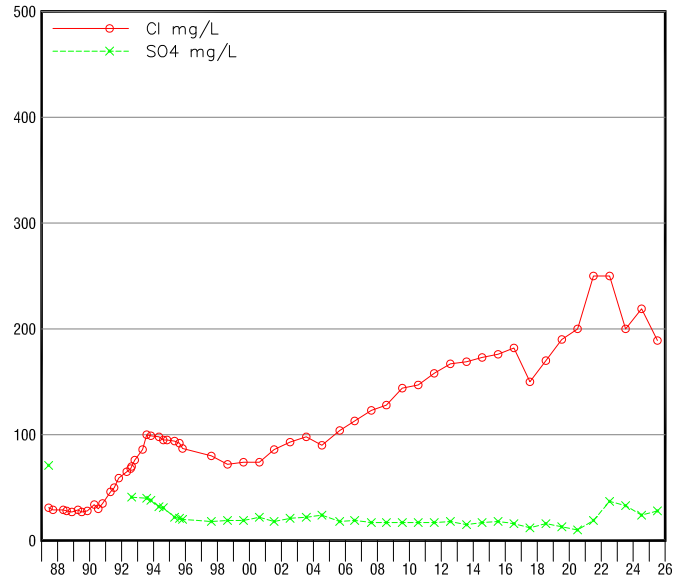


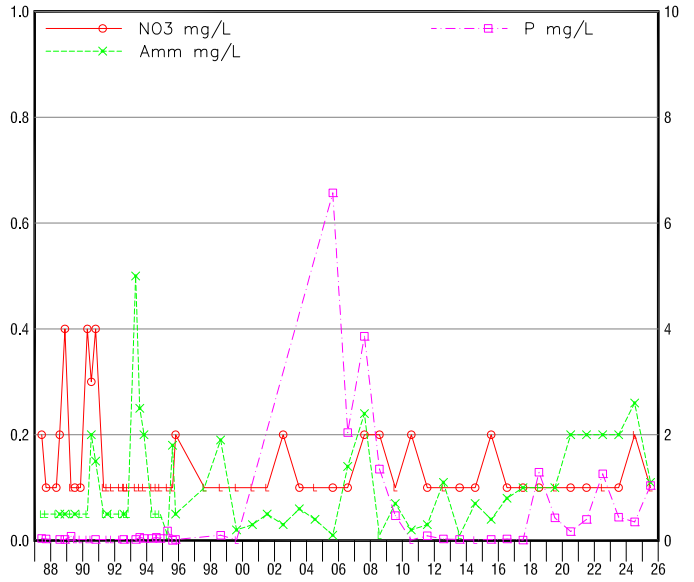
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
17-Apr-96	100748	350	843	334	7.6	64	12	*123*	*16*	*106*	*6.1*	**8.7**	2900	*239*	15	2.6	<0.1	<0.1	1.60	**2**	16.6
13-Aug-97	100749	380	880	370	7.5	71	3	120	16	42	7.3	**9.2**	3000	42	13	2.8	<0.1	<0.1	1.70	**2**	0.6
19-Aug-98	100750	377	873	387	6.6	61	<1	128	16	44	11	**6.0**	2650	7	10	2.3	<0.1	<0.1	1.92	<1	3.9
17-Aug-99	100751	358	840	375	7.0	64	<1	124	16	43	6.0	**7.0**	2350	15	<1.0	1.6	<0.1	<0.1	1.08	<1	3.8
16-Aug-00	100752	337	811	320	7.1	54	5	102	16	38	5.0	**11.0**	2350	27	1.0	1.0	<0.1	<0.1	0.42	<1	1.5
18-Jul-01	100753	361	841	334	7.2	66	4	107	16	42	4.0	**3.7**	2420		9.0	1.0	<0.1	<0.1	0.30	<1	−2.3
17-Jul-02	100754	348	806	346	7.0	61	2	113	16	41	4.1	**4.6**	1660	27	7.5	0.8	0.1	<0.1	0.24	<1	1.7
22-Jul-03	102530	309	795	342	7.6	68	8	112	15	43	4.6	**2.1**	970	45	19	0.9	0.1	<0.1	0.32	<1	3.7
14-Jul-04	1218	280	825	352	7.1	66	11	114	16	40	4.3	**4.2**	1240	33	5.0	0.8	<0.1	<0.1	0.27	<1	8.0
24-Aug-05	58243	328	848	361	8.3	88	1	119	16	46	4.4	**1.8**	901	29	7.7	0.8	<0.1	<0.1	0.20	<1	2.1
31-Jul-06	67313	346	876	355	7.2	92	2	117	15	50	4.5	**3.9**	1090	29	13	0.8	0.1	<0.1	0.35	<1	−0.2
16-Aug-07	78163	366	869	358	7.5	92	1	116	17	48	4.4	**4.50**	1100	43	23	0.9	0.1	<0.1	0.28	<1	−1.9
24-Jul-08	87243	360	893	374	7.3	83	2	122	17	45	5.6	**4.80**	1170	24	5.0	1.0	0.1	<0.1	0.32	<1	1.0
23-Jul-09	B09-226	360	1020	391	7.1	124	11	125	19	47	4.3	**5.14**	1280	19	3.9	1.1	0.1	<0.1	0.50	<1	−3.6
22-Jul-10	2091	385	1060	405	7.6	111	16	132	18	55	4.3	**5.41**	1300	34	3.5	1.0	0.1	<0.1	0.46	<1	−1.7
21-Jul-11	2254	340	931	409	7.4	116	<1	135	17	53	4.2	**3.88**	1340	36	4.6	1.0	0.1	<0.1	0.39	<1	3.1
25-Jul-12	2455	350	913	406	8.0	127	<1	132	19	55	4.5	<0.01	1380	33	11	2.1	<0.1	<0.1	0.32	<1	0.5
31-Jul-13	2634	361	1070	390	7.5	134	<1	128	17	59	4.1	**7.36**	1400	51	9.9	1.3	<0.1	<0.1	0.49	<1	−1.1
21-Jul-14	2845	359	989	439	7.6	115	3	145	19	64	4.3	**6.38**	1500	32	5.4	1.2	<0.1	<0.1	0.52	**3**	6.6
20-Jul-15	3045	347	1050	418	7.6	143	2	136	19	73	3.9	**7.54**	1830	36	2.3	2.4	0.1	<0.1	0.54	<1	4.0
17-Jul-16	3212	350	1050	396	7.8	146	<1	129	18	69	3.8	**6.58**	1550	40	4.2	1.3	<0.1	<0.1	0.37	<1	0.7
18-Jul-17	3405	355	1090	390	7.8	111	1	126	18	70	3.6	**7.76**	1600	14	5.3	1.5	<0.1	<0.1	0.57	<1	4.6
16-Jul-18	3585	347	1030	348	7.8	120	<2	113	16	56	3.9	**7.68**	1410	53	5.0	2.2	<0.1	<0.1	0.8	**2**	−2.5
17-Jul-19	3760	342	1030	404	7.4	160	<2	134	17	59	3.8	**7.01**	1660	19	4.0	<0.5	<0.1	<0.1	0.9	**6**	−1.3
08-Jul-20	3924	343	1040	382	7.4	150	<2	125	17	65	3.3	**5.59**	1350	17	5.0	0.7	<0.1	<0.1	0.7	<2	−1.2
07-Jul-21	4120	342	1250	477	7.4	250	<2		19	84	4.3	**8.04**	1710	23	5.0	0.6	0.1	<0.1	0.8	<2	−0.1
12-Jul-22	4298	326	1100	402	7.4	210	<2	135	16	75	3.3	**5.63**	1330	26	5.0	1.8	<0.1	<0.1	0.8	<2	−3.4
11-Jul-23	4475	354	1310	397	7.5	163	1	130	18	99	3.8	**7.26**	1340	32	5.1	2.5	0.1	<0.1	0.7	1	8.8
10-Jul-24	4653	390	1220	388	7.9	171	<2	135	20	102	3.6	**7.98**	1620	32	5.1	0.7	<0.2	<0.2	0.50	**1.2**	2.3
08-Jul-25	251839207	367	1240	354	7.6	180	<0.6	115	16	102	3.1	**6.51**	1170	24	6.9	0.9	<0.1	<0.1	0.46	**1.1**	−2.1
TOTAL SAMPLES		42	41	41	41	42	34	31	32	32	32	39	33	39	41	42	42	42	42	41	
AVERAGE 2025																					

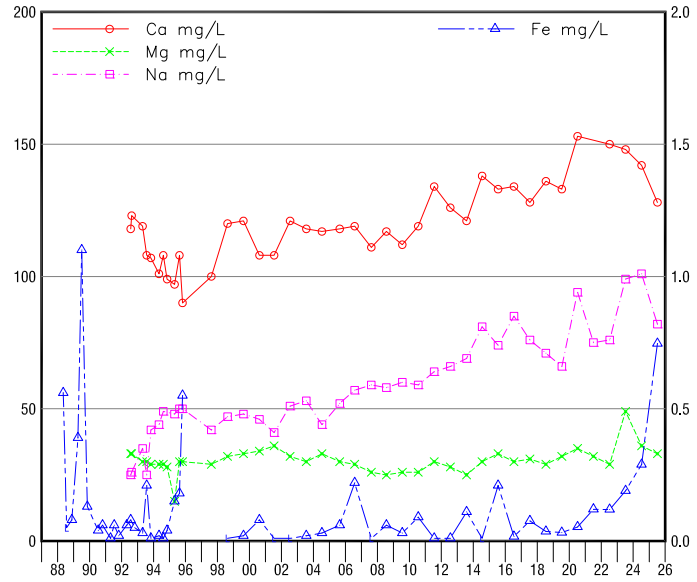
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



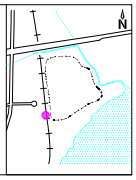








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH25

SAND AQUIFER

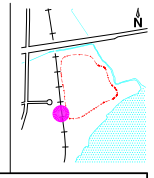
Screen 221.4 - 220.6 masl

22578520 28 Nov 25	wsp	25G030

BH25

SAND AQUIFER

OBSERVATION WELL
Screen 221.4 - 220.6 masl



DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
25-Oct-95	100782	367	903	348	7.9	87	20	90	30	50	2.9	**0.55**	102	22	2.8	0.2	0.2	<0.1	0.05	**2**	-5.1
13-Aug-97	100784	420	940	360	7.5	80	18	100	29	42	4.9	*3.6*	120	24	2.6	0.5	<0.1	<0.1	<0.10	<1	-7.6
19-Aug-98	100785	389	940	431	6.7	72	19	120	32	47	5.4	<0.01	23	<8	2.0	0.2	<0.1	<0.1	0.19	<1	2.8
17-Aug-99	100786	381	941	437	7.2	74	19	121	33	48	3.0	0.02	59	<8	<1.0	0.2	<0.1	<0.1	0.02	<1	3.9
16-Aug-00	100787	367	943	408	7.3	74	22	108	34	46	3.0	0.08	47	<8	12	0.3	<0.1	<0.1	0.03	<1	1.9
18-Jul-01	100788	386	967	415	7.3	86	18	108	36	41	3.0	<0.01	24		16	0.4	<0.1	<0.1	0.05	<1	-1.4
17-Jul-02	100789	375	994	433	7.0	93	21	121	32	51	3.2	<0.01	53	20	5.1	2.3	0.2	<0.1	0.03	**8**	1.9
23-Jul-03	102531	378	964	418	7.9	98	22	118	30	53	3.3	0.02	55	1	17	0.7	0.1	<0.1	0.06	<1	-0.1
14-Jul-04	1219	330	949	429	7.6	90	24	117	33	44	2.9	0.03	224	106	2.0	1.1	<0.1	<0.1	0.04	<1	4.5
24-Aug-05	58243	359	931	417	8.1	104	18	118	30	52	3.4	0.06	177	34	6.2	2.5	0.1	<0.1	0.01	<1	1.0
31-Jul-06	67313	356	998	415	7.5	113	19	119	29	57	4.3	0.22	264	102	6.4	1.0	0.1	<0.1	0.14	**4**	1.1
16-Aug-07	78163	356	895	383	7.7	123	17	111	26	59	3.9	<0.01	230	91	7.0	1.9	0.2	0.2	0.24	**8**	-2.8
25-Jul-08	87253	346	997	395	7.3	128	17	117	25	58	3.4	0.06	234	32	1.8	0.7	0.2	<0.1	<0.01	<1	-1.3
24-Jul-09	B09-227	349	1060	386	7.1	144	17	112	26	60	3.6	0.03	207	15	2.4	0.4	<0.1	<0.1	0.07	<1	-4.4
23-Jul-10	2092	348	1100	405	7.8	147	17	119	26	59	3.5	0.09	187	137	1.5	0.2	0.2	<0.1	0.02	**2**	-3.3
22-Jul-11	2255	343	1100	455	7.5	158	17	134	30	64	3.4	0.01	83	8	2.0	0.3	0.1	<0.1	0.03	<1	1.5
25-Jul-12	2456	319	985	428	8.1	167	18	126	28	66	4.0	0.01	334	81	22	2.3	<0.1	<0.1	0.11	<1	0.5
31-Jul-13	2635	339	1170	405	7.7	169	15	121	25	69	3.5	0.11	304	38	5.1	0.4	0.1	<0.1	<0.01	<1	-2.5
21-Jul-14	2846	338	1150	468	7.7	173	17	138	30	81	3.8	<0.01	174	59	2.9	0.4	0.1	<0.1	0.07	<1	3.9
21-Jul-15	3046	351	1180	467	7.8	176	18	133	33	74	3.4	0.21	140	70	1.0	1.3	0.2	<0.1	0.04	<1	1.2
17-Jul-16	3213	385	1220	460	7.8	182	16	134	30	85	3.2	0.017	173	75	1.7	0.9	0.1	<0.1	0.08	<1	-0.9
17-Jul-17	3406	354	1230	448	7.9	150	12	128	31	76	3.0	0.076	216	3	2.5	0.5	0.1	<0.1	0.1	<1	3.2
17-Jul-18	3586	382	1260	459	7.9	170	16	136	29	71	3.8	0.036	297	92	3.0	<0.5	0.1	<0.1	<0.1	**3**	-1.2
16-Jul-19	3761	476	1190	463	7.3	190	13	133	32	66	3.3	0.032	153	<8	2.0	<0.5	<0.1	<0.1	0.1	**7**	-10.6
09-Jul-20	3925	395	1290	495	7.3	200	10	153	35	94	3.9	0.053	320	14	4.0	<0.5	0.1	<0.1	0.2	**2**	3.5
07-Jul-21	4121	387	1240	486	7.9	250	19		32	75	3.5	0.120	214	<8	4.0	0.6	0.1	<0.1	0.2	<2	-7.4
12-Jul-22	4299	367	1320	493	7.6	250	37	150	29	76	3.3	0.119	267	12	3.0	1.0	<0.1	<0.1	0.2	<2	-6.6
11-Jul-23	4476	292	1290	573	7.5	200	33	148	49	99	3.6	0.190	342	115	3.3	1.9	0.1	<0.1	0.2	**2**	13.6
10-Jul-24	4654	277	1050	630	7.8	219	24	142	36	101	4.3	0.289	313	56	4.0	0.5	<0.2	<0.2	0.26	1	8.8
08-Jul-25	251839208	344	1190	453	7.6	189	28	128	33	82	3.6	**0.746**	454	98	3.9	1.5	<0.1	<0.05	0.11	**1.8**	0.1
TOTAL SAMPLES		56	55	55	55	56	38	39	40	39	39	51	32	53	55	55	56	56	56	54	
AVERAGE 2025																					

all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

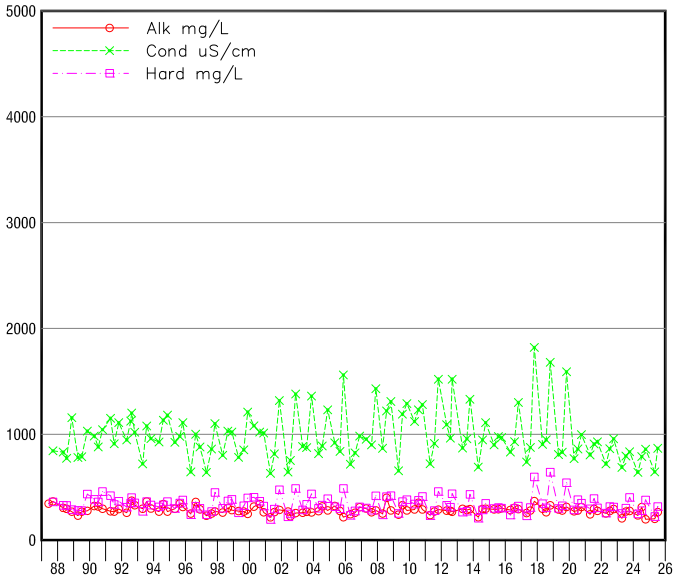
CITY OF ORILLIA
KITCHENER STREET WASTE DIVERSION SITE

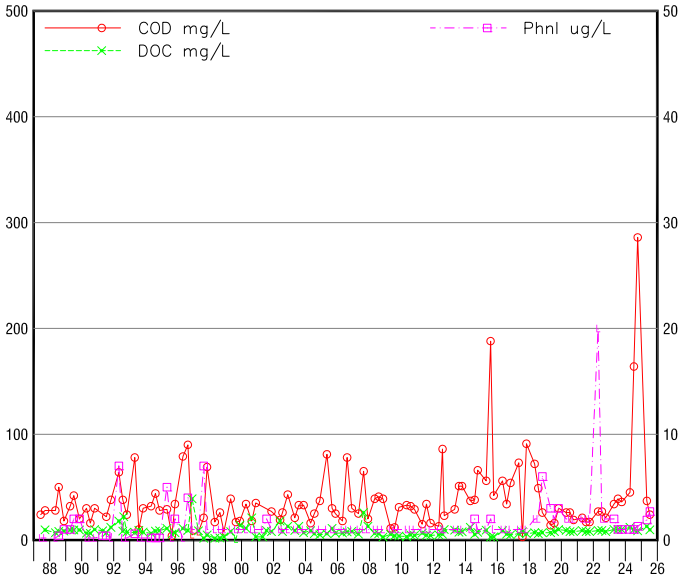
GENERAL CHEMISTRY REPORT

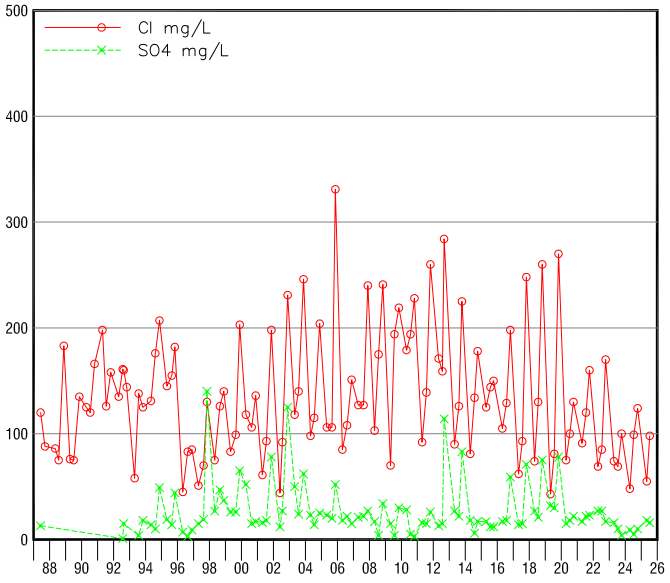
22578520
28 Nov 25

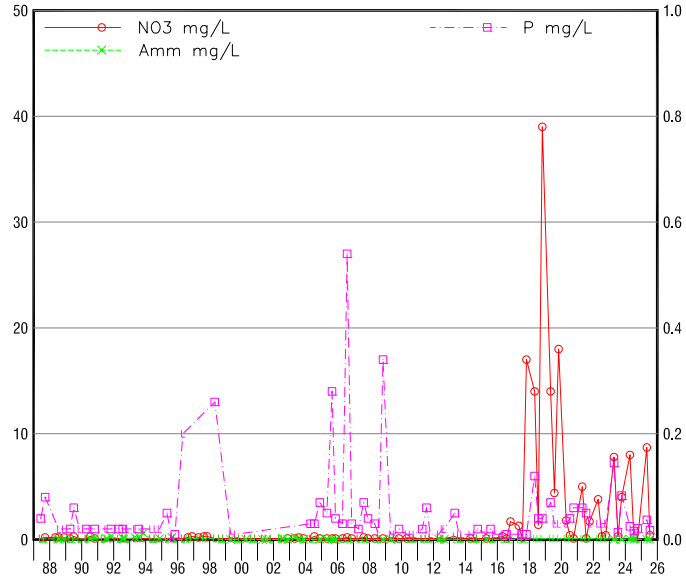
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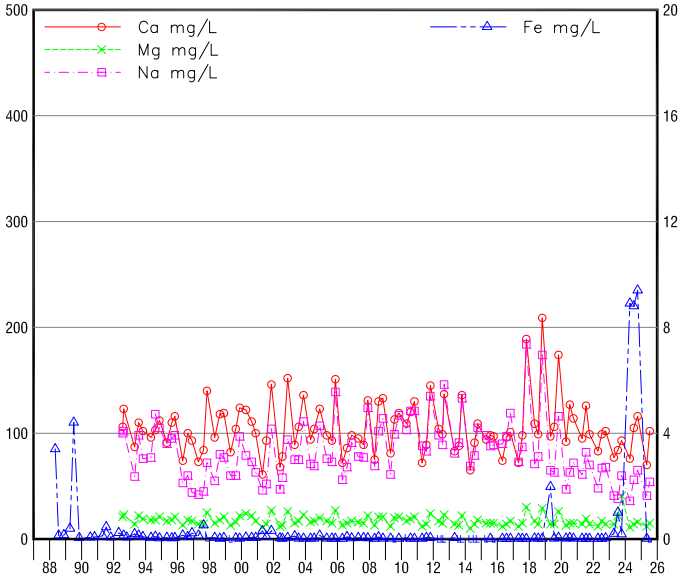
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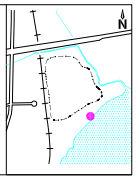








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH26

SAND AQUIFER

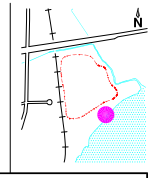
Screen 220.6 - 216.1 masl

22578520 28 Nov 25	wsp	25G031

BH26

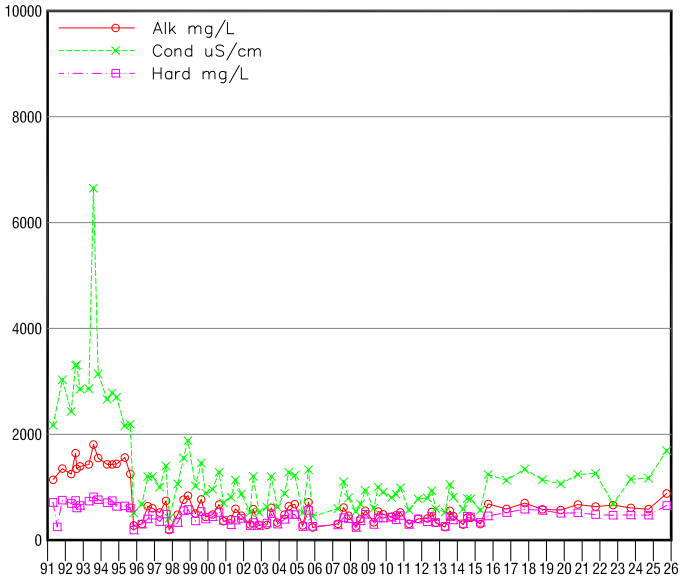
SAND AQUIFER

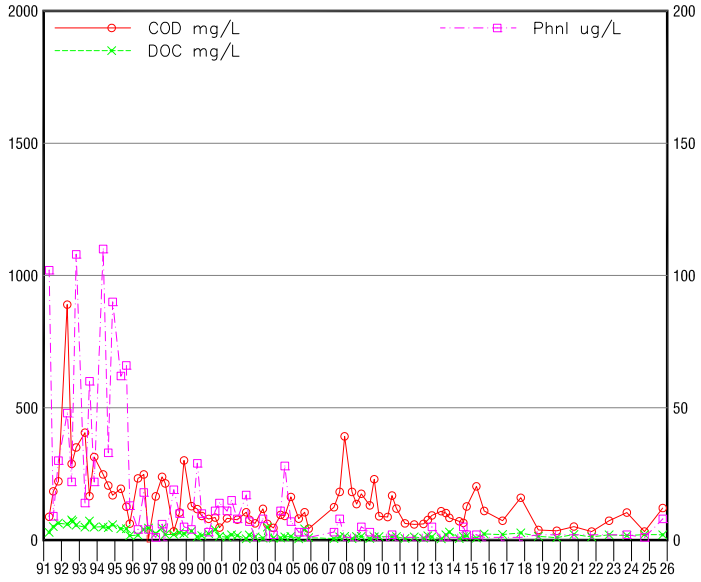
OBSERVATION WELL
Screen 220.6 - 216.1 masl

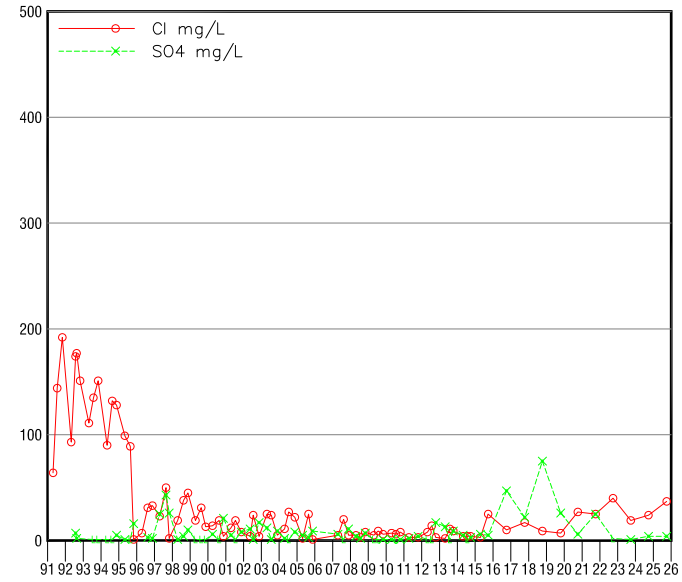


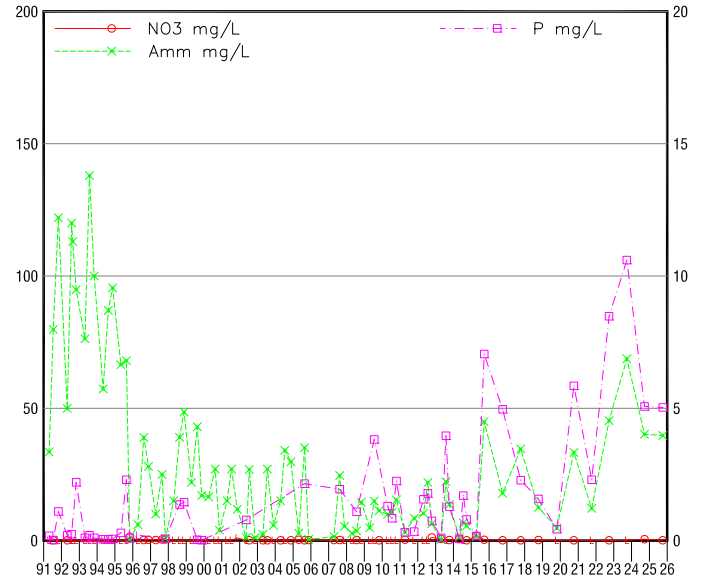
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
08-Oct-15	3119	300	969	302	7.7	150	12	97	15	89	2.3	<0.01	4	42	3.0	0.6	<0.1	<0.1	<0.01	<1	-1.8
26-Apr-16	3190	284	832	237	7.7	105	17	74	12	90	1.6	0.01	4	56	8.9	0.7	0.3	<0.1	<0.01	<1	-1.6
29-Jul-16	3232	306	930	298	7.9	129	18	96	14	97	1.8	0.008	20	34	5.6	0.5	0.1	<0.1	<0.01	<1	0.8
25-Oct-16	3318	292	1300	321	7.9	198	59	101	17	119	1.6	0.013	<1	54	4.8	0.5	1.7	<0.1	<0.01	<1	-4.1
02-May-17	3357	255	738	229	7.8	62	14	72	12	73	0.8	0.015	26	73	6.2	1.0	1.3	<0.1	<0.01	<1	4.3
26-Jul-17	3425	279	875	308	7.9	93	15	98	15	87	1.5	0.012	37	3	7.9	0.6	<0.1	<0.1	<0.01	<1	8.3
25-Oct-17	3499	368	1820	596	7.8	248	71	189	30	184	2.5	0.005	1	91	6.0	0.8	17	<0.1	<0.01	<1	8.2
30-Apr-18	3550	296	904	344	7.3	74	27	109	17	71	1.0	0.022	1	72	7.0	<0.5	14	<0.1	<0.1	<2	2.3
23-Jul-18	3607	262	948	305	7.9	130	21	99	14	78	1.4	0.019	13	49	6.0	1.7	1.4	<0.1	<0.1	<2	1.0
24-Oct-18	3674	328	1680	641	7.8	260	75	209	29	174	2.3	0.012	6	26	7.0	4.2	39	<0.1	<0.1	**6**	5.9
30-Apr-19	3726	289	808	298	8.6	43	32	97	14	65	5.0	**1.97**	299	14	7.0	0.8	14	<0.1	<0.1	**3**	2.8
26-Jul-19	3782	279	830	324	7.6	81	30	106	14	63	1.1	0.019	2.3	16	8.0	<0.5	4.4	0.1	<0.1	<2	2.8
30-Oct-19	3852	313	1590	542	7.7	270	78	174	26	116	1.5	0.048	78	30	10	0.8	18	<0.1	<0.1	**3**	-2.4
20-Apr-20	3888	271	769	285	7.9	75	15	92	13	47	0.9	0.016	2.7	26	9.0	0.7	1.8	<0.1	<0.1	<2	-0.8
15-Jul-20	3946	279	861	381	7.5	100	18	127	15	63	1.2	0.041	2.5	26	8.0	0.8	0.4	<0.1	<0.1	<2	8.8
06-Oct-20	3990	312	996	348	7.9	130	22	114	15	72	1.4	0.016	0.6	19	8.0	<0.5	0.1	<0.1	<0.1	<2	-0.8
22-Apr-21	4062	243	805	296	7.8	91	17	95	14	61	1.4	0.012	4.0	21	9.0	<0.5	5.0	<0.1	<0.1	<2	4.4
20-Jul-21	4122	295	908	392	7.8	120	22	126	19	82	1.9	0.013	7.7	17	8.0	<0.5	0.1	<0.1	<0.1	<2	7.7
07-Oct-21	4174	276	928	304	7.5	160	23	99	14	70	1.6	0.013	2.5	17	8.0	<0.5	1.7	<0.1	<0.1	<2	-7.4
19-Apr-22	4240	252	719	255	7.7	69	27	83	12	48	1.9	0.012	1.8	27	9.0	<0.5	3.8	<0.1	<0.1	<20	-3.3
15-Jul-22	4320	275	863	316	7.9	85	27	99	17	67	1.9	0.011	3.5	27	9.0	<0.5	0.3	<0.1	<0.1	<2	5.1
11-Oct-22	4390	293	957	312	7.8	170	17	102	14	68	2.3	0.029	4.4	21	8.0	<0.5	0.4	<0.1	<0.1	<2	-8.4
17-Apr-23	4442	205	686	251	7.6	74	16	77	14	41	2.8	0.200	6.0	34	10	3.1	7.8	<0.1	0.02	**2**	-1.5
17-Jul-23	4497	270	793	301	7.6	69	10	84	22	38	3.6	**1.00**	10	39	10	2.9	0.3	<0.1	<0.01	1	6.6
10-Oct-23	4568	275	834	403	7.5	100	4	93	41	60	5.1	0.180	5.0	36	9.9	0.5	4.0	<0.1	0.02	1	7.6
16-Apr-24	4605	233	640	247	7.2	48	9	76	11	36	4.1	**8.90**	6.8	45	12	0.7	8.0	<0.1	0.03	1	-0.4
15-Jul-24	4675	312	789	277	7.6	99	5	105	14	56	6.7	**8.80**	27	164	9.8	1.7	0.2	<0.1	0.03	1	1.0
10-Oct-24	2067125	196	859	379	7.8	124	10	116	16	65	4.6	**9.40**	64	286	8.7	1.2	<0.1	<0.1	<0.01	**1.3**	15.6
07-May-25	251086515	201	644	222	8.2	55	18	70	12	41	5.2	0.013	4.0	37	13	1.1	8.7	0.03	0.03	**1.9**	-1.6
15-Jul-25	251923707	264	867	317	7.8	98	16	102	15	54	4.2	<0.01	14	24	9.7	0.6	0.4	0.02	0.03	**2.7**	2.2
TOTAL SAMPLES		116	115	115	115	116	100	100	100	100	100	112	92	112	115	115	116	116	116	115	
AVERAGE 2025		233	756	270	8.0	77	17	86	14	48	4.7	<0.01	9	31	11	0.9	4.6	0.03	0.03	2.30	

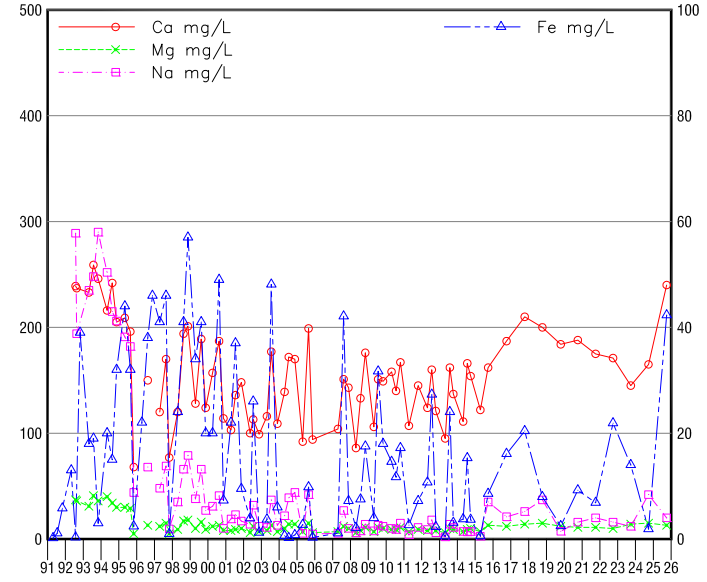
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



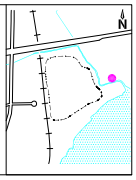








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH28-II

FILL

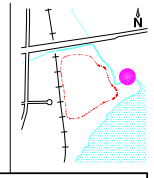
Screen 220.4 - 218.9 masl

22578520 28 Nov 25	wsp	25G032

BH28-II

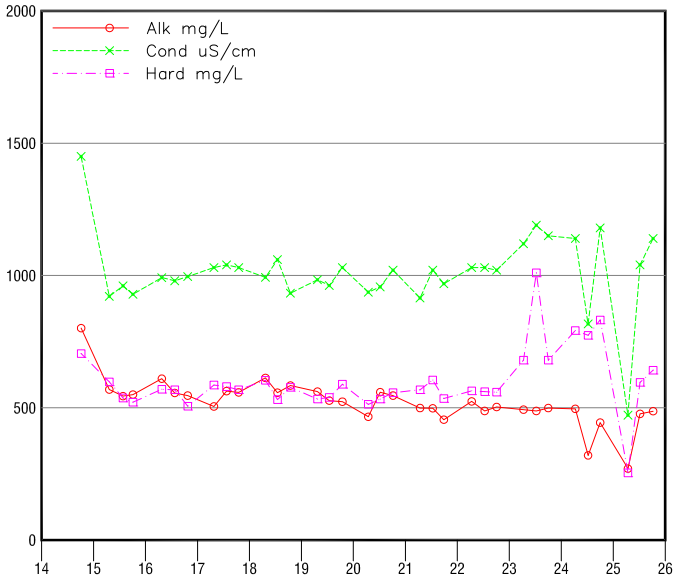
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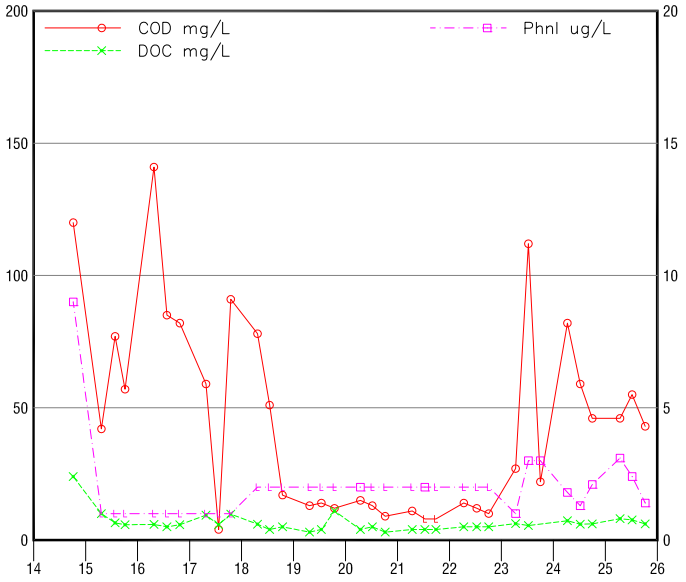
OBSERVATION WELL
Screen 220.4 - 218.9 masl

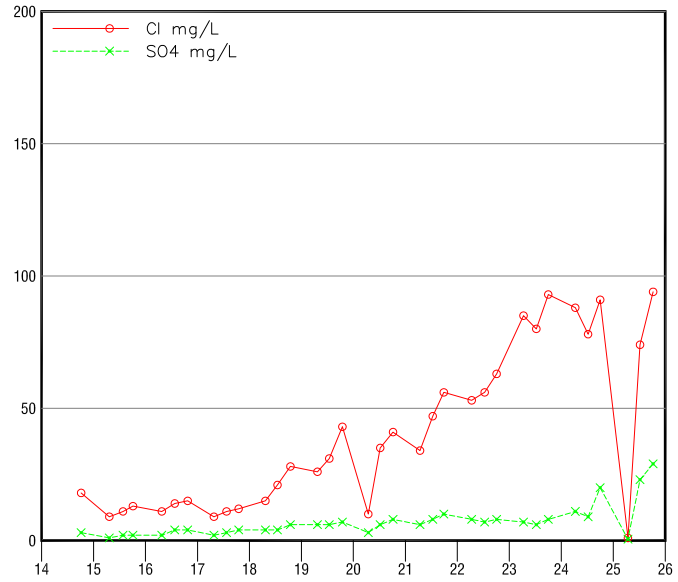


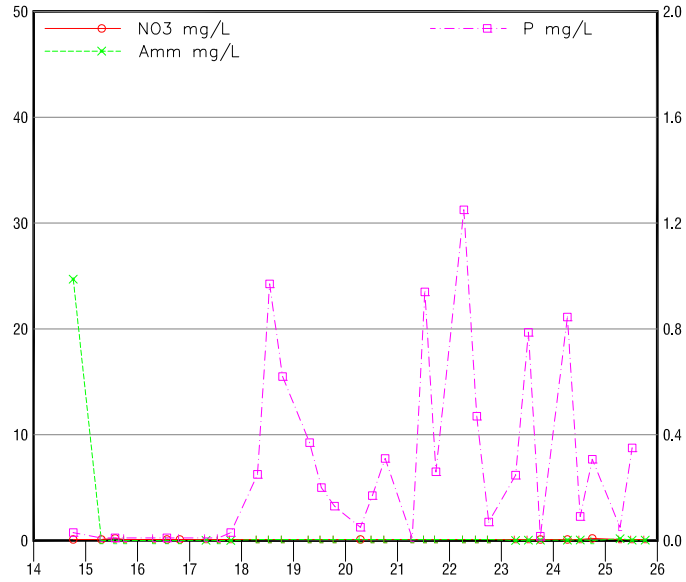
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
31-Oct-08	810313	555	940	488	6.8	8	7	176	11	14	9.5	**17.5**	210	175	14	18.2	<0.1	<0.1	14.5	**5**	3.1
23-Apr-09	0911682	335	601	294	6.6	5	<1	106	7	7.7	6.0	**3.96**	125	131	5.9	9.1	<0.1	<0.1	4.80	**3**	0.0
22-Jul-09	B09-239	540	1000	420	6.7	9	<1	151	11	13	9.5	**31.7**	229	230	12	19.8	<0.1	<0.1	14.9	<1	1.8
30-Oct-09	0934211	487	903	415	7.3	6	1	149	10	12	8.8	**18.0**	205	90	13	15.5	0.1	<0.1	11.3	<1	2.6
23-Apr-10	2034	441	803	432	7.2	7	1	158	9	10	7.7	**14.6**	156	87		12.8	<0.1	<0.1	9.93	<1	7.5
23-Jul-10	2094	468	868	386	7.2	6	<1	140	9	9.0	7.6	**11.7**	297	168	12	11.9	<0.1	<0.1	10.7	**2**	−0.1
21-Oct-10	2139	523	989	465	6.8	8	1	167	11	15	10	**17.2**	261	119	13	20.0	<0.1	<0.1	15.4	<1	5.2
13-Apr-11	2216	309	570	296	7.9	3	2	107	7	4.0	2.5	**2.64**	66	63	5.8	4.8	0.3	<0.1	3.12	<1	1.2
19-Oct-11	2314	402	778	399	7.0	3	4	145	9	11	6.9	**7.19**	109	59	12	8.8	<0.1	<0.1	8.42	<1	7.3
27-Apr-12	2381	407	795	345	7.5	8	<1	124	8	9.0	6.5	**10.7**	151	61	7.0	13.7	<0.1	<0.1	10.3	<1	1.0
25-Jul-12	2458	529	932	444	7.9	14	<1	160	11	18	11	**27.3**	289	76	16	21.3	<0.1	<0.1	21.9	<1	6.5
16-Oct-12	2524	324	590	333	7.7	3	17	121	8	6.0	4.9	**2.31**	118	93	12	7.4	1.2	0.4	6.39	**5**	4.3
25-Apr-13	06033	245	530	260	7.9	2	13	95	6	2.0	2.9	**0.52**	95	109	5.0	2.8	0.6	0.1	0.31	<1	1.6
31-Jul-13	2637	554	1050	446	7.3	11	<1	162	10	14	9.4	**24.0**	332	102	20	23.0	<0.1	<0.1	22.2	<1	3.5
10-Oct-13	2706	453	817	380	7.6	9	9	137	9	11	7.0	**3.08**	127	84	30	15.0	0.2	<0.1	13.7	<1	−1.0
30-Apr-14	2786	292	581	306	7.5	4	5	111	7	7.2	5.2	**3.76**	234	71	5.4	1.9	0.6	<0.1	1.27	<1	5.3
23-Jul-14	2848	424	786	451	7.3	4	<1	166	9	6.8	7.7	**15.3**	309	65	13	8.9	<0.1	<0.1	6.69	**5**	10.3
29-Sep-14	2899	420	776	439	7.5	4	3	154	10	7.1	8.0	**3.66**	383	127	16	6.2	0.1	<0.1	5.62	**2**	5.3
17-Apr-15	2982	301	567	333	7.1	3	6	122	7	2.6	2.3	**0.53**	57	203	7.0	2.1	1.8	<0.1	1.39	**2**	4.5
24-Sep-15	3129	682	1240	456	7.7	25	5	162	13	35	16	**8.56**	294	110	23	53.0	0.3	<0.1	44.9	<1	0.5
05-Oct-16	3274	589	1130	518	7.4	10	47	187	12	21	13	**16.1**	326	73	21	33.0	0.1	<0.1	17.9	<1	1.4
12-Oct-17	3452	698	1340	583	7.6	17	22	210	14	26	15	**20.4**	566	160	27	39.6	0.1	<0.1	34.6	<1	4.7
10-Oct-18	3618	581	1140	562	7.5	9	75	200	15	37	18	**7.96**	429	38	14	17.2	0.2	<0.1	12.5	<2	3.7
21-Oct-19	3806	567	1060	508	7.0	7	26	184	12	7.3	11	**2.44**	137	35	9.0	4.9	<0.1	<0.1	4.7	<2	−3.8
05-Oct-20	4012	672	1240	515	7.8	27	6	188	11	16	14	**9.22**	478	51	21	39.5	0.1	<0.1	33.3	<2	−0.9
05-Oct-21	4186	632	1260	482	7.6	25	25	175	11	20	14	**6.87**	337	32	12	14.4	<0.1	<0.1	12.2	<2	−10.2
27-Sep-22	4344	661	686	469	7.0	40	<2	171	10	16	11	**21.9**	444	73	20	48.4	0.1	<0.1	45.3	<2	0.1
26-Sep-23	4521	608	1150	474	7.2	19	1	145	14	12	10	**14.0**	466	104	17	48.7	<0.1	0.2	68.7	**2**	−3.9
23-Sep-24	2061020	584	1170	470	6.9	24	4	165	15	42	20	**1.87**	305	32	21	36	0.5	<0.2	40.2	1	8.4
01-Oct-25	252802301	880	1690	653	7.6	37	4	240	13	20	14	**42.3**	726	121	20	47.4	0.1	<0.05	39.7	**8**	0.1
TOTAL SAMPLES		80	80	81	80	81	74	74	74	74	74	80	68	79	80	80	81	80	81	80	
AVERAGE 2025																					

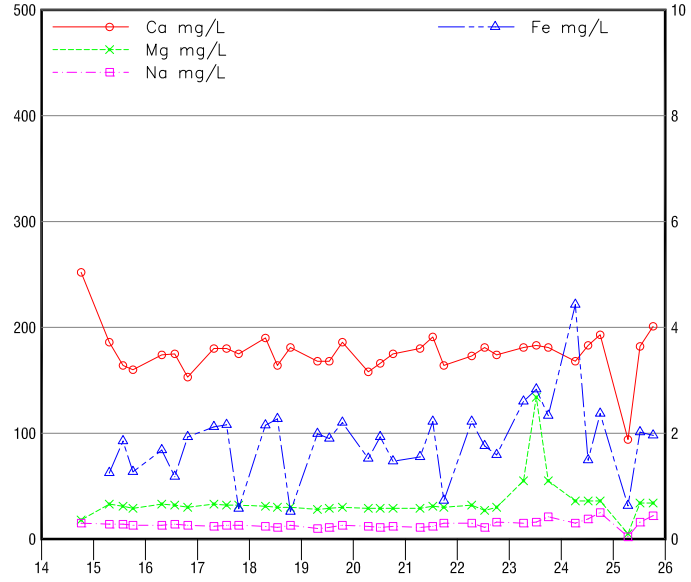
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**









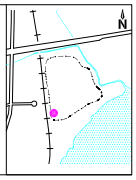


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH29-I

SAND AQUIFER

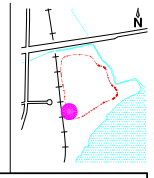
Screen 219.5 - 218.4 masl

22578520 28 Nov 25	wsp	25G033

BH29-I

SAND AQUIFER

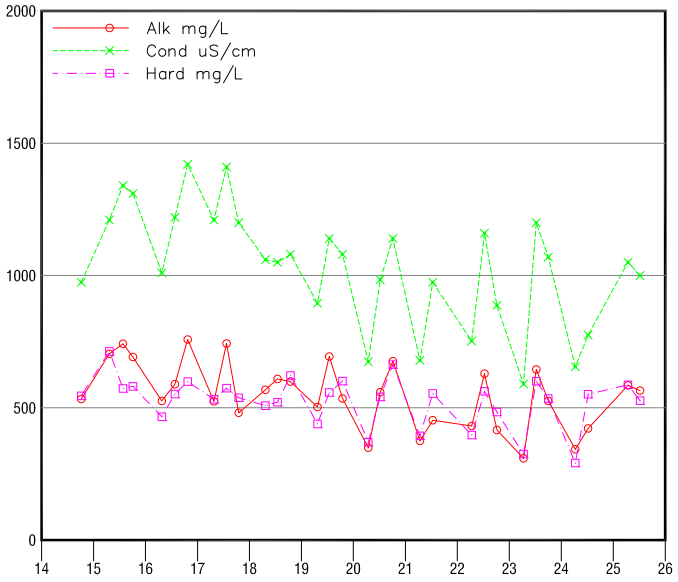
OBSERVATION WELL
Screen 219.5 - 218.4 masl

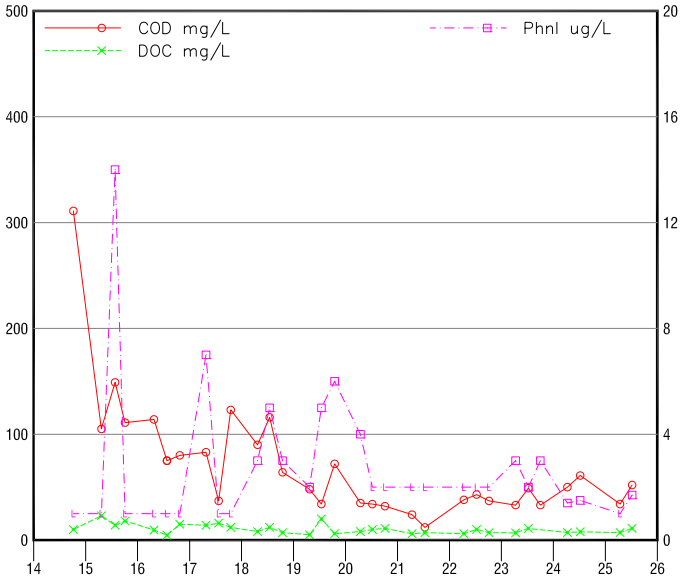


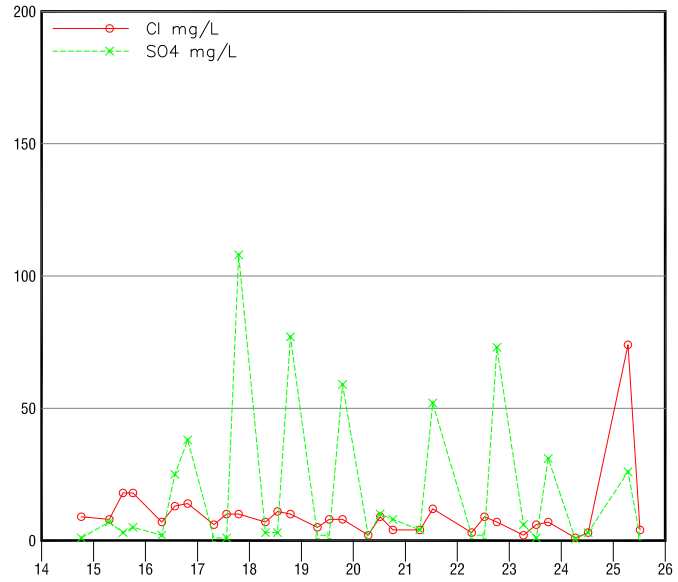
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
25-Apr-16	3191	610	992	570	7.5	11	2	174	33	13	1.1	**1.68**	1100	141	5.9	0.4	<0.1	<0.1	<0.01	<1	-1.6
25-Jul-16	3233	556	980	568	7.7	14	4	175	32	14	1.0	**1.18**	1030	85	5.0	0.4	0.1	<0.1	<0.01	<1	2.3
24-Oct-16	3319	546	996	506	7.8	15	4	153	30	13	0.9	**1.93**	937	82	5.8	0.2	0.1	<0.1	<0.01	<1	-2.5
26-Apr-17	3335	505	1030	586	7.6	9	2	180	33	12	0.9	**2.12**	1060	59	9.4	1.0	<0.1	<0.1	0.02	<1	8.5
24-Jul-17	3428	563	1040	580	7.7	11	3	180	32	13	1.0	**2.16**	1050	4	5.8	0.4	<0.1	<0.1	<0.01	<1	3.2
17-Oct-17	3477	558	1030	568	7.5	12	4	175	32	13	1.1	**0.573**	1060	91	9.8	0.3	<0.1	<0.1	0.01	<1	1.7
23-Apr-18	3528	613	993	604	7.3	15	4	190	31	12	1.3	**2.15**	1110	78	6.0	<0.5	<0.1	<0.1	<0.1	<2	0.0
17-Jul-18	3587	557	1060	531	7.7	21	4	164	30	11	1.1	**2.27**	1080	51	4.0	<0.5	<0.1	<0.1	<0.1	<2	-2.0
16-Oct-18	3654	584	933	577	7.3	28	6	181	30	13	1.1	**0.517**	1010	17	5.0	<0.5	<0.1	<0.1	<0.1	<2	-1.5
24-Apr-19	3706	561	984	533	7.0	26	6	168	28	9.9	1.0	**1.99**	992	13	3.0	<0.5	<0.1	<0.1	<0.1	<2	-3.2
16-Jul-19	3762	527	962	539	7.2	31	6	168	29	11	1.0	**1.90**	1040	14	4.0	<0.5	<0.1	<0.1	<0.1	<2	-0.4
16-Oct-19	3832	523	1030	589	7.5	43	7	186	30	13	1.2	**2.20**	1040	12	11	<0.5	<0.1	<0.1	<0.1	<2	2.9
15-Apr-20	3868	466	937	513	7.3	10	3	158	29	12	1.1	**1.52**	920	15	4.0	<0.5	0.1	<0.1	<0.1	**2**	6.5
08-Jul-20	3926	559	957	533	7.2	35	6	166	29	11	1.0	**1.93**	1050	13	5.0	<0.5	<0.1	<0.1	<0.1	<2	-4.1
06-Oct-20	3399	546	1020	557	7.7	41	8	175	29	12	1.1	**1.47**	997	9	3.0	<0.5	<0.1	<0.1	<0.1	<2	-1.7
14-Apr-21	4065	499	915	568	7.6	34	6	180	29	11	1.0	**1.55**	1050	11	4.0	<0.5	<0.1	<0.1	<0.1	<2	4.3
12-Jul-21	4125	498	1020	605	8.0	47	8	191	31	12	1.1	**2.22**	1170	<8	4.0	<0.5	<0.1	<0.1	<0.1	**2**	5.6
28-Sep-21	4177	455	969	535	8.0	56	10	164	30	15	1.1	**0.727**	975	<8	4.0	0.5	<0.1	<0.1	<0.1	<2	2.7
12-Apr-22	4243	524	1030	564	7.7	53	8	173	32	15	1.0	**2.22**	1110	14	5.0	<0.5	<0.1	<0.1	<0.1	<2	0.0
12-Jul-22	4300	488	1030	561	7.7	56	7	181	27	11	0.9	**1.76**	1110	12	5.0	0.7	<0.1	<0.1	<0.1	<2	1.6
04-Oct-22	4370	503	1020	559	7.3	63	8	174	30	16	1.1	**1.59**	1010	10	5.0	<0.5	<0.1	<0.1	<0.1	<2	0.1
11-Apr-23	4422	493	1120	680	7.6	85	7	181	55	15	1.1	**2.60**	1020	27	6.2	1.9	<0.1	<0.1	0.01	1	7.3
10-Jul-23	4477	488	1190	1010	7.5	80	6	183	134	16	1.1	**2.83**	1150	112	5.5	1.0	<0.1	<0.1	0.04	**3**	9.2
02-Oct-23	4548	499	1150	680	7.5	93	8	181	55	21	1.2	**2.33**	949	22		0.6	0.1	<0.1	0.04	**3**	5.6
09-Apr-24	4621	496	1140	792	7.2	88	11	168	36	15	1.1	**4.43**	1340	82	7.3	<0.2	0.1	<0.1	0.04	**1.8**	-1.8
08-Jul-24	4655	320	817	774	7.8	78	9	183	36	19	1.2	**1.49**	1140	59	6.0	0.4	<0.1	<0.1	0.05	**1.3**	19.5
01-Oct-24	2064055	444	1180	832	7.5	91	20	193	36	25	1.3	**2.37**	1070	46	6.1	3.2	0.2	<0.1	<0.01	**2.1**	7.8
14-Apr-25	250864110	270	472	254	7.8	1	0.5	94	5	2.1	0.7	**0.628**	142	46	8.1	1.3	<0.1	0.01	0.17	**3.1**	-2.3
08-Jul-25	251839201	477	1040	596	7.5	74	23	182	34	16	1.3	**2.02**	1200	55	7.6	0.6	<0.1	<0.05	0.04	**2.4**	2.8
08-Oct-25	252881510	487	1140	642	7.4	94	29	201	34	22	1.4	**1.96**	1080	43	6.1	<0.5	<0.1	<0.05	0.04	**1.4**	3.3

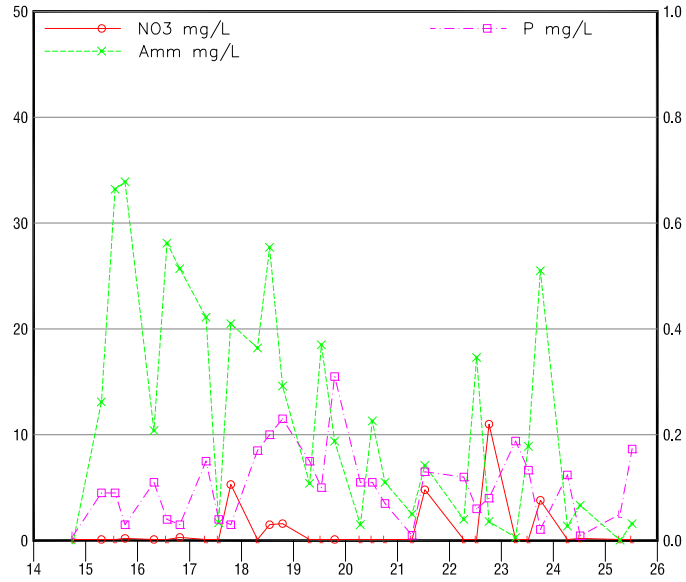
TOTAL SAMPLES	34	34	34	34	34	34	34	34	34	34	33	34	34	33	34	34	34	34	34	
AVERAGE 2025	411	884	497	7.6	56	18	159	24	13	1.1	1.536	807	48	7.3	0.6	<0.1	<0.05	0.08	2.30	

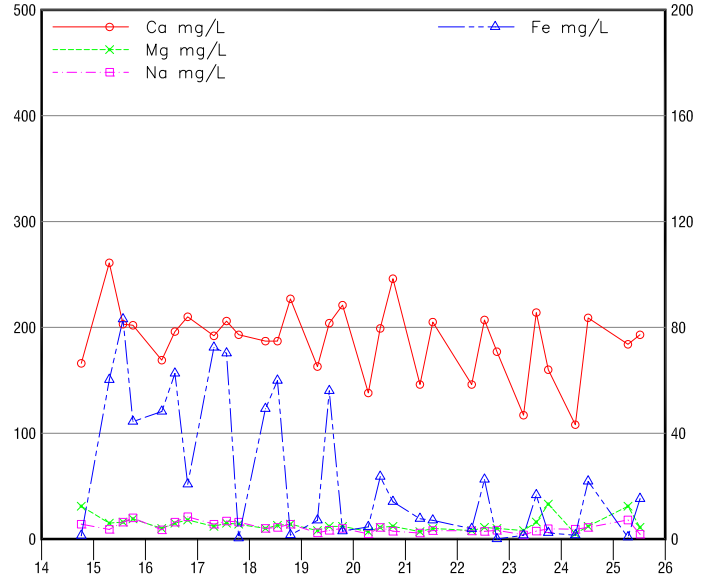
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



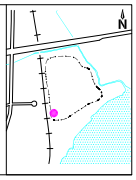








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH29-II

REFUSE

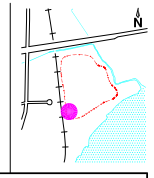
Screen 222.7 - 221.4 masl

22578520 28 Nov 25	wsp	25G034

BH29-II

REFUSE

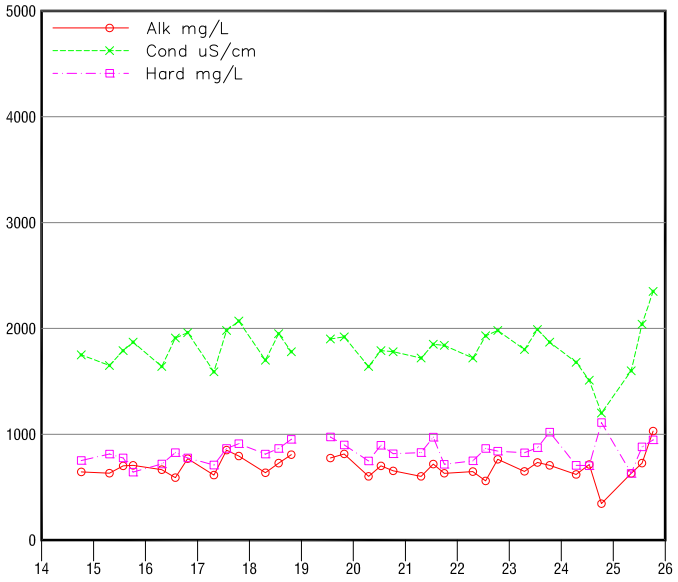
OBSERVATION WELL
Screen 222.7 - 221.4 masl

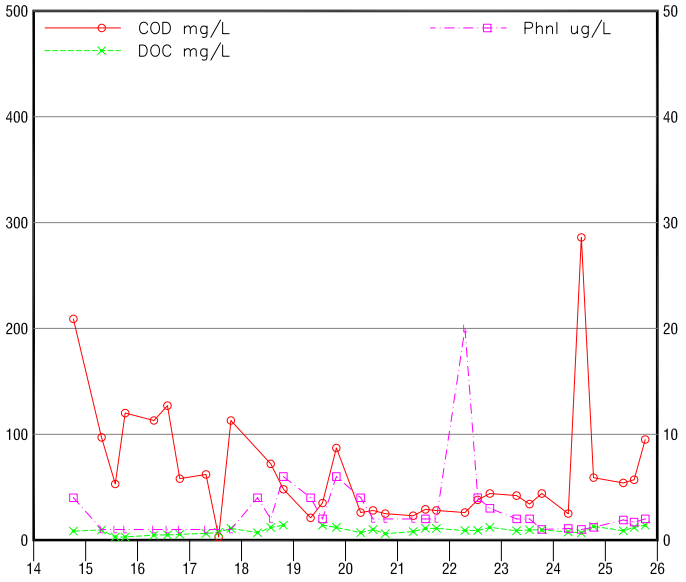


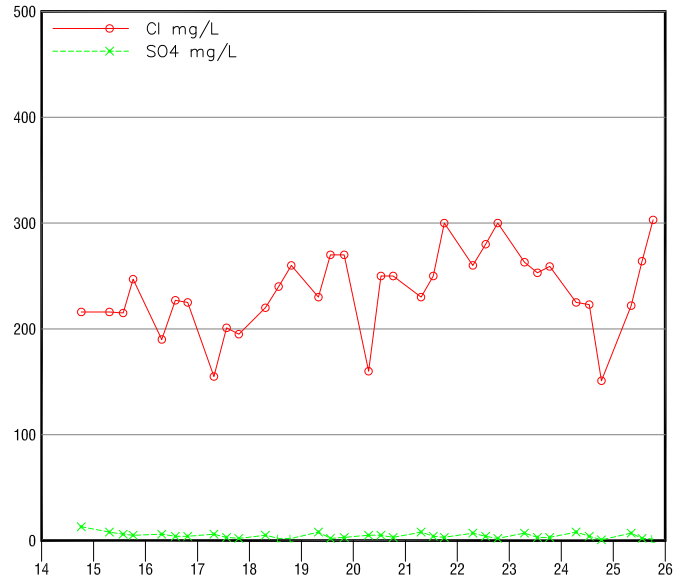
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
27-Jul-15	3067	742	1340	573	7.3	18	3	203	16	16	9.7	**83.1**	856	149	14	40.5	<0.1	<0.1	33.2	**14**	7.1
05-Oct-15	3121	692	1310	581	7.3	18	5	202	19	20	12	**44.4**	1030	111	18	39.9	0.2	<0.1	33.9	<1	7.6
25-Apr-16	3192	526	1010	466	7.2	7	2	169	10	8.7	5.0	**48.2**	1640	114	9.5	12.9	0.1	<0.1	10.4	<1	6.4
25-Jul-16	3234													75							
26-Jul-16	3234	589	1220	552	7.4	13	25	196	15	16	8.8	**62.6**	1230	75	4.6	32.4	<0.1	<0.1	28.1	<1	12.2
24-Oct-16	3320	758	1420	599	7.7	14	38	210	18	21	9.2	**20.7**	2150	80	15	33.7	0.3	<0.1	25.7	<1	−2.1
26-Apr-17	3336	524	1210	532	7.1	6	<1	192	12	14	5.6	**72.4**	1020	83	14	26.4	<0.1	<0.1	21.1	**7**	18.3
24-Jul-17	3429	743	1410	574	7.1	10	1	206	15	17	8.6	**70.2**	1020	37	16	34.8	<0.1	<0.1	1.69	<1	−0.1
17-Oct-17	3478	481	1200	538	7.4	10	108	193	14	16	7.3	**0.323**	553	123	12	21.4	5.3	<0.1	20.5	<1	2.4
23-Apr-18	3529	568	1060	508	6.7	7	3	187	10	10	5.0	**49.2**	1130	90	8.0	17.8	<0.1	<0.1	18.2	**3**	8.4
17-Jul-18	3588	609	1050	521	7.6	11	3	187	13	11	8.2	**59.9**	1360	116	12	31.2	1.5	<0.1	27.7	**5**	9.2
16-Oct-18	3655	599	1080	622	7.1	10	77	227	14	14	6.9	**1.49**	1210	64	7.0	15.4	1.6	<0.1	14.6	**3**	1.4
24-Apr-19	3707	503	895	439	6.8	5	<2	163	8	5.9	3.2	**7.06**	804	48	5.0	6.4	<0.1	<0.1	5.4	**2**	−2.2
16-Jul-19	3763	694	1140	558	6.8	8	<2	204	12	8.2	7.4	**56.0**	1230	34	20	18.1	<0.1	<0.1	18.5	**5**	3.3
17-Oct-19	3833	535	1080	601	7.5	8	59	221	12	10	6.5	**2.99**	864	72	6.0	13.8	0.1	<0.1	9.4	**6**	4.9
15-Apr-20	3869	349	674	370	7.2	2	<2	138	7	4.9	2.1	**4.60**	800	35	8.0	2.0	<0.1	<0.1	1.5	**4**	6.2
08-Jul-20	3927	559	984	541	7.1	9	10	199	11	11	7.8	**23.6**	1470	34	10	10.7	<0.1	<0.1	11.3	<2	6.3
05-Oct-20	3994	676	1140	663	7.6	4	8	246	12	7.4	6.9	**14.1**	740	32	11	6.3	<0.1	<0.1	5.5	<2	3.1
13-Apr-21	4066	375	679	394	6.8	4	4	146	7	5.7	2.2	**7.67**	665	24	6.0	3.1	<0.1	<0.1	2.5	<2	5.9
12-Jul-21	4126	453	974	554	7.8	12	52	205	10	8.0	5.5	**7.09**	767	12	7.0	7.3	4.8	0.1	7.1	<2	8.0
12-Apr-22	4244	431	752	397	7.5	3	<2	146	8	7.7	1.8	**3.86**	423	38	6.0	2.2	<0.1	<0.1	2.0	<2	−0.6
11-Jul-22	4301	629	1160	562	7.3	9	<2	207	11	7.2	5.9	**22.5**	873	43	10	18.5	<0.1	<0.1	17.3	<2	3.4
06-Oct-22	4371	416	887	484	7.7	7	73	177	10	8.3	3.6	0.017	135	37	7.0	1.7	11	0.4	1.8	<2	−2.6
11-Apr-23	4423	309	590	325	7.6	2	6	117	8	3.9	1.1	**1.40**	199	33	6.8	4.7	<0.1	<0.1	0.3	**3**	3.2
10-Jul-23	4478	645	1200	600	7.3	6	1	214	16	7.5	6.5	**16.6**	1150	49	11	11.0	<0.1	<0.1	8.9	**2**	6.5
02-Oct-23	4549	526	1070	535	7.1	7	31	160	33	9.7	7.7	**2.33**	311	33		22.2	3.8	0.3	25.5	**3**	2.1
09-Apr-24	4622	343	655	291	7.2	1	0.6	108	5	9.2	0.7	**1.42**	217	50	7.1	0.9	<0.1	<0.1	1.37	**1.4**	−3.8
08-Jul-24	4656	422	775	551	7.7	3	3	209	12	11	4.1	**21.8**	906	61	7.8	3.5	<0.2	<0.2	3.33	**1.5**	20.6
14-Apr-25	250864111	585	1050	587	7.5	74	26	184	31	18	1.1	**0.687**	979	34	7.1	0.5	<0.1	<0.05	0.03	<1	−6.3
08-Jul-25	251839202	565	1000	527	7.1	4	<1.5	193	11	4.6	3.6	**15.2**	876	52	11	3.6	<0.1	<0.05	1.59	**1.7**	0.4

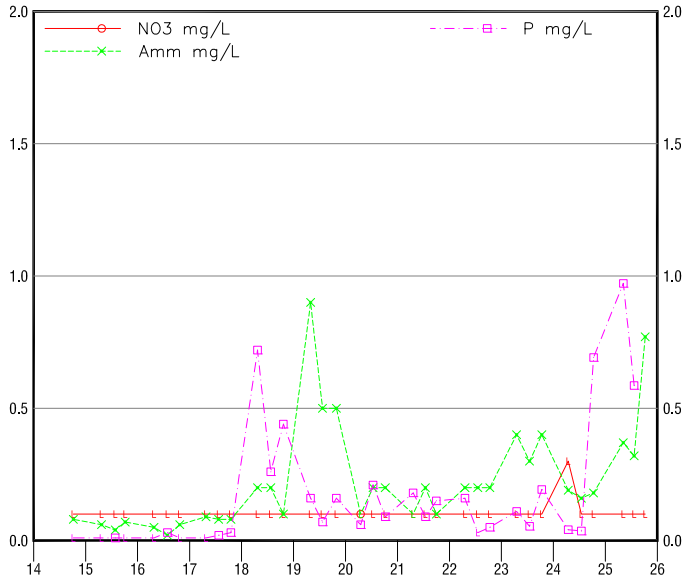
TOTAL SAMPLES	31	31	31	31	31	31	31	31	31	31	31	31	31	32	30	31	31	31	31	31	
AVERAGE 2025	575	1025	557	7.3	39	13	189	21	11	2.4	7.94	928	43	9	2.1	<0.1	<0.05	0.81	<1		

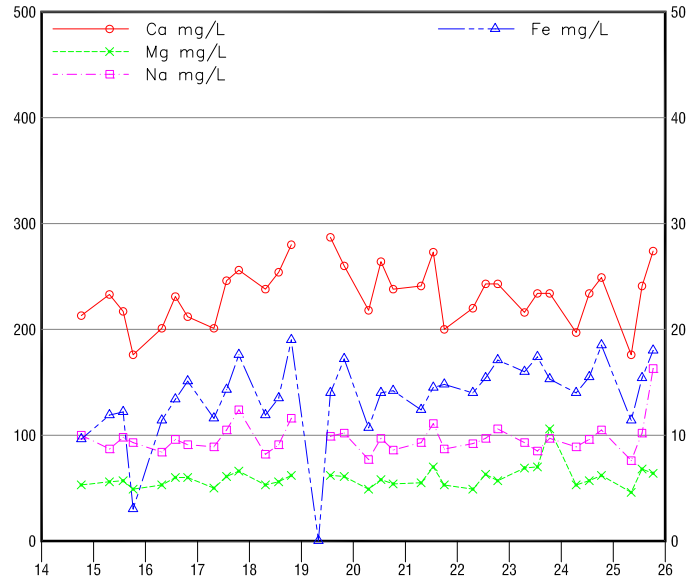
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



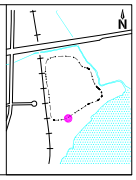








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH30-I

SAND AQUIFER

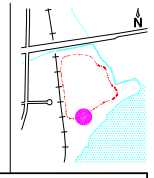
Screen 214.0 - 212.4 masl

22578520 28 Nov 25	wsp	25G035

BH30-I

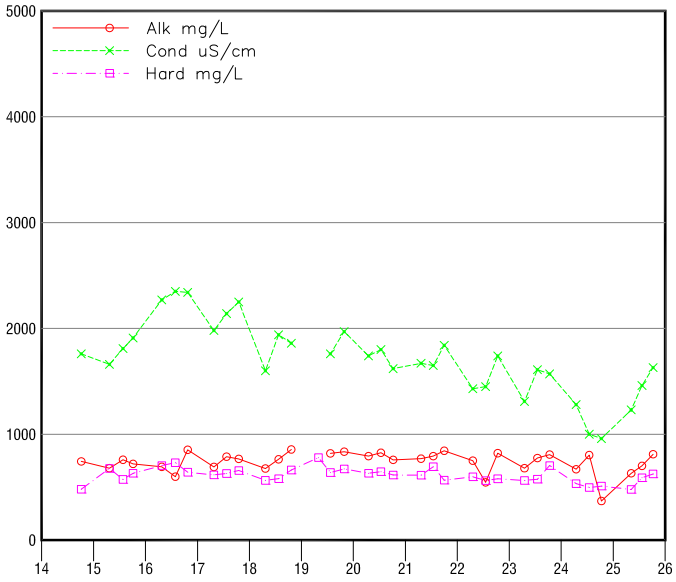
SAND AQUIFER

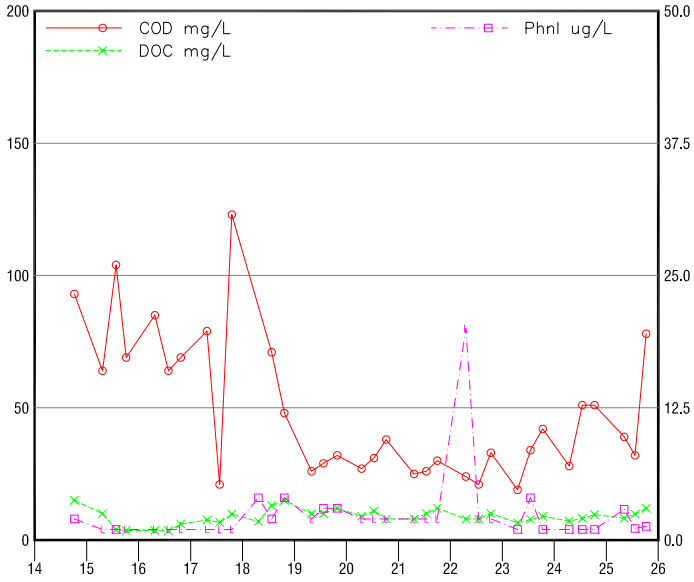
OBSERVATION WELL
Screen 214.0 - 212.4 masl

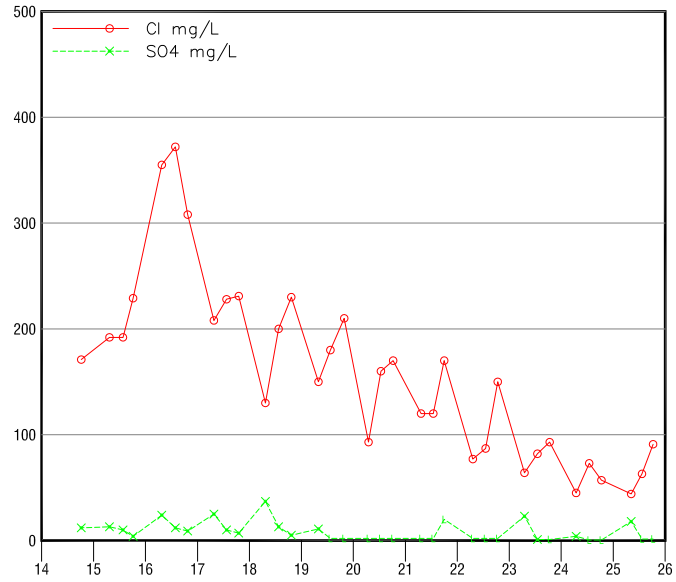


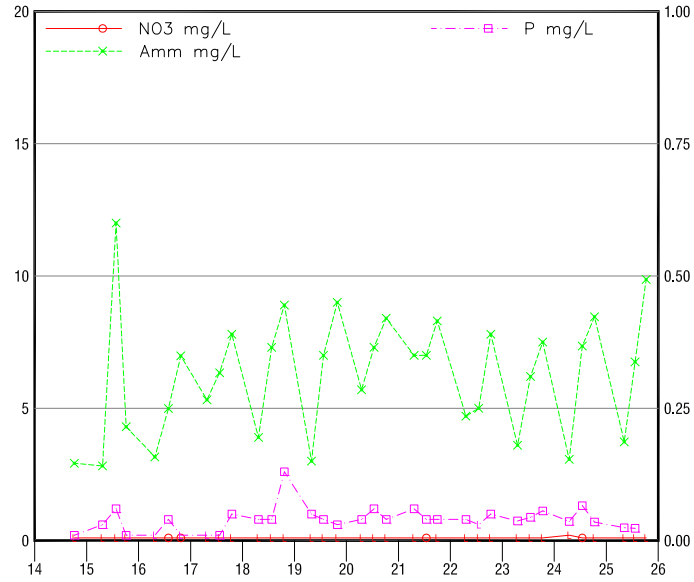
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
25-Apr-16	3193	665	1640	719	7.5	190	6	201	53	84	2.8	**11.4**	210	113	4.7	0.7	<0.1	<0.1	0.05	<1	-0.7
29-Jul-16	3236	590	1910	826	7.6	227	4	231	60	96	3.0	**13.4**	251	127	4.9	0.6	<0.1	<0.1	0.02	<1	7.4
24-Oct-16	3321	769	1960	776	7.7	225	4	212	60	91	2.9	**15.1**	234	58	5.4	1.3	<0.1	<0.1	0.06	<1	-4.1
26-Apr-17	3337	614	1590	709	7.6	155	6	201	50	89	2.6	**11.6**	199	62	6.3	0.6	<0.1	<0.1	0.09	<1	4.9
24-Jul-17	3430	850	1980	865	7.5	201	3	246	61	105	3.0	**14.3**	257	3	7.3	0.7	<0.1	<0.1	0.08	<1	-0.6
18-Oct-17	3479	794	2070	911	7.4	195	2	256	66	124	3.5	**17.6**	266	113	11	0.6	<0.1	<0.1	0.08	<1	6.4
23-Apr-18	3530	636	1700	812	7.0	220	5	238	53	82	3.4	**11.9**	269		7.0	0.6	<0.1	<0.1	0.2	**4**	3.3
25-Jul-18	3608	727	1950	866	6.9	240	<2	254	56	91	3.5	**13.5**	274	72	12	<0.5	<0.1	<0.1	0.2	<2	1.2
22-Oct-18	3675	807	1780	952	7.1	260	<2	280	62	116	4.0	**19.0**	315	48	14	<0.5	<0.1	<0.1	0.1	**6**	3.0
01-May-19	3727	*348*	*1300*	*342*	8.3	230	8	*111*	*16*	*47*	0.9	0.018	17	21	*17*	1.3	<0.1	<0.1	0.9	**4**	-20.4
24-Jul-19	3783	775	1900	974	7.0	270	2	287	62	99	4.3	**14.0**	342	35	14	0.8	<0.1	<0.1	0.5	**2**	2.6
29-Oct-19	3853	814	1920	899	6.9	270	3	260	61	102	3.6	**17.2**	318	87	12	1.2	<0.1	<0.3	0.5	**6**	-1.6
17-Apr-20	3889	602	1640	748	7.7	160	5	218	49	77	3.1	**10.7**	228	26	7.0	0.5	0.1	<0.1	<0.1	**4**	6.1
13-Jul-20	3947	701	1790	896	6.9	250	5	264	58	97	3.5	**14.0**	278	28	10	1.0	<0.1	<0.1	0.2	<2	3.6
07-Oct-20	3995	654	1780	816	7.7	250	3	238	54	86	3.4	**14.2**	277	25	6.0	<0.5	<0.1	<0.1	0.2	<2	1.1
21-Apr-21	4067	602	1720	827	7.5	230	8	241	55	93	3.3	**12.4**	275	23	8.0	1.1	<0.1	<0.1	<0.1	<2	6.7
16-Jul-21	4127	718	1850	972	7.2	250	4	273	70	111	3.7	**14.5**	287	29	11	0.9	<0.1	<0.1	0.2	**2**	8.2
01-Oct-21	4179	631	1840	716	7.6	300	3	200	53	87	3.1	**14.8**	288	28	11	0.7	<0.1	<0.3	0.1	<2	-5.4
20-Apr-22	4245	647	1720	749	7.4	260	7	220	49	92	3.0	**14.0**	266	26	9.0	<0.5	<0.1	<0.3	0.2	<20	-2.1
19-Jul-22	4321	559	1930	865	7.9	280	4	243	63	97	3.2	**15.4**	303	38	9.0	<0.5	<0.1	<0.1	0.2	**4**	7.2
12-Oct-22	4391	763	1980	840	7.1	300	2	243	57	106	3.5	**17.1**	332	44	12	<0.5	<0.1	<0.1	0.2	**3**	-3.5
18-Apr-23	4443	649	1800	825	7.3	263	7	216	69	93	3.9	**16.0**	296	42	8.8	4.1	<0.1	<0.1	0.4	**2**	1.6
18-Jul-23	4498	733	1990	873	7.4	253	3	234	70	85	3.6	**17.4**	347	34	9.6	2.3	<0.1	<0.1	0.3	**2**	1.8
12-Oct-23	4569	706	1870	1020	7.2	259	3	234	106	97	4.1	**15.3**	306	44	9.6	0.3	<0.1	<0.1	0.4	1	6.4
15-Apr-24	4606	620	1680	706	7.1	225	8	197	53	89	3.4	**14.0**	266	25	7.6	0.3	<0.3	<0.3	0.19	**1.1**	-0.6
16-Jul-24	4676	714	1510	703	7.3	223	4	234	57	96	3.5	**15.5**	281	286	6.7	1.5	<0.1	<0.1	0.16	1	1.4
10-Oct-24	2067126	344	1200	1110	7.4	151	0.7	249	62	105	4.2	**18.5**	331	59	13	2.7	<0.1	<0.1	0.18	**1.2**	34.5
07-May-25	251086516	630	1600	630	7.5	222	7	176	46	76	2.8	**11.4**	221	54	8.8	0.9	<0.1	<0.05	0.37	**1.9**	-7.3
22-Jul-25	252003106	727	2040	881	7.0	264	2	241	68	102	3.6	**15.4**	300	57	12	1.1	<0.1	<0.05	0.32	**1.7**	1.6
08-Oct-25	252881511	1030	2350	947	7.0	303	<1.5	274	64	163	4.4	**18.0**	351	95	14	1.7	<0.1	<0.05	0.77	**2**	-4.1
TOTAL SAMPLES		33	33	33	34	34	34	33	33	33	34	34	34	33	33	34	34	34	34	34	
AVERAGE 2025		796	1997	819	7.2	263	3	230	59	114	3.6	14.93	291	69	12	1.2	<0.1	<0.05	0.49	2	

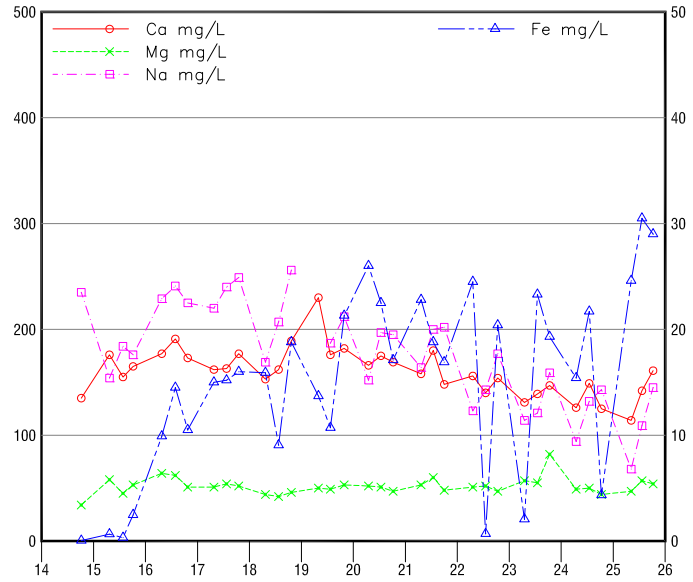
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



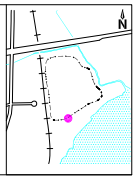








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

BH30-II

PEAT

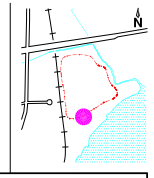
Screen 219.8 - 219.0 masl

22578520 28 Nov 25	wsp	25G036

BH30-II

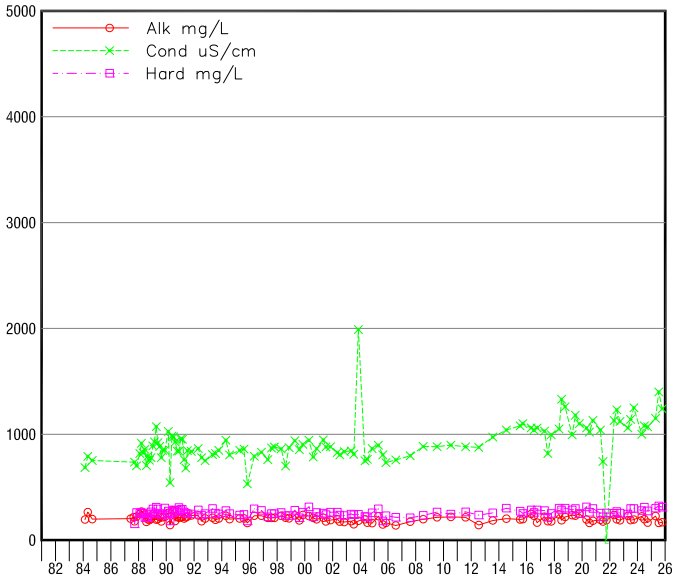
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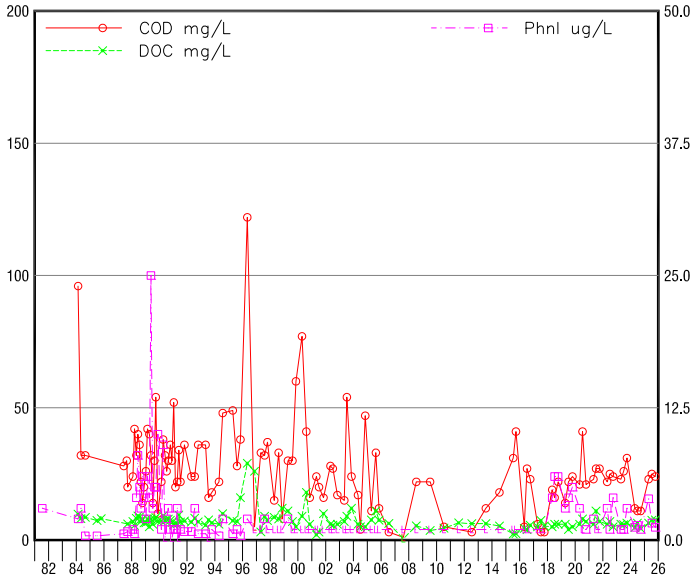
OBSERVATION WELL
Screen 219.8 - 219.0 masl

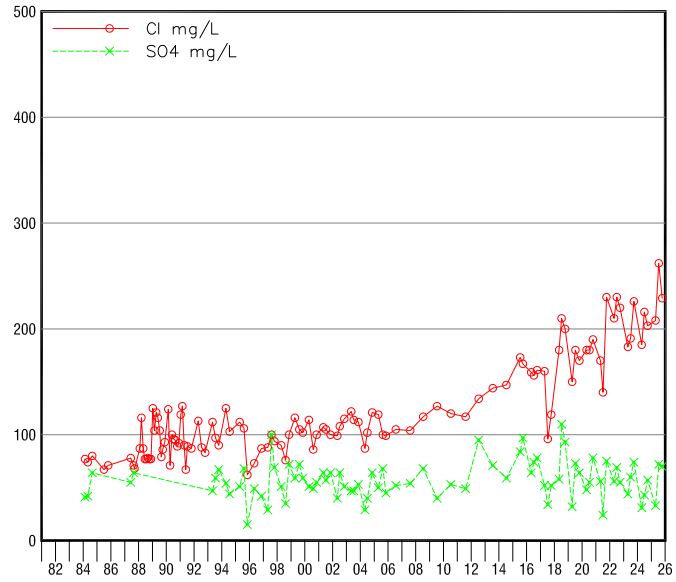


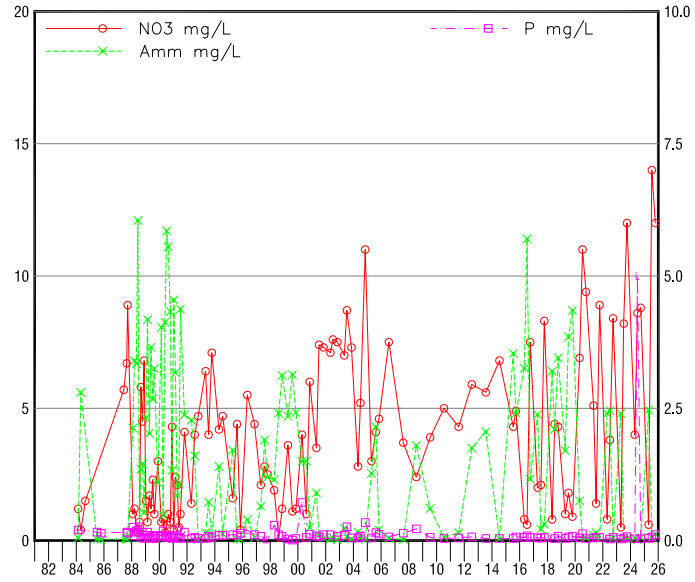
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	PhnI ug/L	Ion B %
	PWQO											0.3								1	
25-Apr-16	3191	692	2270	704	7.7	355	24	177	64	229	4.7	**9.90**	3450	85	3.6	4.7	<0.1	<0.1	3.16	<1	0.9
29-Jul-16	3235	599	2350	731	7.8	372	12	191	62	241	5.8	**14.5**	3290	64	3.5	6.3	0.1	<0.1	4.99	<1	7.0
24-Oct-16	3322	853	2340	641	7.8	308	9	173	51	225	5.3	**10.5**	3090	69	6.1	9.5	0.1	<0.1	6.98	<1	-4.6
26-Apr-17	3338	691	1980	616	7.8	208	25	162	51	220	4.3	**15.0**	2490	79	7.6	6.1	<0.1	<0.1	5.32	<1	6.2
24-Jul-17	3431	788	2140	629	7.9	228	10	163	54	240	5.7	**15.2**	2380	21	6.7	6.9	<0.1	<0.1	6.34	<1	3.8
18-Oct-17	3480	767	2250	657	7.6	231	7	177	52	249	6.3	**16.0**	2660	123	9.8	8.7	<0.1	<0.1	7.8	<1	6.9
23-Apr-18	3531	676	1600	564	7.4	130	37	153	44	169	4.7	**15.9**	2140		7.0	4.0	<0.1	<0.1	3.9	**4**	4.3
25-Jul-18	3609	763	1940	580	7.2	200	13	162	42	207	5.9	**9.06**	2050	71	13	7.0	<0.1	<0.1	7.3	**2**	0.9
22-Oct-18	3676	856	1860	662	7.6	230	5	189	46	256	7.0	**18.8**	2563	48	15	9.3	<0.1	<0.1	8.9	**4**	4.3
01-May-19	3728	*431*	*1280*	779	8.5	150	11	230	50	*90*	3.8	**13.7**	296	26	10	3.8	<0.1	<0.1	3.0	<2	21.7
24-Jul-19	3784	819	1760	638	7.5	180	<2	176	49	187	6.7	**10.7**	2430	29	10	7.6	<0.1	<0.1	7.0	**3**	1.3
29-Oct-19	3854	835	1970	672	7.3	210	<2	182	53	212	6.4	**21.3**	2400	32	12	10.2	<0.1	<0.1	9.0	**3**	3.5
17-Apr-20	3890	793	1740	631	7.9	93	<2	166	52	152	5.6	**26.0**	2140	27	9.0	6.1	<0.1	<0.1	5.7	<2	5.7
13-Jul-20	3948	825	1800	646	7.5	160	<2	175	51	197	6.3	**22.5**	2200	31	11	8.1	<0.1	<0.1	7.3	<2	4.5
07-Oct-20	3996	758	1620	615	7.7	170	<2	169	47	195	6.5	**17.1**	2190	38	8.0	8.7	<0.1	<0.1	8.4	<2	5.3
21-Apr-21	4068	769	1670	613	7.8	120	<2	158	53	164	5.2	**22.8**	2460	25	8.0	7.6	<0.1	<0.1	7.0	<2	5.3
16-Jul-21	4128	793	1650	693	7.7	120	<2	180	60	200	6.3	**18.8**	2230	26	10	7.7	0.1	<0.1	7.0	<2	10.6
01-Oct-21	4180	844	1840	566	7.9	170	<20	148	48	202	6.3	**16.9**	2180	30	12	9.1	<0.1	<0.1	8.3	<2	0.3
20-Apr-22	4246	750	1430	598	7.5	77	<2	156	51	123	4.6	**24.5**	2000	24	8.0	5.2	<0.1	<0.1	4.7	<20	4.2
19-Jul-22	7322	545	1450	562	8.0	87	<2	140	52	143	5.4	**0.675**	1340	21	8.0	5.5	<0.1	<0.1	5.0	<2	14.8
12-Oct-22	4392	821	1740	579	7.6	150	<2	154	47	177	5.8	**20.4**	1900	33	10	8.7	<0.1	<0.1	7.8	<2	0.2
18-Apr-23	4444	679	1310	563	7.4	64	23	131	57	114	4.8	**2.05**	1660	19	6.5	7.3	<0.1	<0.1	3.6	1	2.4
18-Jul-23	4499	775	1610	575	7.6	82	1	139	55	121	5.5	**23.3**	1940	34	7.8	14.7	<0.1	<0.1	6.2	**4**	7.9
12-Oct-23	4570	808	1570	704	7.6	93	<1	147	82	159	6.5	**19.3**	1730	42	9.0	7.3	<0.1	<0.1	7.5	1	8.6
15-Apr-24	4607	669	1280	533	7.3	45	4	126	49	94	4.8	**15.4**	1670	28	7.2	3.2	<0.2	<0.2	3.07	1	1.8
16-Jul-24	4678	803	1000	497	7.5	73	<0.5	149	50	132	6.1	**21.7**	1790	51	8.2	8.7	0.1	<0.1	7.35	1	1.8
10-Oct-24	2067127	369	959	510	7.7	57	<0.5	125	44	143	6.1	**4.34**	1370	51	9.6	8.9	<0.1	<0.1	8.46	1	30.9
07-May-25	251086517	631	1230	478	7.5	44	18	114	47	68	4.3	**24.6**	1290	39	8.3	4.4	<0.1	<0.05	3.73	**2.9**	-1.4
22-Jul-25	252003107	701	1460	589	7.2	63	<1.5	142	57	109	6.5	**30.5**	1580	32	9.8	8.8	<0.1	<0.05	6.75	**1.1**	7.3
08-Oct-25	252881512	811	1630	625	7.6	91	<1.5	161	54	145	6.9	**29.0**	1830	78	12	11.6	<0.1	<0.05	9.87	**1.3**	5.1
TOTAL SAMPLES		33	33	34	34	34	34	34	34	33	34	34	34	33	34	34	34	34	34	34	
AVERAGE 2025		714	1440	564	7.4	66	6	139	53	107	5.9	28.03	1567	50	10	8.3	<0.1	<0.05	6.78	1.77	

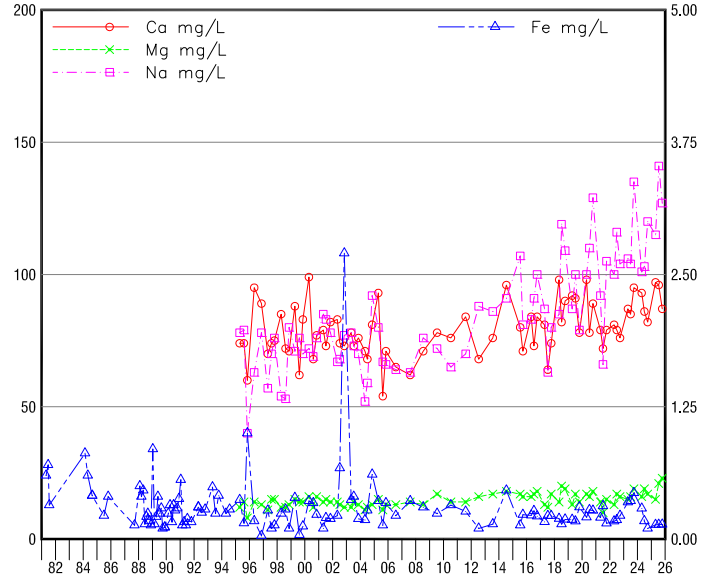
all Concentrations mg/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**



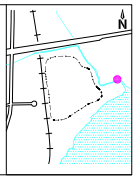








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-1

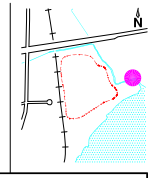
BEN'S DITCH

22578520 28 Nov 25	wsp	25G037

S-1

BEN'S DITCH

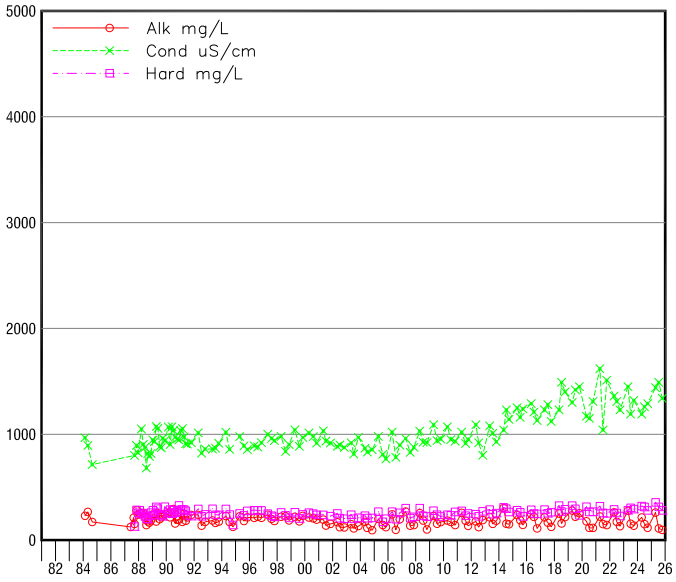
SURFACE WATER STATION

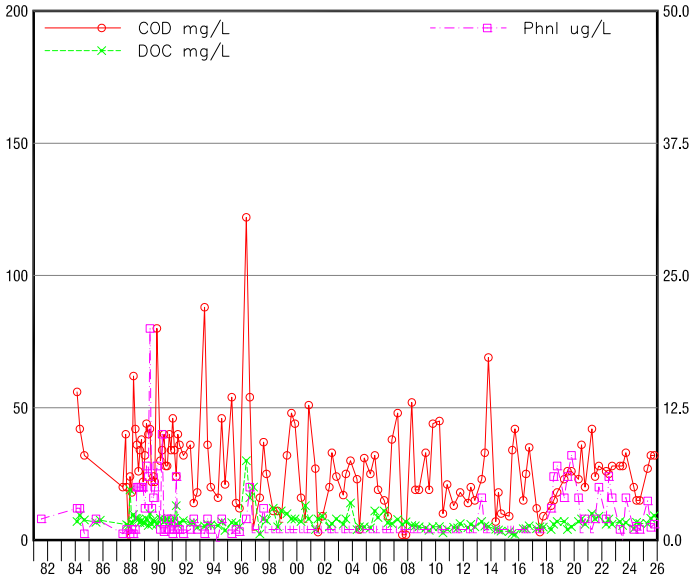


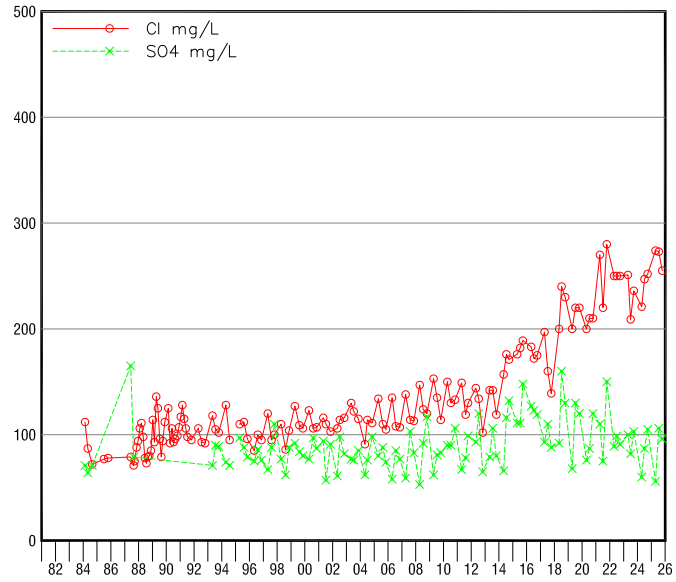
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
02-May-16	3146	247	1060	284	7.9	159	64	84	16	83	34	0.224	88	5	4.4	7.2	0.8	<0.1	6.51	<1	-1.6
13-Jul-16	3240	230	1040	261	7.9	156	74	73	17	91	8.7	0.266	133	27	3.9	13.9	0.6	0.9	11.4	<1	-2.6
05-Oct-16	3256	165	1060	284	8.2	161	78	84	18	100	13	0.214	84	23	5.6	3.5	7.5	1.0	2.32	<1	2.6
18-Apr-17	3362	221	1030	278	7.9	160	52	81	13	87	24	0.162	67	6	5.0	6.4	2.0	0.2	4.76	<1	-1.5
13-Jul-17	3378	178	818	215	7.9	96	34	64	12	63	19	0.219	78	3	7.4	1.1	2.1	0.2	0.43	<1	2.2
12-Oct-17	3435	176	995	252	8.0	119	52	74	17	80	11	0.219	69	3	5.3	1.5	8.3	0.2	0.62	<1	2.0
07-May-18	3555	242	1050	301	8.1	180	58	98	14	85	29	0.192	86	19	5.0	6.7	0.8	<0.1	6.4	**4**	-1.0
11-Jul-18	3558	187	1330	285	7.9	210	110	82	20	119	68	0.141	79	16	6.0	5.3	4.4	0.7	4.2	**6**	2.8
12-Oct-18	3635	219	1260	302	8.0	200	93	90	19	109	52	0.185	95	22	6.0	7.9	4.3	0.8	6.9	**6**	1.5
16-Apr-19	3681	235	995	284	8.4	150	32	92	13	87	10	0.182	67	14	6.0	4.0	1.0	<0.1	3.4	**3**	1.5
11-Jul-19	3733	231	1180	298	7.8	180	73	91	17	100	29	0.168	104	22	4.0	8.6	1.8	0.3	7.7	**4**	1.1
23-Oct-19	3789	248	1100	251	8.1	170	64	78	14	79	39	**0.301**	92	24	5.0	9.4	0.9	0.3	8.7	**5**	-4.9
28-Apr-20	3901	194	1060	314	7.9	180	48	98	17	100	7.5	0.206	90	21	6.0	2.5	6.9	0.1	1.5	**3**	2.3
15-Jul-20	3953	162	1020	263	8.2	180	55	78	16	110	9.4	0.275	33	41	8.0	1.2	11	0.2	<0.1	<1	0.9
14-Oct-20	3997	182	1130	298	8.2	190	78	89	18	129	42	0.269	68	21	7.0	1.6	9.4	<0.1	0.1	1	5.7
30-Apr-21	4069	191	1040	254	8.0	170	56	79	14	92	33	0.202	66	23	6.0	1.1	5.1	0.2	0.2	**2**	-0.2
06-Jul-21	4133	175	742	220	8.0	140	24	72	10	66	4.6	**0.312**	54	27	11	<0.5	1.4	0.1	0.3	<1	-3.6
07-Oct-21	4201	189	<2	256	7.8	230	75	79	15	105	11	0.148	30	27	7.0	0.7	8.9	<0.1	<0.1	<1	-10.6
25-Apr-22	4247	237	1130	253	8.2	210	56	81	13	100	24	0.168	66	22	6.0	5.0	0.8	0.3	4.8	**3**	-6.8
05-Jul-22	4271	196	1230	270	8.0	230	69	79	17	116	9.2	0.180	74	25	7.0	6.2	3.8	0.5	4.9	1	-4.7
29-Sep-22	4327	187	1120	254	8.1	220	55	76	16	104	7.9	0.220	62	24	5.0	0.9	8.4	0.1	0.1	**4**	-8.7
24-Apr-23	4397	228	1060	245	7.6	183	44	87	15	106	23	**0.347**	46	23	6.0	5.9	0.5	0.5	4.8	1	2.1
05-Jul-23	4449	188	1140	299	7.7	191	60	85	16	104	6.7	**0.360**	66	26	5.8	3.8	8.2	<0.1	0.07	1	9.9
28-Sep-23	4504	194	1250	299	7.5	226	74	95	19	135	12	**0.435**	90	31	6.4	0.8	12	<0.1	0.1	**3**	-3.2
22-Apr-24	4575	224	1000	279	7.6	185	31	93	16	101	4.7	0.289	68	12	4.7	<0.2	4.0	<0.2	0.09	**1.2**	-0.8
02-Jul-24	4627	197	1080	311	8.0	216	43	86	19	103	7.5	0.170	36	11	6.4	0.7	8.6	<0.2	0.02	**1.4**	-4.7
25-Sep-24	2060970	165	1070	275	7.5	203	57	82	17	120	9.2	0.100	54	11	4.3	0.2	8.8	<0.1	0.12	1	0.4
22-Apr-25	250917101	227	1150	302	8.1	208	33	97	15	115	5.2	0.134	59	23	6.4	6.7	0.6	0.1	4.93	**3.9**	1.8
16-Jul-25	251924201	162	1400	323	7.9	262	72	96	21	141	9.9	0.136	90	25	7.5	1.2	14	0.09	0.12	**1.6**	1.9
15-Oct-25	252965901	168	1240	311	8.4	229	70	87	23	127	13	0.137	35	24	7.6	1.4	12	0.1	0.24	**1.2**	0.4
TOTAL SAMPLES		117	115	112	117	118	83	73	73	73	73	122	74	115	116	115	115	115	116	117	
AVERAGE 2025		186	1263	312	8.1	233	58	93	20	128	9	0.136	61	24	7.2	3.1	9	0.1	1.76	2.23	

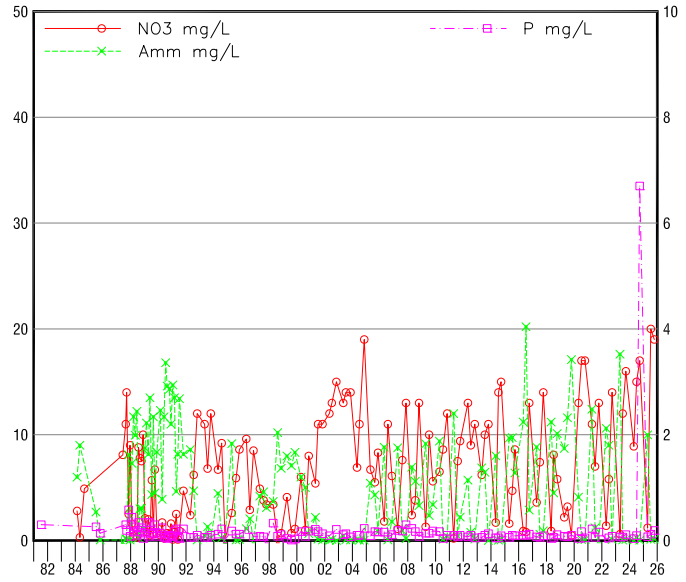
all Concentrations mg/L unless otherwise indicated

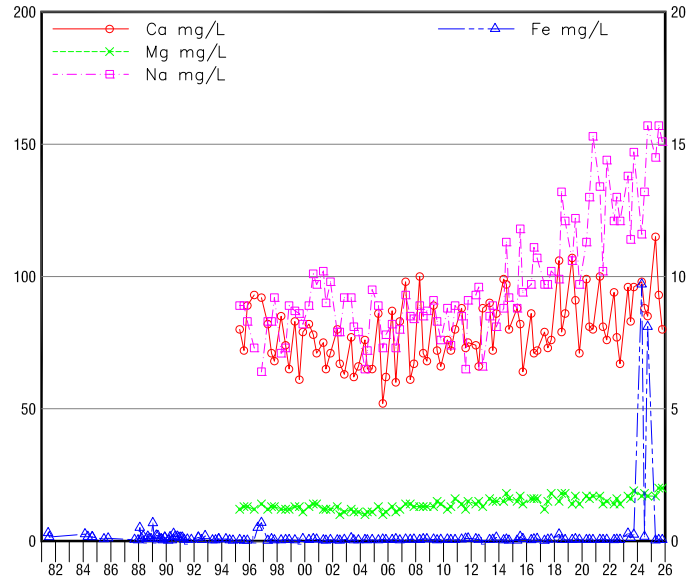
Anomalies shown in *Italics* / Exceedence in **BOLD**



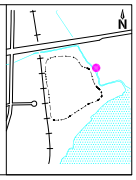








L	Concentration Reported Less Than
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CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-2

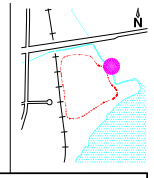
WWTC EFFLUENT

22578520 28 Nov 25	wsp	25G038

S-2

WWTC EFFLUENT

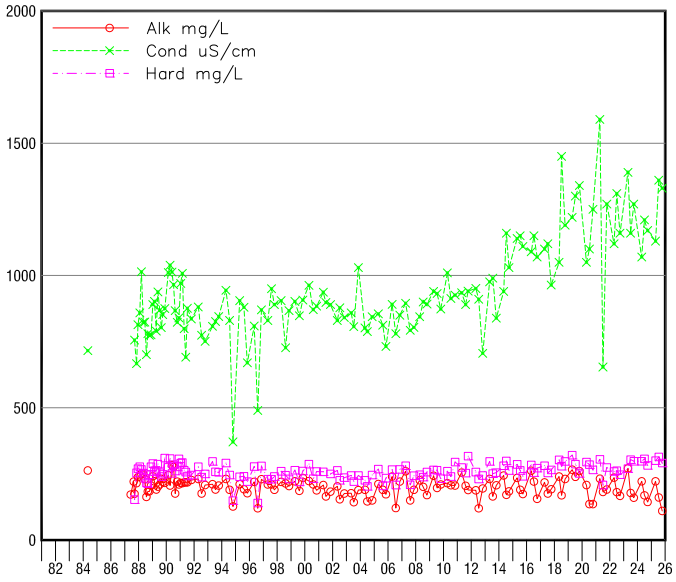
SURFACE WATER STATION

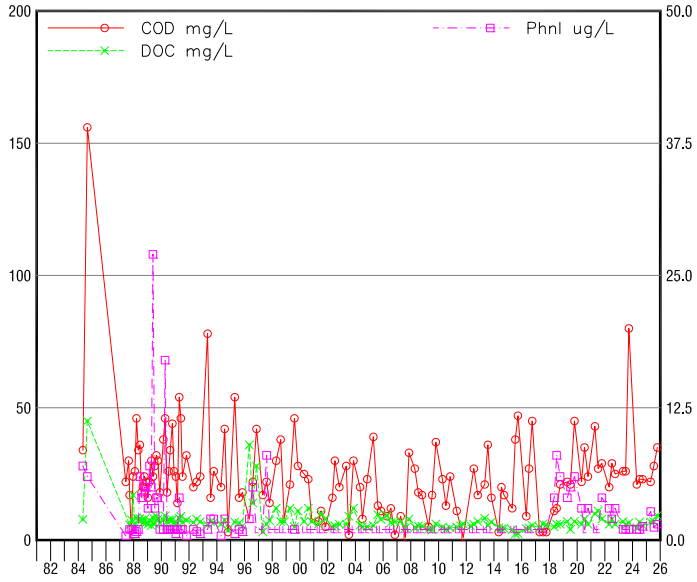


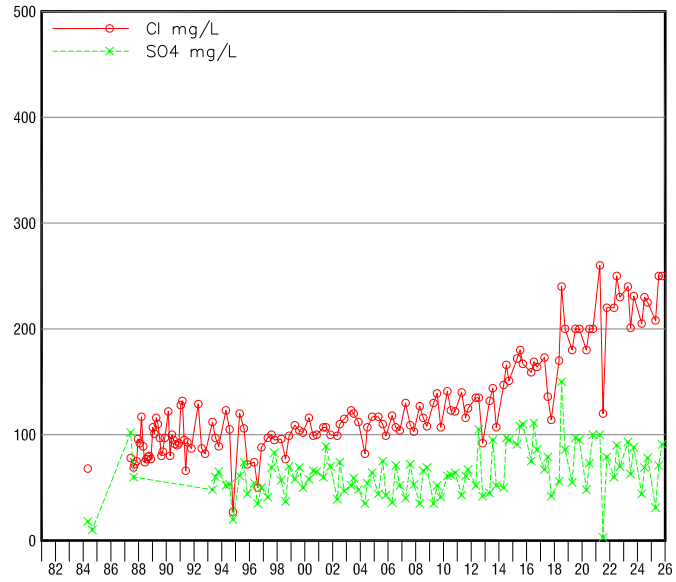
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
02-May-16	3147	245	1290	286	7.8	183	127	86	16	97	71	0.037	66	15	4.3	14.1	0.9	<0.1	11.2	<1	-1.3
13-Jul-16	3241	219	1210	250	7.9	172	123	71	16	111	14	0.065	69	25	4.3	22.6	0.8	1.7	20.2	<1	-1.5
05-Oct-16	3257	110	1130	247	8.0	175	119	72	16	107	25	0.081	76	35	5.4	4.2	13	1.0	2.88	<1	-0.6
18-Apr-17	3363	215	1230	288	7.8	197	93	79	12	97	44	0.013	51	12	4.3	11.1	3.6	0.3	8.83	<1	-5.0
13-Jul-17	3379	164	1280	253	7.8	160	110	73	15	97	60	0.055	72	3	5.0	1.4	7.4	0.3	0.59	<1	0.3
12-Oct-17	3436	125	1120	264	7.8	139	88	76	18	102	21	0.063	66	9	4.9	2.3	14	0.3	0.91	<1	5.4
07-May-18	3556	251	1230	325	8.0	200	92	106	15	99	57	0.254	63	13	4.0	12.0	0.9	0.2	11.2	**3**	1.8
11-Jul-18	3559	157	1490	270	7.8	240	160	79	18	132	93	0.043	61	15	6.0	5.8	8.1	0.6	4.5	**6**	0.2
12-Oct-18	3636	217	1400	290	7.8	230	130	86	18	121	70	0.041	77	18	7.0	12.7	5.8	1.0	10.1	**7**	-1.4
16-Apr-19	3682	279	1300	326	8.3	200	68	107	14	106	28	0.044	74	23	7.0	10.2	2.2	0.3	8.7	**4**	-1.4
11-Jul-19	3734	220	1420	296	7.8	220	130	91	17	122	63	0.073	76	26	4.0	13.2	3.2	0.4	11.6	**6**	0.6
24-Oct-19	3790	253	1450	234	8.0	220	120	71	14	97	75	0.046	42	26	5.0	18.5	0.5	1.9	17.1	**8**	-6.7
27-Apr-20	3902	177	1170	315	7.9	200	76	99	17	113	12	0.04	71	23	7.0	4.6	13	0.4	4.1	**4**	0.7
15-Jul-20	3954	115	1150	266	7.9	210	87	81	16	130	14	0.050	8.3	36	8.0	1.0	17	0.2	0.1	<1	0.5
14-Oct-20	3998	115	1310	268	8.0	210	120	80	17	153	70	0.041	18	20	6.0	2.1	17	<0.1	0.1	**2**	7.4
16-Apr-21	4070	222	1620	320	8.0	270	110	100	17	134	83	0.046	56	42	10	13.6	11	2.8	12.4	<1	0.1
06-Jul-21	4134	151	1040	257	7.9	220	75	81	14	102	13	0.043	82	24	8.0	1.0	7.0	0.9	1.2	**2**	-4.8
15-Oct-21	4202	142	1510	252	8.0	280	150	76	15	144	94	0.048	20	28	9.0	1.4	13	0.1	<0.1	**5**	-3.5
25-Apr-22	4247	262	1360	289	8.1	250	89	94	14	121	51	0.039	84	26	6.0	11.2	1.4	0.5	10.6	**2**	-4.2
05-Jul-22	4272	172	1310	256	7.9	250	99	77	16	130	14	0.053	82	25	8.0	10.2	5.8	0.6	9.0	**6**	-4.9
29-Sep-22	4328	131	1230	227	8.1	250	91	67	14	121	12	0.045	26	28	6.0	1.0	14	0.1	0.1	**4**	-10.9
25-Apr-23	4398	276	1450	282	7.6	251	100	96	17	138	59	0.286	60	28	7.0	16.3	0.6	0.9	17.6	1	0.8
05-Jul-23	4450	154	1190	305	7.5	209	82	83	16	114	10	0.120	43	28	5.5	3.1	12	<0.1	0.05	0	11.2
27-Sep-23	4505	136	1320	292	7.7	236	103	96	19	147	17	0.240	21	33	6.6	<0.2	16	<0.1	0.1	**4**	-3.2
22-Apr-24	4576	214	1190	321	7.5	221	60	98	17	116	7.8	**9.70**	61	20	4.3	<0.2	8.9	<0.2	0.04	1	-2.2
04-Jul-24	4628	151	1260	313	7.8	247	87	88	18	132	14	0.163	35	15	6.7	1.35	15	<0.2	0.25	**1.3**	-3.4
25-Sep-24	2060971	116	1290	280	7.4	252	105	85	17	157	15	**8.10**	7.0	15	6.3	<0.2	17	<0.1	0.03	1	1.4
22-Apr-25	250917102	260	1440	356	8.1	274	56	115	17	145	7.7	0.026	69	27	6.1	12.5	1.2	0.2	9.99	**3.7**	2.1
16-Jul-25	251924202	110	1490	314	8.3	273	106	93	20	157	14	0.040	15	32	8.2	1.4	20	0.1	0.11	**1.2**	3.6
16-Oct-25	252965905	96	1340	280	8.1	255	96	80	20	151	18	0.043	12	32	9.2	2.0	19	0.4	0.14	**1.5**	-0.8
TOTAL SAMPLES		139	135	133	138	140	103	92	92	92	92	144	94	138	139	141	139	139	140	138	
AVERAGE 2025		155	1423	317	8.2	267	86	96	19	151	13	0.036	32	30	7.8	5.3	13	0.2	3.41	2.13	

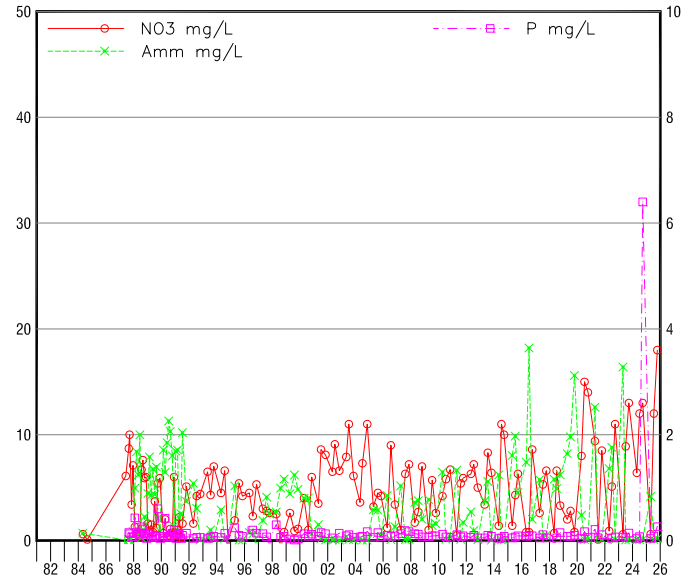
all Concentrations mg/L unless otherwise indicated

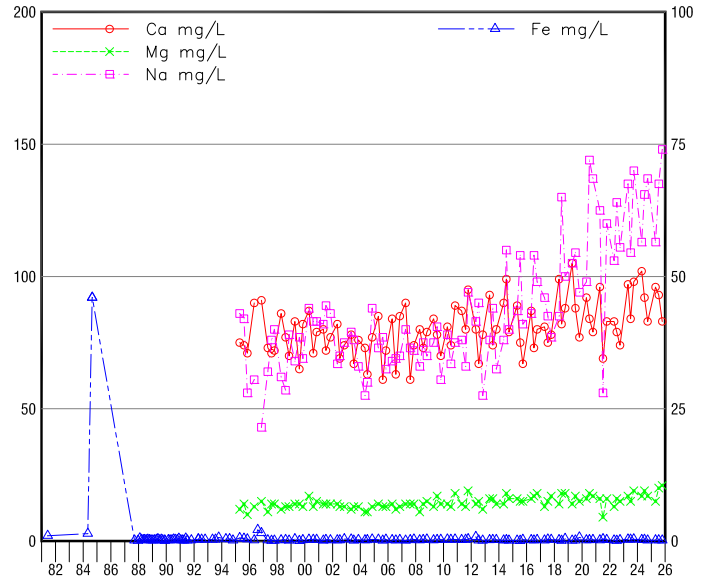
Anomalies shown in *Italics* / Exceedence in **BOLD**



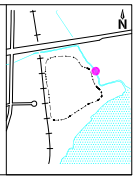








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-3

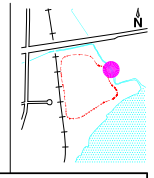
BEN'S DITCH

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BEN'S DITCH

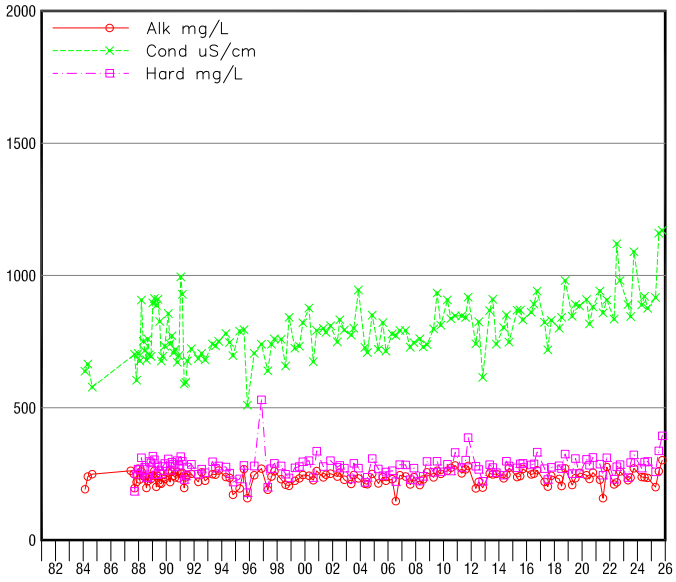
SURFACE WATER STATION

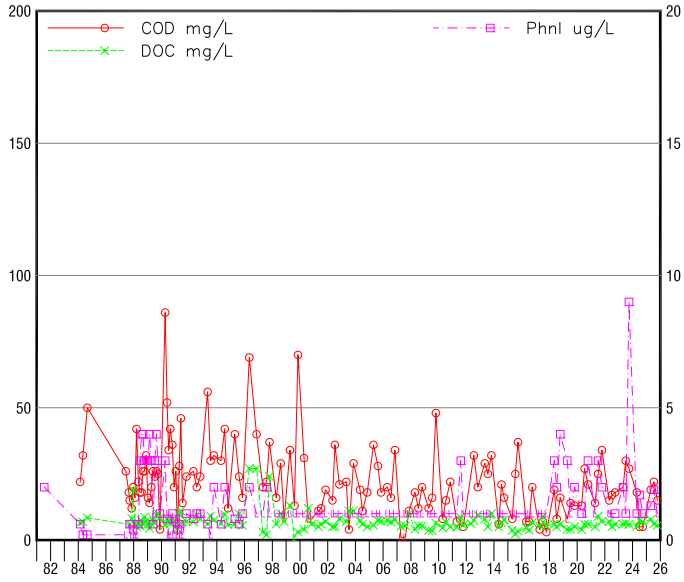


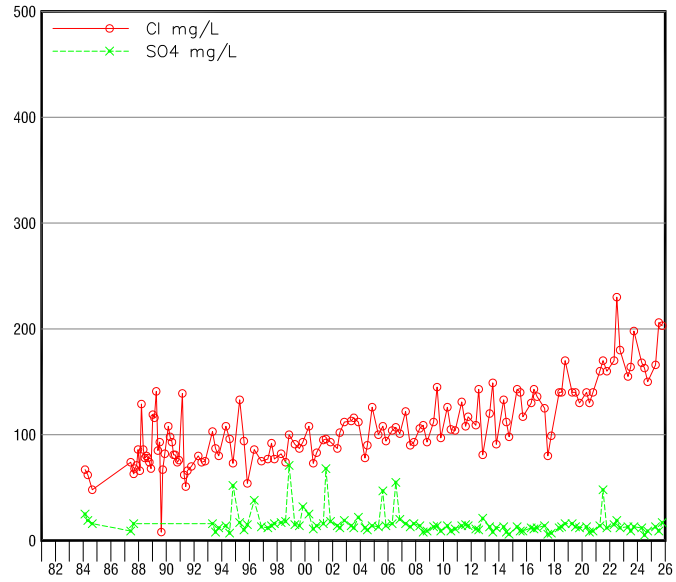
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
02-May-16	3148	262	1090	284	7.9	159	75	87	16	86	42	0.172	83	9	4.3	8.6	0.8	<0.1	7.41	<1	-1.5
13-Jul-16	3242	221	1150	255	7.8	169	111	73	17	108	13	0.122	74	27	4.6	20.8	0.8	1.3	18.2	<1	-0.8
05-Oct-16	3258	156	1070	272	8.1	164	86	80	18	98	16	0.20	91	45	5.5	3.4	8.6	1.0	2.02	<1	0.7
18-Apr-17	3364	218	1100	281	7.9	173	67	81	13	92	31	0.108	62	3	4.8	8.0	2.6	0.3	5.74	<1	-2.3
13-Jul-17	3380	176	1120	254	7.8	136	79	75	15	85	43	0.299	101	3	6.1	1.6	5.3	0.3	0.43	<1	2.3
12-Oct-17	3437	192	964	265	8.0	114	42	78	17	77	9.9	0.243	68	3	5.7	1.5	6.6	<0.1	0.5	<1	3.1
07-May-18	3557	240	1050	303	8.1	170	56	99	14	85	30	0.186	82	11	5.0	6.4	0.7	<0.1	5.8	**4**	0.8
11-Jul-18	3560	169	1450	279	7.9	240	150	82	18	130	87	0.07	65	12	6.0	5.9	6.6	0.6	4.9	**8**	0.2
12-Oct-18	3637	231	1190	297	7.9	200	86	88	18	100	41	**0.415**	136	21	6.0	7.0	3.3	0.5	6.2	**6**	-2.3
16-Apr-19	3683	266	1220	321	8.4	180	55	105	14	105	23	0.075	74	22	7.0	9.4	2.0	0.2	8.2	**4**	1.9
11-Jul-19	3735	239	1300	287	7.8	200	97	88	17	109	48	0.124	78	21	4.0	11.0	2.8	0.3	9.8	**5**	-0.7
24-Oct-19	3791	261	1340	252	7.7	200	95	77	15	94	66	**0.705**	95	45	7.0	16.6	0.8	1.2	15.6	**6**	-3.6
27-Apr-20	3903	208	1050	295	8.0	180	48	92	16	98	7.8	0.146	66	22	6	2.7	8.0	0.2	2.4	**3**	-1.3
15-Jul-20	3955	136	1100	285	8.0	200	73	84	18	144	13	0.180	31	35	8.0	1.3	15	0.2	0.1	<1	5.9
14-Oct-20	3999	136	1250	265	8.1	200	100	79	17	137	57	0.203	39	24	6.0	2.6	14	<0.1	0.1	**3**	5.2
16-Apr-21	4071	232	1590	305	8.0	260	100	96	16	125	73	0.140	67	43	10	13.0	9.4	2.3	12.6	<1	-3.2
06-Jul-21	4135	182	654	208	8.0	120	3	69	9	56	2.1	**0.366**	45	27	11	0.7	0.1	<0.1	<0.1	<1	-3.1
15-Oct-21	4203	191	1270	274	8.0	220	79	83	16	120	60	0.213	54	29	8.0	1.0	8.5	0.1	0.1	**4**	-0.1
25-Apr-22	4249	236	1120	259	8.2	220	60	83	13	106	32	0.126	66	20	6.0	6.9	0.9	0.3	6.8	**3**	-4.9
05-Jul-22	4273	181	1310	262	8.0	250	90	79	16	128	13	0.070	77	29	8.0	9.8	5.1	0.5	8.8	**2**	-4.6
29-Sep-22	4329	167	1160	247	8.2	230	70	74	15	111	9.5	0.176	48	25	6.0	0.7	11	0.1	0.1	**3**	-9.2
25-Apr-23	4399	271	1390	270	7.6	240	93	97	17	135	54	**0.308**	60	26	7.0	19.0	0.6	0.7	16.4	1	1.8
05-Jul-23	4451	178	1160	304	7.6	201	63	84	15	109	7.9	0.262	51	26	5.7	3.2	8.9	<0.1	0.05	1	10.3
27-Sep-23	4506	160	1270	298	8.0	231	88	98	19	140	15	**0.327**	50	80	6.5	0.3	13	<0.1	0.08	1	-6.3
22-Apr-24	4577	222	1070	298	7.6	205	44	102	17	113	6.3	0.217	69	21	4.6	<0.2	6.4	<0.2	0.06	1	-0.2
04-Jul-24	4629	169	1210	307	7.9	230	69	92	19	131	12	0.228	60	23	6.8	<0.2	12	<0.2	0.08	1	0.1
25-Sep-24	2060972	144	1170	282	7.4	225	78	83	17	137	12	0.120	35	23	5.5	<0.2	13	<0.1	0.09	**1.3**	0.2
22-Apr-25	250917103	222	1130	300	8.1	208	31	96	15	113	4.8	0.141	60	22	6.9	5.4	0.6	0.1	4.17	**2.7**	3.9
16-Jul-25	251924203	161	1360	314	8.2	250	71	93	20	135	9.5	0.142	117	28	7.0	1.0	12	0.08	0.10	**1.2**	3.8
16-Oct-25	252965906	110	1330	291	8.1	250	91	83	21	148	17	0.124	23	35	9.3	2.2	18	0.3	0.19	**1.5**	-0.8
TOTAL SAMPLES		137	135	133	136	137	103	92	92	92	92	139	94	136	136	134	138	138	137	136	
AVERAGE 2025		164	1273	302	8.1	236	64	91	19	132	10	0.136	67	28	7.7	2.9	10	0.2	1.49	1.80	

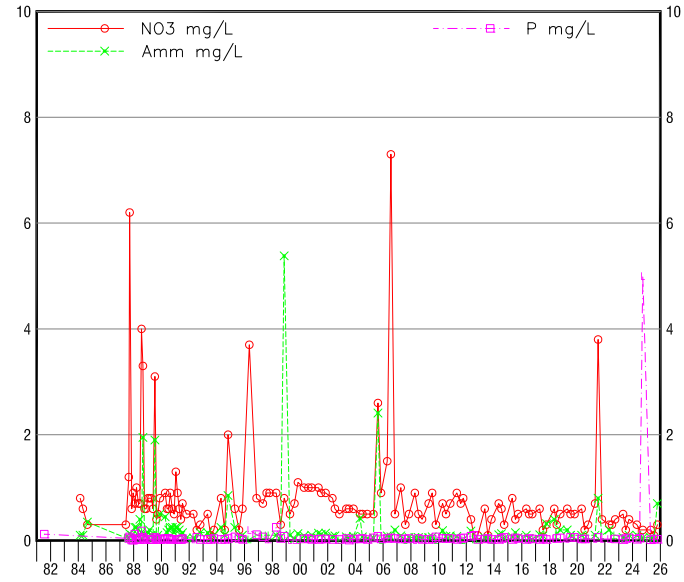
all Concentrations mg/L unless otherwise indicated

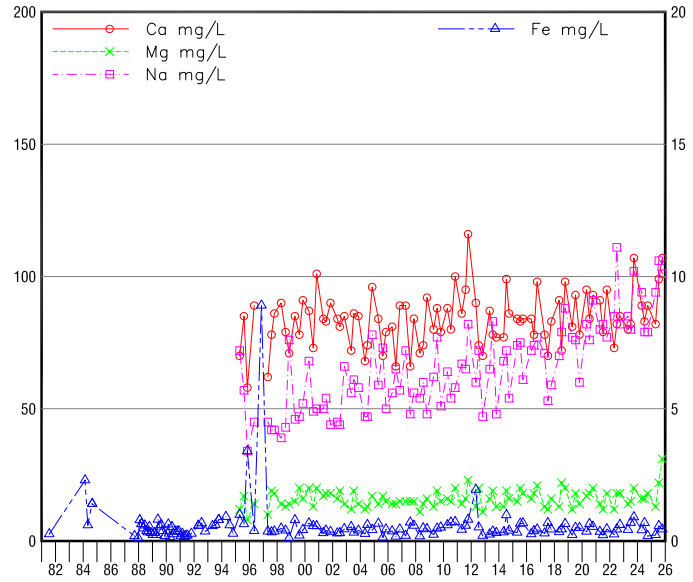
Anomalies shown in *Italics* / Exceedence in **BOLD**



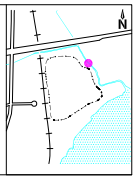








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-4

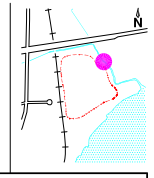
BEN'S DITCH

22578520 28 Nov 25	wsp	25G040

S-4

BEN'S DITCH

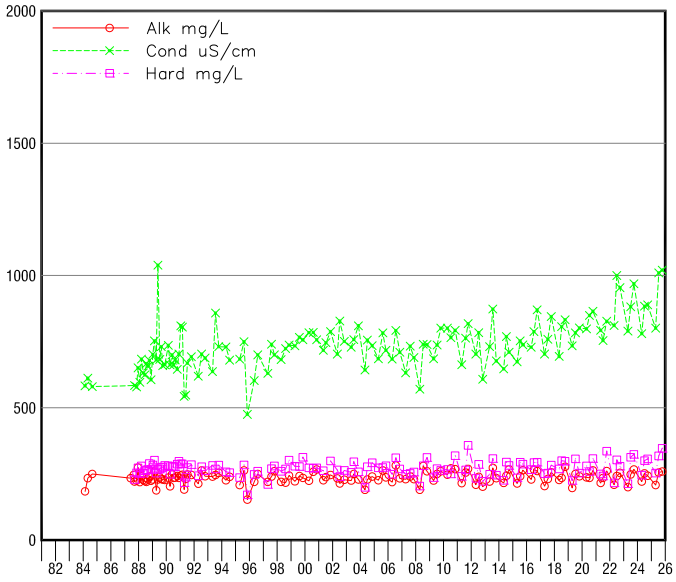
SURFACE WATER STATION

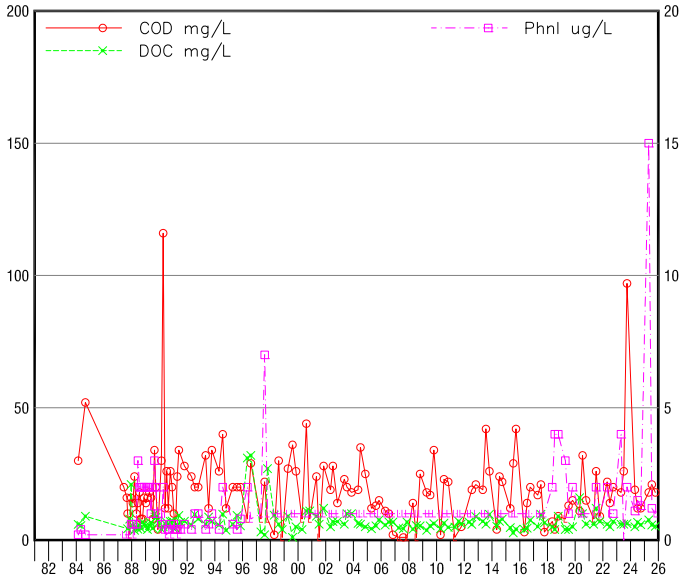


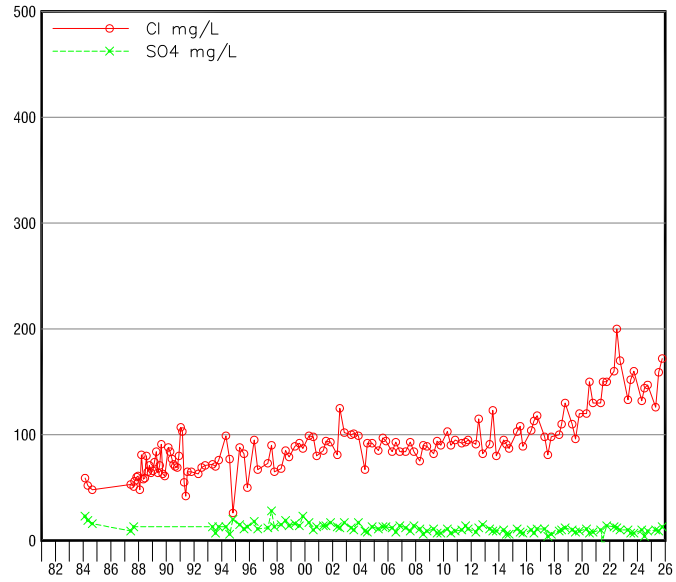
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
02-May-16	3149	248	861	284	8.1	130	12	84	16	72	2.3	0.259	105	7	4.6	0.5	0.6	<0.1	0.1	<1	-1.1
13-Jul-16	3243	251	892	288	7.9	143	11	78	18	74	1.6	**0.375**	57	7	3.7	0.5	0.5	<0.1	0.04	<1	-3.7
05-Oct-16	3259	264	941	332	8.3	136	12	98	21	77	1.8	**0.442**	124	20	6.6	0.5	0.5	<0.1	0.02	<1	3.3
18-Apr-17	3365	220	823	270	8.1	125	14	78	13	71	1.7	0.288	92	4	5.4	0.6	0.6	<0.1	0.11	<1	-0.9
13-Jul-17	3381	202	719	229	8.0	80	6	70	12	53	1.6	**0.679**	168	7	8.8	0.6	0.2	<0.1	0.09	<1	3.2
12-Oct-17	3438	243	831	275	8.2	99	7	83	16	59	2.0	**0.444**	83	3	5.4	0.8	0.3	<0.1	0.32	<1	1.9
07-May-18	3506	231	801	281	8.1	140	12	91	13	70	2.4	**0.337**	94	19	6.0	1.0	0.6	<0.1	0.4	**3**	-0.6
11-Jul-18	3561	204	842	270	8.5	140	13	72	22	79	2.3	**0.439**	43	8	5.0	0.5	0.3	<0.1	<0.1	**2**	4.0
12-Oct-18	3536	271	981	325	8.1	170	16	98	20	88	2.7	**0.649**	297	16	6.0	1.3	0.5	<0.1	0.2	**4**	-0.5
16-Apr-19	3684	208	846	251	8.4	140	16	81	12	77	2.3	0.228	57	<8	4.0	0.5	0.6	<0.1	0.2	**3**	-0.1
11-Jul-19	3736	234	891	308	8.1	140	13	93	18	76	1.9	**0.503**	73	14	4.0	<0.5	0.5	<0.1	0.1	<1	3.1
25-Oct-19	3792	254	885	251	8.1	130	12	78	14	60	2.0	**0.495**	125	13	5.0	<0.5	0.5	<0.1	<0.1	**2**	-7.1
28-Apr-20	3904	245	909	305	8.1	140	13	95	17	82	2.5	**0.358**	83	13	4.0	1.6	0.6	<0.1	0.1	1	3.0
15-Jul-20	3956	231	817	283	8.0	130	8	84	18	76	2.2	**0.644**	72	27	6.0	0.7	0.2	<0.1	<0.1	<1	3.9
14-Oct-20	4000	255	881	312	8.3	140	9	93	20	91	2.4	**0.541**	128	21	6.0	<0.5	0.3	<0.1	<0.1	**3**	5.7
16-Apr-21	4072	228	941	287	8.1	160	14	91	14	80	2.7	**0.350**	90	14	5.0	<0.5	0.7	<0.1	0.1	<1	0.1
06-Jul-21	4136	158	859	245	7.9	170	48	79	12	82	8.8	0.224	74	25	9.0	1.4	3.8	0.5	0.8	**3**	-1.8
15-Oct-21	4204	276	908	311	8.0	160	12	95	18	77	2.7	**0.445**	91	34	7.0	<0.5	0.4	<0.1	<0.1	**2**	-2.8
25-Apr-22	4250	210	835	230	8.2	170	15	73	12	85	2.4	0.255	59	15	7.0	<0.5	0.3	<0.1	0.2	<1	-5.5
05-Jul-22	4274	218	1120	277	8.1	230	19	82	18	111	2.5	**0.444**	205	17	5.0	<0.5	0.3	<0.1	<0.1	<1	-3.3
29-Sep-22	4330	259	981	285	8.3	180	12	85	18	82	2.1	**0.611**	136	18	6.0	<0.5	0.4	<0.1	<0.1	1	-5.6
25-Apr-23	4400	226	890	236	7.8	155	13	80	14	85	2.6	**0.422**	48	20	6.0	1.1	0.5	<0.1	0.06	**2**	-1.5
05-Jul-23	4452	236	845	293	7.8	164	9	82	15	80	1.9	**0.691**	63	30	6.3	4.8	0.2	<0.1	0.04	1	9.7
28-Sep-23	4507	271	1090	322	7.3	198	13	107	20	102	3.1	**0.900**	262	27	5.9	0.5	0.4	<0.1	0.1	**9**	-5.2
22-Apr-24	4578	238	889	272	7.7	168	12	89	16	94	2.6	**0.409**	75	18	5.2	<0.2	0.3	<0.2	0.10	1	0.8
04-Jul-24	4630	237	921	295	8.0	163	5	83	16	79	2.0	**0.685**	187	5	7.4	0.6	<0.2	<0.2	0.06	**1.7**	-2.3
26-Sep-24	2060973	235	876	297	7.6	150	9	89	18	79	3.1	0.190	103	5	6.9	<0.2	0.2	<0.1	0.05	1	1.6
22-Apr-25	250917104	200	917	258	8.2	166	13	82	13	94	2.6	0.228	54	19	7.8	0.4	0.2	<0.02	0.06	**1.3**	-1.5
16-Jul-25	251924204	260	1160	337	8.2	206	9	99	22	106	2.2	**0.569**	354	22	6.2	0.6	0.1	<0.05	0.04	**1.9**	3.9
16-Oct-25	252965902	302	1170	394	8.5	203	17	107	31	101	3.3	**0.443**	99	15	5.5	1.1	0.3	<0.05	0.70	<1	-2.5
TOTAL SAMPLES		138	136	132	136	137	103	91	91	91	91	140	93	135	135	136	137	137	137	136	
AVERAGE 2025		254	1082	330	8.3	192	13	96	22	100	2.7	0.4133	169	19	6.5	0.7	0.2	<0.05	0.27	1.07	

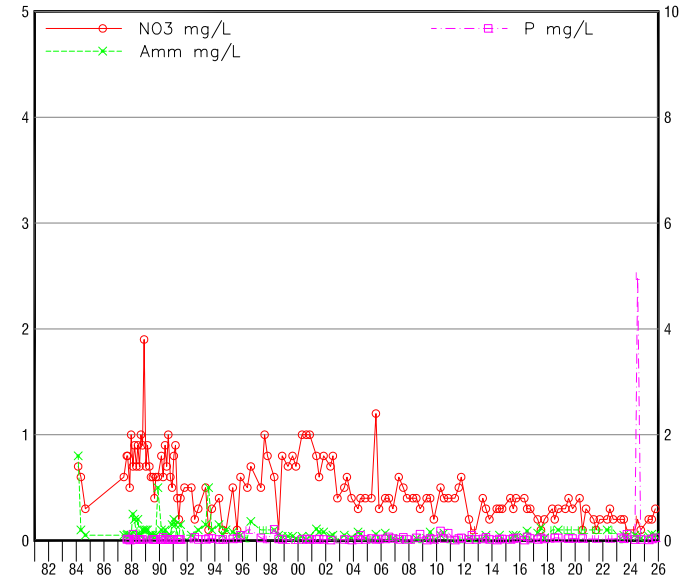
all Concentrations mg/L unless otherwise indicated

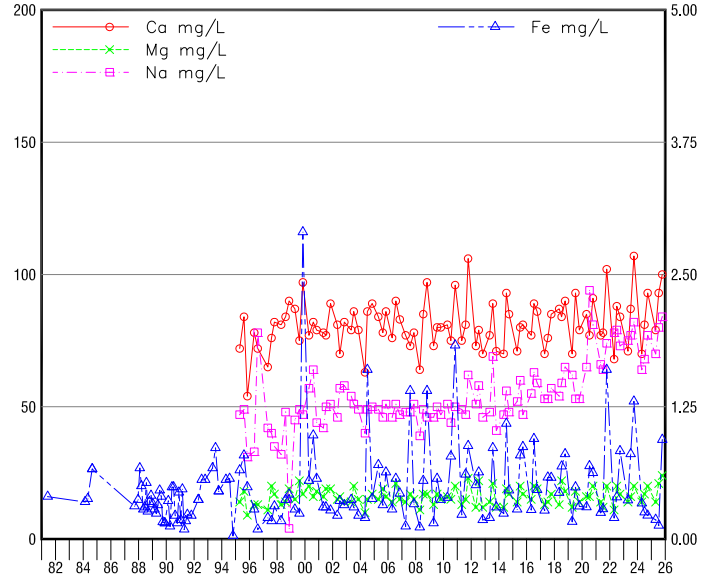
Anomalies shown in *Italics* / Exceedence in **BOLD**



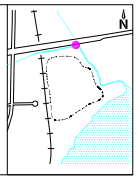








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-6

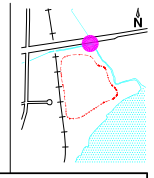
MILL CREEK

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S-6

MILL CREEK

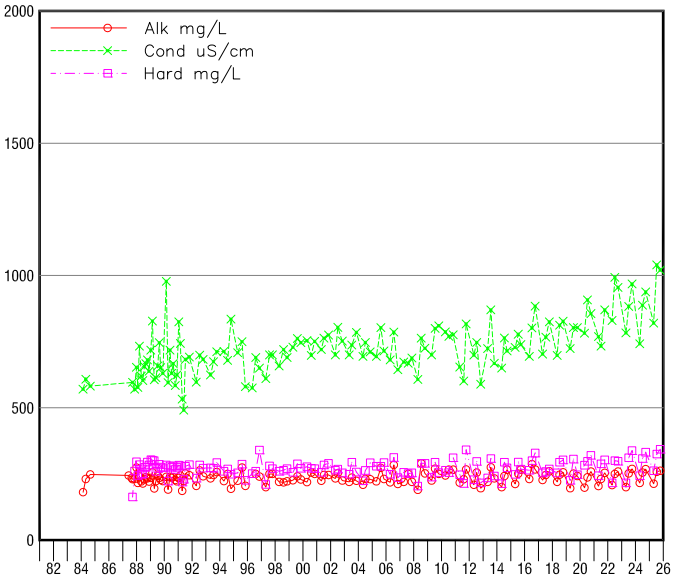
SURFACE WATER STATION

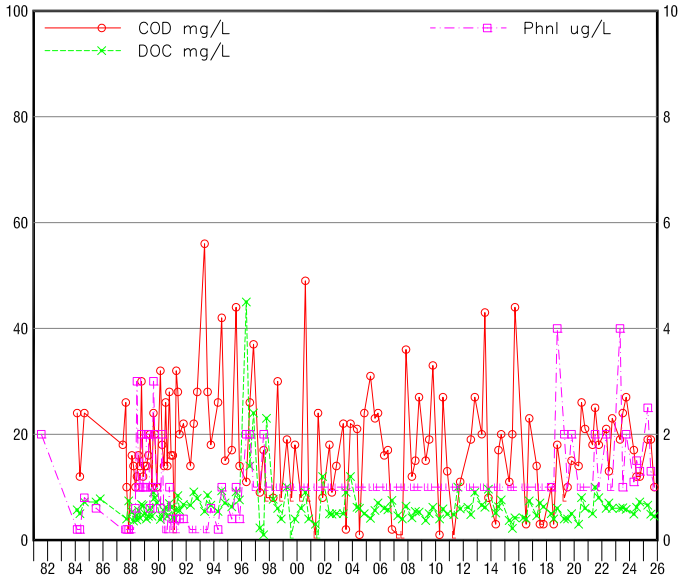


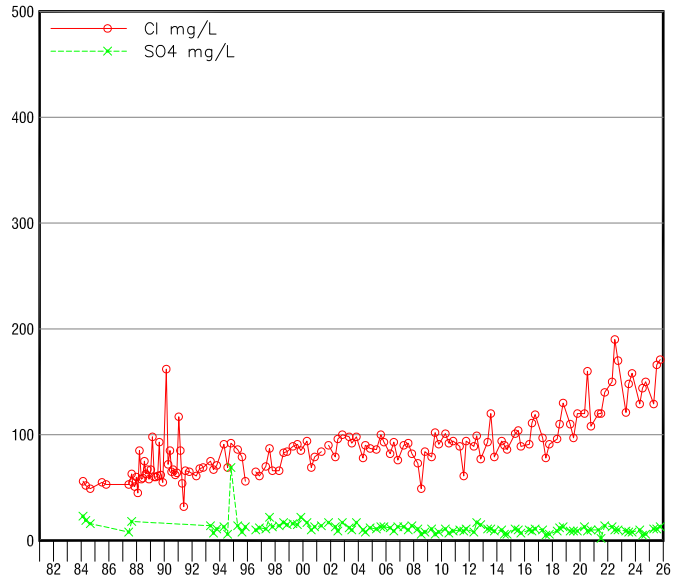
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	PhnI ug/L	Ion B %
	PWQO											0.3								1	
02-May-16	3150	229	729	266	8.1	104	10	77	15	55	1.7	0.275	51	3	4.0	0.5	0.4	<0.1	0.03	<1	-1.5
13-Jul-16	3244	266	788	293	8.0	113	7	89	20	63	1.4	**0.946**	173	14	4.5	0.5	0.3	<0.1	0.09	<1	1.3
05-Oct-16	3260	261	870	294	8.4	118	11	86	19	59	1.5	**0.464**	127	20	7.5	0.6	0.3	<0.1	<0.01	<1	-1.3
18-Apr-17	3366	204	703	251	8.2	98	11	70	13	53	1.3	0.269	53	17	5.1	0.6	0.2	<0.1	0.07	<1	-1.2
13-Jul-17	3382	231	759	253	8.1	81	4	76	14	53	1.3	**0.582**	104	21	9.7	0.7	0.1	<0.1	0.12	<1	2.2
12-Oct-17	3439	256	845	283	8.2	98	6	85	17	57	1.6	**0.579**	90	3	6.5	0.5	0.2	<0.1	0.02	<1	1.0
07-May-18	3507	227	694	269	8.3	100	9	87	13	54	2.1	**0.437**	78	7	5.0	0.7	0.3	<0.1	<0.1	**2**	2.3
12-Jul-18	3562	235	807	300	8.2	110	10	84	22	59	1.7	**0.686**	159	4	4.0	1.1	0.2	<0.1	<0.1	**4**	4.3
11-Oct-18	3639	277	833	298	8.1	130	12	90	18	65	1.9	**0.803**	109	9	9.0	0.6	0.3	<0.1	0.1	**4**	-3.2
17-Apr-19	3685	197	734	225	8.4	110	10	70	12	62	1.6	0.163	37	<8	4.0	<0.5	0.3	<0.1	<0.1	**3**	0.4
11-Jul-19	3737	250	783	307	8.2	96	8	93	18	53	1.4	**0.489**	85	13	4.0	<0.5	0.4	<0.1	<0.1	1	4.1
24-Oct-19	3793	241	802	253	8.2	120	9	79	14	53	1.5	**0.309**	75	15	5.0	0.7	0.3	<0.1	<0.1	**2**	-5.4
27-Apr-20	3905	237	798	280	8.3	120	11	85	16	65	2.1	**0.301**	57	11	16	<0.5	0.4	<0.1	<0.1	<1	1.2
15-Jul-20	3957	235	849	259	8.0	150	7	77	16	94	2.3	**0.689**	141	32	10	<0.5	0.1	<0.1	<0.1	<1	1.9
14-Oct-20	4001	263	865	308	8.4	130	8	91	20	81	2.0	**0.625**	109	15	6.0	<0.5	0.3	<0.1	<0.1	<1	3.8
06-May-21	4073	216	793	250	8.3	130	10	77	14	66	1.9	0.248	57	<8	6.0	<0.5	0.2	<0.1	<0.1	<1	-1.0
06-Jul-21	4137	235	754	242	8.2	150	<2	78	12	64	1.5	0.282	53	26	12	0.8	0.1	<0.1	<0.1	**2**	-7.4
12-Oct-21	4205	261	827	336	7.9	150	14	102	20	74	2.7	**1.60**	170	9	7.0	<0.5	0.2	<0.1	<0.1	<1	1.9
25-Apr-22	4051	209	811	216	8.2	160	13	68	11	78	1.9	0.199	43	22	6.0	<0.5	0.2	<0.1	0.1	**2**	-7.2
05-Jul-22	4275	242	1000	303	8.2	200	12	88	20	79	2.1	**0.394**	78	14	5.0	1.3	0.3	<0.1	<0.1	<1	-5.4
29-Sep-22	4331	254	954	279	8.4	170	10	84	17	73	1.8	**0.832**	123	20	7.0	<0.5	0.2	<0.1	<0.1	1	-6.2
24-Apr-23	4401	200	790	213	7.8	133	10	71	14	75	2.2	**0.366**	31	18	6.0	6.7	0.2	<0.1	<0.01	**4**	0.9
05-Jul-23	4453	248	882	313	7.8	152	7	87	16	77	1.6	**0.803**	81	26	6.0	3.0	0.2	<0.1	0.05	0	10.4
28-Sep-23	4508	267	969	324	7.4	160	7	107	20	82	2.6	**1.30**	253	97	6.2	0.5	<0.1	<0.1	0.04	**2**	-6.0
23-Apr-24	4579	221	780	245	7.7	132	10	70	14	64	2.0	**0.337**	67	19	5.0	0.3	<0.1	<0.1	0.05	**1.1**	-5.4
04-Jul-24	4631	252	884	300	8.0	144	4	81	17	68	1.5	0.253	195	12	6.7	0.5	<0.2	<0.2	0.04	**1.5**	-4.1
25-Sep-24	2060974	243	889	307	7.6	147	9	93	20	77	3.2	0.222	122	12	5.8	<0.2	0.1	<0.1	0.02	**1.3**	2.5
23-Apr-25	250917105	208	801	253	8.2	126	10	79	14	70	2.3	0.182	50	18	7.6	0.3	0.2	<0.01	0.04	**15**	1.2
14-Jul-25	251924206	255	1010	318	8.3	159	9	93	21	80	2.0	0.127	99	21	5.7	0.4	0.2	<0.02	0.06	**1.2**	4.0
15-Oct-25	252965903	259	1020	347	8.5	172	13	100	24	84	2.4	**0.938**	161	18	5.2	0.5	0.3	<0.05	0.05	<1	-1.5
TOTAL SAMPLES		137	135	131	136	138	103	92	92	92	92	140	93	134	136	138	138	138	138	136	
AVERAGE 2025		241	944	306	8.3	152	11	91	20	78	2.2	0.4157	103	19	6.2	0.4	0.2	<0.05	0.05	5	

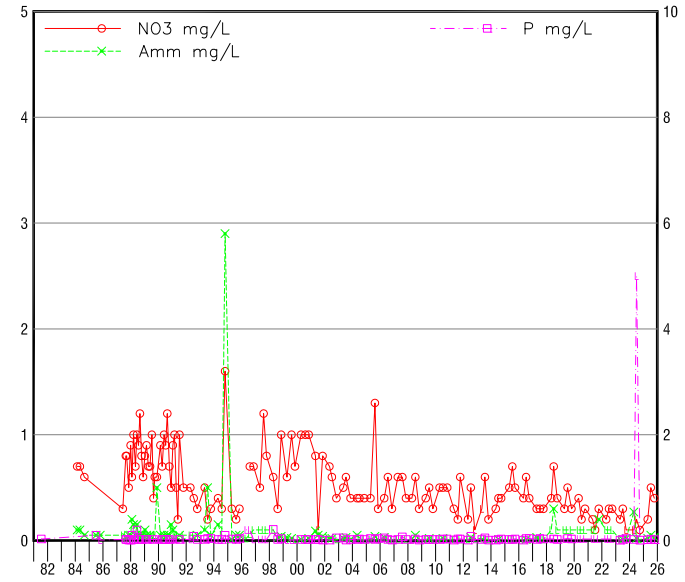
all Concentrations mg/L unless otherwise indicated

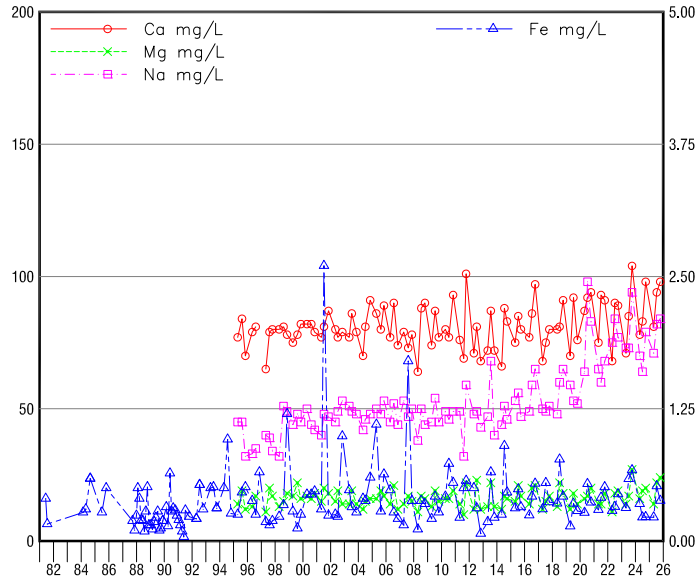
Anomalies shown in *Italics* / Exceedence in **BOLD**



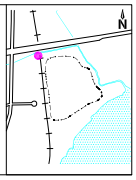








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-7

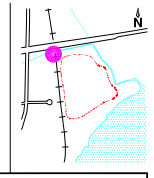
MILL CREEK

22578520 28 Nov 25	wsp	25G042

S-7

MILL CREEK

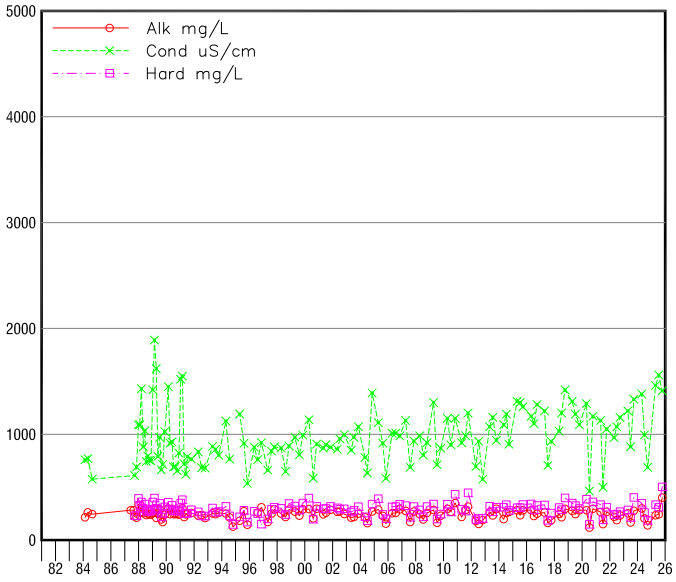
SURFACE WATER STATION

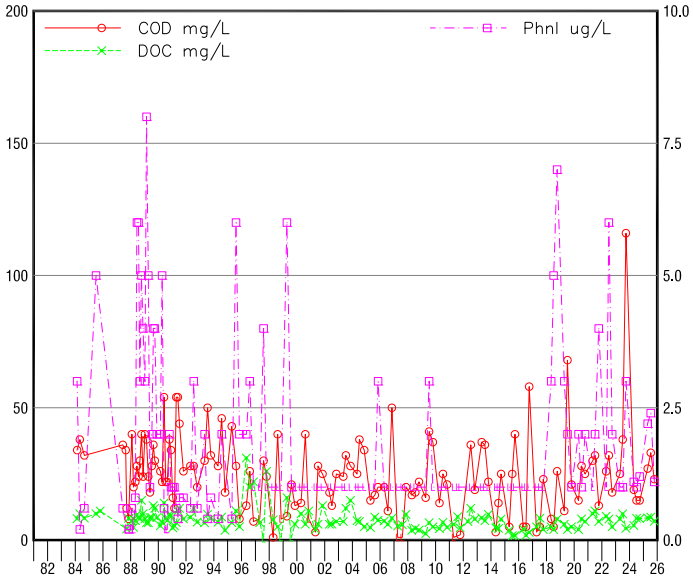


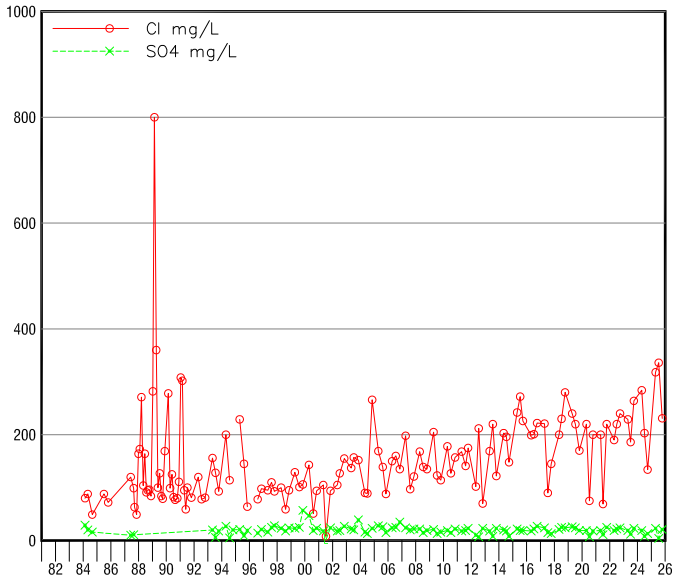
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
03-May-16	3151	231	694	264	8.1	91	10	77	14	49	1.6	0.243	45		4.2	0.4	0.4	<0.1	<0.01	<1	-1.0
13-Jul-16	3245	287	802	300	8.2	111	9	86	20	59	1.3	**0.421**	73	3	4.0	0.6	0.6	<0.1	0.01	<1	-3.1
05-Oct-16	3261	267	884	329	8.3	119	11	97	21	65	1.5	**0.542**	104	23	7.4	0.5	0.4	<0.1	<0.01	<1	3.3
18-Apr-17	3367	227	703	254	8.1	97	10	68	12	50	1.1	**0.301**	52	14	4.6	0.5	0.3	<0.1	0.03	<1	-6.4
12-Jul-17	3383	246	767	259	8.2	78	5	75	15	49	1.0	**0.549**	55	3	7.0	0.4	0.3	<0.1	<0.01	<1	0.1
13-Oct-17	3440	260	825	269	8.2	91	6	80	17	51	1.4	**0.367**	53	3	6.3	0.4	0.3	<0.1	<0.01	<1	-1.0
07-May-18	3508	220	698	254	8.3	96	9	80	13	48	1.8	**0.355**	79	10	5.0	<0.5	0.4	<0.1	<0.1	1	-0.1
11-Jul-18	3563	247	812	294	8.3	110	12	81	22	60	1.7	**0.771**	65	3	4.0	1.6	0.7	<0.1	0.3	<1	1.3
11-Oct-18	3640	256	827	303	8.2	130	13	91	18	65	1.8	**0.42**	57	18	6.0	0.6	0.4	<0.1	<0.1	**4**	-0.4
17-Apr-19	3686	196	724	226	8.4	110	9	70	12	59	1.6	0.139	34	<8	4.0	<0.5	0.3	<0.1	<0.1	**2**	-0.2
11-Jul-19	3738	251	803	306	8.2	97	9	92	18	53	1.4	**0.354**	58	10	4.0	0.6	0.5	<0.1	<0.1	<1	3.3
24-Oct-19	3794	242	803	247	8.2	120	9	76	14	52	1.4	0.284	59	15	5.0	<0.5	0.3	<0.1	<0.1	**2**	-6.8
27-Apr-20	3906	198	782	283	8.3	120	13	87	16	64	2.0	0.267	51	14	3.0	0.6	0.4	<0.1	<0.1	<1	5.9
15-Jul-20	3958	237	908	298	8.1	160	9	92	17	98	2.2	**0.540**	105	26	8.0	<0.5	0.2	<0.1	<0.1	<1	4.8
14-Oct-20	4002	259	856	320	8.3	108	10	94	20	83	2.1	**0.365**	72	21	6.0	<0.5	0.3	<0.1	<0.1	<1	9.2
30-Apr-21	4074	204	769	243	8.1	120	10	75	14	65	1.9	0.295	48	18	5.0	<0.5	0.2	<0.1	<0.1	<1	0.1
06-Jul-21	4138	231	733	288	8.1	120	2	93	14	60	1.3	**0.409**	71	25	10	0.6	0.1	<0.1	<0.1	**2**	2.3
12-Oct-21	4206	254	870	303	8.2	140	14	91	18	68	2.4	**0.509**	58	18	8.0	<0.5	0.3	<0.1	0.2	<1	-1.4
25-Apr-22	4052	208	830	216	8.2	150	13	68	11	75	1.9	0.285	49	21	6.0	<0.5	0.2	<0.1	<0.1	**2**	-5.6
06-Jul-22	4276	250	993	300	8.3	190	10	90	18	84	1.9	**0.323**	66	13	7.0	<0.5	0.3	<0.1	<0.1	<1	-3.8
29-Sep-22	4332	259	955	298	8.3	170	10	89	19	77	1.9	**0.443**	66	23	6.0	<0.5	0.3	<0.1	<0.1	<1	-3.7
24-Apr-23	4402	200	783	216	7.8	121	9	71	14	73	2.1	**0.313**	28	19	6.0	3.3	0.2	<0.1	<0.01	**4**	2.7
06-Jul-23	4454	252	883	311	7.8	148	8	85	17	73	1.6	**0.587**	56	24	6.1	3.2	0.3	<0.1	0.01	1	11.0
02-Oct-23	4509	269	968	338	7.6	158	8	104	27	94	3.4	**0.670**	204	27	5.8	<0.2	<0.1	<0.1	0.02	**2**	0.3
22-Apr-24	4580	216	742	243	7.8	129	10	78	16	70	2.2	**0.351**	54	17	4.9	<0.2	<0.1	<0.1	0.27	**1.1**	1.0
03-Jul-24	4632	255	888	308	8.0	144	5	83	19	64	3.2	0.224	89	12	6.2	0.3	<0.2	<0.2	0.02	**1.5**	-3.7
26-Sep-24	2060975	268	938	332	7.7	150	6	98	20	79	3.1	0.226	60	12	7.2	<0.2	0.1	<0.1	<0.01	**1.3**	2.3
24-Apr-25	250917106	213	820	262	8.1	129	11	81	14	71	2.3	0.223	73	19	6.6	0.3	0.2	<0.01	0.02	**2.5**	-1.3
15-Jul-25	251924207	258	1040	325	8.3	166	11	94	22	82	2.1	**0.518**	135	19	4.9	0.5	0.5	<0.01	0.05	**1.3**	3.3
15-Oct-25	252965904	262	1020	343	8.5	171	13	98	24	84	2.3	**0.381**	59	10	4.5	0.3	0.4	<0.05	0.03	<1	-1.0
TOTAL SAMPLES		138	137	134	138	139	102	92	92	92	92	146	94	135	138	141	138	139	141	139	
AVERAGE 2025		244	960	310	8.3	155	12	91	20	79	2.2	0.3740	89	16	5.3	0.4	0.4	<0.05	0.03	1.27	

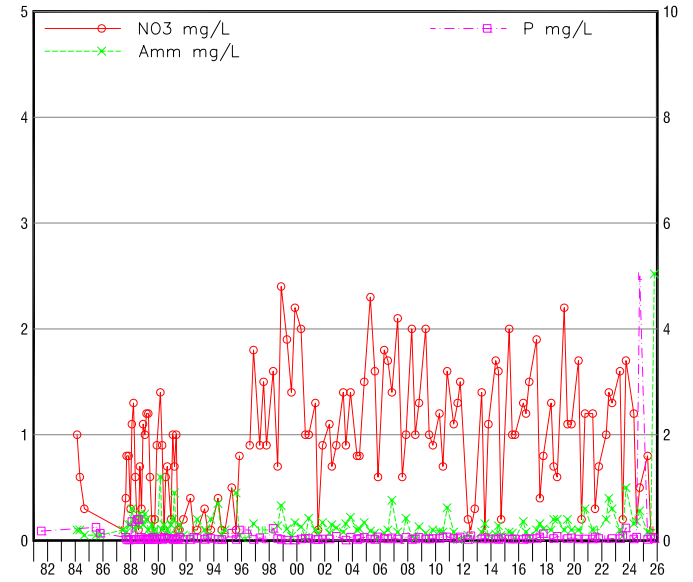
all Concentrations mg/L unless otherwise indicated

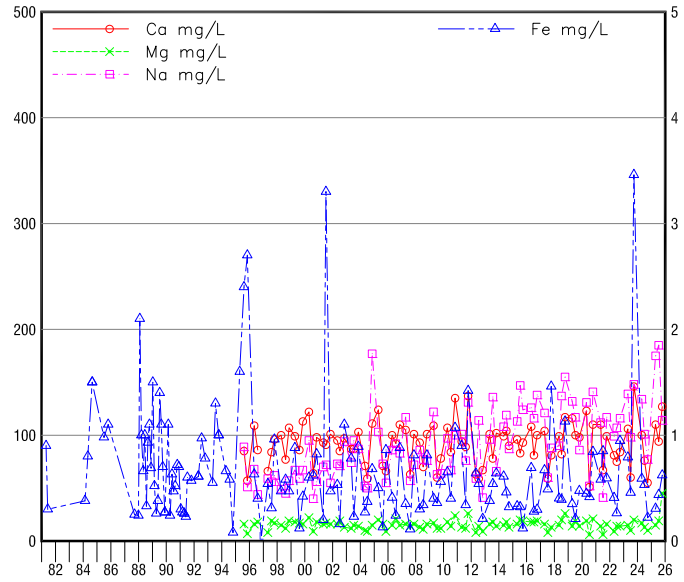
Anomalies shown in *Italics* / Exceedence in **BOLD**



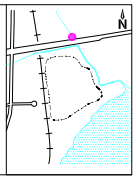








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-8

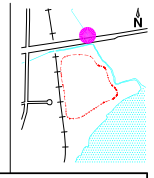
BEN'S DITCH

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S-8

BEN'S DITCH

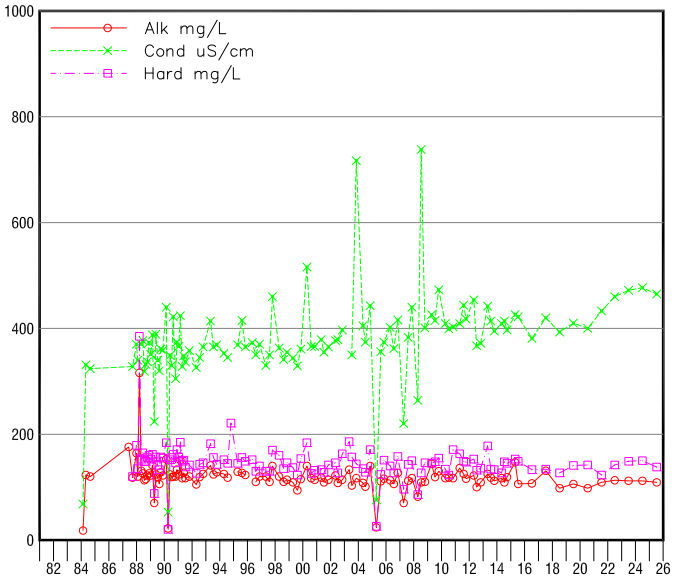
SURFACE WATER STATION

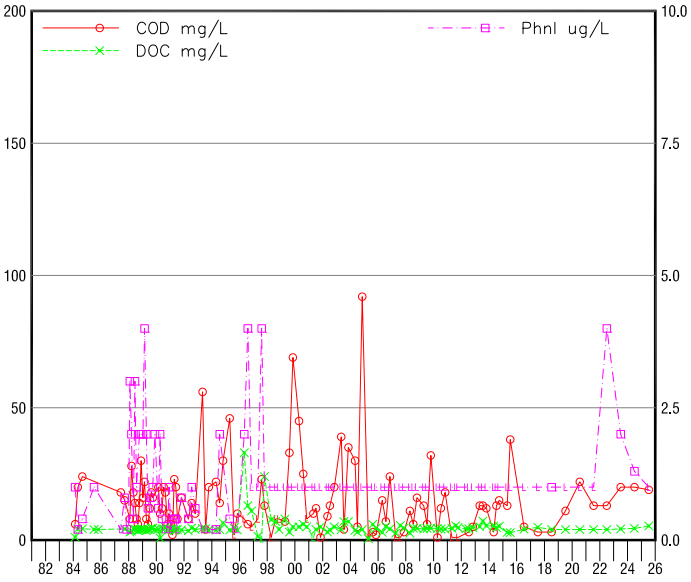


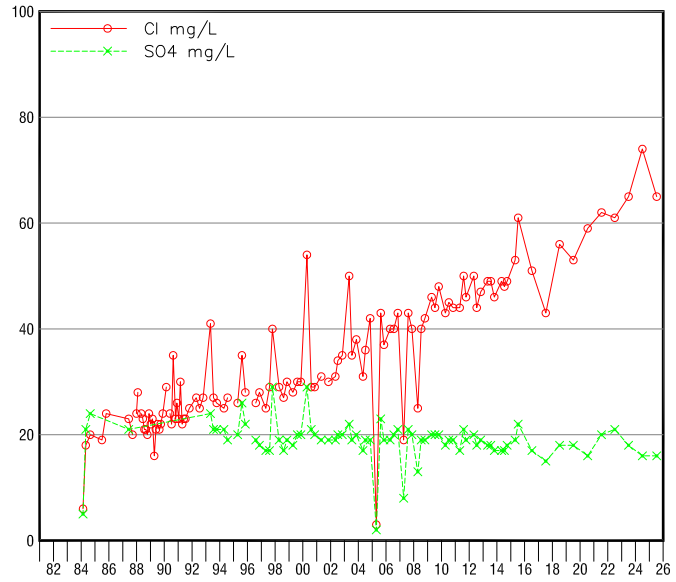
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
02-May-16	3152	282	1170	341	8.1	199	18	108	18	126	2.7	**0.691**	234	5	4.1	0.6	1.3	<0.1	0.18	<1	3.1
13-Jul-16	3246	227	1100	285	7.9	201	22	81	18	116	2.5	0.278	41	5	1.8	0.4	1.2	0.6	0.08	<1	-0.5
05-Oct-16	3262	249	1280	327	8.4	222	27	100	19	138	3.0	0.297	80	58	2.9	0.6	1.5	<0.1	0.04	<1	3.0
18-Apr-17	3368	260	1220	332	8.1	221	24	104	16	121	2.4	**0.669**	138	3	5.0	0.9	1.9	<0.1	0.1	<1	-0.8
13-Jul-17	3384	162	706	187	8.0	90	15	59	8	60	2.1	**0.488**	65	5	8.3	0.8	0.4	<0.1	0.16	<1	1.5
12-Oct-17	3441	188	933	255	8.0	145	13	81	13	88	2.9	**1.46**	227	23	4.0	7.4	0.8	<0.1	0.11	<1	5.2
07-May-18	3509	247	1030	308	8.2	200	21	99	15	90	2.3	**0.402**	108	8	5.0	<0.5	1.3	<0.1	0.1	**3**	-4.4
11-Jul-18	3564	216	1200	286	7.9	230	25	82	20	137	3.6	**0.39**	82	5	4.0	<0.5	0.7	0.2	0.2	**5**	1.9
11-Oct-18	3641	295	1420	398	8.0	280	24	117	26	155	4.1	**1.13**	484	26	8.0	0.6	0.6	<0.1	0.2	**7**	1.9
17-Apr-19	3687	276	1310	349	8.4	240	26	116	14	132	2.7	**0.349**	107	11	6.0	<0.5	2.2	<0.1	0.1	**3**	-0.8
11-Jul-19	3739	245	1190	326	7.9	220	24	100	19	117	3.3	0.209	100	68	4.0	0.7	1.1	0.1	0.2	**2**	0.3
24-Oct-19	3795	281	1090	299	8.2	170	19	98	14	86	3.1	**0.475**	166	21	5.0	0.7	1.1	<0.1	0.1	1	-4.8
27-Apr-20	3907	282	1290	386	8.3	220	19	123	19	131	2.9	**0.447**	127	15	4.0	<0.5	1.7	<0.1	0.1	**2**	4.5
15-Jul-20	3959	118	463	149	7.9	75	7	51	6	52	2.1	**0.416**	31	28	8.0	<0.5	0.2	<0.1	<0.1	1	7.6
14-Oct-20	4003	296	1170	361	8.3	200	18	110	21	141	3.8	**0.844**	314	25	7.0	<0.5	1.2	0.1	0.3	**2**	5.8
06-May-21	4075	265	1130	335	8.3	200	19	110	14	112	2.5	**0.580**	129	30	10	<0.5	1.2	<0.1	0.1	<1	1.3
06-Jul-21	4139	151	498	193	8.1	69	11	67	6	41	3.2	**0.850**	51	32	11	0.8	0.3	<0.1	<0.1	**2**	5.2
12-Oct-21	4207	267	1050	310	7.6	220	25	99	16	117	4.0	**0.593**	220	13	7.0	0.5	0.7	0.2	<0.1	**4**	-2.5
25-Apr-22	4053	220	968	240	8.2	190	19	81	9	99	2.2	**0.408**	101	26	9.0	<0.5	1.0	<0.1	0.2	<1	-5.2
05-Jul-22	4277	189	1070	245	8.1	220	22	75	14	107	2.8	0.263	44	32	8.0	0.9	1.4	0.1	0.4	**6**	-4.4
29-Sep-22	4333	232	1160	268	8.3	240	24	84	14	116	2.9	**0.946**	171	18	5.0	<0.5	1.3	0.1	0.3	**2**	-6.5
24-Apr-23	4403	253	1220	284	7.7	229	19	106	15	139	2.9	**0.790**	86	25	8.0	2.1	1.6	<0.1	0.1	1	2.6
05-Jul-23	4455	166	882	214	7.8	186	12	60	10	98	1.9	**0.457**	46	38	9.9	3.6	0.2	<0.1	0.04	1	8.9
28-Sep-23	4510	277	1330	403	7.5	264	23	146	20	148	4.1	**3.46**	847	116	4.4	1.4	1.7	<0.1	0.5	**3**	-8.2
23-Apr-24	4581	299	1380	348	7.7	284	19	100	17	134	2.6	**0.589**	115	19	5.5	0.5	1.2	<0.2	0.16	**1.1**	-8.2
04-Jul-24	4633	204	994	260	7.9	203	8	76	13	101	2.7	**0.530**	225	15	8.2	0.7	<0.2	<0.2	0.18	1	-3.1
25-Sep-24	2060976	139	687	186	7.3	134	13	55	10	77	3.9	0.221	115	15	8.1	<0.2	0.5	<0.1	0.28	**1.2**	1.3
23-Apr-25	250917107	234	1460	335	8.1	318	23	110	15	175	2.8	**0.306**	93	27	8.4	0.7	0.8	<0.05	0.08	**2.2**	-2.5
14-Jul-25	251924205	243	1560	311	7.9	336	4	94	19	185	2.1	**0.436**	1050	33	8.7	0.7	<0.1	<0.05	0.07	**2.4**	3.0
15-Oct-25	252965910	401	1410	503	8.3	231	21	127	45	114	5.3	**0.621**	238	23	7.1	2.9	<0.1	<0.05	2.52	**1.1**	-2.0
TOTAL SAMPLES		138	136	134	139	139	103	91	91	91	91	145	94	135	138	141	137	139	140	138	
AVERAGE 2025		293	1477	383	8.1	295	16	110	26	158	3.4	0.4543	460	28	8.1	1.4	0.3	<0.05	0.89	1.90	

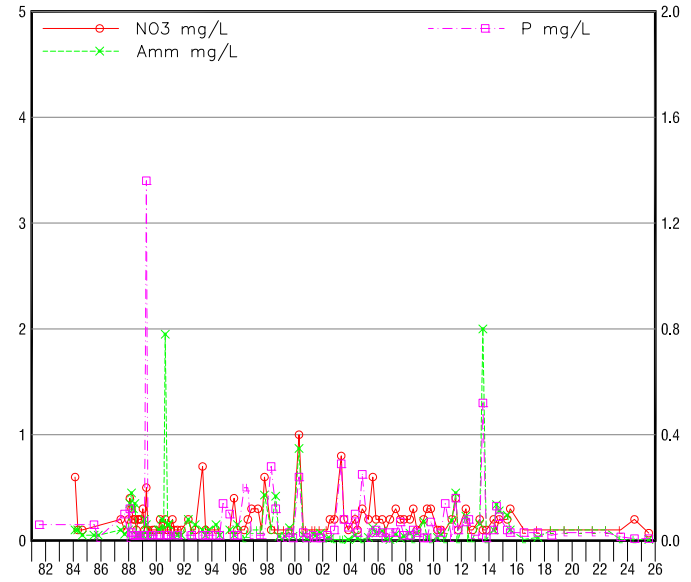
all Concentrations mg/L unless otherwise indicated

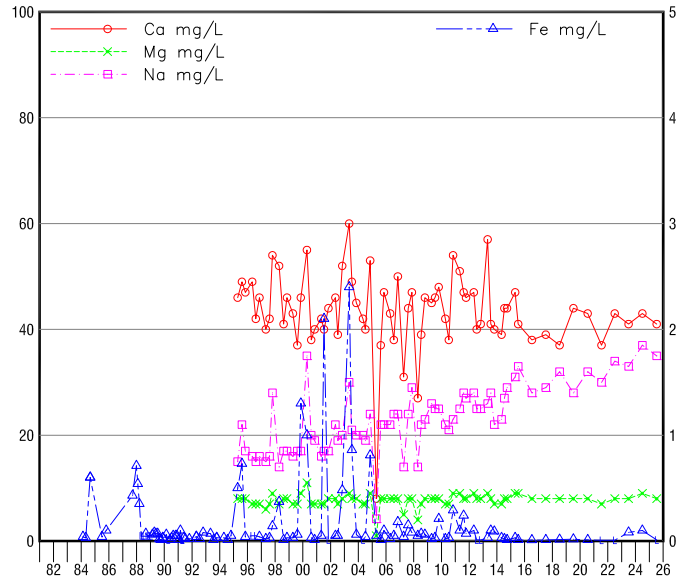
Anomalies shown in *Italics* / Exceedence in **BOLD**



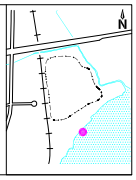








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-9

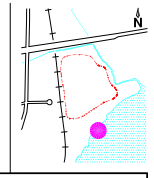
LAKE SIMCOE

22578520 28 Nov 25	wsp	25G044

S-9

LAKE SIMCOE

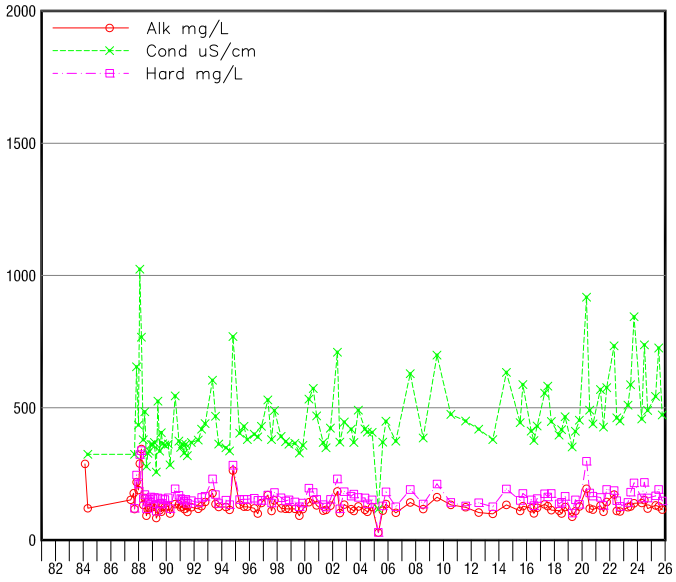
SURFACE WATER STATION

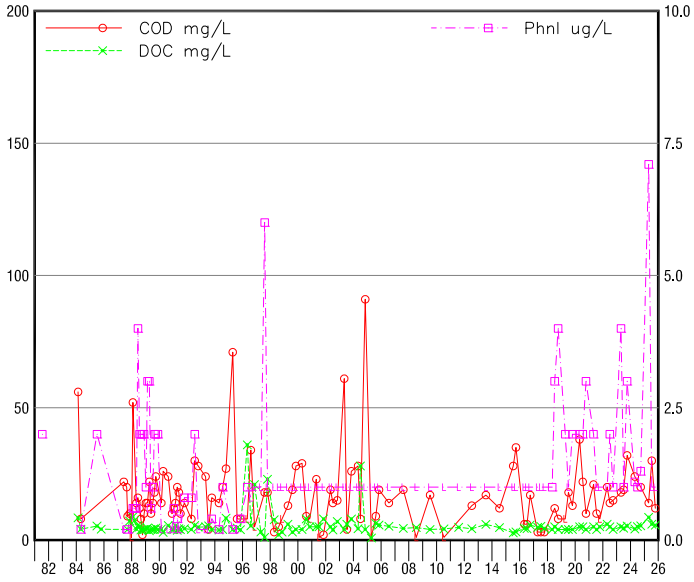


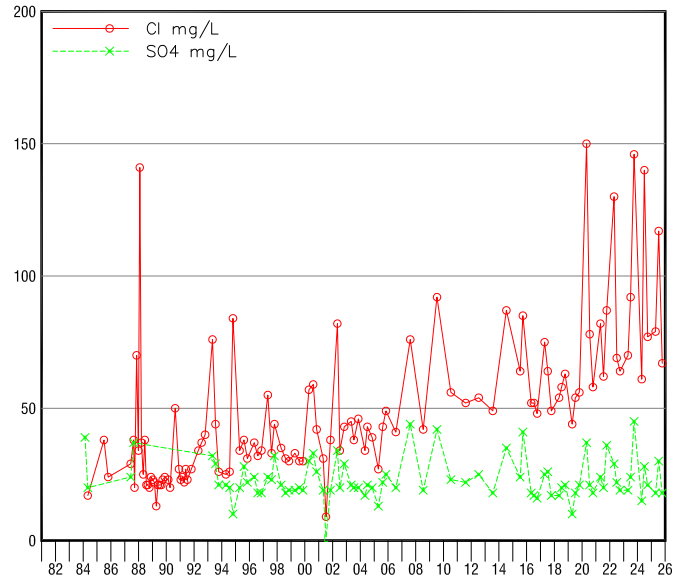
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
16-Apr-09	0910933	144	426	145	7.8	46	20	45	8	26	2.2	0.02	4	13	4.2	0.5	0.2	<0.1	0.18	<1	-5.8
15-Jul-09	0921633	119	415	148	7.8	44	20	46	8	25	2.3	0.03	8	6	4.4	0.4	0.3	<0.1	0.03	<1	0.6
21-Oct-09	0933462	130	473	155	7.6	48	20	48	8	25	2.3	0.21	22	32	4.5	0.8	0.3	<0.1	<0.01	<1	-0.9
14-Apr-10	2015	117	409	134	7.7	43	18	42	7	22	2.0	0.02	8	1	4.4	0.3	0.1	<0.1	0.03	<1	-3.3
14-Jul-10	2066	118	399	123	8.2	45	19	38	7	21	2.0	0.03	15	12	4.2	0.5	0.1	<0.1	0.06	<1	-7.9
03-Nov-10	2170	117	403	171	7.9	44	19	54	9	23	2.4	0.29	32	18	4.1	0.9	<0.1	<0.1	<0.01	<1	7.4
27-Apr-11	2197	136	409	163	7.8	44	17	51	9	25	1.9	0.10	6	<1	4.5	0.6	0.2	<0.1	0.19	<1	1.3
09-Aug-11	2285	125	444	149	8.0	50	21	47	8	28	2.7	0.24	18		5.4	1.8	0.4	0.2	0.45	<1	-0.5
11-Oct-11	2345	116	418	147	8.1	46	19	46	8	27	2.6	0.07	19	<1	4.7	0.3	0.1	<0.1	<0.01	<1	3.4
02-May-12	2412	122	454	153	8.2	50	20	47	9	28	2.4	0.10	19		4.3	0.9	0.3	<0.1	0.23	<1	1.1
18-Jul-12	2430	100	367	132	8.0	44	18	40	8	25	2.2	<0.01	25	3	4.3	0.8	<0.1	<0.1	<0.02	<1	3.8
31-Oct-12	2504	109	372	136	8.2	47	19	41	8	25	2.4	<0.01	<2	5	4.7	0.4	0.1	<0.1	<0.02	<1	0.6
02-May-13	2574	125	442	178	8.1	49	18	57	9	26	2.4	0.03	16	13	5.1	0.7	0.2	<0.1	0.16	<1	5.7
24-Jul-13	2665	118	414	134	7.9	49	18	41	8	28	3.1	0.10	59	13	7.2	3.5	0.1	0.1	2.0	<1	0.3
24-Oct-13	2684	112	395	133	8.2	46	17	40	7	22	1.8	0.09	22	12	5.4	0.4	0.1	<0.1	<0.01	<1	-2.9
05-May-14	2760	117	409	127	8.1	49	17	39	7	23	2.8	0.03	5	3	5.3	0.6	0.2	<0.1	0.1	<1	-6.0
18-Jul-14	2818	109	414	148	8.2	48	17	44	8	27	2.4	0.02	11	13	4.7	0.9	<0.1	<0.1	0.34	<1	3.3
26-Sep-14	2880	119	397	145	8.1	49	18	44	8	29	3.1	0.01	5	15	5.2	1.0	0.2	<0.1	0.28	<1	1.2
28-Apr-15	2962	147	426	153	8.1	53	19	47	9	31	3.5	0.03	8	13	2.9	0.7	0.2	<0.1	0.24	<1	-3.6
16-Jul-15	3024	106	422	149	8.1	61	22	41	9	33	2.9	0.01	10	38	2.8	0.6	0.3	0.2	0.1	<1	-0.5
12-Jul-16	3247	107	381	133	8.3	51	17	38	8	28	1.9	0.009	2	5	4.1	0.3	<0.1	<0.1	<0.01	<1	-0.2
12-Jul-17	3385	131	420	134	8.2	43	15	39	8	29	2.2	0.01	22	3	4.8	0.5	<0.1	<0.1	0.03	<1	-2.9
12-Jul-18	3565	98	393	127	8.9	56	18	37	8	32	3.1	0.013	9	3	4.0	0.8	<0.1	<0.1	<0.1	1	2.4
11-Jul-19	3740	106	410	141	8.3	53	18	44	8	28	2.4	0.017	11	11	4.0	0.7	<0.1	<0.1	<0.1	<1	2.8
21-Jul-20	3960	98	400	142	8.6	59	16	43	8	32	2.4	0.010	6.2	22	4.0	<0.5	<0.1	<0.1	<0.1	<1	5.1
21-Jul-21	4140	109	433	123	8.3	62	20	37	7	30	2.4	<0.007	4.5	13	4.0	<0.5	<0.1	<0.1	<0.1	<1	-6.2
04-Jul-22	4278	113	460	142	8.4	61	21	43	8	34	2.3	<0.007	4.4	13	4.0	<0.5	<0.1	<0.1	<0.1	**4**	0.5
04-Jul-23	4456	112	472	149	8.3	65	18	41	8	33	2.3	0.082	8.0	20	4.2	3.3	<0.1	<0.1	<0.01	**2**	8.9
02-Jul-24	4634	112	477	150	8.1	74	16	43	9	37	2.6	0.100	6.7	20	4.4	0.5	0.2	<0.1	<0.01	**1.3**	-0.4
14-Jul-25	251924208	109	465	138	8.6	65	16	41	8	35	2.2	<0.01	5.2	19	5.3	0.5	0.07	<0.01	0.01	<1	3.2
TOTAL SAMPLES		114	112	112	116	113	79	72	72	72	72	122	73	112	116	118	115	114	117	114	
AVERAGE 2025																					

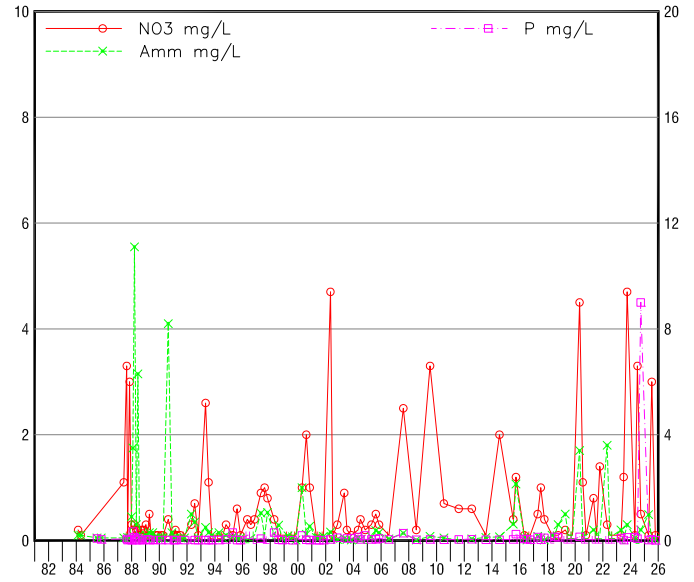
all Concentrations mg/L unless otherwise indicated

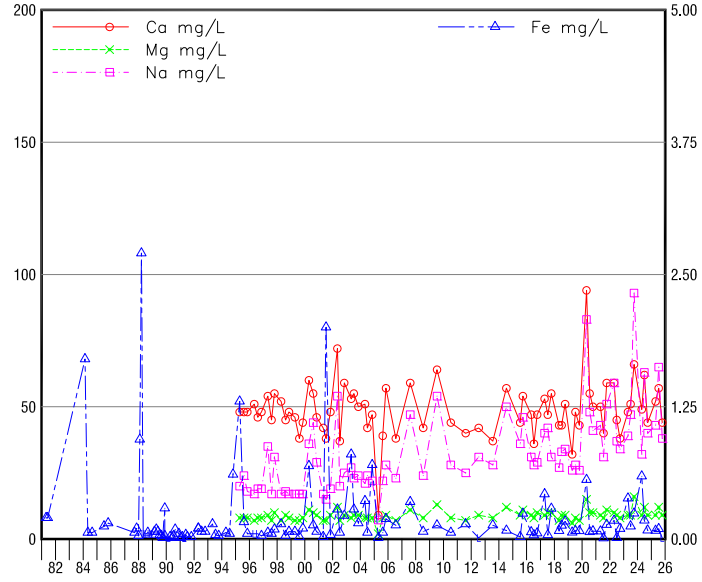
Anomalies shown in *Italics* / Exceedence in **BOLD**



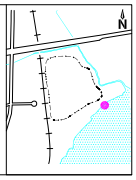








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-11

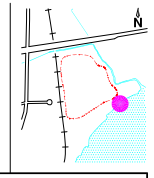
LAKE SIMCOE

22578520 28 Nov 25	wsp	25G045

S-11

LAKE SIMCOE

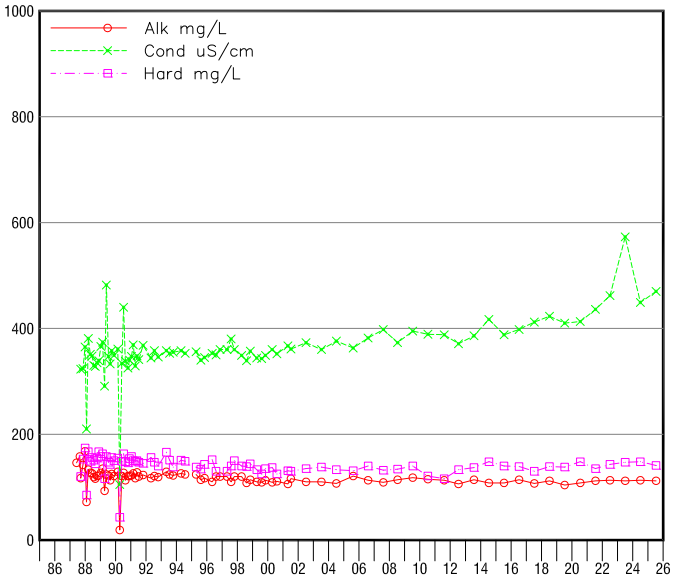
SURFACE WATER STATION

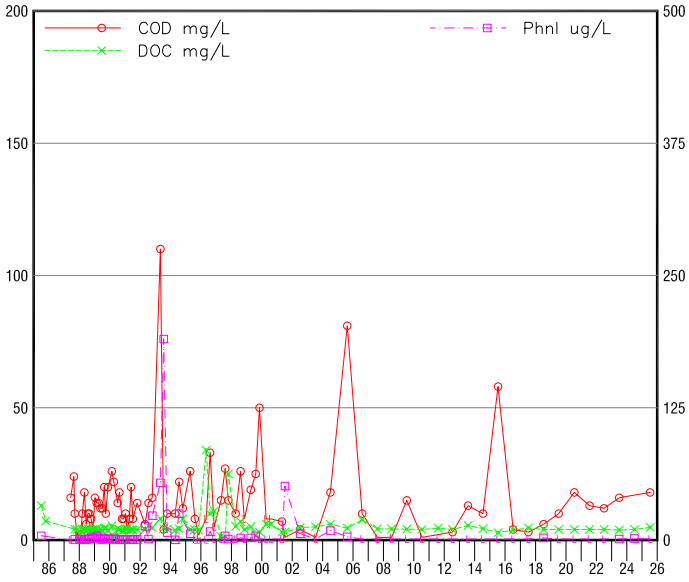


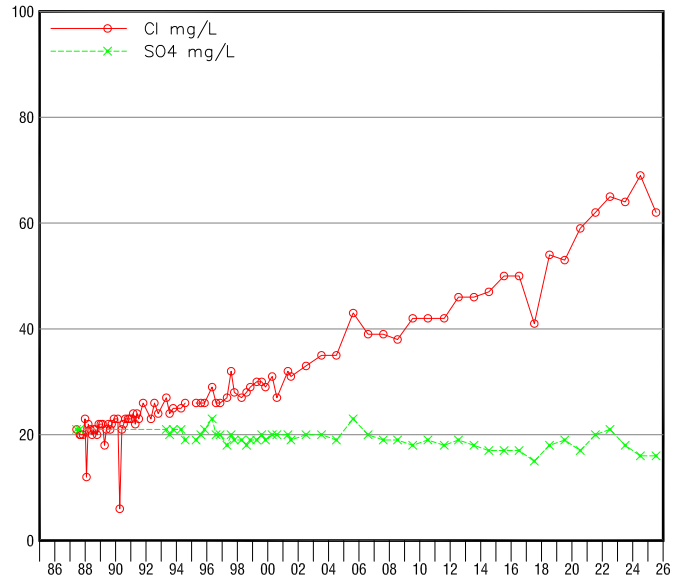
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	PhnI ug/L	Ion B %
	PWQO											0.3								1	
03-May-16	3153	120	412	152	8.1	52	18	47	9	31	3.2	0.065	15	6	4.4	0.8	0.1	<0.1	0.06	<1	2.7
12-Jul-16	3248	101	376	130	8.4	52	17	36	8	28	2.1	0.036	14	6	4.3	0.7	<0.1	<0.1	0.01	<1	-1.9
06-Oct-16	3263	122	431	157	8.3	48	16	47	10	29	2.3	0.054	8	17	5.7	0.5	<0.1	<0.1	<0.01	<1	5.3
19-Apr-17	3369	135	555	175	8.1	75	25	53	9	40	6.5	**0.424**	48	3	4.8	2.2	0.5	<0.1	0.08	<1	-0.5
12-Jul-17	3386	128	582	163	8.1	64	26	47	10	42	9.1	0.037	29	3	5.2	0.6	1.0	<0.1	0.05	<1	2.3
13-Oct-17	3442	113	448	176	8.1	49	17	55	10	31	2.8	0.287	56	3	4.4	1.0	0.4	<0.1	0.01	<1	10.6
07-May-18	3510	111	397	137	8.4	54	17	43	7	27	2.8	0.077	9		4.0	0.6	<0.1	<0.1	0.1	1	-1.2
12-Jul-18	3566	100	417	143	8.4	58	20	43	9	33	4.4	0.127	39	12	5.0	0.7	<0.1	<0.1	<0.1	**3**	5.3
12-Oct-18	3642	125	466	165	8.1	63	21	51	9	34	5.7	0.166	37	8	4.0	0.9	0.1	<0.1	0.3	**4**	2.5
17-Apr-19	3688	88	352	102	8.2	44	10	32	6	26	3.5	0.062	24	<8	4.0	1.0	0.2	<0.1	0.5	**2**	1.4
11-Jul-19	3741	109	411	152	8.2	54	18	48	8	28	2.7	0.077	34	18	4.0	0.8	<0.1	<0.1	<0.1	<1	4.3
24-Oct-19	3796	127	453	135	8.4	56	21	43	7	26	2.8	0.075	9.4	13	4.0	<0.5	<0.1	<0.1	<0.1	**2**	-6.0
28-Apr-20	3908	194	918	298	8.0	150	37	94	15	83	5.9	**0.559**	90	38	5.0	2.3	4.5	0.1	1.7	**2**	3.4
21-Jul-20	3961	119	491	178	8.4	78	21	55	10	48	3.5	0.067	13	22	5.0	<0.5	1.1	<0.1	<0.1	**2**	6.6
14-Oct-20	4004	115	439	166	8.2	58	18	50	10	41	3.2	0.074	16	10	4.0	<0.5	0.1	<0.1	<0.1	**3**	10.2
30-Apr-21	4076	130	569	161	8.1	82	24	50	9	43	9.5	0.073	15	21	5.0	1.0	0.8	0.1	0.2	**2**	-0.7
21-Jul-21	4141	107	427	131	8.4	62	20	40	8	31	2.5	0.007	5.7	10	4.0	<0.5	<0.1	<0.1	<0.1	<1	-3.5
12-Oct-21	4208	144	576	191	8.2	87	36	59	11	51	12	0.134	16	<8	5.0	<0.5	1.4	<0.1	<0.1	<1	2.0
25-Apr-22	4254	172	734	187	8.2	130	29	59	10	59	9.8	0.174	16	20	6.0	1.8	0.3	0.1	1.8	<1	-7.3
04-Jul-22	4279	110	462	149	8.7	69	22	45	9	37	2.6	0.011	6.6	14	5.0	<0.5	<0.1	<0.1	<0.1	**2**	1.5
29-Sep-22	4334	108	450	127	8.2	64	19	38	8	34	2.4	0.096	13	15	4.0	<0.5	<0.1	<0.1	<0.1	1	-2.1
25-Apr-23	4404	124	510	142	7.9	70	19	48	9	39	4.7	**0.384**	43	18	5.0	2.0	0.1	<0.1	0.2	**4**	1.3
04-Jul-23	4457	127	587	181	8.1	92	24	51	9	47	3.2	0.120	8.0	19	4.5	5.8	1.2	<0.1	<0.01	1	6.1
03-Oct-23	4511	139	844	216	7.8	146	45	66	16	93	8.1	0.242	25	32	5.3	<0.2	4.7	<0.1	0.3	**3**	0.5
23-Apr-24	4582	140	458	159	7.8	61	15	49	9	32	2.3	**0.592**	33	24	4.2	0.6	0.1	<0.1	0.05	**1.1**	-2.4
02-Jul-24	4635	151	738	218	8.1	140	28	62	12	63	4.2	0.176	15		5.1	0.7	3.3	<0.1	<0.01	1	-5.0
26-Sep-24	2060977	119	490	159	7.8	77	21	44	9	40	3.1	0.082	4.0	20	5.4	0.7	0.5	<0.1	0.20	**1.3**	-2.7
23-Apr-25	250917108	131	543	167	8.2	79	18	52	9	43	3.0	0.079	10	14	8.6	0.8	0.1	0.01	0.49	**7.1**	-1.6
14-Jul-25	251924209	127	726	191	8.5	117	30	57	12	65	4.5	0.095	27	30	6.0	1.2	3.0	0.04	0.02	<1	2.8
16-Oct-25	252965907	115	473	148	8.5	67	18	44	9	38	2.6	<0.01	4.7	12	5.6	0.5	0.1	<0.01	0.03	<1	-1.9
TOTAL SAMPLES		115	113	112	116	117	84	74	74	74	74	124	75	110	115	118	116	114	118	114	
AVERAGE 2025		124	581	169	8.4	88	22	51	10	49	3.4	0.058	14	19	6.7	0.8	1.1	0.02	0.18	2.37	

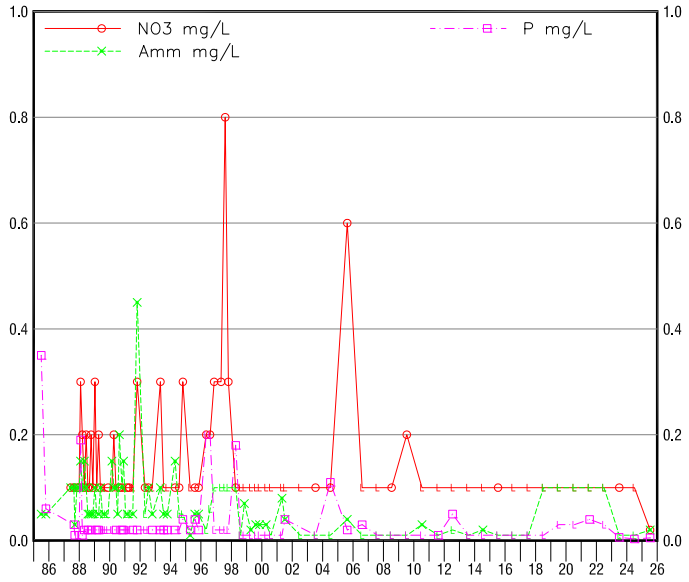
all Concentrations mg/L unless otherwise indicated

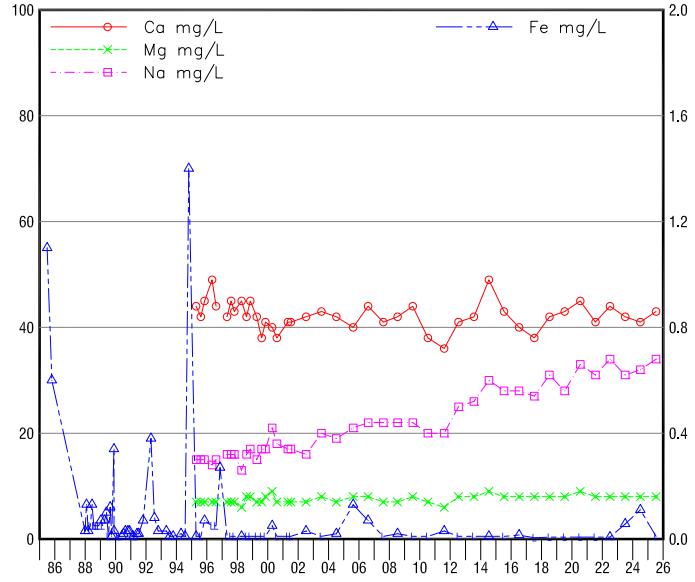
Anomalies shown in *Italics* / Exceedence in **BOLD**









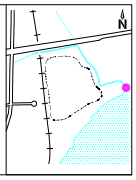


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-14

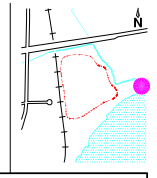
LAKE SIMCOE

22578520 28 Nov 25	wsp	25G046

S-14

LAKE SIMCOE

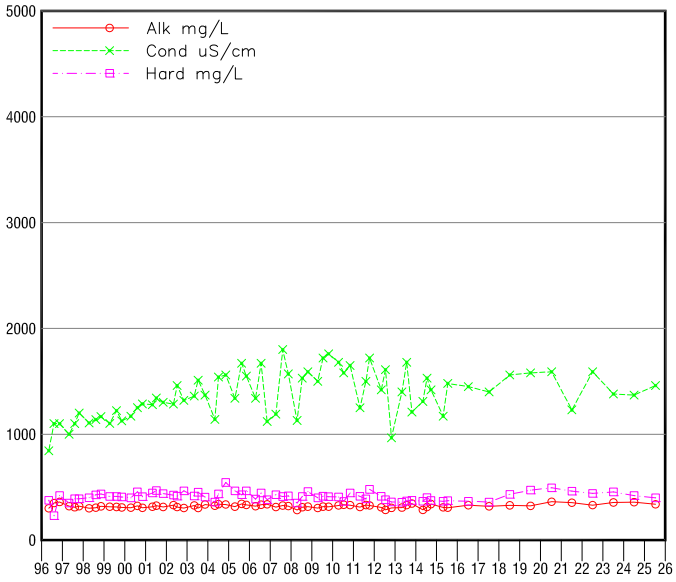
SURFACE WATER STATION

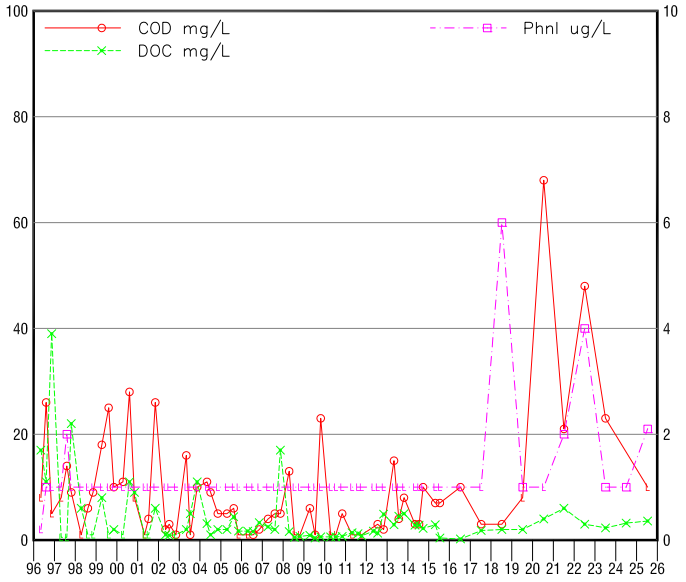


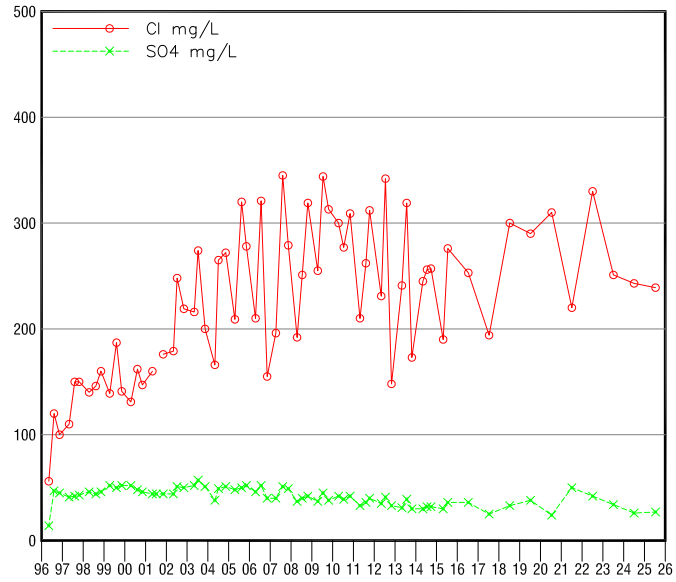
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	PhnI ug/L	Ion B %
	PWQO											0.3								1	
09-Aug-99	101731	109	343	125	8.1	30	20	38	7	17	2.0	<0.01	<5	25	2.0	0.3	<0.1	<0.1	0.03	**4**	2.0
08-Nov-99	101732	113	349	135	8.0	29	19	41	8	17	2.0	<0.01	<5	50	3.0	0.2	<0.1	<0.1	0.03	<1	0.0
17-Apr-00	101733	109	360	137	8.1	31	20	40	9	21	3.0	0.05	<5	<8	6.0	0.4	<0.1	<0.1	0.03	<1	3.6
08-Aug-00	101734	111	352	125	8.3	27	20	38	7	18	2.0	<0.01	<5	<8	6.0	0.3	<0.1	<0.1	<0.01	<1	0.2
30-Apr-01	101735	106	367	131	8.1	32	20	41	7	17	2.0	<0.01	<5	7	3.0	0.5	<0.1	<0.1	0.08	<1	-0.3
11-Jul-01	101736	116	361	130	8.2	31	19	41	7	17	2.0	<0.01	<5	<1	3.0	0.5	<0.1	<0.1	0.04	**51**	-2.5
10-Jul-02	101737	110	373	135	7.9	33	20	42	7	16	1.8	0.03	<5	4	4.7	0.4	<0.1	<0.1	<0.01	**6**	-0.4
15-Jul-03	102576	110	360	138	8.3	35	20	43	8	20	2.0	<0.01	3	<1	5.0	0.3	0.1	<0.1	<0.01	<1	2.9
06-Jul-04	1198	107	376	133	8.2	35	19	42	7	19	1.9	0.02	8	18	6.0	1.2	0.1	<0.1	<0.01	**9**	1.7
15-Aug-05	58153	121	363	131	8.4	43	23	40	8	21	2.0	0.13	24	81	4.5	0.5	0.6	<0.1	0.04	**3**	-6.8
08-Aug-06	6883	113	382	140	7.9	39	20	44	8	22	2.1	0.07	9	10	7.7	0.4	<0.1	<0.1	<0.01	<1	2.5
09-Aug-07	7893	109	398	132	8.1	39	19	41	7	22	2.0	<0.01	4	<1	4.2	0.3	<0.1	<0.1	<0.01	<1	0.8
16-Jul-08	87163	114	373	134	7.9	38	19	42	7	22	2.0	0.02	4	<1	4.2	0.4	0.1	<0.1	<0.01	<1	0.4
15-Jul-09	0921631	118	395	140	7.9	42	18	44	8	22	2.0	<0.01	3	15	4.1	0.3	0.2	<0.1	<0.01	<1	0.4
14-Jul-10	2071	115	389	121	8.3	42	19	38	7	20	1.9	<0.01	<1	<1	4.0	0.3	<0.1	<0.1	0.03	<1	-6.7
09-Aug-11	2290	113	388	116	8.3	42	18	36	6	20	1.8	0.03	<1		4.5	0.3	<0.1	<0.1	<0.01	<1	-7.2
18-Jul-12	2435	106	371	133	8.1	46	19	41	8	25	2.1	<0.01	4	3	4.0	0.4	<0.1	<0.1	<0.02	<1	1.7
24-Jul-13	2670	114	386	137	8.2	46	18	42	8	26	2.0	<0.01	12	13	5.5	0.3	<0.1	<0.1	<0.01	<1	1.1
18-Jul-14	2823	108	417	148	8.3	47	17	49	9	30	2.6	0.01	6	10	4.3	0.5	<0.1	<0.1	0.02	<1	8.7
16-Jul-15	3026	108	388	140	8.1	50	17	43	8	28	2.2	<0.01	3	58	2.8	0.3	0.1	<0.1	<0.01	<1	3.2
12-Jul-16	3249	114	398	139	8.1	50	17	40	8	28	1.9	0.015	6	4	3.8	0.3	<0.1	<0.1	<0.01	<1	-0.7
12-Jul-17	3387	107	412	130	8.2	41	15	38	8	27	1.9	<0.005	3	3	4.6	0.3	<0.1	<0.1	<0.01	<1	3.2
12-Jul-18	3567	112	423	139	8.4	54	18	42	8	31	2.4	<0.007	5	6	4.0	<0.5	<0.1	<0.1	<0.1	**2**	1.6
11-Jul-19	3742	104	410	138	8.4	53	19	43	8	28	2.4	<0.007	5.8	10	4.0	0.7	<0.1	<0.1	<0.1	<1	2.4
21-Jul-20	3962	108	413	148	8.4	59	17	45	9	33	2.4	<0.007	3.6	18	4.0	<0.5	<0.1	<0.1	<0.1	<1	4.5
21-Jul-21	4142	112	436	135	8.3	62	20	41	8	31	2.5	<0.007	4.2	13	4.0	<0.5	<0.1	<0.1	<0.1	<1	-3.2
04-Jul-22	4280	113	462	143	8.3	65	21	44	8	34	2.4	0.007	4.7	12	4.0	<0.5	<0.1	<0.1	<0.1	<1	-0.4
04-Jul-23	4458	112	573	147	8.2	64	18	42	8	31	2.2	0.057	2.0	16	3.8	3.2	0.1	<0.1	<0.01	1	9.5
02-Jul-24	4636	113	449	148	8.0	69	16	41	8	32	2.3	0.110	4.0		4.0	0.4	<0.1	<0.1	<0.01	**1.5**	-3.2
14-Jul-25	251924210	112	470	141	8.4	62	16	43	8	34	2.2	<0.01	2.7	18	4.8	0.5	0.02	<0.01	0.02	<1	3.8
TOTAL SAMPLES		85	83	82	85	85	50	42	42	42	42	86	44	83	84	88	86	86	88	85	
AVERAGE 2025																					

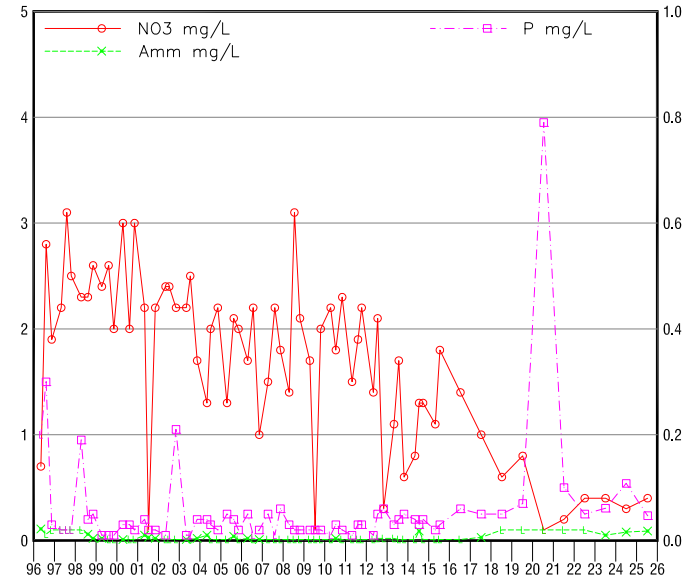
all Concentrations mg/L unless otherwise indicated

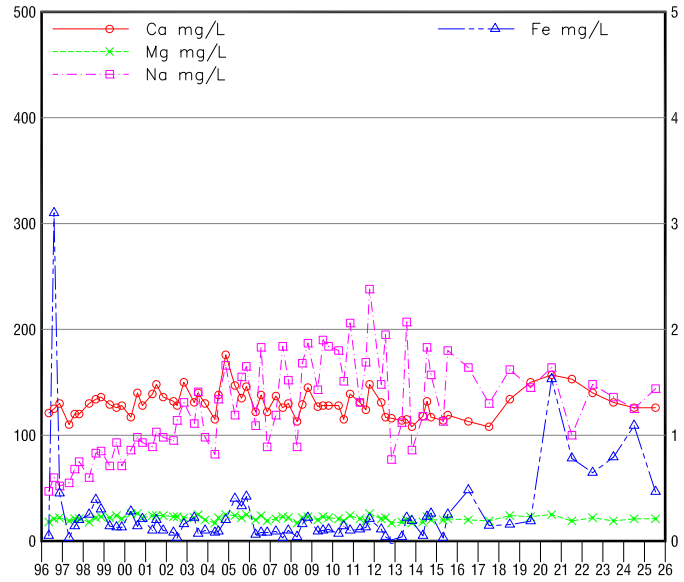
Anomalies shown in *Italics* / Exceedence in **BOLD**









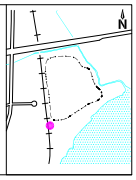


L Concentration Reported Less Than

G Concentration Reported Greater Than

A Concentration Determined Anomalous

Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

S-18

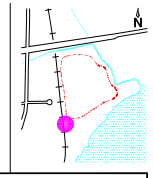
CN RAIL DRAIN

22578520 28 Nov 25	wsp	25G047

S-18

CN RAIL DRAIN

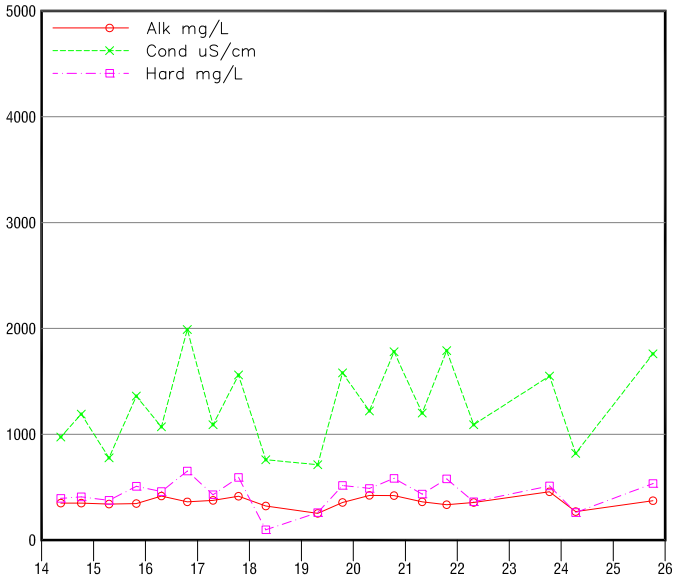
SURFACE WATER STATION

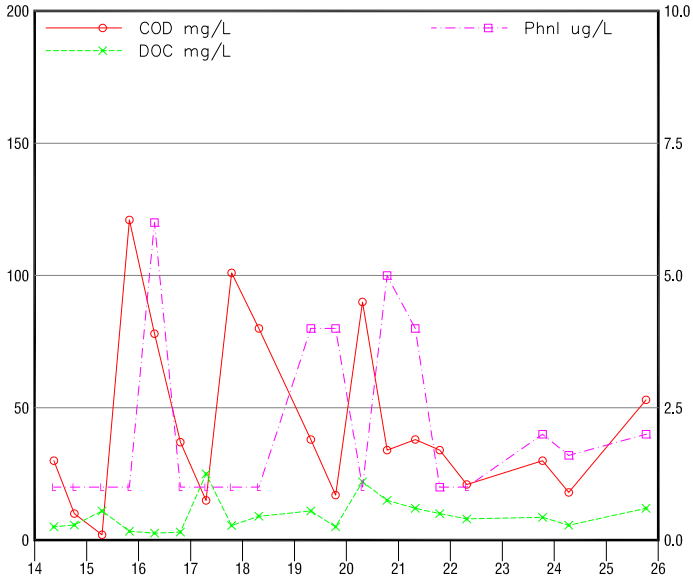


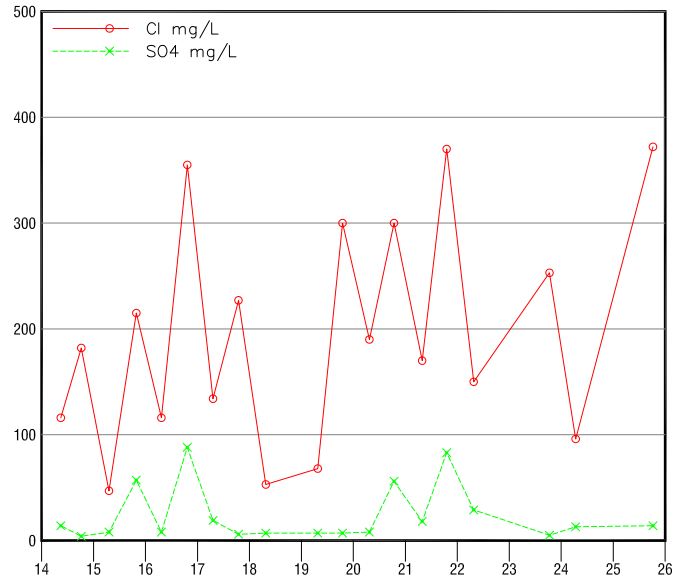
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
15-Apr-09	0910924	303	1500	399	7.4	255	37	127	20	143	3.1	0.09	24	6	0.9	0.1	1.7	<0.1	<0.01	<1	0.9
16-Jul-09	0921629	316	1720	414	7.4	344	45	128	23	190	2.8	0.10	37	1	0.4	<0.1	<0.1	<0.1	<0.01	<1	-0.7
22-Oct-09	0933458	315	1760	410	7.2	313	38	128	22	184	2.6	0.11	54	23	0.6	0.1	2.0	<0.1	<0.01	<1	1.0
15-Apr-10	2020	327	1680	407	7.5	300	42	128	21	180	2.8	0.07	34	<1	0.6	<0.1	2.2	<0.1	<0.01	<1	0.3
15-Jul-10	2075	334	1580	365	7.6	277	39	115	19	151	2.6	0.14	50	<1	0.6	0.2	1.8	<0.1	0.02	<1	-5.1
04-Nov-10	2175	330	1650	445	7.5	309	42	139	24	206	3.1	0.10	43	5	0.7	0.1	2.3	<0.1	<0.01	<1	5.0
26-Apr-11	2202	312	1250	413	7.6	210	33	131	21	131	2.4	0.11	40	<1	1.4	0.2	1.5	<0.1	<0.01	<1	4.3
08-Aug-11	2294	331	1500	389	7.8	262	36	124	19	169	2.5	0.13	110		1.2	0.2	1.9	<0.1	<0.01	<1	1.3
12-Oct-11	2350	327	1720	479	7.6	312	40	148	26	238	3.5	0.21	55	<1	0.8	<0.1	2.2	<0.1	<0.01	<1	10.3
04-May-12	2417	309	1420	413	7.9	231	35	131	21	148	2.9	0.11	32		1.7	0.2	1.4	<0.1	<0.01	<1	4.8
18-Jul-12	2439	285	1610	381	8.1	342	41	117	22	195	2.6	0.04	16	3	1.3	0.5	2.1	<0.1	<0.02	<1	-0.1
31-Oct-12	2509	304	966	360	8.3	148	33	116	17	77	2.8	<0.01	35	2	4.9	0.5	0.3	<0.1	<0.02	<1	-1.2
02-May-13	2579	307	1400	358	8.0	241	31	114	18	112	2.7	0.04	22	15	2.9	0.1	1.1	<0.3	<0.02	<1	-5.6
25-Jul-13	2674	330	1680	370	7.8	319	39	115	20	207	2.5	0.22	46	4	4.5	0.1	1.7	<0.1	<0.01	<1	0.1
25-Oct-13	2689	345	1210	375	7.8	173	30	108	17	86	2.1	0.19	118	8	5.0	0.3	0.6	<0.1	<0.01	<1	-7.6
06-May-14	2765	285	1310	367	8.1	245	30	118	18	118	2.8	0.05	26	3	2.8	0.1	0.8	<0.1	<0.01	<1	-2.4
17-Jul-14	2827	312	1530	401	7.9	256	32	132	23	183	3.1	0.23	161	3	2.8	0.4	1.3	<0.1	0.09	<1	7.5
25-Sep-14	2885	340	1420	374	7.9	257	32	117	20	157	2.6	0.26	72	10	2.2	0.2	1.3	<0.1	<0.01	<1	-1.1
27-Apr-15	2967	309	1170	366	7.9	190	30	114	20	113	2.5	0.03	39	7	2.9	0.2	1.1	<0.1	<0.01	<1	0.7
17-Jul-15	3027	306	1480	372	7.9	276	36	119	21	180	2.7	0.25	29	7	0.4	0.1	1.8	<0.1	<0.01	<1	2.9
13-Jul-16	3250	329	1450	367	7.9	253	36	113	20	164	2.1	**0.481**	36	10	0.2	0.2	1.4	<0.1	<0.01	<1	0.1
12-Jul-17	3388	319	1400	359	7.9	194	25	108	19	130	2.0	0.145	125	3	1.8	0.2	1.0	<0.1	0.03	<1	0.9
11-Jul-18	3568	328	1560	432	7.9	300	33	134	24	162	2.4	0.155	197	3	2.0	0.5	0.6	<0.1	<0.1	**6**	0.4
11-Jul-19	3743	323	1580	472	7.9	290	38	150	23	145	3.0	0.188	50	<8	2.0	<0.5	0.8	<0.1	<0.1	1	1.2
15-Jul-20	3963	362	1590	494	7.8	310	24	157	25	164	3.3	**1.53**	1030	68	4.0	<0.5	<0.1	<0.1	<0.1	<1	2.3
06-Jul-21	4143	353	1230	462	7.7	220	50	153	19	100	3.5	**0.782**	305	21	6.0	0.6	0.2	<0.1	<0.1	**2**	-2.0
05-Jul-22	4281	330	1590	441	8.0	330	42	140	22	148	3.0	**0.645**	193	48	3.0	<0.5	0.4	<0.1	<0.1	**4**	-4.2
06-Jul-23	4459	355	1380	455	7.6	251	34	131	19	136	2.7	**0.792**	165	23	2.3	3.4	0.4	<0.1	0.05	1	10.8
03-Jul-24	4637	358	1370	420	7.9	243	26	126	21	125	4.3	**1.09**	289		3.2	0.6	0.3	<0.2	0.08	1	-3.4
15-Jul-25	251924211	338	1460	399	7.7	239	27	126	21	144	2.9	**0.465**	192	<10	3.6	0.4	0.4	<0.05	0.09	**2.1**	4.7
TOTAL SAMPLES		69	69	69	69	68	69	69	69	69	69	69	69	66	69	69	69	69	69	69	
AVERAGE 2025																					

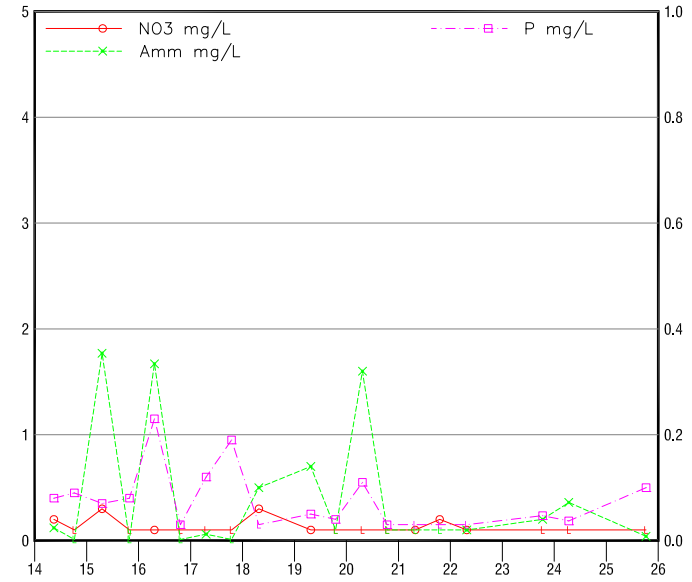
all Concentrations mg/L unless otherwise indicated

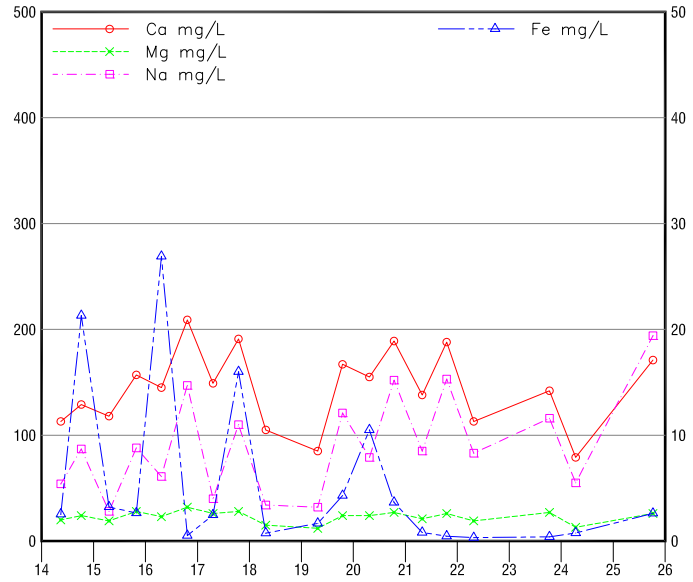
Anomalies shown in *Italics* / Exceedence in **BOLD**



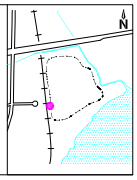








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

D-5

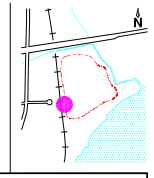
SURFACE WATER

22578520 28 Nov 25	wsp	25G048

D-5

SURFACE WATER

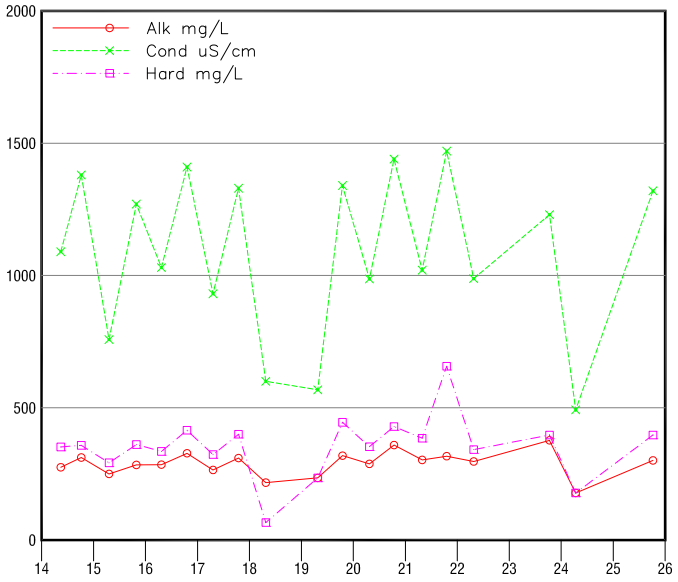
SURFACE WATER STATION

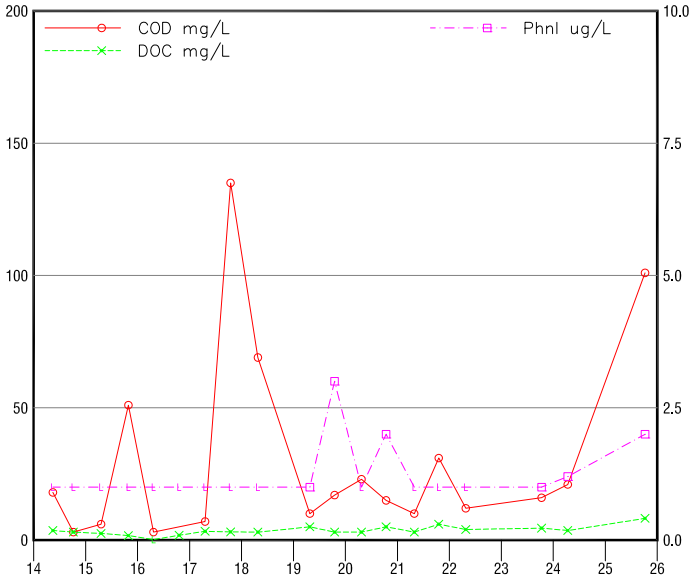


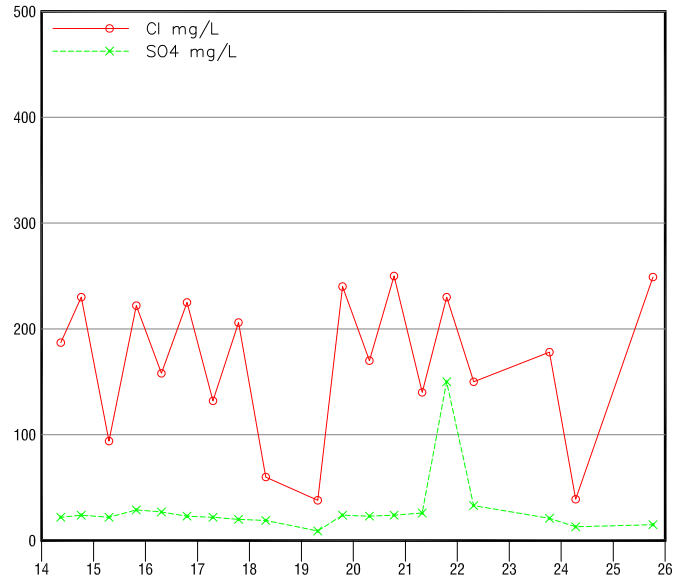
DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
16-May-14	2774	349	974	394	8.1	116	14	113	20	54	3.4	**2.53**	515	30	5.0	1.0	0.2	<0.1	0.12	<1	-3.6
07-Oct-14	2951	349	1190	408	8.1	182	4	129	24	87	5.3	**21.3**	1920	10	5.7	0.6	<0.1	<0.1	<0.01	<1	4.0
20-Apr-15	3015	340	777	375	8.0	47	8	118	19	28	6.4	**3.22**	533	2	11	2.8	0.3	<0.1	1.77	<1	4.4
29-Oct-15	3088	345	1360	508	7.9	215	57	157	28	88	5.1	**2.64**	458	121	3.3	1.5	<0.1	<0.1	<0.01	<1	0.5
22-Apr-16	3161	416	1070	458	7.8	116	8	145	23	61	15	**26.9**	2010	78	2.6	4.5	0.1	<0.1	1.67	**6**	6.0
21-Oct-16	3271	361	1990	652	7.9	355	88	209	32	147	4.9	**0.515**	536	37	3.0	0.6	<0.1	<0.1	<0.01	<1	1.7
20-Apr-17	3376	375	1090	428	8.1	134	19	149	26	40	57	**2.46**	3920	15	25	1.3	<0.1	<0.1	0.06	<1	4.9
16-Oct-17	3449	414	1560	592	7.9	227	6	191	28	110	7.2	**16.0**	2710	101	5.5	1.5	<0.1	<0.1	<0.01	<1	8.3
26-Apr-18	3517	322	759	97	7.9	53	7	105	15	34	27	**0.746**	116	80	9.0	1.3	0.3	<0.1	0.5	<1	3.6
26-Apr-19	3695	252	712	259	7.5	68	7	85	12	32	26	**1.67**	479	38	11	1.7	0.1	<0.1	0.7	**4**	2.0
17-Oct-19	3803	355	1580	516	7.9	300	7	167	24	121	6.8	**4.29**	1070	17	5.0	0.5	<0.1	<0.1	<0.1	**4**	0.9
23-Apr-20	3899	422	1220	488	7.9	190	8	155	24	79	34	**10.5**	2240	90	22	3.7	<0.1	<0.1	1.6	<1	2.0
13-Oct-20	4009	420	1780	583	8.1	300	56	189	27	152	13	**3.65**	910	34	15	0.6	<0.1	<0.1	<0.1	**5**	2.2
29-Apr-21	4081	361	1200	434	8.0	170	18	138	21	85	22	**0.807**	138	38	12	1.0	0.1	<0.1	<0.1	**4**	2.0
18-Oct-21	4213	334	1790	578	7.6	370	83	188	26	153	13	**0.459**	235	34	10	0.6	0.2	<0.1	<0.1	1	-0.5
26-Apr-22	4259	355	1090	362	8.3	150	29	113	19	83	22	**0.321**	117	21	8.0	<0.5	0.1	<0.1	0.1	<1	-2.3
11-Oct-23	4518	456	1550	512	7.7	253	5	142	27	116	15	**0.397**	1020	30	8.6	0.4	<0.1	<0.1	0.2	**2**	-2.8
12-Apr-24	4589	269	820	260	7.9	96	13	79	13	55	14	**0.762**	186	18	5.6	0.4	<0.1	<0.1	0.36	**1.6**	-3.2
07-Oct-25	252881514	372	1760	534	8.2	372	14	171	26	194	12	**2.61**	523	53	12	1.5	<0.1	<0.05	0.04	**2**	4.2
TOTAL SAMPLES		19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	
AVERAGE 2025																					

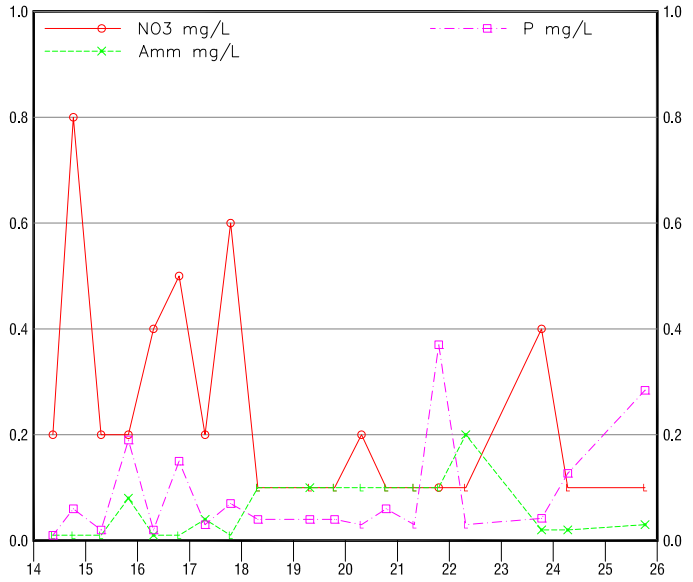
all Concentrations mg/L unless otherwise indicated

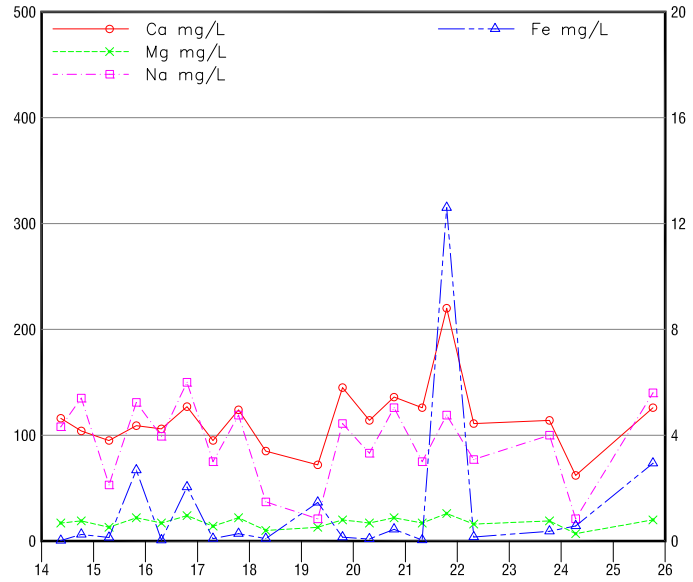
Anomalies shown in *Italics* / Exceedence in **BOLD**



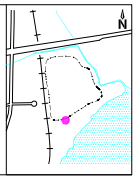








L	Concentration Reported Less Than
G	Concentration Reported Greater Than
A	Concentration Determined Anomalous
	Anomaly Not Plotted



CITY OF ORILLIA

KITCHENER STREET WASTE DIVERSION SITE

D-6

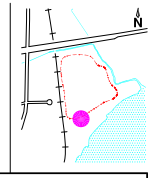
SURFACE WATER

22578520 28 Nov 25	wsp	25G049

D-6

SURFACE WATER

SURFACE WATER STATION



DATE	SAMPLE #	Alk	Cond uS/cm	Hard	pH units	Cl	SO4	Ca	Mg	Na	K	Fe	Mn ug/L	COD	DOC	TKN	NO3	NO2	Amm	Phnl ug/L	Ion B %
	PWQO											0.3								1	
16-May-14	2775	275	1090	352	8.3	187	22	116	17	108	2.5	0.02	27	18	3.6	0.3	0.2	<0.1	<0.01	<1	3.5
07-Oct-14	2952	312	1380	358	8.3	230	24	104	19	135	3.3	0.25	137	3	3.0	0.3	0.8	<0.1	<0.01	<1	-1.8
20-Apr-15	3016	250	758	292	8.2	94	22	95	13	53	2.9	0.13	33	6	2.5	0.3	0.2	<0.1	<0.01	<1	1.1
29-Oct-15	3089	284	1270	361	7.9	222	29	109	22	131	5.6	**2.68**	862	51	1.7	1.2	0.2	<0.1	0.08	<1	2.5
22-Apr-16	3162	285	1030	335	8.2	158	27	106	17	99	3.2	0.033	24	3	<0.2	0.3	0.4	<0.1	0.01	<1	1.5
19-Oct-16	3272	328	1410	415	8.1	225	23	127	24	150	3.8	**2.04**	567		1.8	0.7	0.5	<0.1	<0.01	<1	5.9
20-Apr-17	3377	265	931	323	8.2	132	22	95	14	75	2.3	0.088	32	7	3.3	0.4	0.2	<0.1	0.04	<1	-1.4
16-Oct-17	3450	310	1330	400	8.2	206	20	124	22	119	3.6	0.277	197	135	3.1	0.3	0.6	<0.1	<0.01	<1	3.5
26-Apr-18	3518	217	600	66	8.2	60	19	85	10	37	2.9	0.091	27	69	3.0	0.6	<0.1	<0.1	<0.1	<1	3.2
26-Apr-19	3696	235	568	235	8.2	38	9	72	13	21	3.0	**1.46**	431	10	5.0	<0.5	<0.1	<0.1	0.1	1	-2.1
17-Oct-19	3804	319	1340	445	8.2	240	24	145	20	111	3.8	0.143	116	17	3.0	0.5	<0.1	<0.1	<0.1	**3**	1.0
23-Apr-20	3900	288	987	353	8.3	170	23	114	17	83	3.3	0.077	43	23	3.0	<0.5	0.2	<0.1	<0.1	<1	-0.8
13-Oct-20	4010	359	1440	429	8.3	250	24	136	22	126	4.3	**0.444**	285	15	5.0	<0.5	<0.1	<0.1	<0.1	**2**	-1.5
29-Apr-21	4082	303	1020	385	8.2	140	26	126	17	75	2.7	0.038	29	10	3.0	<0.5	<0.1	<0.1	<0.1	<1	1.9
18-Oct-21	4214	317	1470	657	8.0	230	150	220	26	119	6.9	**12.6**	4730	31	6.0	<0.5	0.1	<0.1	<0.1	<1	8.8
26-Apr-22	4260	297	988	342	8.3	150	33	111	16	77	3.2	0.153	50	12	4.0	<0.5	<0.1	<0.1	0.2	<1	-2.8
11-Oct-23	4519	377	1230	397	8.2	178	21	114	19	100	3.3	**0.369**	102	16	4.5	<0.2	0.4	<0.1	0.02	1	-0.9
12-Apr-24	4590	178	492	178	7.8	39	13	62	7	21	2.7	**0.571**	28	21	3.6	0.2	<0.1	<0.1	0.02	**1.2**	-2.5
07-Oct-25	252881515	301	1320	397	8.5	249	15	126	20	140	11	**2.94**	543	101	8.2	0.7	<0.1	<0.05	0.03	**2**	2.6
TOTAL SAMPLES		19	19	19	19	19	19	19	19	19	19	19	19	18	19	19	19	19	19	19	
AVERAGE 2025																					

all Concentrations mg/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

APPENDIX E

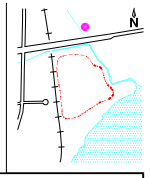
Water Quality, Metals/Special

BH1-IR

SAND AQUIFER

OBSERVATION WELL
Screen 209.7 - 208.2 masl

FORMERLY BH1-1
CONVERTED Jul 12



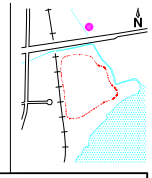
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
28-Sep-15	3091									0.01								175
19-Apr-16	3163									<0.01								188
17-Jul-16	3199			96	0.02	<2	<2	<0.02		0.02	<1	<0.02	<10		<5	<10	9	171
17-Oct-16	3291									<0.01								176
24-Apr-17	3326									<0.01								168
18-Jul-17	3392			98	<0.014	<2	<2	<0.02		0.01	<1	<0.02	<10		<5	<10	<5	169
17-Oct-17	3468									0.02								164
23-Apr-18	3519									**0.08**								
16-Jul-18	3572			243	0.019	0.11	0.46	0.03		**0.24**	<0.04	<0.05	3		0.648	0.4	3	
15-Oct-18	3645									**0.23**								
23-Apr-19	3697									**1.45**								
15-Jul-19	3474			228	0.019	0.22	2.5	0.11		**0.28**	0.05	<0.05	4		0.69	0.8	5	
15-Oct-19	3823									**0.23**								
14-Apr-20	3859									**0.15**								
08-Jul-20	3911			122	0.004	0.15	0.5	0.03		**0.35**	<0.04	<0.05	5		0.293	0.4	2	
08-Oct-20	3967									**0.34**								
12-Jul-21	4093			213	<0.003	0.32	1.8	<0.09		**0.46**	0.07	<0.05	35		**1.04**	1.2	5	
29-Sep-21	4151									**0.81**								
11-Apr-22	4217									**0.14**								
11-Jul-22	4285			106	0.028	0.1	0.4	<0.09		**0.17**	<0.04	<0.05	2		0.178	<0.1	<2	
04-Oct-22	4361									**0.22**								
11-Apr-23	4413									**1.61**								
10-Jul-23	4462			210	0.023	1.6	2.9	<0.05		**1.18**	0.33	<0.01	6		**1.2**	3.8	1	
04-Oct-23	4539									**1.21**								
08-Apr-24	4612									**0.275**								
08-Jul-24	4640			171	0.033	0.9	3.3	<0.05		**0.032**	0.16	<0.01	13		**1.2**	4.3	2	
01-Oct-24	2064046									**0.347**								
16-Apr-25	250864101	<0.1	0.4	148	<0.005	<0.5	<0.2	<0.05	2.03	<0.05	<0.05	<0.01	8	<0.02	0.67	0.88	1.1	
08-Jul-25	251839203			118	<0.005	<0.5	<0.2	<0.05		**0.65**	0.124	<0.02	11.6		0.44	0.64	<1	
06-Oct-25	252881509			131	<0.005	<0.5	<0.2	<0.05		**0.139**	0.055	<0.01	5		0.36	<0.5	<1	
TOTAL SAMPLES		1	10	41	41	41	41	41	4	83	38	41	41	4	41	41	41	31
AVERAGE 2025				132	<0.005	<0.5	<0.2	<0.05		0.263	0.060	<0.01	8.2		0.49	0.51	<1	

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH1-III

PEAT

OBSERVATION WELL
Screen 218.8 - 218.2 masl



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
20-Jul-15	3033									**0.03**								912
28-Sep-15	3092									**0.04**								1030
19-Apr-16	3164									0.01								630
17-Jul-16	3200									0.02								959
17-Oct-16	3292									<0.01								1140
24-Apr-17	3327									**0.04**								570
18-Jul-17	3393									**0.04**								747
17-Oct-17	3469									0.02								1168
23-Apr-18	3520									**1.51**								
16-Jul-18	3573									**1.92**								
15-Oct-18	3646									**2.68**								
23-Apr-19	3698									**1.77**								
15-Jul-19	3748									**1.35**								
15-Oct-19	3824									**0.82**								
14-Apr-20	3860									**1.38**								
08-Jul-20	3912									**3.14**								
08-Oct-20	3968									**1.58**								
12-Jul-21	4094									**1.45**								
29-Sep-21	4152									**3.77**								
11-Apr-22	4218									**1.50**								
11-Jul-22	4286									**1.57**								
04-Oct-22	4362									**5.44**								
11-Apr-23	4414									**2.80**								
10-Jul-23	4463									**2.60**								
04-Oct-23	4540									**1.34**								
08-Apr-24	4613									**0.706**								
08-Jul-24	4641									**0.349**								
01-Oct-24	2064047									**6.57**								
16-Apr-25	250864102	0.14	1.16	84.3	0.0054	<0.5	0.44	0.081	0.636	<0.05	0.24	<0.01	31.7	<0.02	0.34	0.82	2.1	
08-Jul-25	251839204			362	0.194	27	**22.6**	**9.34**		**0.907**	<0.5	<0.1	**18900**		**10.5**	22.9	**88.4**	

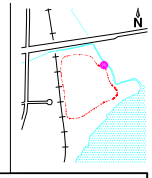
TOTAL SAMPLES	1	10	21	21	21	21	21	5	75	17	21	21	5	21	21	21	31
AVERAGE 2025			223	0.100	14	11.52	4.711		0.4535	<0.5	<0.1	9466		5.42	11.9	45.25	

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH2-II

SAND AQUIFER

OBSERVATION WELL
Screen 214.0 - 213.5 masl



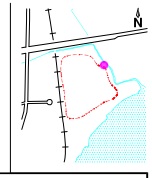
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
18-Nov-98	100984									**0.11**								436
18-Aug-99	100986									<0.01								
16-Nov-99	100987									<0.01								
16-Aug-00	100989		<2	590	<5	<10	**20**	<1			<5	<10	<50		**40**	<20	<20	
19-Apr-01	100991																	393
19-Jul-01	100992																	433
17-Jul-02	100993		<2	570	<5	<10	<10	<1			<5	<10	<50		<20	20	<20	432
23-Jul-03	102541																	489
13-Jul-04	1207																	540
25-Aug-05	58253			742	<0.1	<2	<2	<0.5		**0.37**	1	<5	<10		<5	<10	8	
01-Aug-06	6813			831	<0.1	<2	<2	<0.1		**0.07**	1	<5	<10		<5	<10	<5	
15-Aug-07	78153			786	<0.02	<2	<2	<0.02		**0.11**	<0.2	<5	<10		<5	<10	9	
25-Jul-08	87253			717	<0.02	<2	<2	<0.02		**0.24**	0.9	<5	<10		<5	<10	<5	565
21-Jul-09	B09-229			791	<0.02	<2	<2	<0.02		**0.60**	0.6	0.03	<10		<5	<10	<5	564
21-Jul-10	2080			851	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	20		<5	<10	<5	
20-Jul-11	2243			785	<0.02	<2	<2	0.05		**1.51**	<1	<0.02	30		<5	<10	5	
25-Jul-12	2444			1010	<0.1	3	<2	<1		0.02	<4	<0.1	14		0.6	<3	<5	
01-Aug-13	2623			863	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	40		<5	<10	<5	
22-Jul-14	2834			928	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	20		0.5	<10	9	
21-Jul-15	3034			813	<0.02	<2	<0.1	<0.02		0.01	<1	<0.02	30		0.3	<10	<5	521
22-Jul-16	3201			624	<0.02	<2	<2	<0.02		**0.03**	<1	<0.02	30		**5**	<10	<5	502
21-Jul-17	3394			771	<0.014	<2	<2	0.19		**0.04**	<1	<0.02	30		<5	<10	<5	505
16-Jul-18	3574			633	0.009	0.22	1.93	0.15		**0.76**	<0.04	<0.05	58		0.199	0.6	8	
19-Jul-19	3749			1100	<0.003	0.24	0.7	0.06		**0.61**	0.06	<0.05	2		0.345	2.9	4	
10-Jul-20	3913			749	0.015	0.23	0.6	0.02		**0.60**	<0.04	<0.05	1		0.26	2.1	<2	
14-Jul-21	4095			1020	<0.003	0.21	1.4	<0.09		**4.18**	0.05	<0.05	4		0.43	3	5	
14-Jul-22	4287			1080	0.009	0.25	0.2	<0.09		**1.18**	<0.04	<0.05	2		0.338	1.8	<2	
13-Jul-23	4464			1210	0.042	4.1	2	<0.05		**4.06**	2.47	<0.01	2		0.9	6.2	1	
09-Jul-24	4642			1270	0.035	1.5	1.6	<0.05		**0.086**	2.69	<0.01	2		**1**	6.4	2	
09-Jul-25	251839215			1370	<0.05	<5	<2	<0.5		**0.77**	<0.5	<0.1	23.3		<1	<5	<10	
TOTAL SAMPLES		0	3	24	24	24	24	24	0	26	24	24	24	0	24	24	24	12
AVERAGE 2025																		

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH2-III

PEAT

OBSERVATION WELL
Screen 219.0 - 216.6 masl



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
01-Oct-15	3093									0.02								1600
20-Apr-16	3165									0.01								1540
22-Jul-16	3202									**0.16**								1310
20-Oct-16	3293									**0.15**								1530
25-Apr-17	3328									**0.16**								1470
21-Jul-17	3395									**0.03**								1670
19-Oct-17	3470									**0.23**								1609
23-Apr-18	3521									**0.26**								
19-Jul-18	3575									**0.53**								
18-Oct-18	3647									**0.35**								
26-Apr-19	3699									**0.34**								
19-Jul-19	3750									**0.33**								
18-Oct-19	3825									**0.40**								
16-Apr-20	3861									**0.60**								
10-Jul-20	3914									**0.15**								
08-Oct-20	3969									**1.0**								
14-Jul-21	4096									**0.92**								
29-Sep-21	4153									**0.60**								
14-Apr-22	4219									**0.41**								
14-Jul-22	4288									**0.29**								
05-Oct-22	4363									**0.86**								
13-Apr-23	4415									**1.14**								
13-Jul-23	4465									**1.05**								
03-Oct-23	4541									**1.41**								
10-Apr-24	4614									**0.491**								
09-Jul-24	4643									**0.031**								
02-Oct-24	2064048									**0.408**								
16-Apr-25	250864103	<1	<1	686	<0.05	<5	<2	<0.5	15.6	<0.5	<0.5	<0.1	10.8	<0.2	**2.53**	**28.6**	<10	
09-Jul-25	251839216			1090	<0.05	<5	<5	1.89		**0.28**	<0.5	<0.1	**1690**		**4.78**	**26.3**	<30	
14-Oct-25	252965911			1080	<0.05	<5	<2	<0.5		**0.356**	<0.5	<0.1	14.5		**3.25**	18.6	<10	

TOTAL SAMPLES	1	4	7	7	7	7	7	2	54	6	7	7	2	7	7	7	29
AVERAGE 2025			952	<0.05	<5	<2	0.63		<0.5	<0.5	<0.1	572		3.520	24.50	<10	

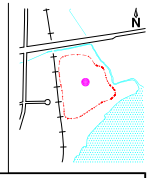
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH3-IR

SAND AQUIFER

OBSERVATION WELL
Screen 216.4 - 214.9 masl

FORMERLY BH3-IRX
CONVERTED Jul 08



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
05-Oct-15	3105									**0.04**								1680
26-Apr-16	3176									**0.13**								1200
25-Jul-16	3218			353	<0.02	<2	1.7	<0.02		**0.09**	4	<0.02	70		**7**	16.6	<5	1370
25-Oct-16	3304									**0.05**								1590
01-May-17	3343									**0.07**								1380
25-Jul-17	3411			379	<0.014	<2	<2	0.12		**0.04**	<1	<0.02	60		**7**	10	7	1290
23-Oct-17	3485									**0.06**								1313
01-May-18	3536									**0.31**								
24-Jul-18	3593			424	0.007	0.41	0.8	0.05		**0.31**	0.16	<0.05	2		**5.1**	10.3	6	
22-Oct-18	3660									**1.25**								
29-Apr-19	3712									**0.51**								
23-Jul-19	3768			561	<0.003	0.5	1.2	0.18		**0.26**	0.14	<0.05	**84**		**5.21**	10.4	3	
28-Oct-19	3838									**0.24**								
24-Apr-20	3874									**0.23**								
13-Jul-20	3932			414	0.006	0.52	0.7	0.02		**0.21**	0.17	<0.05	2		**5.43**	11.4	<2	
06-Oct-20	3970									**0.28**								
16-Jul-21	4097			348	0.004	0.55	0.9	<0.09		**0.08**	0.16	<0.05	3		**5.15**	9.1	6	
01-Oct-21	4154									**0.37**								
21-Apr-22	4220									**0.31**								
19-Jul-22	4306			431	0.003	0.41	0.3	<0.09		**0.06**	0.14	<0.05	<1		**5.81**	11.7	<2	
13-Oct-22	4376									**0.31**								
19-Apr-23	4428									**0.261**								
19-Jul-23	4483									**0.405**								
16-Oct-23	4554									**0.353**								
18-Apr-24	4591									**0.105**								
17-Jul-24	4661			355	0.042	5.7	2.8	<0.05		**0.176**	9.85	0.02	<1		**4.5**	12.8	<1	
10-Oct-24	2067111									**0.08**								
05-May-25	251086501			405	<0.05	<5	<2	<0.5		**0.29**	<0.5	<0.1	<10		**3.55**	9.63	<10	
22-Jul-25	252003101			382	<0.05	<5	<2	<0.5		**0.0642**	4.36	<0.1	<10		**4.61**	13	<10	
22-Oct-25	253042601			505	<0.005	<0.5	<0.2	<0.05		**0.0446**	1.31	<0.01	<1		**2**	5.5	<1	
TOTAL SAMPLES		27	8	31	31	31	31	31	31	73	27	31	31	4	31	31	31	28
AVERAGE 2025				431	<0.005	<0.5	<0.2	<0.05		0.133	1.89	<0.01	<1		3.387	9	<1	

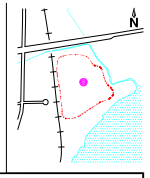
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH3-IIR

REFUSE

LEACHATE WELL
Screen 222.5 - 218.4 masl

FORMERLY BH3-IIRX
CONVERTED Sep 16



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
27-Apr-16	3177			612	<0.02	8	<2	<0.02		**0.58**	3	0.04	50		**18**	**90**	<5	3470
25-Jul-16	3219		**6.3**	680	<0.02	9	**5.7**	<0.02		**0.55**	9	0.06	60		**22**	**69.4**	7	3600
25-Oct-16	3305			730	0.03	9	<2	0.36		**0.08**	51	0.04	**80**		**28**	**50**	6	2760
02-May-17	3344			647	0.02	10	<2	0.09		**0.16**	4	0.03	70		**20**	**50**	17	2860
25-Jul-17	3412		**6.3**	558	0.014	9	<2	0.08		**0.30**	<1	0.03	70		**19**	**50**	6	2850
23-Oct-17	3486			609	0.02	10	<2	0.35		**0.31**	5	0.02	**100**		**14**	**60**	12	2888
01-May-18	3537			591	0.01	9.2	0.26	0.14		**0.31**	1.20	<0.05	31		**16.4**	**50.1**	8	
24-Jul-18	3594		2.6	587	0.006	9.58	1.5	0.17		**0.16**	0.85	<0.05	33		**16.6**	**50.1**	6	
22-Oct-18	3661			653	<0.003	11.37	2.14	0.13		**0.19**	0.96	<0.05	34		**18.85**	**57.1**	5	
29-Apr-19	3713			502	<0.003	0.63	1.1	0.16		**0.17**	0.15	<0.05	46		**4.92**	9.2	4	
23-Jul-19	3769		3.2	537	0.018	10.1	1	0.18		**0.36**	0.93	<0.05	47		**17.1**	**57**	9	
28-Oct-19	3839			621	0.003	9.45	1.3	0.19		**0.62**	0.68	<0.05	47		**17.1**	**56.8**	5	
16-Apr-20	3875			680	0.005	9.74	2.1	0.23		**0.47**	0.96	<0.05	40		**15.4**	**49**	3	
13-Jul-20	3933		2.5	563	<0.003	11.4	0.7	0.09		**0.40**	0.56	<0.05	35		**17.2**	**55.5**	3	
06-Oct-20	3971			499	<0.003	11	0.8	0.09		**0.51**	1.4	<0.05	30		**16.5**	**55.6**	<2	
29-Apr-21	4043			628	<0.003	10.6	0.6	0.1			0.76	<0.05	32		**17.2**	**58.5**	12	
16-Jul-21	4098		2.7	474	0.005	10.1	1.2	0.22		**0.46**	0.92	<0.05	45		**16.3**	**49.2**	4	
01-Oct-21	4155			483	0.028	11.1	1.3	0.35		**0.43**	0.54	<0.05	**81**		**17.1**	**59**	4	
21-Apr-22	4221			595	0.011	10.2	<0.2	0.13		**0.46**	0.77	<0.05	30		**17.3**	**60.6**	<2	
19-Jul-22	4307		2.9	643	<0.003	10.7	0.4	<0.09		**0.22**	0.99	<0.05	31		**16.1**	**60.7**	<2	
13-Oct-22	4377			553	<0.003	8.92	1	0.12		**0.46**	0.78	<0.05	30		**14.5**	**52.7**	3	
19-Apr-23	4429			631	0.21	15	5	**8.84**		**0.476**	<10	<0.1	**1220**		**15.7**	**70**	**39**	
19-Jul-23	4484			608	0.064	33.2	**9.7**	<0.05		**0.77**	10.2	<0.01	10		**9.5**	**66.2**	2	
16-Oct-23	4555			419	<0.05	12	5	<0.5		**0.582**	17.9	<0.1	10		**15**	**68**	<10	
18-Apr-24	4592			442	0.069	29.2	**7.1**	<0.05		**1.15**	13.4	0.01	7		**17**	**70.5**	3	
17-Jul-24	4662		**5.1**	475	<0.005	26.7	**7.6**	<0.05		**0.95**	20.5	0.03	5		**14.5**	**66.2**	2	
10-Oct-24	2067112			428	0.037	9	**11**	<0.05		**0.544**	29.8	<0.01	5		**14**	**70**	3	
05-May-25	251086502			578	<0.05	9.78	<2	<0.5		**0.56**	0.666	<0.1	35.3		**17.4**	**74**	**26.4**	
22-Jul-25	252003102		2.22	578	<0.05	9.05	<2	<0.5		**0.53**	0.513	<0.1	28.9		**15.5**	**63.6**	<10	
22-Oct-25	253042602			613	0.163	13.6	**5.34**	**7.32**		**0.547**	0.757	<0.1	32.3		**16.5**	**71.3**	**31.3**	
TOTAL SAMPLES		30	42	93	93	93	93	93	34	105	89	93	93	4	93	93	93	31
AVERAGE 2025				590	0.054	10.8	<2	2.440		0.546	0.645	<0.1	32.2		16.47	70	19.23	

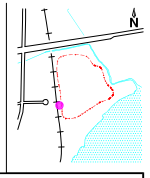
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH4-IIR

SAND AQUIFER

OBSERVATION WELL
Screen 219.9 - 218.3 masl

FORMERLY BH4-II
CONVERTED Sep 16



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
28-Sep-15	3094									<0.01								707
19-Apr-16	3166									<0.01								661
19-Jul-16	3203			413	<0.02	<2	<2	<0.02		0.02	<1	<0.02	50		<5	<10	<5	786
18-Oct-16	3294									<0.01								771
24-Apr-17	3329									<0.01								710
19-Jul-17	3396			277	0.017	<2	<2	<0.02		<0.01	<1	<0.02	40		<5	<10	6	649
16-Oct-17	3471									0.02								665
23-Apr-18	3522									**0.16**								
17-Jul-18	3576			340	0.038	0.14	2.73	0.13		**0.55**	0.13	<0.05	3		0.896	0.7	6	
16-Oct-18	3648									**0.38**								
23-Apr-19	3700									**0.22**								
15-Jul-19	3751			355	0.009	0.15	3.2	0.11		**0.76**	0.15	<0.05	4		**0.914**	0.8	6	
17-Oct-19	3826									**0.26**								
14-Apr-20	3862									**0.96**								
09-Jul-20	3915			360	0.003	0.14	0.9	0.01		**0.25**	0.1	<0.05	3		0.734	0.5	<2	
13-Oct-20	9372									**0.38**								
08-Jul-21	4099			351	0.009	0.48	1.4	0.09		**5.14**	0.2	<0.05	**89**		**1.21**	0.9	2	
28-Sep-21	4156									**3.62**								
14-Apr-22	4222			381	0.008	0.26	1.2	<0.09		**4.79**								
13-Jul-22	4289			371	0.024	0.26	0.7	<0.09		**0.07**	0.15	<0.05	2		0.425	1.1	<2	
04-Oct-22	4364									**2.58**								
12-Apr-23	4416									**6.83**								
11-Jul-23	4466			398	0.018	2.9	**5.6**	<0.05		**8.97**	0.76	0.01	6		0.8	3.6	1	
03-Oct-23	4542									**13.4**								
10-Apr-24	4615									**3.14**								
11-Jul-24	4644			394	<0.005	1.1	3.9	<0.05		**0.479**	0.52	<0.01	3		0.6	2.1	2	
02-Oct-24	2064049									**2.03**								
15-Apr-25	250864104	<0.1	0.18	400	0.0114	<0.5	1.08	<0.05	0.383	<0.05	0.076	<0.01	2.2	<0.02	0.56	0.57	1.9	
08-Jul-25	251839209			431	0.0056	<0.5	1.12	<0.05		**1.28**	0.118	<0.02	6.7		0.35	0.57	<1	
14-Oct-25	252965912			373	0.0056	<0.5	0.95	<0.05		**0.692**	0.123	<0.01	3.4		0.42	0.61	<1	

TOTAL SAMPLES	1	10	42	42	42	42	42	4	76	38	41	41	4	41	41	41	31
AVERAGE 2025			401	0.0075	<0.5	1.05	<0.05		0.657	0.106	<0.01	4.1		0.44	0.58	<1	

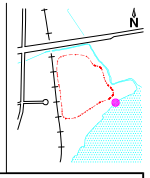
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH5-IR

SAND AQUIFER

OBSERVATION WELL
Screen 211.8 - 211.3 masl

FORMERLY BH5-I
CONVERTED Oct 10



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
27-Apr-16	3178			3460	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	40		<5	<10	<5	709
28-Jul-16	3220			3780	<0.02	<2	0.5	<0.02		**0.04**	<1	<0.02	40		<5	3.7	<5	727
26-Oct-16	3306			3430	<0.02	<2	<2	<0.02		<0.01	4	<0.02	30		<5	<10	<5	692
03-May-17	3345			3660	<0.014	<2	<2	<0.02		<0.01	<1	<0.02	40		<5	<10	<5	670
27-Jul-17	3413			3680	<0.014	<2	<2	<0.02		**0.03**	<1	<0.02	40		<5	<10	<5	679
24-Oct-17	3487			4260	<0.014	<2	<2	<0.02		0.02	<1	<0.02	70		<5	<10	<5	691
02-May-18	3538			4000	0.004	0.17	1.82	0.05		**1.05**	0.05	<0.05	1		0.05	0.6	5	
26-Jul-18	3595			3960	0.003	0.17	2.23	0.09		**0.58**	0.05	<0.05	11		0.059	0.4	6	
25-Oct-18	3662			3910	<0.003	0.14	2.38	0.08		**0.08**	0.05	<0.05	1		0.07	0.5	7	
01-May-19	3714			670	0.005	9.19	0.3	0.3		**0.72**	0.69	<0.05	56		**17.3**	**54.6**	4	
26-Jul-19	3770			3330	<0.003	<0.08	0.9	0.05		**1.04**	<0.04	<0.05	20		0.041	0.4	4	
29-Oct-19	3840			3530	<0.003	0.15	1.2	0.06		**1.22**	<0.04	<0.05	13		0.06	0.4	7	
17-Apr-20	3876			3830	0.004	0.2	0.3	<0.01		**1.17**	0.1	<0.05	11		0.061	0.5	3	
14-Jul-20	3934			3550	<0.003	0.12	0.6	0.03		**1.98**	0.05	<0.05	19		0.062	0.5	3	
08-Oct-20	3973			3110	<0.003	0.3	0.6	0.02		**7.21**	0.07	<0.05	2		0.087	0.5	<2	
21-Apr-21	4045			3740	0.004	0.2	1.7	<0.09		**2.80**	<0.04	<0.05	6		0.028	0.5	3	
16-Jul-21	4100			3470	<0.003	0.31	1.4	<0.09		**2.89**	0.04	<0.05	5		0.08	0.5	11	
06-Oct-21	4157			3650	0.008	0.28	1.1	<0.09		**3.61**	0.07	<0.05	9		0.048	0.4	4	
21-Apr-22	4223			3770	0.011	0.21	0.3	<0.09		**4.54**	0.07	<0.05	21		0.073	0.5	<2	
20-Jul-22	4308			3870	<0.003	0.14	0.6	<0.09		<0.03	<0.04	<0.05	1		0.049	0.7	2	
13-Oct-22	4378			3220	<0.003	0.17	1	<0.09		**4.00**	<0.04	<0.05	7		0.073	0.5	2	
20-Apr-23	4430			3990	0.12	26	**27**	**8.29**		**7.26**	<5	<0.1	**14900**		**11.8**	20	**69**	
20-Jul-23	4485									**5.27**								
16-Oct-23	4556			3470	0.012	0.4	1.3	0.05		**4.88**	0.95	0.02	3		0.3	1.7	3	
18-Apr-24	4593			3320	0.009	2	2.1	<0.05		**5.78**	0.5	<0.01	2		0.3	4.1	4	
18-Jul-24	4663			3790	0.014	0.7	1.5	<0.05		**4.12**	0.81	<0.01	2		0.3	2.4	2	
10-Oct-24	2067113			3480	0.015	2.2	2.4	<0.05		**3.66**	6.12	<0.01	1		0.3	3.2	2	
08-May-25	251086503			3530	<0.05	<5	<2	<0.5		**3.43**	<0.5	<0.1	<10		<1	<5	<10	
22-Jul-25	252003111			3590	<0.05	<5	<2	<0.5		0.0167	<0.5	<0.1	13.6		<1	<5	<10	
20-Oct-25	253042608			3480	<0.05	<5	<2	<0.5		**8.33**	<0.5	<0.1	<10		<1	<5	<10	
TOTAL SAMPLES		2	8	72	72	72	72	72	5	90	68	72	72	4	72	72	74	31
AVERAGE 2025				3533	<0.05	<5	<2	<0.5		3.926	<0.5	<0.1	<10		<1	<5	<10	

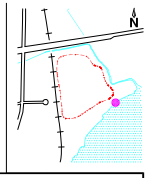
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH5-IIIR

PEAT

OBSERVATION WELL
Screen 218.0 - 217.4 masl

FORMERLY BH5-III
CONVERTED Oct 10



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
27-Apr-16	3179									**0.08**								756
27-Jul-16	3221									**0.09**								762
26-Oct-16	3307									**0.11**								726
03-May-17	3346									**0.10**								756
27-Jul-17	3414									**0.11**								738
24-Oct-17	3488									**0.07**								747
02-May-18	3539									**0.66**								
26-Jul-18	3596									**0.83**								
25-Oct-18	3663									**1.01**								
01-May-19	3715									**1.05**								
26-Jul-19	3771									**0.80**								
29-Oct-19	3841									**0.82**								
17-Apr-20	3877									**0.86**								
14-Jul-20	3935									**0.75**								
08-Oct-20	3974									**0.73**								
22-Apr-21	4046									**0.50**								
16-Jul-21	4101									**0.89**								
30-Sep-21	4158									**0.68**								
21-Apr-22	4224									**2.29**								
20-Jul-22	4309									**0.98**								
13-Oct-22	4379									**2.08**								
20-Apr-23	4431									**4.85**								
20-Jul-23	4486									**8.45**								
16-Oct-23	4557									**3.47**								
18-Apr-24	4594									**2.46**								
18-Jul-24	4664									**1.71**								
10-Oct-24	2067114									**2.49**								
08-May-25	251086504									**2.4**								
22-Jul-25	252003112									**1.12**								
20-Oct-25	253042609			284	<0.05	<5	<2	<0.5		0.0197	0.582	<0.1	55.8		<1	<5	<10	
TOTAL SAMPLES		1	5	6	7	6	6	7	5	75	3	6	6	4	6	6	6	28
AVERAGE 2025										1.18								

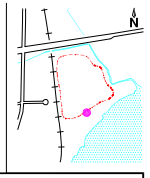
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH6R

PEAT

OBSERVATION WELL
Screen 219.4 - 217.9 masl

FORMERLY BH6X
CONVERTED Jul 13



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
28-Jul-15	3055									**0.35**								
06-Oct-15	3109									**0.32**								
27-Apr-16	3180									**0.34**								
29-Jul-16	3222									**0.31**								
26-Oct-16	3308									**0.30**								
02-May-17	3347									**0.36**								
25-Jul-17	3415									**0.32**								
23-Oct-17	3489									**0.17**								
01-May-18	3540									**0.54**								
25-Jul-18	3597									**0.48**								
25-Oct-18	3664									**0.54**								
01-May-19	3716									**0.45**								
26-Jul-19	3772									**0.57**								
29-Oct-19	3842									**0.40**								
17-Apr-20	3878									**0.48**								
14-Jul-20	3936									**0.44**								
07-Oct-20	3975									**0.42**								
21-Apr-21	4047									<0.03								
16-Jul-21	4102									**0.45**								
04-Oct-21	4159									**0.35**								
20-Apr-22	4225									**0.39**								
13-Oct-22	4380									**0.30**								
18-Apr-23	4432									**0.537**								
18-Jul-23	4487									**0.9**								
12-Oct-23	4558	<0.5	1	241	<0.1	6	<1	<0.1	<1	<5	<0.2	<0.1	<1	<0.5	**1.7**	5	<1	
15-Apr-24	4595									**0.549**								
17-Jul-24	4665	<0.1	0.5	246	<0.005	2.3	1.4	<0.05	0.35	**0.519**	1.21	<0.01	4	<0.02	**1.9**	<1	1	
10-Oct-24	2067115									**0.521**								
15-Apr-25	250864105	<1	<1	411	<0.05	<5	<2	<0.5	<0.5	**0.49**	<0.5	<0.1	16.5	<0.2	**1.68**	6.26	<10	
08-Oct-25	252881508			308	<0.05	<5	<2	<0.5		**0.554**	0.922	<0.1	<10		**1.27**	<5	<10	

TOTAL SAMPLES	30	3	4	4	4	4	4	30	43	4	4	4	3	4	4	4	0	
AVERAGE 2025			360	<0.05	<5	<2	<0.5		0.5220	<0.5	<0.1	<10		1.475	<5	<10		

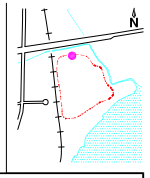
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH8R

PEAT

OBSERVATION WELL
Screen 219.0 - 217.4 masl

FORMERLY BH8X
CONVERTED Jul 13



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
22-Jul-15	3037									**0.46**								2580
30-Sep-15	3095									**0.03**								2490
20-Apr-16	3167									**0.37**								2450
19-Jul-16	3204									**0.06**								2630
18-Oct-16	3295									**0.03**								1290
26-Apr-17	3330									0.02								2050
20-Jul-17	3397									**0.19**								2330
18-Oct-17	3472									**0.07**								1686
23-Apr-18	3523									**0.12**								
18-Jul-18	3577									**0.12**								
17-Oct-18	3649									**0.07**								
24-Apr-19	3701									**0.18**								
18-Jul-19	3752									**0.30**								
18-Oct-19	3827									**0.40**								
15-Apr-20	3863									**0.39**								
09-Jul-20	3916									**0.36**								
09-Oct-20	3976									**0.48**								
13-Jul-21	4103									**0.17**								
30-Sep-21	4160									**0.06**								
13-Apr-22	4226									**0.40**								
14-Jul-22	4290									**0.21**								
05-Oct-22	4365									**0.13**								
13-Apr-23	4417									**0.321**								
12-Jul-23	4467									**0.472**								
04-Oct-23	4543									**0.394**								
09-Apr-24	4616	<0.5	3	371	<0.1	17	5	<0.1	<1	**0.347**	2.6	<0.1	5	<0.5	**3.6**	9	1	
09-Jul-24	4645									**0.114**								
03-Oct-24	2064050									**0.119**								
09-Jul-25	251839211			406	0.107	5.75	**8.09**	3.05		**0.382**	0.564	<0.1	**1390**		**2.43**	7.67	<30	
20-Oct-25	253042610			666	<0.05	<5	2.24	<0.5		**0.288**	<0.5	<0.1	10.9		**4.05**	14.1	17.2	

TOTAL SAMPLES	1	3	6	6	6	6	6	1	49	6	6	6	1	6	6	6	20
AVERAGE 2025			536	0.054	<5	5.165	1.53		0.3350	<0.5	<0.1	700		3.240	10.9	<30	

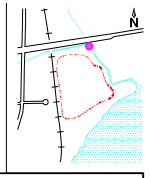
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH10R

PEAT

OBSERVATION WELL
Screen 218.8 - 217.2 masl

FORMERLY BH10
CONVERTED Jul 13



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
30-Sep-15	3096									**0.06**								791
20-Apr-16	3168									**0.03**								821
20-Jul-16	3205									**0.05**								708
19-Oct-16	3296									**0.07**								740
27-Apr-17	3331									**0.04**								699
20-Jul-17	3398									**0.08**								844
18-Oct-17	3473									**0.08**								683
23-Apr-18	3524									**0.21**								
18-Jul-18	3578									**1.09**								
17-Oct-18	3650									**0.18**								
25-Apr-19	3702									**0.41**								
18-Jul-19	3753									**0.12**								
18-Oct-19	3828									**0.09**								
15-Apr-20	3864									**0.14**								
10-Jul-20	3917									**0.18**								
09-Oct-20	3977									**0.19**								
13-Jul-21	4104									**0.13**								
30-Sep-21	4161									**0.16**								
13-Apr-22	4227									**0.08**								
13-Jul-22	4291									**0.14**								
05-Oct-22	4366									**0.17**								
13-Apr-23	4418									**0.078**								
13-Jul-23	4468									**0.168**								
05-Oct-23	4544									**0.258**								
11-Apr-24	4617									**0.134**								
11-Jul-24	4646									**0.104**								
03-Oct-24	2064051									**0.198**								
15-Apr-25	250864106	<0.1	0.41	310	<0.005	<0.5	<0.2	0.066	0.176	**0.066**	0.38	<0.01	17.1	<0.02	0.41	2.95	3.4	
09-Jul-25	251839214			334	<0.05	<5	<5	0.75		**0.233**	<0.5	<0.1	**2020**		**1.34**	6.69	<30	
20-Oct-25	253042611			181	<0.05	<5	<2	<0.5		**0.31**	<0.5	<0.1	<10		<1	<5	<10	

TOTAL SAMPLES	1	10	22	22	22	22	22	5	76	18	22	22	5	22	22	22	32
AVERAGE 2025			275	<0.05	<5	<2	<0.5		0.203	<0.5	<0.1	679		<1	<5	<10	

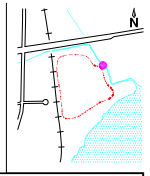
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH11R

PEAT

OBSERVATION WELL
Screen 218.9 - 217.7 masl

FORMERLY BH11
CONVERTED Jul 12



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
01-Oct-15	3097									**0.05**								924
21-Apr-16	3169									**0.03**								903
22-Jul-16	3206									**0.05**								897
20-Oct-16	3297									**0.05**								1080
25-Apr-17	3332									**0.03**								727
21-Jul-17	3399									**0.07**		<0.05						882
19-Oct-17	3474									**0.07**		<0.05						895
23-Apr-18	3525									**0.10**								
19-Jul-18	3579									**0.06**								
18-Oct-18	3651									**0.08**								
26-Apr-19	3703									**0.07**								
18-Jul-19	3754									**0.04**								
18-Oct-19	3829									**0.05**								
16-Apr-20	3865									**0.09**								
10-Jul-20	3918									**0.11**								
09-Oct-20	3878									**0.08**								
12-Jul-21	4105									**0.08**								
29-Sep-21	4162									**0.11**								
14-Apr-22	4228									**0.07**								
14-Jul-22	4292									**0.06**								
05-Oct-22	4367									**0.15**								
13-Apr-23	4419									**0.149**								
13-Jul-23	4469									**0.285**								
03-Oct-23	4545									**0.256**								
11-Apr-24	4618									**0.103**								
09-Jul-24	4647									**0.063**								
02-Oct-24	2064052									**0.092**								
16-Apr-25	250864107	0.12	0.88	176	<0.005	0.69	0.6	0.129	0.93	<0.05	0.443	<0.01	66.7	<0.02	0.7	5.35	1.5	
09-Jul-25	251839217			258	<0.05	<5	**5.87**	1.66		**0.0951**	<0.5	<0.1	**2050**		**1.9**	10.8	<30	
20-Oct-25	253042606			244	0.0306	0.63	2.52	0.069		**0.162**	0.36	<0.01	45.1		**2.78**	6.32	4.6	

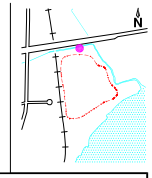
TOTAL SAMPLES	28	12	21	21	21	21	21	32	75	17	23	21	5	21	21	21	22
AVERAGE 2025			226	<0.05	<5	2.997	0.62		0.0857	<0.5	<0.01	721		1.793	7.5	<30	

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH14-I

SAND AQUIFER

OBSERVATION WELL
Screen 208.5 - 207.8 masl



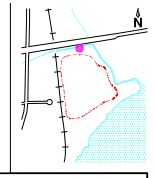
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
18-Nov-98	100106									**0.10**								226
18-Aug-99	100108									<0.01								
16-Nov-99	100109									<0.01								
16-Aug-00	100111		<2	330	<5	<10	**20**	<1			<5	<10	<50		<20	<20	<20	
19-Apr-01	100113																	215
19-Jul-01	100114																	216
18-Jul-02	100115		<2	330	<5	<10	<10	<1			<5	<10	<50		<20	<20	<20	215
23-Jul-03	102492																	223
14-Jul-04	1213																	490
26-Aug-05	58263			342	<0.1	<2	<2	<0.5		**0.56**	<1	<5	<10		<5	<10	6	
01-Aug-06	6813			366	<0.1	<2	<2	<0.1		**0.12**	0.3	<5	<10		<5	<10	<5	
15-Aug-07	78153			317	<0.02	<2	<2	<0.02		**0.76**	<0.2	<5	<10		<5	<10	<5	
23-Jul-08	87233			231	<0.02	<2	<2	<0.02		**1.20**	<0.2	<5	20		<5	<10	<5	214
21-Jul-09	B09-236			273	<0.02	<2	<2	<0.02		**1.27**	<0.2	<0.02	<10		<5	<10	<5	206
21-Jul-10	2086			335	<0.02	<2	<2	<0.02		0.01	<1	<0.02	<10		<5	<10	<5	
20-Jul-11	2249			313	<0.02	<2	<2	0.11		**2.02**	<1	<0.02	10		<5	<10	<5	
25-Jul-12	2450			350	<0.1	<3	<2	<1		<0.02	<4	<0.1	37		<0.5	<3	**70**	
01-Aug-13	2629			344	<0.02	<2	<2	<0.02		0.01	<1	<0.02	20		<5	<10	<5	
23-Jul-14	2840			420	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	<10		0.2	<10	9	
22-Jul-15	3040			389	<0.02	<2	<0.1	<0.02		<0.01	<1	<0.02	10		<0.1	<10	<5	222
20-Jul-16	3207			362	<0.02	<2	<2	<0.02		0.01	<1	<0.02	<10		<5	<10	<5	217
20-Jul-17	3400			355	<0.014	<2	<2	<0.02		0.01	<1	<0.02	<10		<5	<10	<5	207
18-Jul-18	3580			375	<0.003	0.08	1.42	0.1		**0.57**	<0.04	<0.05	2		0.011	<0.1	4	
19-Jul-19	3755			379	<0.003	0.12	1	0.09		**0.65**	<0.04	<0.05	4		0.019	<0.1	4	
10-Jul-20	3919			326	<0.003	0.1	0.5	0.01		**0.18**	<0.04	<0.05	3		0.004	<0.1	<2	
13-Jul-21	4106			358	<0.003	<0.08	0.9	<0.09		**1.67**	<0.04	<0.05	1		0.011	<0.1	3	
13-Jul-22	4293			345	0.008	0.16	<0.2	<0.09		**0.98**	<0.04	<0.05	3		<0.004	<0.1	<2	
12-Jul-23	4470			366	0.008	1.5	1.2	<0.05		**0.808**	0.22	<0.01	2		<0.1	0.6	<1	
11-Jul-24	4648			371	0.008	0.7	0.4	<0.05		**0.234**	0.19	<0.01	3		<0.1	0.5	1	
09-Jul-25	251839212			360	<0.005	<0.5	<0.2	<0.05		**0.0841**	0.098	<0.02	1.8		<0.1	<0.5	<1	
TOTAL SAMPLES AVERAGE 2025		0	3	25	25	25	25	25	1	27	24	25	25	1	25	25	25	12

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH14-IIR

UPPER CONFINING LAYER

OBSERVATION WELL
Screen 214.3 - 213.6 masl



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
09-Jul-25	251839213			165	0.0241	1.57	1	0.315		**0.138**	0.227	<0.01	**393**		0.55	2.33	3.4	

TOTAL SAMPLES	0	0	1	1	1	1	1	0	1	1	1	1	0	1	1	1	0
AVERAGE 2025																	

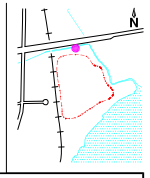
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH14-IIIR

PEAT

OBSERVATION WELL
Screen 218.9 - 217.3 masl

FORMERLY BH14-III
CONVERTED Jul 13



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
22-Jul-15	3041									**0.15**								758
29-Sep-15	3098									**0.13**								732
20-Apr-16	3170									**0.09**								679
20-Jul-16	3208									**0.10**								624
19-Oct-16	3298									**0.10**								658
27-Apr-17	3333									**0.08**								642
20-Jul-17	3401									**0.10**								614
18-Oct-17	3475									**0.12**								618
23-Apr-18	3526									**0.19**								
18-Jul-18	3581									**0.10**								
17-Oct-18	3652									**0.14**								
25-Apr-19	3704									**0.30**								
18-Jul-19	3756									**0.10**								
18-Oct-19	3830									**0.15**								
15-Apr-20	3866									**0.08**								
10-Jul-20	3920									**0.12**								
09-Oct-20	3979									**0.13**								
13-Jul-21	4107									**0.11**								
30-Sep-21	4163									**0.13**								
12-Apr-22	4229									**0.15**								
13-Jul-22	4294									**0.13**								
05-Oct-22	4368									**0.11**								
13-Apr-23	4420									**0.093**								
12-Jul-23	4471									**0.117**								
05-Oct-23	4546									**0.155**								
11-Apr-24	4619									**0.159**								
11-Jul-24	4649									**0.146**								
03-Oct-24	2064053									**0.13**								
16-Apr-25	250864108	<0.1	0.61	187	<0.005	<0.5	<0.2	0.069	0.154	**0.16**	0.902	<0.01	14.6	<0.02	0.31	1.86	2.2	
14-Oct-25	252965913			172	<0.05	<5	<2	<0.5		**0.188**	<0.5	<0.1	21		<1	<5	<10	

TOTAL SAMPLES	1	10	19	19	19	19	19	4	76	16	19	19	4	19	19	19	31
AVERAGE 2025			180	<0.05	<5	<2	<0.5		0.1740	<0.5	<0.1	18		<1	<5	<10	

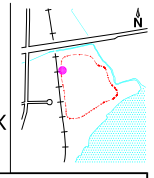
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH15-IIIR

FILL

OBSERVATION WELL
Screen 219.4 - 217.9 masl

FORMERLY BH15-IIIX
CONVERTED Jul 13



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
30-Oct-97	100168									**0.35**								
19-Aug-98	100170									**0.77**								2534
17-Aug-99	100171									<0.01								
16-Aug-00	100172		<2	500	<5	<10	**30**	<1			<5	<10	<50		<20	<20	<20	
18-Jul-01	100173																	2140
17-Jul-02	100174		3	590	<5	<10	<10	<1			8	<10	<50		<20	<20	**30**	2484
23-Jul-03	102496																	2215
13-Jul-04	1215																	600
24-Jul-09	B09-238																	2320
21-Jul-10	2088									**0.06**								
25-Jul-12	2452									**0.06**								
01-Aug-13	2631									**0.16**								
22-Jul-14	2842									**0.31**								
22-Jul-15	3042									**0.80**								2460
19-Jul-16	3209									**0.39**								2290
20-Jul-17	3402									**0.37**								2190
19-Jul-18	3582									**0.41**								
17-Jul-19	3757									**0.46**								
09-Jul-20	3921									**0.45**								
14-Jul-21	4108									**0.49**								
13-Jul-22	4295									**0.46**								
12-Jul-23	4472									**0.666**								
11-Jul-24	4650									**0.07**								
09-Jul-25	251839210			490	**0.58**	7.52	**17.8**	**18.4**		**0.564**	<0.5	<0.1	**1570**		**3.96**	14.4	**150**	

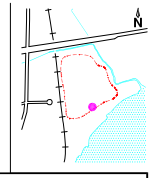
TOTAL SAMPLES	0	2	3	3	3	3	3	0	18	3	3	3	0	3	3	3	9
AVERAGE 2025																	

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH16-I

SAND AQUIFER

OBSERVATION WELL
Screen 207.1 - 206.3 masl



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
27-Apr-16	3181									<0.01								812
27-Jul-16	3223			602	<0.02	<2	0.7	<0.02		**0.04**	<1	<0.02	50		<5	5.9	<5	815
26-Oct-16	3309									<0.01								819
01-May-17	3348									<0.01								777
25-Jul-17	3416			587	<0.014	<2	<2	0.23		0.01	<1	<0.02	40		<5	<10	<5	855
23-Oct-17	3490									0.02								850
01-May-18	3541									**0.08**								
25-Jul-18	3598			703	0.012	0.19	1.59	0.08		**0.16**	0.05	<0.05	1		0.104	2.5	6	
23-Oct-18	3665									**2.78**								
01-May-19	3717									**0.27**								
24-Jul-19	3773			964	<0.003	0.22	0.8	0.06		**0.11**	0.06	<0.05	2		0.096	2.5	9	
29-Oct-19	3843									**0.04**								
17-Apr-20	3879									<0.03								
14-Jul-20	3937			714	<0.003	0.27	0.6	0.01		<0.03	0.07	<0.05	<1		0.112	2.4	<2	
07-Oct-20	3980									**0.06**								
21-Apr-21	4052									**0.15**								
16-Jul-21	4109			679	<0.003	0.22	1	<0.09		**0.13**	0.07	<0.05	5		0.102	2.2	3	
01-Oct-21	4164									<0.03								
20-Apr-22	4230									<0.03								
18-Jul-22	4311			755	<0.003	0.25	<0.2	<0.09		<0.03	<0.04	<0.05	<1		0.097	2.4	<2	
12-Oct-22	4381									**0.12**								
18-Apr-23	4433									**0.03**								
18-Jul-23	4488									**0.578**								
11-Oct-23	4559									**0.177**								
15-Apr-24	4596									**0.039**								
16-Jul-24	4666			651	0.011	0.8	2	<0.05		**0.102**	2.73	<0.01	<1		0.4	7	2	
10-Oct-24	2067116									**0.027**								
05-May-25	251086506									**0.0497**								
22-Jul-25	252003108			372	<0.05	<5	<2	<0.5		**0.614**	<0.5	<0.1	25.3		**1.81**	<5	<10	
20-Oct-25	253042605			679	<0.005	<0.5	<0.2	<0.05		**0.0443**	0.074	<0.01	<1		0.12	2.17	<1	
TOTAL SAMPLES		1	9	40	40	40	40	40	5	77	36	40	40	4	40	40	40	31
AVERAGE 2025				526	<0.005	<0.5	<0.2	<0.05		0.2360	<0.5	<0.01	12.7		0.965	<5	<1	

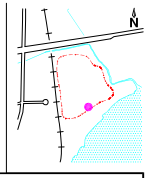
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH16-IVR

REFUSE

LEACHATE WELL
Screen 221.3 - 219.7 masl

FORMERLY BH16-IV
CONVERTED May 11



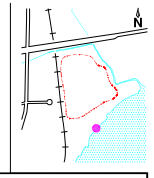
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
08-Oct-15	3111									**0.26**								1470
27-Apr-16	3182									**0.30**								1230
27-Jul-16	3224									**0.25**								1480
26-Oct-16	3310									**0.22**								1440
01-May-17	3349									**0.23**								1150
25-Jul-17	3417									**0.39**								1450
23-Oct-17	3491									**0.57**								1461
01-May-18	3542									**0.12**								
25-Jul-18	3599									**0.36**								
23-Oct-18	3666									**0.45**								
01-May-19	3718									**0.21**								
25-Jul-19	3774									**0.19**								
30-Oct-19	3844									**0.09**								
17-Apr-20	3880									**0.44**								
14-Jul-20	3938									**0.33**								
07-Oct-20	3981									**0.55**								
21-Apr-21	4053									**1.36**								
16-Jul-21	4110									**0.60**								
04-Oct-21	4165									**0.50**								
20-Apr-22	4231									**0.29**								
18-Jul-22	4312									**0.36**								
12-Oct-22	4382									**0.68**								
18-Apr-23	4434									**0.369**								
18-Jul-23	4489									**0.304**								
11-Oct-23	4560									**1.06**								
15-Apr-24	4597									**0.397**								
16-Jul-24	4667									**0.425**								
10-Oct-24	2067117									**0.937**								
05-May-25	251086507									**0.522**								
22-Jul-25	252003109									**0.053**								
TOTAL SAMPLES		0	10	17	17	17	17	17	4	68	13	17	17	4	17	17	17	30
AVERAGE 2025										0.2875								

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH17-III

SAND AQUIFER

OBSERVATION WELL
Screen 215.2 - 214.6 masl



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
26-Apr-16	3183			548	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	40		<5	<10	<5	789
28-Jul-16	3225			644	<0.02	<2	1.1	<0.02		**0.03**	<1	<0.02	40		<5	4.2	<5	833
25-Oct-16	3311			531	<0.02	<2	<2	<0.02		0.02	4	<0.02	30		<5	<10	12	760
03-May-17	3350			588	<0.014	<2	<2	<0.02		<0.01	<1	<0.02	40		<5	<10	10	758
26-Jul-17	3418			594	<0.014	<2	<2	0.04		0.02	<1	<0.02	40		<5	<10	**37**	772
25-Oct-17	3492			690	0.015	<2	2	0.16		0.02	<1	<0.02	**90**		<5	<10	<5	767
30-Apr-18	3543			648	0.004	0.16	0.89	0.06		**0.24**	0.06	<0.05	2		**1.25**	0.8	3	
24-Jul-18	3600			636	<0.003	0.16	2.15	0.1		**0.84**	0.05	<0.05	2		**1.24**	0.9	5	
24-Oct-18	3667			637	<0.003	0.22	2.53	0.08		**0.08**	0.07	<0.05	3		**1.48**	1.1	5	
30-Apr-19	3719			421	0.033	2.16	1.4	1.2		**0.13**	0.21	<0.05	58		**2.48**	16.5	4	
25-Jul-19	3775			589	<0.003	0.15	1.4	0.06		**0.18**	0.08	<0.05	5		**1.209**	0.8	5	
30-Oct-19	3845			598	<0.003	0.19	1.5	0.12		**0.05**	0.07	<0.05	20		**1.23**	0.9	7	
20-Apr-20	3881			619	0.003	0.15	0.5	<0.01		**0.03**	0.24	<0.05	1		**1.19**	0.8	5	
15-Jul-20	3939			599	<0.003	0.21	0.5	0.01		**0.04**	0.09	<0.05	5		**1.35**	0.9	3	
06-Oct-20	3982			509	0.005	0.22	0.6	0.01		**0.06**	0.12	<0.05	1		**1.29**	0.9	<2	
22-Apr-21	4054			577	<0.003	0.21	<0.2	<0.09		**0.14**	0.08	<0.05	8		**1.22**	0.9	<2	
20-Jul-21	4111			620	<0.003	0.27	1.9	0.12		**0.08**	0.04	<0.05	9		**1.25**	0.9	4	
07-Oct-21	4166			630	0.008	0.26	1.2	<0.09		**0.07**	0.1	<0.05	6		**1.3**	1	2	
19-Apr-22	4232			596	0.007	0.27	0.8	0.09		<0.03	0.11	<0.05	2		**1.27**	0.9	<2	
15-Jul-22	4313			626	0.011	0.22	0.5	<0.09		<0.03	0.06	<0.05	16		**1.43**	1.1	4	
11-Oct-22	4383			532	<0.003	0.24	0.7	<0.09		<0.03	<0.04	<0.05	1		**1.247**	1	<2	
18-Apr-23	4435			528	<0.02	<2	<2	0.08		<0.002	<1	<0.1	60		**1.2**	<10	<5	
17-Jul-23	4490			570	0.024	2.3	**15.1**	<0.05		0.006	0.81	<0.01	5		**1.5**	5.6	4	
10-Oct-23	4561			555	0.018	<0.1	**7.3**	0.07		0.017	0.51	<0.01	2		**1.5**	4.6	3	
16-Apr-24	4598			581	0.017	1.7	**6.8**	<0.05		**0.03**	0.32	<0.01	3		**1.6**	4	4	
15-Jul-24	4668			586	0.011	0.8	2.4	<0.05		**0.039**	0.95	<0.01	2		**1.5**	6.4	<1	
10-Oct-24	2067118			593	0.021	2.4	3.6	<0.05		**0.044**	2.03	<0.01	2		**1.6**	9.5	2	
07-May-25	251086508			532	<0.05	<5	<2	<0.5		**0.242**	<0.5	<0.1	<10		**1.19**	<5	<10	
15-Jul-25	251923701			551	<0.05	<5	<2	<0.5		**0.113**	<0.5	<0.1	<10		**1.28**	<5	<10	
09-Oct-25	252881506			668	<0.005	<0.5	<0.2	<0.05		**0.0335**	0.097	<0.01	1.8		**1.16**	0.96	<1	
TOTAL SAMPLES		1	8	75	75	75	75	75	5	89	71	75	75	4	75	75	75	31
AVERAGE 2025				584	<0.005	<0.5	<0.2	<0.05		0.1295	<0.5	<0.01	<10		1.210	<5	<1	

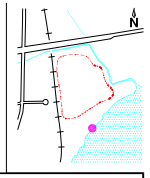
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH17-IVR

UPPER CONFINING LAYER

OBSERVATION WELL
Screen 219.3 - 217.8 masl

FORMERLY BH17-IV
CONVERTED Jul 12



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
26-Apr-16	3184			43	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	30		<5	<10	<5	409
28-Jul-16	3226			72	<0.02	<2	2.3	<0.02		0.02	<1	<0.02	30		<5	2.6	8	555
25-Oct-16	3312			123	<0.02	<2	<2	<0.02		<0.01	2	<0.02	30		<5	<10	<5	728
03-May-17	3351			35	<0.014	<2	2	<0.02		<0.01	<1	<0.02	20		<5	<10	<5	329
26-Jul-17	3419			89	<0.014	<2	4	0.25		0.01	<1	<0.02	40		<5	<10	6	525
25-Oct-17	3493			107	0.018	<2	<2	<0.02		0.02	<1	<0.02	60		<5	<10	<5	584
30-Apr-18	3544			47.6	0.003	0.13	2.92	0.1		**0.07**	0.10	<0.05	4		0.134	0.5	2	
24-Jul-18	3601			62.9	0.008	0.11	2.63	0.07		**0.09**	0.09	<0.05	6		0.6	0.6	5	
24-Oct-18	3668			100	0.007	0.17	2.73	0.03		**0.16**	0.15	<0.05	10		0.19	0.7	3	
30-Apr-19	3720			752	<0.003	0.23	1.4	0.19		**0.30**	0.07	<0.05	55		**1.44**	0.8	3	
25-Jul-19	3776			52.4	0.004	0.12	2	0.07		**0.68**	0.11	<0.05	15		**1.14**	1	3	
30-Oct-19	3846			82.8	0.011	0.14	3.7	0.13		**0.08**	0.17	<0.05	8		0.143	0.8	15	
20-Apr-20	3882			49	0.004	0.14	1.7	<0.01		**0.13**	0.14	<0.05	5		0.063	0.5	7	
15-Jul-20	3940			71.66	0.009	0.17	1.6	0.01		**0.24**	0.14	<0.05	19		0.434	0.8	<2	
06-Oct-20	3983			64.3	0.022	0.25	1.8	0.01		**0.64**	0.15	<0.05	9		0.411	0.6	<2	
22-Apr-21	4055			53.4	0.08	0.43	3.4	0.1		**0.22**	0.09	<0.05	55		0.358	0.6	2	
20-Jul-21	4112			87.2	0.01	0.15	1.8	<0.09		**0.41**	0.11	<0.05	25		0.269	0.6	<2	
07-Oct-21	4167			100	0.018	0.22	3.4	<0.09		<0.03	0.1	<0.05	5		0.2	0.5	4	
19-Apr-22	4233			55.52	0.004	0.19	2	<0.09		**0.04**	0.1	<0.05	7		0.108	0.9	<2	
15-Jul-22	4314			60.1	0.011	0.14	1.8	<0.09		**0.05**	0.09	<0.05	5		0.271	0.7	<2	
11-Oct-22	4384			62.7	0.009	0.14	1.5	<0.09		**0.04**	0.06	<0.05	5		0.343	0.6	<2	
18-Apr-23	4436			48	0.03	2	<2	0.42		**0.081**	<1	<0.1	**1250**		**1.7**	<10	10	
17-Jul-23	4491									**0.049**								
10-Oct-23	4562			93.3	0.014	0.2	**5.4**	0.07		**0.62**	0.16	<0.01	8		0.4	1.5	3	
16-Apr-24	4599			51.4	0.016	0.9	4.6	<0.05		**0.24**	0.36	<0.01	6		0.3	1.1	4	
15-Jul-24	4669			77.2	0.009	0.5	3.7	<0.05		**0.049**	0.41	<0.01	6		0.4	1.5	<1	
10-Oct-24	2067119			74.6	0.018	1	4	<0.05		**0.166**	0.56	<0.01	5		0.5	1.7	1	
07-May-25	251086509	<1	<1	27.8	<0.05	<5	<2	<0.5	<0.5	<0.5	<0.5	<0.1	<10	<0.2	<1	<5	<10	
15-Jul-25	251923702			48.1	0.0111	<0.5	1.18	<0.05		**0.111**	0.099	<0.01	5.1		0.24	0.62	<1	
09-Oct-25	252881507			71.7	0.0069	<0.5	1.19	<0.05		**0.0354**	0.11	<0.01	4.4		0.23	<0.5	<1	
TOTAL SAMPLES		2	2	59	59	59	59	59	2	61	59	59	59	1	59	59	59	15
AVERAGE 2025				49.2	<0.05	<0.5	<2	<0.05		<0.5	<0.5	<0.01	<10		<1	<0.5	<1	

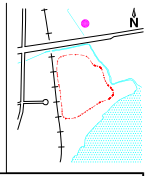
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH18R

PEAT

OBSERVATION WELL
Screen 218.7 - 217.5 masl

FORMERLY BH18
CONVERTED Jul 12



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
28-Sep-15	3099									**0.03**								799
19-Apr-16	3171									0.02								786
19-Jul-16	3210									**0.03**								820
17-Oct-16	3299									<0.01								748
24-Apr-17	3334									<0.01								829
18-Jul-17	3403									0.02								865
17-Oct-17	3476									**0.06**								825
23-Apr-18	3527									**0.16**								
16-Jul-18	3583									**0.07**								
15-Oct-18	3653									**0.12**								
23-Apr-19	3705									**0.75**								
15-Jul-19	3758									**0.95**								
15-Oct-19	3831									**0.11**								
14-Apr-20	3867									**0.72**								
09-Jul-20	3922									**0.42**								
08-Oct-20	3984									**0.74**								
16-Jul-21	4113									**0.52**								
29-Sep-21	4168									**0.50**								
11-Apr-22	4234									**0.26**								
11-Jul-22	4296									**0.29**								
04-Oct-22	4369									**0.26**								
11-Apr-23	4421									**1.76**								
10-Jul-23	4473									**2.66**								
04-Oct-23	4547									**0.445**								
09-Apr-24	4620	<0.5	**10**	220	0.3	4	**10**	**15.7**	<1	**0.513**	1.2	<0.1	**975**	1.2	**3.2**	11	**32**	
08-Jul-24	4651									**0.491**								
02-Oct-24	2064054									**0.177**								
16-Apr-25	250864109	<1	1.74	180	<0.05	<5	<2	1.11	0.568	<0.5	<0.5	<0.1	**135**	<0.2	**1.09**	<5	<10	
08-Jul-25	251839205			327	0.306	<5	**5.41**	**32.7**		**1.03**	<0.5	**0.123**	**8170**		**3.96**	6.84	**65.1**	
06-Oct-25	252881503			183	<0.05	<5	<2	<0.5		**0.696**	<0.5	<0.1	**206**		**4.07**	<5	<10	
TOTAL SAMPLES		2	11	21	21	21	21	21	5	76	18	21	21	5	21	21	21	31
AVERAGE 2025				230	0.102	<5	<2	11.27		0.575	<0.5	<0.1	2837		3.040	<5	21.70	

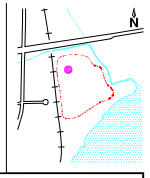
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH20R

REFUSE

LEACHATE WELL
Screen 219.8 - 218.3 masl

FORMERLY BH20
CONVERTED Nov 90



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
25-Apr-16	3185									**0.55**								1950
25-Jul-16	3227									**0.37**								1840
24-Oct-16	3313									**0.39**								1920
01-May-17	3352									**0.51**								1780
24-Jul-17	3420									**0.55**								1880
23-Oct-17	3494									**0.55**								2001
02-May-18	3545									**0.29**								
26-Jul-18	3602									**0.37**								
22-Oct-18	3669									**0.61**								
29-Apr-19	3721									**0.36**								
23-Jul-19	3777									**0.49**								
28-Oct-19	3847									**0.48**								
16-Apr-20	3883									**0.54**								
13-Jul-20	3941									**0.56**								
07-Oct-20	3985									**0.56**								
21-Apr-21	4057									**0.74**								
16-Jul-21	4114									**0.54**								
01-Oct-21	4169									**0.53**								
21-Apr-22	4235									**0.52**								
20-Jul-22	4315									**0.30**								
13-Oct-22	4385									**0.40**								
19-Apr-23	4437									**0.94**								
19-Jul-23	4492									**0.512**								
16-Oct-23	4563									**0.512**								
17-Apr-24	4600									**0.76**								
18-Jul-24	4670									**0.69**								
10-Oct-24	2067120									**0.502**								
08-May-25	251086510									**0.548**								
22-Jul-25	252003105									**0.564**								
22-Oct-25	253042604			647	<0.05	5.74	<5	3.09		**0.595**	<0.5	<0.1	42		**5.39**	18.7	<30	
TOTAL SAMPLES		0	8	20	20	20	20	20	4	70	16	20	20	4	20	20	20	31
AVERAGE 2025										0.5690								

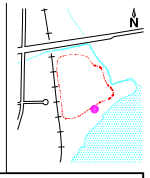
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH21-IR

SAND AQUIFER

OBSERVATION WELL
Screen 216.0 - 215.2 masl

FORMERLY BH21-I
CONVERTED Mar 95



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
26-Apr-16	3186									**0.04**								1230
28-Jul-16	3228			620	<0.02	<2	1	<0.02		**0.06**	<1	0.06	60		**6**	6.9	<5	1040
26-Oct-16	3314									**0.05**								1150
02-May-17	3353									**0.05**								1010
26-Jul-17	3421			499	<0.014	<2	<2	0.09		**0.05**	<1	0.04	50		<5	<10	6	936
24-Oct-17	3495									**0.07**								1017
30-Apr-18	3546									**0.21**								
23-Jul-18	3603			499	0.004	1.5	1.52	0.09		**0.26**	0.17	<0.05	15		**1.579**	2.4	4	
23-Oct-18	3670									**0.65**								
01-May-19	3722									**0.37**								
25-Jul-19	3778			383	<0.003	0.95	1	0.05		**0.95**	0.17	<0.05	9		0.831	1.5	2	
30-Oct-19	3848									**0.26**								
17-Apr-20	3884									**0.29**								
14-Jul-20	3942			307	<0.003	1.1	0.5	0.02		**0.40**	0.09	<0.05	7		0.562	1.2	<2	
07-Oct-20	3398									**0.41**								
22-Apr-21	4058									**3.48**								
16-Jul-21	4115			291	<0.003	1.04	1.1	<0.09		**4.40**	0.08	<0.05	13		0.661	1.1	6	
07-Oct-21	4170									**0.59**								
20-Apr-22	4236									**1.58**								
18-Jul-22	4316			279	<0.003	0.93	<0.2	<0.09		**0.24**	0.07	<0.05	5		0.642	1	<2	
11-Oct-22	4386									**3.90**								
17-Apr-23	4438									**0.465**								
17-Jul-23	4493									**2.51**								
11-Oct-23	4564									**1.26**								
17-Apr-24	4601									**0.712**								
17-Jul-24	4671			199	0.129	1.7	1.1	<0.05		**0.593**	1.96	0.02	5		0.8	5.8	<1	
10-Oct-24	2067121									**2.85**								
07-May-25	251086511									**0.197**								
16-Jul-25	251923703			223	<0.05	<5	<2	<0.5		**0.776**	<0.5	<0.1	<10		<1	<5	<10	
08-Oct-25	252881501			186	<0.05	<5	<2	<0.5		**0.217**	<0.5	<0.1	<10		<1	<5	<10	
TOTAL SAMPLES		30	10	37	37	37	37	37	33	81	33	37	37	4	37	37	38	31
AVERAGE 2025				205	<0.05	<5	<2	<0.5		0.3967	<0.5	<0.1	<10		<1	<5	<10	

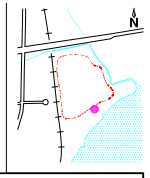
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH21-IIR

PEAT

OBSERVATION WELL

FORMERLY BH21-II
CONVERTED Mar 19



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
26-Apr-16	3187									**0.27**								1070
28-Jul-16	3229									**0.30**								1050
26-Oct-16	3315									**0.04**								1010
02-May-17	3354									**0.10**								691
26-Jul-17	3422									**0.16**								1020
24-Oct-17	3496									**0.15**								1035
30-Apr-18	3547									**0.21**								
23-Jul-18	3604									**0.89**								
23-Oct-18	3671									**1.18**								
01-May-19	3723									**0.59**								
25-Jul-19	3779									**0.34**								
30-Oct-19	3849									**0.25**								
17-Apr-20	3885									**0.22**								
14-Jul-20	3943									**0.36**								
07-Oct-20	3987									**0.31**								
22-Apr-21	4059									**0.33**								
16-Jul-21	4116									**0.28**								
07-Oct-21	4171									**0.28**								
20-Apr-22	4237									**0.48**								
18-Jul-22	4317									**0.27**								
11-Oct-22	4387									**0.26**								
17-Apr-23	4439									**0.326**								
17-Jul-23	4494									**0.331**								
11-Oct-23	4565									**0.062**								
17-Apr-24	4602									**0.555**								
17-Jul-24	4672									**0.531**								
10-Oct-24	2067122									**0.518**								
07-May-25	251086512									**0.674**								
16-Jul-25	251923704									**0.715**								
08-Oct-25	252881502			368	<0.05	<5	<2	<0.5		**1.84**	<0.5	<0.1	21		**2.05**	<5	<10	
TOTAL SAMPLES		29	12	13	14	13	13	14	32	68	10	15	13	4	13	13	13	30
AVERAGE 2025										1.076								

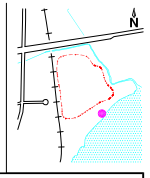
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH22-IR

SAND AQUIFER

OBSERVATION WELL
Screen 216.8 - 216.1 masl

FORMERLY BH22-I
CONVERTED Jul 88



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
26-Apr-16	3188			115	<0.02	<2	<2	<0.02		**0.06**	<1	<0.02	40		<5	<10	<5	553
28-Jul-16	3230			135	<0.02	<2	0.3	<0.02		**0.07**	<1	<0.02	40		<5	3.7	<5	572
25-Oct-16	3316			119	<0.02	<2	<2	<0.02		**0.03**	2	<0.02	30		<5	<10	<5	538
02-May-17	3355			121	<0.014	<2	<2	<0.02		**0.04**	<1	<0.02	40		<5	<10	<5	523
26-Jul-17	3423			133	<0.014	<2	<2	<0.02		**0.05**	<1	<0.02	40		<5	<10	<5	538
25-Oct-17	3497			146	<0.014	<2	<2	<0.02		**0.07**	<1	<0.02	**80**		<5	<10	<5	550
30-Apr-18	3548			139	0.005	0.14	1.12	0.08		**0.42**	0.06	<0.05	<1		0.784	0.7	2	
23-Jul-18	3605			138	0.014	0.14	2.05	0.11		**0.30**	0.05	<0.05	5		0.869	0.8	6	
24-Oct-18	3672			150	<0.003	0.21	2.89	0.08		**0.34**	0.05	<0.05	1		**1.06**	1	5	
30-Apr-19	3724			205	0.006	1.27	1.7	0.43		**0.45**	0.16	<0.05	**259**		**1.1**	3.3	4	
26-Jul-19	3780			115	<0.003	0.15	1	0.06		**0.32**	<0.04	<0.05	3		0.807	0.8	6	
30-Oct-19	3850			139	<0.003	0.18	1.5	0.1		**0.24**	0.04	<0.05	6		0.878	0.8	11	
20-Apr-20	3886			142	0.003	0.13	0.2	<0.01		**0.25**	0.16	<0.05	<1		0.81	0.7	3	
15-Jul-20	3944			146	0.003	0.2	3.7	0.03		**0.46**	0.07	<0.05	3		**0.906**	0.8	3	
06-Oct-20	3988			128	<0.003	0.17	0.7	0.03		**0.38**	0.08	<0.05	2		0.85	0.7	9	
22-Apr-21	4060			126	0.006	0.39	<0.2	0.09		**0.43**	0.1	<0.05	**89**		0.869	0.8	<2	
20-Jul-21	4117			122	0.003	0.11	0.8	<0.09		**0.39**	<0.04	<0.05	6		0.866	0.7	3	
07-Oct-21	4172			127	0.02	0.28	1.3	<0.09		**1.01**	0.05	<0.05	7		0.859	1	3	
19-Apr-22	4238			110	<0.003	0.15	0.6	<0.09		**0.67**	0.08	<0.05	1		0.866	0.9	<2	
15-Jul-22	4318			105	<0.003	0.31	0.5	<0.09		**0.35**	<0.04	<0.05	9		**0.945**	1	<2	
11-Oct-22	4388			95.6	<0.003	0.16	1.1	<0.09		**0.58**	<0.04	<0.05	<1		0.804	0.8	<2	
17-Apr-23	4440			180	0.05	7	**15**	**8.12**		**0.697**	<1	<0.1	**5210**		**4.2**	<10	**24**	
17-Jul-23	4495			112	0.022	1.7	1.3	<0.05		**0.347**	0.47	<0.01	2		**1.2**	5.3	2	
10-Oct-23	4566			105	0.017	0.1	2.1	0.06		**0.254**	0.25	<0.01	2		**1.2**	4.6	2	
16-Apr-24	4603			101	0.032	0.4	2	0.07		**0.34**	0.39	0.02	6		**1.2**	4.3	5	
15-Jul-24	4673			110	0.015	0.6	1	<0.05		**0.248**	0.34	<0.01	2		**1.2**	4.4	1	
10-Oct-24	2067123			96.1	0.021	1.3	1.2	<0.05		**0.399**	0.81	<0.01	3		**1.1**	5.5	1	
07-May-25	251086513			106	<0.05	<5	<2	<0.5		**0.218**	<0.5	<0.1	<10		<1	<5	<10	
15-Jul-25	251923705			104	<0.05	<5	<2	<0.5		**0.347**	<0.5	<0.1	<10		<1	<5	<10	
06-Oct-25	252881504			124	<0.005	<0.5	<0.2	<0.05		**0.396**	0.147	<0.01	2.2		0.82	0.67	<1	
TOTAL SAMPLES		0	7	75	75	75	75	75	4	86	71	75	75	4	75	75	76	31
AVERAGE 2025				111	<0.005	<0.5	<0.2	<0.05		0.3203	<0.5	<0.01	<10		<1	<5	<1	

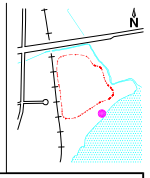
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH22-IIR

PEAT

OBSERVATION WELL

FORMERLY BH22-II
CONVERTED May 19



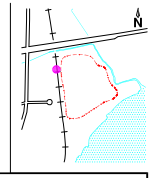
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
26-Apr-16	3189			88	<0.02	<2	<2	0.03		**0.41**	<1	<0.02	40		<5	<10	<5	627
28-Jul-16	3231			109	0.03	<2	1.5	0.02		**0.03**	<1	<0.02	40		<5	2.8	9	589
25-Oct-16	3317			125	0.03	<2	<2	<0.02		**0.08**	2	<0.02	50		<5	<10	10	711
02-May-17	3356			108	0.024	<2	<2	0.06		**0.20**	<1	<0.02	50		<5	<10	10	577
26-Jul-17	3424			132	0.02	<2	<2	0.17		**0.78**	<1	<0.02	70		<5	<10	6	626
25-Oct-17	3498			124	0.031	<2	<2	0.05		**0.13**	<1	<0.02	70		<5	<10	6	559
30-Apr-18	3549			71.4	0.005	0.16	1.19	0.12		**0.29**	0.09	<0.05	16		0.261	0.4	6	
23-Jul-18	3606			101	0.004	0.3	1.07	0.1		**0.17**	0.08	<0.05	21		0.115	0.4	7	
24-Oct-18	3673			99.87	0.013	0.23	2.86	0.1		**0.36**	0.10	<0.05	22		0.33	0.5	9	
30-Apr-19	3725			148	<0.003	0.14	1.8	0.07		**0.63**	<0.04	<0.05	6		**0.906**	0.7	2	
26-Jul-19	3781			104	<0.003	0.22	0.9	0.09		**0.60**	0.2	<0.05	32		0.272	0.5	6	
30-Oct-19	3851			104	0.012	0.32	1.5	0.26		**0.28**	0.1	<0.05	**88**		0.389	0.5	9	
20-Apr-20	3887			123	<0.003	0.22	0.6	<0.01		**0.92**	0.18	<0.05	19		0.464	0.5	3	
15-Jul-20	3945			131	<0.003	0.21	0.6	0.06		**0.56**	0.16	<0.05	25		0.415	0.7	4	
06-Oct-20	3989			106	0.003	0.29	0.7	0.08		**0.83**	0.17	<0.05	25		0.503	0.6	3	
22-Apr-21	4061			116	<0.003	0.51	1	0.18		**1.52**	0.12	<0.05	**116**		0.604	0.8	4	
20-Jul-21	4118			121	0.007	0.36	0.8	0.1		**1.02**	0.14	<0.05	63		0.569	0.7	7	
07-Oct-21	4173			112	0.013	0.53	1.2	0.12		**0.28**	0.24	<0.05	**85**		0.215	0.5	4	
19-Apr-22	4239			102	0.008	0.28	2.6	0.11		**1.10**	0.19	<0.05	47		0.412	0.6	3	
15-Jul-22	4319			117	<0.003	0.29	0.7	<0.09		**0.72**	0.14	<0.05	31		0.299	0.6	<2	
11-Oct-22	4389			101	<0.003	0.2	0.7	<0.09		**0.38**	0.08	<0.05	26		0.144	0.4	2	
17-Apr-23	4441			155	0.08	5	<2	2.62		**0.76**	<1	<0.1	**3000**		**2**	<10	20	
17-Jul-23	4496									**1.29**								
10-Oct-23	4567			125	0.008	0.2	5	0.1		**1.67**	0.4	<0.01	26		0.8	3.9	5	
16-Apr-24	4604			109	0.014	0.8	2.9	<0.05		**1.21**	0.16	0.01	20		0.6	3	6	
15-Jul-24	4674			127	<0.005	0.7	2	<0.05		**1.56**	0.54	<0.01	27		0.7	4.5	2	
10-Oct-24	2067124			113	0.006	0.9	2.9	<0.05		**0.453**	0.49	<0.01	16		0.3	6.1	1	
07-May-25	251086514			79.4	<0.05	<5	<2	<0.5		**0.457**	<0.5	<0.1	11.3		<1	<5	<10	
15-Jul-25	251923706			116	<0.05	<5	<2	<0.5		**0.467**	<0.5	<0.1	33.3		<1	<5	<10	
06-Oct-25	252881505			171	0.0062	<0.5	0.24	0.052		**0.334**	0.107	<0.01	25.9		0.33	<0.5	3.1	
TOTAL SAMPLES		1	12	79	79	79	79	79	5	92	75	79	79	4	79	79	79	31
AVERAGE 2025				122	<0.05	<0.5	<2	<0.5		0.4193	<0.5	<0.01	23.5		<1	<0.5	<10	

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH23

PEAT

OBSERVATION WELL
Screen 219.7 - 218.2 masl



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
07-Nov-94	100724		2	158	<1.0	<1	<1	**10**		**0.06**	<1	<1	68		<1	2	3	
26-Apr-95	100725		<1	117	<1	5	**6**	**30**	1	**0.03**		<1	**167**	<1	**2.0**	3	2	
16-Aug-95	100726		4	208	<1	2	<1	**15**	<1	**0.11**		<1	**85**	<1	**2.0**	<2	<1	534
25-Oct-95	100727		2	145	<1	<1	<1	<5	<1	**0.12**		<1	<5	<1	<1	<2	<1	454
17-Apr-96	100728			110	<1	<1	<1	<5	<1	<0.2		<1	<5	<1	<1	<2	<1	
19-Aug-98	100730									**0.18**								462
17-Aug-99	100731									**0.12**								
16-Aug-00	100732		<2	140	<5	<10	<10	<1			<5	<10	70		<20	<20	<20	
18-Jul-01	100733																	441
17-Jul-02	100734		3	150	<5	<10	<10	<1			<5	<10	60		<20	<20	<20	433
22-Jul-03	102529																	428
14-Jul-04	1217																	510
24-Jul-08	87243																	490
23-Jul-09	B09-225																	478
22-Jul-10	2090									**0.30**								
22-Jul-11	2253									**0.31**								
25-Jul-12	2454									**0.17**								
31-Jul-13	2633									**0.26**								
21-Jul-14	2844									**0.35**								
20-Jul-15	3044									**0.31**								506
17-Jul-16	3211									**0.25**								514
17-Jul-17	3404									**0.44**								510
16-Jul-18	3584									**1.42**								
17-Jul-19	3759									**2.26**								
08-Jul-20	3923									**0.46**								
07-Jul-21	4119									**0.51**								
12-Jul-22	4297									**0.52**								
11-Jul-23	4474									**0.668**								
10-Jul-24	4652									**0.443**								
08-Jul-25	251839206			247	<0.05	<5	<5	2.46		**1.43**	<0.5	<0.1	**1530**		<1	<5	<30	
TOTAL SAMPLES AVERAGE 2025		0	8	19	19	19	19	19	4	44	15	19	19	4	19	19	19	12

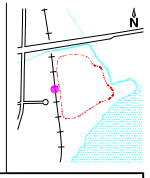
all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH24R

PEAT

OBSERVATION WELL
Screen 220.9 - 220.1 masl

FORMERLY BH24
CONVERTED Apr 95



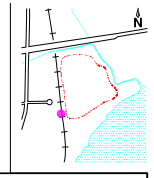
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
19-Apr-90	100744									0.02								
26-Apr-95	100745		**11**	212	<1	2	<1	**12**	<1	**0.12**		**3.35**	**131**	<1	<1	<2	<1	
16-Aug-95	100746		**16**	203	<1	<1	<1	<5	<1	**0.78**		<1	60	<1	<1	<2	<1	616
25-Oct-95	100747		**10**	162	<1	<1	<1	**25**	<1	**0.22**		<1	40	<1	<1	<2	<1	604
17-Apr-96	100748			140	<1	<1	<1	<5	<1	**0.67**		<1	<5	<1	<1	<2	<1	
19-Aug-98	100750									**0.83**								490
17-Aug-99	100751									**0.14**								
16-Aug-00	100752		<2	190	<5	<10	<10	<1			<5	<10	**90**		<20	<20	<20	
18-Jul-01	100753																	462
17-Jul-02	100754		5	140	<5	<10	<10	<1			<5	<10	<50		<20	<20	<20	452
22-Jul-03	102530																	440
14-Jul-04	1218																	510
24-Jul-08	87243																	497
23-Jul-09	B09-226																	554
22-Jul-10	2091									**0.38**								
21-Jul-11	2254									**0.39**								
25-Jul-12	2455									**0.45**								
31-Jul-13	2634									**0.49**								
21-Jul-14	2845									**0.37**								
20-Jul-15	3045									**0.39**								596
17-Jul-16	3212									**0.39**								585
18-Jul-17	3405									**0.44**								553
16-Jul-18	3585									**0.63**								
17-Jul-19	3760									**1.09**								
08-Jul-20	3924									**0.46**								
07-Jul-21	4120									**0.52**								
12-Jul-22	4298									**0.51**								
11-Jul-23	4475									**0.543**								
10-Jul-24	4653									**0.301**								
08-Jul-25	251839207			240	<0.05	<5	<5	<0.5		**0.503**	<0.5	<0.1	**108**		<1	<5	<30	
TOTAL SAMPLES AVERAGE 2025		0	5	7	7	7	7	7	4	30	3	7	7	4	7	7	7	12

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH25

SAND AQUIFER

OBSERVATION WELL
Screen 221.4 - 220.6 masl



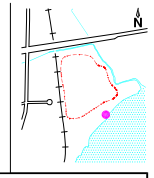
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
16-Aug-95	100781		<1	332	<1	2	4	**10**	<1	0.004		<1	**170**	<1	**2.0**	<2	<1	504
25-Oct-95	100782		<1	306	<1	<1	<1	<5	<1	0.02		<1	**410**	<1	<1	<2	<1	540
19-Aug-98	100785									**0.10**								529
17-Aug-99	100786									<0.01								
16-Aug-00	100787		<2	330	<5	<10	**30**	<1			<5	<10	<50		<20	<20	<20	
18-Jul-01	100788																	523
17-Jul-02	100789		<2	340	<5	<10	<10	<1			<5	<10	<50		<20	<20	<20	547
23-Jul-03	102531																	551
14-Jul-04	1219																	530
24-Aug-05	58243			333	<0.1	<2	2	<0.5		**6.57**	<1	<5	<10		<0.1	<10	10	
31-Jul-06	67313			356	<0.1	<2	<2	<0.1		**2.04**	0.9	<5	<10		<5	<10	11	
16-Aug-07	78163			358	<0.02	<2	<2	<0.02		**3.86**	<0.2	<5	<10		<5	<10	15	
25-Jul-08	87253			307	<0.02	<2	<2	<0.02		**1.35**	0.4	<5	20		<5	<10	8	556
24-Jul-09	B09-227			300	<0.02	<2	<2	<0.02		**0.47**	2.0	<0.02	<10		<5	<10	8	572
23-Jul-10	2092			361	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	<10		<5	<10	5	
22-Jul-11	2255			355	0.02	<2	2	0.15		**0.09**	<1	<0.02	30		<5	<10	7	
25-Jul-12	2456			374	<0.1	5	<2	<1		**0.03**	<4	<0.1	17		<0.5	<3	12	
31-Jul-13	2635			379	0.03	<2	<2	0.03		0.02	<1	<0.02	40		<5	<10	<5	
21-Jul-14	2846			414	<0.02	<2	<2	0.04		<0.01	<1	<0.02	30		0.2	<10	12	
21-Jul-15	3046			396	<0.02	<2	0.6	<0.02		0.02	<1	<0.02	30		0.2	<10	<5	649
17-Jul-16	3213			409	0.03	<2	<2	<0.02		**0.03**	<1	<0.02	40		<5	<10	<5	683
17-Jul-17	3406			374	<0.014	<2	<2	0.05		0.01	<1	<0.02	40		<5	<10	<5	612
17-Jul-18	3586			398	0.027	0.14	2.62	0.11		**1.29**	0.06	<0.05	5		0.156	0.6	8	
16-Jul-19	3761			409	0.015	0.1	2	0.07		**0.43**	0.07	<0.05	2		0.178	0.6	3	
09-Jul-20	3925			426	0.001	0.14	1.2	0.03		**0.17**	0.09	<0.05	5		0.255	0.7	3	
07-Jul-21	4121			379	0.019	0.32	1.8	<0.09		**0.40**	0.07	<0.05	55		0.273	0.5	4	
12-Jul-22	4299			435	0.03	0.24	1.1	<0.09		**1.26**	0.06	<0.05	29		0.305	0.4	<2	
11-Jul-23	4476			464	0.019	2.9	3.4	0.11		**0.442**	0.85	0.02	2		0.6	2.2	1	
10-Jul-24	4654			444	0.007	1	2.3	<0.05		**0.352**	0.59	<0.01	4		0.7	2	5	
08-Jul-25	251839208			412	0.0097	<0.5	0.91	<0.05		**1.04**	0.076	<0.02	5.8		0.3	0.72	3.7	
TOTAL SAMPLES AVERAGE 2025		0	8	38	38	38	38	38	3	47	35	38	38	3	38	38	38	12

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH26

SAND AQUIFER

OBSERVATION WELL
Screen 220.6 - 216.1 masl



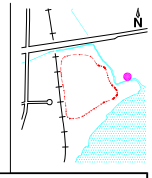
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
26-Apr-16	3190			57	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	30		<5	<10	<5	472
29-Jul-16	3232			79	<0.02	<2	2.2	<0.02		0.01	<1	<0.02	30		<5	2.8	**27**	540
24-Aug-16	B1602561																<5	
25-Oct-16	3318			81	<0.02	<2	<2	<0.02		<0.01	2	<0.02	30		<5	<10	14	678
02-May-17	3357			49	<0.014	<2	<2	<0.02		<0.01	<1	<0.02	30		<5	<10	<5	386
26-Jul-17	3425			70	<0.014	<2	<2	<0.02		0.01	<1	<0.02	30		<5	<10	<5	477
25-Oct-17	3499			175	0.023	<2	4	0.21		0.01	<1	<0.02	**90**		<5	<10	<5	1021
30-Apr-18	3550			58.3	0.006	0.24	1.43	0.05		**0.12**	0.14	<0.05	8		0.087	0.3	3	
23-Jul-18	3607			64.7	0.028	0.21	3.62	0.14		**0.04**	0.11	<0.05	9		0.093	0.3	17	
24-Oct-18	3674			174	0.008	0.33	3.91	0.07		**0.04**	0.20	<0.05	6		0.15	0.6	5	
30-Apr-19	3726			87.4	<0.003	0.17	1.1	0.09		**0.07**	0.08	<0.05	17		0.252	0.3	9	
26-Jul-19	3782			38.8	<0.003	0.17	1.9	0.05		<0.03	0.1	<0.05	6		0.086	0.3	3	
30-Oct-19	3852			124	0.018	0.38	2.6	0.11		<0.03	0.18	<0.05	26		0.253	0.6	14	
20-Apr-20	3888			44.9	0.004	0.25	1.4	<0.01		<0.03	0.18	<0.05	8		0.111	0.4	3	
15-Jul-20	3946			63.2	0.009	0.22	1.9	0.03		**0.04**	0.14	<0.05	7		0.071	0.5	2	
06-Oct-20	3990			67.9	0.005	0.37	1.7	0.01		**0.06**	0.12	<0.05	5		0.071	0.3	<2	
22-Apr-21	4062			54.7	<0.003	0.34	1.9	<0.09		**0.06**	0.18	<0.05	10		0.076	0.4	2	
20-Jul-21	4122			63.2	0.007	0.18	2.7	<0.09		**0.05**	0.11	<0.05	10		0.114	0.4	3	
07-Oct-21	4174			64.9	0.02	0.38	**6**	<0.09		<0.03	0.21	<0.05	3		0.092	0.5	4	
19-Apr-22	4240			62.9	0.007	0.26	1.2	<0.09		<0.03	0.15	<0.05	12		0.086	0.5	4	
15-Jul-22	4320			60.6	0.007	0.2	1.9	<0.09		<0.03	0.14	<0.05	7		0.077	0.5	<2	
11-Oct-22	4390			62.8	0.005	0.21	2	<0.09		<0.03	0.13	<0.05	7		0.086	0.4	<2	
17-Apr-23	4442			54	<0.02	<2	<2	0.25		**0.145**	<1	<0.1	**220**		0.4	<10	<5	
17-Jul-23	4497			66	0.024	1.3	2.5	<0.05		0.014	0.48	<0.01	13		0.4	1.4	2	
10-Oct-23	4568			82.2	0.02	0.4	3.8	0.09		**0.083**	0.4	<0.01	16		0.3	1.1	3	
16-Apr-24	4605			58.3	0.016	0.8	2.8	<0.05		**0.025**	0.29	0.02	24		0.3	0.8	10	
15-Jul-24	4675			102	0.023	0.7	2.3	<0.05		0.016	0.64	<0.01	15		0.4	1.5	<1	
10-Oct-24	2067125			85.3	0.042	0.7	2.9	<0.05		**0.021**	1.15	<0.01	8		0.4	2	<1	
07-May-25	251086515			62.3	0.0119	<0.5	1.02	0.06		**0.0371**	0.18	<0.01	13.7		0.2	<0.5	2.8	
15-Jul-25	251923707			67.2	0.0098	<0.5	1.05	<0.05		0.0179	0.136	<0.01	6		<0.1	<0.5	<1	
TOTAL SAMPLES		1	9	80	80	80	80	80	5	93	76	80	80	4	80	80	83	31
AVERAGE 2025				64.8	0.0109	<0.5	1.04	<0.05		0.02750	0.16	<0.01	9.9		0.1	<0.5	1.4	

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH28-II

FILL

OBSERVATION WELL
Screen 220.4 - 218.9 masl



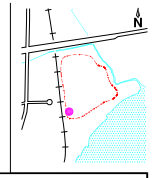
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
31-Oct-08	810313																	595
23-Apr-09	0911682																	343
22-Jul-09	B09-239			224	<0.02	<2	<2	<0.02		**3.82**	1.6	<0.02	30		<5	<10	16	569
30-Oct-09	0934211																	513
23-Apr-10	2034									**1.30**								
23-Jul-10	2094			272	0.08	2	<2	0.1		**0.84**	<1	<0.02	20		<5	<10	<5	
21-Oct-10	2139									**2.25**								
13-Apr-11	2216									**0.31**								
19-Oct-11	2314									**0.34**								
27-Apr-12	2381									**1.56**								
25-Jul-12	2458			256	<0.1	9	<2	<1		**1.78**	<4	<0.1	25		**2.2**	15	14	
16-Oct-12	2524									**0.74**								
25-Apr-13	06033									**0.10**								
31-Jul-13	2637			261	0.05	<2	<2	0.2		**3.96**	<1	<0.02	60		<5	<10	<5	
10-Oct-13	2706									**1.28**								
30-Apr-14	2786									**0.06**								
23-Jul-14	2848			282	<0.02	<2	<2	0.16		**1.70**	<1	<0.02	40		0.9	<10	17	
29-Sep-14	2899									**0.80**								
17-Apr-15	2982									**0.17**								333
24-Sep-15	3129			143	<0.02	4	<2	0.18		**7.05**	1	<0.02	50		**1.8**	10	<5	731
05-Oct-16	3274			293	<0.02	3	<2	<0.02		**4.96**	<1	<0.02	50		**4.5**	<10	<5	684
12-Oct-17	3452			186	<0.014	<2	<2	<0.02		**2.28**	<1	<0.02	**110**		<5	10	<5	768
10-Oct-18	3618			79.1	0.032	3.7	0.64	0.07		**1.57**	0.48	<0.05	6		**1.83**	16.1	4	
21-Oct-19	3806			279	0.019	0.81	2	0.18		**0.43**	0.29	<0.05	4		0.784	5.2	**99**	
05-Oct-20	4012			240	0.005	2.88	2.2	0.16		**5.85**	0.31	<0.05	12		0.626	4.5	6	
05-Oct-21	4186			177	0.042	2.99	1.3	0.7		**2.30**	0.29	<0.05	28		**1.07**	7	**48**	
27-Sep-22	4344			254	0.015	2.94	2.6	0.22		**8.48**	0.36	<0.05	12		**1.4**	10.7	**46**	
26-Sep-23	4521			208	0.034	5.2	1.9	0.18		**10.6**	0.61	<0.01	18		**1.3**	13.4	**21**	
23-Sep-24	2061020			35.5	0.023	10.1	2.1	0.2		**5.07**	1.44	<0.01	5		**1.8**	14	16	
01-Oct-25	252802301			433	<0.05	<5	<2	<0.5		**5.03**	<0.5	<0.1	11.4		**1.75**	6.1	<10	
TOTAL SAMPLES		0	9	37	37	37	37	37	4	52	33	37	37	4	37	37	37	26
AVERAGE 2025																		

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH29-I

SAND AQUIFER

OBSERVATION WELL
Screen 219.5 - 218.4 masl



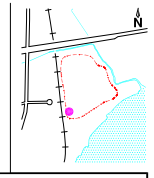
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
25-Apr-16	3191			198	<0.02	<2	<2	0.03		<0.01	<1	<0.02	40		<5	<10	5	603
25-Jul-16	3233			211	<0.02	<2	0.9	<0.02		0.01	<1	<0.02	50		<5	5.1	10	576
24-Oct-16	3319			182	<0.02	<2	<2	<0.02		<0.01	2	<0.02	40		<5	<10	5	547
26-Apr-17	3335			208	<0.014	<2	<2	<0.02		<0.01	<1	<0.02	50		**1.2**	<10	<5	544
24-Jul-17	3428			210	<0.014	<2	<2	<0.02		<0.01	<1	<0.02	50		<5	<10	<5	581
17-Oct-17	3477			202	<0.014	<2	<2	0.19		**0.03**	<1	<0.02	**90**		<5	<10	6	572
23-Apr-18	3528			224	0.004	0.14	1.91	0.11		**0.25**	0.11	<0.05	2		**1.3**	1.6	8	
17-Jul-18	3587			209	0.017	0.12	2.43	0.1		**0.97**	0.06	<0.05	6		**1.14**	1.4	6	
16-Oct-18	3654			208	<0.003	0.11	1.29	0.04		**0.62**	0.06	<0.05	<1		**0.95**	1.1	3	
24-Apr-19	3706			203	0.021	0.09	1.7	0.05		**0.37**	0.08	<0.05	3		**1.29**	1.4	3	
16-Jul-19	3762			230	<0.003	0.11	0.8	0.02		**0.20**	0.09	<0.05	8		**1.05**	1.3	<2	
16-Oct-19	3832			206	0.003	0.14	1.5	0.08		**0.13**	0.07	<0.05	2		**0.967**	1	7	
15-Apr-20	3868			186	<0.003	0.11	1.7	0.07		**0.05**	0.11	<0.05	4		**1.2**	1.3	7	
08-Jul-20	3926			189	0.006	0.12	2.9	0.13		**0.17**	0.07	<0.05	<1		**1.05**	1.3	3	
06-Oct-20	3399			176	0.017	0.1	1	0.02		**0.31**	0.06	<0.05	1		**0.954**	1.1	<2	
14-Apr-21	4065			194	0.009	0.21	1.5	0.05		<0.01	0.07	<0.05	10		**1.08**	1.3	6	
12-Jul-21	4125			205	0.006	0.14	1.6	<0.09		**0.94**	0.06	<0.05	6		**1.07**	1.3	14	
28-Sep-21	4177			217	0.005	0.21	1.6	<0.09		**0.26**	<0.04	<0.05	2		**0.918**	1.1	3	
12-Apr-22	4243			208	0.011	0.22	1.3	0.13		**1.25**	0.06	<0.05	71		**1.8**	1.4	<2	
12-Jul-22	4300			205	0.021	0.12	0.4	<0.09		**0.47**	<0.04	<0.05	3		0.878	0.7	<2	
04-Oct-22	4370			225	<0.003	0.18	1.5	<0.09		**0.07**	0.05	<0.05	2		**0.92**	1.1	<2	
11-Apr-23	4422			208	0.01	<2	3	0.88		**0.247**	<1	<0.1	**970**		**2.1**	<10	7	
10-Jul-23	4477			229	0.026	4.4	1.5	0.11		**0.787**	0.53	<0.01	71		**1.8**	4.6	2	
02-Oct-23	4548			222	0.036	0.1	3.7	0.12		0.016	0.45	<0.01	2		**1.3**	3.7	3	
09-Apr-24	4621	<0.5	1	252	<0.1	0.1	<0.2	1.3	<1	**0.845**	<0.05	**0.36**	**326**	<0.5	**1.8**	2.3	9	
08-Jul-24	4655			229	0.037	1	1.4	<0.05		**0.091**	0.5	<0.01	1		**1.7**	3.8	4	
01-Oct-24	2064055									**0.307**								
14-Apr-25	250864110	0.35	0.55	53.6	0.0063	<0.5	0.85	0.266	0.56	<0.05	0.647	<0.01	14	<0.02	0.6	0.77	4.5	
08-Jul-25	251839201			212	0.0217	<0.5	0.81	0.264		**0.35**	0.073	<0.02	**189**		**1.51**	1.65	4	
08-Oct-25	252881510			261	0.0079	<0.5	0.29	<0.05			0.074	<0.01	<1		**1.06**	0.98	1.1	
TOTAL SAMPLES		2	2	33	33	33	33	33	2	33	33	33	33	2	33	33	33	9
AVERAGE 2025				176	0.0120	<0.5	0.65	0.177		0.175	0.265	<0.01	68		1.057	1.13	3.2	

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH29-II

REFUSE

OBSERVATION WELL
Screen 222.7 - 221.4 masl



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
22-Apr-15	3004			257	<0.02	<2	<2	0.31		**0.09**	2	<0.02	60		**4.6**	<10	<5	749
27-Jul-15	3067			306	<0.02	<2	<2	0.02		**0.09**	<1	<0.02	60		**4.5**	<10	9	838
05-Oct-15	3121			317	0.06	<2	<2	0.06		**0.03**	<1	<0.02	60		**10**	<10	10	781
25-Apr-16	3192			183	<0.02	<2	<2	0.11		**0.11**	<1	<0.02	60		**7**	<10	8	533
26-Jul-16	3234			288	<0.02	2	0.3	0.02		**0.04**	<1	<0.02	70		**9**	7	6	665
24-Oct-16	3320			279	0.03	<2	<2	<0.02		**0.03**	3	<0.02	60		**5**	<10	<5	821
26-Apr-17	3336			223	<0.014	2	<2	<0.02		**0.15**	<1	<0.02	70		**3.2**	<10	17	558
24-Jul-17	3429			287	<0.014	<2	<2	0.22		**0.04**	<1	<0.02	**80**		**11**	<10	12	776
17-Oct-17	3478			206	0.054	<2	<2	<0.02		**0.03**	<1	<0.02	**90**		<5	<10	16	688
23-Apr-18	3529			264	<0.003	0.78	1.38	0.15		**0.17**	0.27	<0.05	15		**3.1**	1.6	3	
17-Jul-18	3588			272	0.009	1.23	0.95	0.06		**0.20**	0.45	<0.05	13		**5.891**	5.1	5	
16-Oct-18	3655			221	0.032	0.3	2.9	0.06		**0.23**	0.77	<0.05	3		**2.27**	3.5	19	
24-Apr-19	3707			161	0.008	0.37	2.5	0.29		**0.15**	0.27	<0.05	16		**2.22**	1.3	6	
16-Jul-19	3763			376	<0.003	1.09	1.3	0.19		**0.10**	0.37	<0.05	20		**5.49**	3.8	3	
17-Oct-19	3833			250	0.01	0.33	1.4	0.09		**0.31**	1.06	<0.05	6		**3.19**	3.9	13	
15-Apr-20	3869			87.4	<0.003	0.3	0.7	0.1		**0.11**	0.19	<0.05	11		0.666	0.9	3	
08-Jul-20	3927			299	0.006	0.68	0.4	0.05		**0.11**	0.48	<0.05	30		**3.53**	4.1	5	
05-Oct-20	3994			260	<0.003	0.83	1	0.12		**0.07**	0.33	<0.05	15		**2.41**	2.9	<2	
13-Apr-21	4066			141	0.003	0.4	0.6	0.1		0.01	0.16	<0.05	12		0.825	1.2	4	
12-Jul-21	4126			263	0.003	0.45	0.8	<0.09		**0.13**	0.55	<0.05	5		0.641	1.8	<2	
12-Apr-22	4244			105	0.003	0.57	1.8	0.15		**0.12**	0.4	<0.05	11		**1.81**	1.1	2	
11-Jul-22	4301			315	0.026	0.91	0.4	0.09		**0.06**	0.38	<0.05	15		**2.45**	1.8	<2	
06-Oct-22	4371			216	0.06	0.5	2.2	<0.09		**0.08**	1.27	<0.05	4		0.381	1.7	13	
11-Apr-23	4423			70	0.2	<2	**18**	4.78		**0.188**	<1	<0.1	**670**		**2.1**	<10	**26**	
10-Jul-23	4478			325	0.039	7.2	0.7	0.06		**0.133**	0.82	<0.01	15		**4.6**	15	2	
02-Oct-23	4549			314	0.019	0.9	2.1	0.06		**0.021**	0.95	<0.01	7		**2**	4.4	6	
09-Apr-24	4622	1.1	2	65	<0.1	1	3	0.8	<1	**0.124**	0.4	<0.1	42	<0.5	0.8	4	2	
08-Jul-24	4656			209	0.04	2	0.5	<0.05		0.009	0.35	<0.01	15		**2.1**	10.1	4	
14-Apr-25	250864111	<0.1	0.3	221	0.0456	<0.5	0.64	0.147	0.129	<0.05	0.061	<0.01	3.3	<0.02	**0.94**	1.16	5	
08-Jul-25	251839202			208	<0.05	<5	<2	<0.5		**0.173**	0.527	<0.1	18.5		**2.67**	<5	<10	

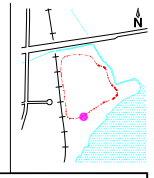
TOTAL SAMPLES	2	2	31	31	31	31	31	2	31	31	31	31	2	31	31	31	9
AVERAGE 2025			215	<0.05	<5	<2	<0.5		0.0865	0.294	<0.1	10.9		1.805	<5	<10	

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH30-I

SAND AQUIFER

OBSERVATION WELL
Screen 214.0 - 212.4 masl



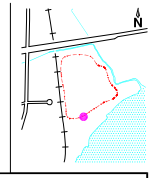
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
25-Apr-16	3193			1130	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	50		<5	<10	<5	948
29-Jul-16	3236			1430	<0.02	<2	1.1	<0.02		**0.03**	2	<0.02	60		<5	7.1	8	975
24-Oct-16	3321			1370	<0.02	<2	<2	<0.02		<0.01	23	<0.02	50		<5	<10	<5	1070
26-Apr-17	3337			1280	<0.014	<2	<2	<0.02		<0.01	<1	<0.02	60		0.1	<10	<5	884
24-Jul-17	3430			1510	0.06	<2	<2	<0.02		0.02	<1	<0.02	60		<5	<10	<5	1140
18-Oct-17	3479			1900	<0.014	<2	<2	<0.02		**0.03**	3	<0.02	**110**		<5	<10	<5	1141
23-Apr-18	3530			1460	0.005	0.21	1.15	0.09		**0.72**	0.12	<0.05	1		0.114	1.7	3	
25-Jul-18	3608			1600	0.003	0.27	1.7	0.09		**0.26**	0.11	<0.05	12		0.219	2.4	7	
22-Oct-18	3675			1810	<0.003	0.36	2.34	0.08		**0.44**	0.15	<0.05	3		0.27	3.2	8	
01-May-19	3727			49.7	<0.003	0.21	2.2	0.12		**0.16**	0.09	<0.05	11		0.168	0.3	7	
24-Jul-19	3783			1660	<0.003	0.24	1.1	0.04		**0.07**	0.12	<0.05	3		0.193	2.5	3	
29-Oct-19	3853			1670	<0.003	0.28	1.1	0.07		**0.16**	0.09	<0.05	2		0.193	2.4	5	
17-Apr-20	3889			1390	0.004	0.17	0.9	0.12		**0.06**	0.11	<0.05	2		0.085	1.5	3	
13-Jul-20	3947			1460	0.004	0.22	0.5	0.03		**0.21**	0.09	<0.05	2		0.153	2.2	2	
07-Oct-20	3995			1430	<0.003	0.29	0.6	0.02		**0.09**	0.09	<0.05	2		0.131	2.2	<2	
21-Apr-21	4067			1620	0.005	0.43	0.9	<0.09		**0.18**	0.07	<0.05	14		0.084	2.1	2	
16-Jul-21	4127			1840	<0.003	0.31	1.2	<0.09		**0.09**	0.06	<0.05	5		0.12	2.1	2	
01-Oct-21	4179			1750	<0.003	0.33	1.2	<0.09		**0.15**	<0.04	<0.05	12		0.118	2.3	2	
20-Apr-22	4245			1710	0.01	0.26	0.3	<0.09		**0.16**	0.07	<0.05	2		0.115	2	<2	
19-Jul-22	4321			1970	<0.003	0.24	0.6	<0.09		<0.03	0.11	<0.05	2		0.116	2.1	<2	
12-Oct-22	4391			2060	<0.003	0.29	0.5	<0.09		**0.05**	0.07	<0.05	3		0.153	2.3	2	
18-Apr-23	4443			1810	<0.03	<2	<2	0.32		**0.11**	3	<0.1	**400**		0.5	<10	<5	
18-Jul-23	4498									**0.054**								
12-Oct-23	4569			1880	0.022	0.3	3.4	0.05		**0.193**	6.71	<0.01	24		0.6	8.8	1	
15-Apr-24	4606			1840	0.016	1.9	3	<0.05		**0.041**	3.06	0.02	3		0.4	6.6	5	
16-Jul-24	4676			2090	0.02	0.8	2.1	<0.05		**0.036**	6.51	<0.01	1		0.5	11.2	2	
10-Oct-24	2067126			2210	0.045	9.7	3.7	0.11		**0.692**	12.7	0.01	2		0.9	21.9	4	
07-May-25	251086516	<1	<1	1620	<0.05	<5	<2	<0.5	<0.5	**0.972**	<0.5	<0.1	<10	<0.2	<1	<5	<10	
22-Jul-25	252003106			2180	<0.05	<5	<2	<0.5		**0.586**	0.521	<0.1	<10		<1	<5	<10	
08-Oct-25	252881511			2310	<0.05	<5	<2	<0.5			<0.5	<0.1	<10		<1	<5	<10	
TOTAL SAMPLES		1	1	33	33	33	33	33	1	33	33	33	33	1	33	33	33	9
AVERAGE 2025				2037	<0.05	<5	<2	<0.5		0.7790	<0.5	<0.1	<10		<1	<5	<10	

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

BH30-II

PEAT

OBSERVATION WELL
Screen 219.8 - 219.0 masl



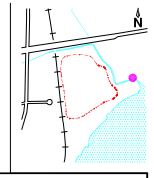
DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
25-Apr-16	3191			261	0.1	<2	<2	0.07		<0.01	<1	<0.02	60		**14**	<10	<5	1290
29-Jul-16	3235			334	0.03	<2	2.3	<0.02		**0.04**	<1	<0.02	70		**12**	7.6	<5	1270
24-Oct-16	3322			297	<0.02	<2	<2	<0.02		<0.01	5	<0.02	70		**11**	<10	7	1310
26-Apr-17	3338			251	0.034	<2	<2	<0.02		<0.01	<1	0.03	60		**6.7**	<10	15	1110
24-Jul-17	3431			291	0.022	<2	<2	0.03		0.01	<1	<0.02	60		**8**	<10	<5	1200
18-Oct-17	3480			321	0.027	<2	<2	<0.02		**0.05**	<1	<0.02	**100**		**7**	**50**	5	1212
23-Apr-18	3531			253	0.048	0.37	0.18	<0.01		**0.04**	0.42	<0.05	12		**6.57**	3.5	3	
25-Jul-18	3609			289	0.046	0.39	1.72	0.05		**0.04**	0.29	<0.05	10		**6.05**	3.3	5	
22-Oct-18	3676			339	0.006	0.72	1.35	0.07		**0.13**	0.37	<0.05	23		**8.29**	4.4	5	
01-May-19	3728			1630	<0.003	0.3	0.9	0.12		**0.05**	0.08	<0.05	72		0.217	1.8	3	
24-Jul-19	3784			211	0.006	0.33	0.9	0.05		**0.04**	0.24	<0.05	8		**5.23**	3.1	3	
29-Oct-19	3854			319	0.003	0.67	1.6	0.08		**0.03**	0.29	<0.05	21		**7.51**	4.1	3	
17-Apr-20	3890			266	<0.003	0.5	0.9	0.01		**0.04**	0.53	<0.05	14		**6.86**	3.6	7	
13-Jul-20	3948			274	<0.003	0.43	2.5	0.01		**0.06**	0.2	<0.05	15		**6.67**	3.6	<2	
07-Oct-20	3996			252	0.007	0.48	0.4	<0.01		**0.04**	0.31	<0.05	10		**6.25**	3.6	<2	
21-Apr-21	4068			258	0.01	0.59	0.6	<0.09		**0.06**	0.29	<0.05	12		**7.04**	4.3	6	
16-Jul-21	4128			282	0.003	0.46	0.9	<0.09		**0.04**	0.21	<0.05	14		**5.7**	3	2	
01-Oct-21	4180			290	0.01	0.51	1.1	<0.09		**0.04**	0.3	<0.05	13		**5.43**	2.9	4	
20-Apr-22	4246			213	0.011	0.45	0.6	<0.09		**0.04**	0.2	<0.05	9		**4.3**	2.2	<2	
19-Jul-22	7322			231	0.016	0.32	0.8	<0.09		<0.03	0.33	<0.05	3		**2.28**	2	<2	
12-Oct-22	4392			255	0.003	0.52	2.1	<0.09		**0.05**	0.22	<0.05	12		**4.18**	2.4	<2	
18-Apr-23	4444			228	<0.02	<2	<2	0.14		**0.037**	<1	<0.1	60		**2.3**	<10	<5	
18-Jul-23	4499			236	0.04	4.5	3.1	<0.05		**0.044**	1.04	<0.01	11		**4.3**	7.1	1	
12-Oct-23	4570			245	0.011	0.9	4.3	<0.05		**0.056**	0.62	<0.01	<1		**4.3**	4.2	<1	
15-Apr-24	4607			180	0.029	1.6	3.8	<0.05		**0.036**	0.47	0.01	6		**3.3**	4.9	4	
16-Jul-24	4678			223	0.022	0.9	2.9	<0.05		**0.066**	0.96	<0.01	9		**4.5**	8	1	
10-Oct-24	2067127			183	0.025	6.8	4.8	<0.05		**0.035**	2.05	<0.01	5		**3.3**	5.9	4	
07-May-25	251086517	<1	<1	163	<0.05	<5	<2	<0.5	0.797	**0.0242**	<0.5	<0.1	<10	<0.2	**1.21**	<5	<10	
22-Jul-25	252003107			225	<0.05	<5	<2	<0.5		**0.0231**	<0.5	<0.1	10.8		**2.27**	<5	<10	
08-Oct-25	252881512			258	<0.05	<5	<2	<0.5			<0.5	<0.1	15.6		**3.6**	<5	<10	
TOTAL SAMPLES		1	1	34	34	34	34	34	1	33	34	34	34	1	34	34	34	9
AVERAGE 2025				215	<0.05	<5	<2	<0.5		0.02365	<0.5	<0.1	<10		2.36	<5	<10	

all Concentrations ug/L unless otherwise indicated
Anomalies shown in *Italics* / Exceedence in **BOLD**

S-1

BEN'S DITCH

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
02-May-16	3146			74	0.02	<2	2.3	0.19		**0.06**	<1	<0.02	**100**		0.3	3.3	10	592
13-Jul-16	3240			88	<0.02	<2	1.5	0.37		**0.09**	<1	<0.02	**140**		**4.4**	3.3	9	579
05-Oct-16	3256			89	<0.02	<2	1.3	0.42		**0.06**	<1	<0.02	**100**		0.7	3.7	14	580
18-Apr-17	3362			66	0.157	<1	4.1	0.66		**0.05**	<1	0.02	**100**		0.3	2.9	11	564
13-Jul-17	3378			81	0.153	<2	4	0.56	<10	**0.05**	<1	<0.02	**120**		0.5	3.4	**22**	396
12-Oct-17	3435			83	<0.014	<2	1.7	0.39		**0.06**	<1	<0.02	**150**		**2.5**	3	12	484
07-May-18	3555			84.8	0.004	0.31	1.33	0.1		<0.03	0.22	<0.05	**89**		0.383	0.6	10	
11-Jul-18	3558			88.3	0.009	0.22	0.95	0.26		**0.04**	0.17	<0.05	74		**1.16**	1	13	
12-Oct-18	3635			93.6	0.013	0.38	1.45	0.53		**0.08**	0.19	<0.05	**110**		**5.44**	1.1	11	
16-Apr-19	3681			76.9	<0.003	0.19	1.3	0.12		**0.04**	0.31	<0.05	**124**		0.544	0.8	6	
11-Jul-19	3733			95.8	0.005	0.24	1.4	0.2		**0.07**	0.19	<0.05	**108**		**1.51**	0.8	11	
23-Oct-19	3789			83.2	<0.003	0.34	1.7	0.48		**0.08**	0.14	<0.05	**89**		0.409	0.1	11	
28-Apr-20	3901			86.1	0.008	0.37	1.3	0.16		**0.05**	0.21	<0.05	**188**		**2.12**	0.6	7	
15-Jul-20	3953			84	0.022	0.39	3.5	0.28		**0.13**	0.16	<0.05	**340**		**1.23**	1.2	14	
14-Oct-20	3997			84.3	0.01	0.82	1.6	0.25		**0.04**	0.14	<0.05	**97**		**2.43**	1.1	19	
30-Apr-21	4069			74.8	0.012	0.88	1.5	0.33		**0.05**	0.19	<0.05	**246**		**6.03**	0.9	8	
06-Jul-21	4133			77.8	0.018	0.54	1.2	0.32		**0.06**	0.13	<0.05	**146**		**2.1**	0.7	6	
07-Oct-21	4201			80.1	0.009	0.4	1.1	0.24		**0.06**	0.15	<0.05	**263**		**1.89**	1.1	12	
25-Apr-22	4247			72.38	0.021	0.36	1.8	0.35		<0.03	0.21	<0.05	**136**		0.455	1	9	
05-Jul-22	4271			85	0.006	0.24	1.5	0.36		**0.03**	0.15	0.09	**278**		**5.09**	1	8	642
29-Sep-22	4327			84.4	0.023	0.51	1.4	0.25		**0.06**	0.29	<0.05	**211**		**3.38**	1	9	
24-Apr-23	4397			72	<0.02	2	1.8	0.09		**0.03**	<1	<0.1	**130**		0.5	<10	<5	
05-Jul-23	4449			110	0.008	0.8	2.9	0.18		**0.049**	0.93	**0.19**	**101**		**2.6**	1.3	6	
28-Sep-23	4504			94.1	0.007	0.7	2.2	0.43		**0.075**	0.87	<0.01	**219**		**8.4**	1.4	9	
22-Apr-24	4575			93	0.013	0.5	2.4	0.15		**0.032**	0.36	0.02	38		**1.1**	0.9	9	
02-Jul-24	4627	<0.5	4	115	<0.1	2	3	0.1	<1	<5	0.7	<0.1	**204**	<0.5	**2.9**	<1	15	
25-Sep-24	2060970	0.8	3	115	<0.005	0.7	3.8	0.32	1	**0.034**	0.88	0.06	**132**	<0.5	**8.3**	1.2	11	
22-Apr-25	250917101	0.27	0.9	87.8	0.0062	<0.5	1.34	0.112	0.802	**0.0417**	0.251	<0.01	**152**	<0.02	**1.24**	0.76	6.5	
16-Jul-25	251924201			111	0.0075	<0.5	1.38	0.356		**0.0685**	0.124	<0.01	**120**		**27.5**	1.33	11.7	
15-Oct-25	252965901			160	0.0068	<0.5	1.23	0.219		**0.113**	0.115	<0.01	**265**		**6.08**	1.09	11.8	
TOTAL SAMPLES		3	20	96	96	96	96	97	9	114	90	93	96	8	96	96	96	25
AVERAGE 2025				120	0.0068	<0.5	1.32	0.229		0.0744	0.163	<0.01	179		11.61	1.06	10.0	

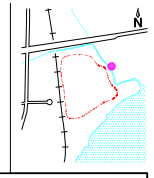
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

S-2

WWTC EFFLUENT

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
02-May-16	3147		0.5	50	0.03	<2	3.4	0.24		**0.10**	<1	<0.02	**170**		0.4	3.6	19	731
13-Jul-16	3241		0.7	56	<0.02	<2	1.9	0.32		**0.10**	<1	<0.02	**390**		**7.7**	3.9	16	675
05-Oct-16	3257		0.7	55	<0.02	<2	1.5	0.37		**0.12**	<1	<0.02	**130**		0.8	3.6	20	636
18-Apr-17	3363		1.4	41	0.025	<1	2.9	0.12		**0.07**	<1	<0.02	**170**		0.4	2.8	15	680
13-Jul-17	3379		0.9	69	<0.014	<2	1.3	0.24	<10	**0.06**	<1	<0.02	**150**		**1.2**	3.4	13	614
12-Oct-17	3436		1.0	69	0.019	<2	2.1	0.28		**0.09**	<1	<0.02	**200**		**4.6**	3.4	16	535
07-May-18	3556		0.7	57.8	0.013	0.19	1.92	0.08		**0.04**	0.29	<0.05	**236**		0.645	0.9	14	
11-Jul-18	3559		0.6	65.4	0.011	0.2	1.16	0.27		**0.06**	0.19	<0.05	68		**1.433**	1.1	18	
12-Oct-18	3636		0.9	75.4	0.012	0.71	2.05	0.62		**0.11**	0.21	<0.05	**104**		**7.81**	1.4	15	
16-Apr-19	3682		1.7	70.2	<0.003	0.19	2.1	0.11		**0.08**	0.46	<0.05	**280**		**1.16**	1.3	10	
11-Jul-19	3734		0.9	72.9	<0.003	0.27	1.6	0.2		**0.07**	0.19	<0.05	**243**		**4.09**	1.2	15	
24-Oct-19	3790		0.8	58.7	0.004	0.12	1.7	0.22		**0.10**	0.22	<0.05	**341**		**1.21**	0.4	13	
27-Apr-20	3902		0.6	66.7	0.012	0.49	2.2	0.14		**0.04**	0.2	<0.05	**367**		**1.25**	1.1	18	
15-Jul-20	3954			56.4	0.012	0.34	3.8	0.18		**0.17**	0.17	<0.05	**417**		**1.69**	1.6	20	
14-Oct-20	3998		0.8	59.6	0.019	0.58	2	0.19		**0.05**	0.16	<0.05	**154**		**4.55**	1.4	**25**	
16-Apr-21	4070		2.5	71.8	0.009	0.68	4	0.4		**0.22**	0.36	<0.05	**944**		**14.3**	1.5	18	
06-Jul-21	4134		1.1	57.2	0.006	0.35	1.3	0.45		**0.06**	0.19	<0.05	**388**		**10.4**	1.3	13	
15-Oct-21	4202		2.0	59.6	0.014	0.37	2	0.36		**0.16**	0.15	<0.05	**630**		**4.37**	1.3	**22**	
25-Apr-22	4247		1.6	60.93	0.004	0.21	2.5	0.25		<0.03	0.27	<0.05	**251**		**1.045**	1.4	12	
05-Jul-22	4272		0.6	57.4	0.005	0.29	2	0.26		**0.05**	0.16	0.08	**471**		**11.7**	1.3	13	694
29-Sep-22	4328		0.8	58.5	0.027	0.47	1.9	0.28		**0.08**	0.33	<0.05	**311**		**6.11**	1.1	15	
25-Apr-23	4398		1	62	<0.02	3	2.8	0.17		**0.067**	<1	<0.1	**320**		**4.4**	<10	12	
05-Jul-23	4450		3	86.1	0.008	0.7	3.6	0.22		**0.067**	1.2	0.06	**205**		**5.7**	2.9	11	
27-Sep-23	4505		<1	68.1	0.006	0.7	2.8	0.41		**0.112**	0.75	<0.01	**340**		**9.4**	1.6	13	
22-Apr-24	4576		1.9	76.8	0.011	0.5	3.4	0.2		**0.036**	0.58	0.01	**81**		**2.4**	1.4	16	
04-Jul-24	4628	1.5	5	93	<0.005	1.2	4.4	0.2	2	**0.092**	1	<0.01	**280**	<0.5	**105**	2.8	11	
25-Sep-24	2060971	1.2	4	66	<0.1	<1	3	0.2	2	**6.70**	0.4	<0.1	71	<0.5	**13.7**	<1	16	
22-Apr-25	250917102	0.45	1.39	79.8	<0.005	<0.5	1.82	0.096	1.03	**0.0731**	0.336	<0.01	**302**	<0.02	**2.72**	1	8.4	
16-Jul-25	251924202		0.69	82.6	0.0074	<0.5	1.9	0.397		**0.121**	0.168	<0.01	**232**		**46.6**	1.52	17.3	
16-Oct-25	252965905		0.38	63.3	0.0066	<0.5	1.68	0.198		**0.191**	0.124	<0.01	**436**		**7.95**	1.28	19.6	
TOTAL SAMPLES		3	83	117	118	116	117	118	10	137	110	113	117	8	117	117	117	32
AVERAGE 2025			0.82	75.2	<0.005	<0.5	1.8	0.230		0.1284	0.209	<0.01	323		19.09	1.27	15.1	

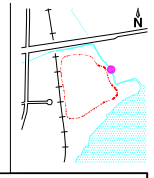
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

S-3

BEN'S DITCH

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
02-May-16	3148			71	0.02	<2	2.6	0.21		**0.08**	<1	<0.02	**120**		0.3	3.5	12	627
13-Jul-16	3242			68	<0.02	<2	1.7	0.37		**0.10**	<1	<0.02	**390**		**7**	4	14	655
05-Oct-16	3258			82	0.03	<2	1.5	0.65		**0.09**	<1	<0.02	**150**		0.9	4	16	590
18-Apr-17	3364			58	0.026	<1	2.6	0.13		**0.05**	<1	<0.02	**130**		0.3	3.5	11	607
13-Jul-17	3380			91	<0.014	<2	1.8	0.58	<10	**0.11**	<1	0.03	**110**		**1.1**	3.2	**37**	540
12-Oct-17	3437			92	<0.014	<2	1.4	0.25		**0.05**	<1	<0.02	**120**		**2**	3	9	470
07-May-18	3557			82.2	0.01	0.35	1.33	0.06		<0.03	0.23	<0.05	**127**		0.361	0.7	9	
11-Jul-18	3560			76.3	0.008	0.24	1.08	0.27		**0.05**	0.18	<0.05	**95**		**1.433**	1.1	18	
12-Oct-18	3637			105	0.023	1.51	2.59	1.17		**0.15**	0.17	<0.05	**76**		**4.46**	1.2	13	
16-Apr-19	3683			71.7	0.003	0.17	2.4	0.17		**0.08**	0.52	<0.05	**265**		**1.12**	1.3	11	
11-Jul-19	3735			81.1	0.004	0.45	1.3	0.2		**0.08**	0.19	<0.05	**175**		**3.13**	1	13	
24-Oct-19	3791			83.8	0.058	2.02	**7.4**	2.67		**0.10**	0.28	**0.13**	**120**		**1.68**	1.1	**27**	
27-Apr-20	3903			73.3	0.006	0.37	1.7	0.17		**0.04**	0.18	<0.05	**226**		0.805	0.7	12	
15-Jul-20	3955			74.8	0.021	0.53	3.8	0.29		**0.17**	0.19	<0.05	**419**		**1.71**	1.6	19	
14-Oct-20	3999			67.8	0.056	11.4	3.3	1.11		**0.06**	0.15	<0.05	**191**		**3.64**	6.3	**25**	
16-Apr-21	4071			75.6	0.036	0.82	4.1	0.7		**0.21**	0.37	<0.05	**903**		**12.7**	5.8	17	
06-Jul-21	4135			81.8	0.004	0.54	1.2	0.24		**0.05**	0.12	<0.05	65		0.111	0.5	5	
15-Oct-21	4203			94.2	0.013	0.43	1.5	0.35		**0.11**	0.16	<0.05	**401**		**2.76**	0.9	14	
25-Apr-22	4249			68.06	0.008	0.31	1.8	0.28		<0.03	0.27	<0.05	**165**		0.581	1	9	
05-Jul-22	4273			63.9	<0.003	0.23	2	0.28		**0.05**	0.18	0.1	**440**		**10.3**	1.2	12	689
29-Sep-22	4329			83.4	0.012	0.46	1.7	0.33		**0.07**	0.17	<0.05	**251**		**4.41**	1	11	
25-Apr-23	4399			64	<0.02	3	2.6	0.15		**0.066**	<1	<0.1	**290**		**4**	<10	11	
05-Jul-23	4451			99.5	<0.005	0.6	3.3	0.18		**0.056**	1.03	0.03	**137**		**4**	1.4	8	
27-Sep-23	4506			78.8	0.009	0.7	2.8	0.46		**0.143**	0.8	<0.01	**296**		**7.4**	1.5	16	
22-Apr-24	4577			89.7	0.016	0.5	4.6	0.19		**0.038**	0.44	<0.01	**140**		**1.7**	1.4	14	
04-Jul-24	4629	1.3	4	105	<0.005	1.2	4.5	0.26	7	**0.075**	0.6	<0.01	**192**	<0.5	**86.9**	2.6	10	
25-Sep-24	2060972	0.8	4	86	<0.1	<1	3	0.2	2	**6.40**	0.6	<0.1	56	<0.5	**9.9**	<1	14	
22-Apr-25	250917103	0.25	0.81	90.3	0.005	<0.5	1.18	0.095	0.769	**0.0394**	0.22	<0.01	**142**	<0.02	**1.1**	0.65	5.9	
16-Jul-25	251924203			110	0.0058	<0.5	1.28	0.284		**0.0854**	0.137	<0.01	**140**		**29.2**	1.08	11.1	
16-Oct-25	252965906			86.1	0.0103	<0.5	2.08	0.43		**0.264**	0.123	0.016	**498**		**8.24**	1.36	**20.2**	

TOTAL SAMPLES	25	21	116	117	116	117	118	32	134	110	113	117	8	117	117	117	32
AVERAGE 2025			95	0.0070	<0.5	1.51	0.27		0.1296	0.16	<0.01	260		12.85	1.03	12.40	

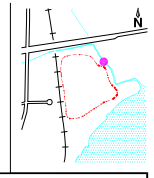
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

S-4

BEN'S DITCH

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
02-May-16	3149			96	<0.02	<2	1.6	0.1		0.02	<1	<0.02	40		<0.1	3.1	7	468
13-Jul-16	3243			133	<0.02	<2	0.6	0.04		**0.04**	<1	<0.02	40		<0.1	3.1	10	478
05-Oct-16	3259			151	<0.02	<2	0.5	0.22		**0.03**	<1	<0.02	40		<0.1	3.5	<5	495
18-Apr-17	3365			87	<0.014	<1	0.7	0.05		0.02	<1	<0.02	40		<0.1	2.3	<5	438
13-Jul-17	3381			117	0.139	<2	**6.2**	0.92	<10	**0.04**	<1	<0.02	60		0.3	5	**25**	345
12-Oct-17	3438			116	<0.014	<2	0.9	0.27		0.02	<1	<0.02	**80**		<0.1	2.5	<5	423
07-May-18	3506			105	0.007	0.15	1.36	0.02		<0.03	0.16	<0.05	9		0.108	0.6	4	
11-Jul-18	3561			124	0.006	0.26	0.63	0.24		**0.04**	0.12	<0.05	47		0.086	0.4	4	
12-Oct-18	3536			146	0.011	0.29	1.11	0.3		**0.05**	0.16	<0.05	43		0.195	0.6	4	
16-Apr-19	3684			78.9	0.003	0.18	0.8	0.06		<0.03	0.14	<0.05	18		0.106	0.4	3	
11-Jul-19	3736			122	<0.003	0.3	0.9	0.35		**0.06**	0.16	<0.05	61		0.101	0.4	4	
25-Oct-19	3792			111	0.006	0.28	0.8	0.49		**0.06**	0.14	<0.05	6		0.146	<0.1	5	
28-Apr-20	3904			105	0.008	0.27	0.6	0.16		**0.03**	0.14	<0.05	36		0.083	0.2	2	
15-Jul-20	3956			127	<0.003	0.23	0.6	0.1		**0.03**	0.11	<0.05	22		0.078	0.3	<2	
14-Oct-20	4000			111	0.015	0.7	0.8	0.26		<0.03	0.15	<0.05	52		0.158	0.6	4	
16-Apr-21	4072			110	0.004	1.09	0.9	0.16		<0.03	0.2	<0.05	36		0.1	0.5	4	
06-Jul-21	4136			71.8	0.011	0.57	1.6	0.53		**0.06**	0.17	<0.05	**291**		**6.09**	1	10	
15-Oct-21	4204			145	<0.003	0.36	0.4	0.11		<0.03	0.11	<0.05	27		0.089	0.2	<2	
25-Apr-22	4250			92.42	0.008	0.34	1	0.28		<0.03	0.11	<0.05	46		0.123	0.5	10	
05-Jul-22	4274			125	<0.003	0.23	0.6	0.16		<0.03	0.18	0.08	50		0.136	0.4	3	593
29-Sep-22	4330			127	0.006	0.51	0.8	0.37		**0.03**	0.09	<0.05	**89**		0.151	0.4	4	
25-Apr-23	4400			92	<0.02	3	1.2	0.04		0.017	<1	<0.1	40		0.2	<10	<5	
05-Jul-23	4452			141	0.006	0.6	2.3	0.06		**0.04**	0.62	0.02	15		0.3	1.4	4	
28-Sep-23	4507			141	0.007	0.8	1.6	0.3		**0.052**	0.57	<0.01	53		0.3	1.4	3	
22-Apr-24	4578			106	0.008	0.5	1.6	0.09		**0.024**	0.17	0.01	22		0.2	0.7	4	
04-Jul-24	4630	<0.5	4	140	<0.005	1.1	2.8	0.35	<1	**0.046**	0.3	<0.01	4	<0.5	0.4	1.4	5	
26-Sep-24	2060973	<0.5	3	146	<0.1	<1	2	<0.1	<1	<5	<0.2	<0.1	5	<0.5	0.2	<1	4	
22-Apr-25	250917104	0.12	0.45	95.5	0.0067	<0.5	0.75	0.099	0.571	0.0154	0.105	<0.01	36.8	<0.02	<0.1	<0.5	3	
16-Jul-25	251924204			173	0.0108	<0.5	0.94	0.757		**0.0309**	0.098	<0.01	**184**		0.19	<0.5	9.8	
16-Oct-25	252965902			361	0.0063	0.55	0.96	0.447		**0.0245**	0.07	<0.01	**88**		0.17	0.61	4.5	
TOTAL SAMPLES		3	20	115	116	116	116	117	10	134	109	112	116	8	116	116	116	32
AVERAGE 2025				210	0.0079	<0.5	0.88	0.434		0.02360	0.091	<0.01	103		0.12	<0.5	5.8	

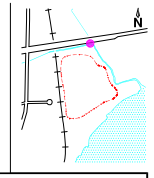
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

S-6

MILL CREEK

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
02-May-16	3150			85	<0.02	<2	0.7	0.27		0.01	<1	<0.02	30		<0.1	2.5	<5	401
13-Jul-16	3244			155	<0.02	<2	0.4	0.12		**0.07**	<1	<0.02	40		<0.1	3.2	<5	455
05-Oct-16	3260			135	<0.02	<2	0.3	0.19		**0.04**	<1	<0.02	40		<0.1	3.1	<5	460
18-Apr-17	3366			81	<0.014	<1	0.3	<0.02		0.02	<1	<0.02	30		<0.1	2.2	<5	370
13-Jul-17	3382			111	0.144	<2	**6.1**	0.54	10	**0.05**	<1	<0.02	40		0.2	5.5	**22**	368
12-Oct-17	3439			114	<0.014	<2	0.8	0.33		**0.03**	<1	<0.02	70		0.1	2.7	<5	432
07-May-18	3507			105	<0.003	0.18	0.46	<0.01		<0.03	0.07	<0.05	17		0.088	0.2	3	
12-Jul-18	3562			140	0.005	0.21	0.42	0.11		**0.05**	0.08	<0.05	13		0.069	0.2	2	
11-Oct-18	3639			136	0.009	2.49	0.65	0.31		**0.05**	0.11	<0.05	<1		0.137	0.4	3	
17-Apr-19	3685			78.8	<0.003	0.1	0.3	<0.01		<0.03	0.1	<0.05	15		0.061	0.2	<2	
11-Jul-19	3737			123	<0.003	0.24	0.5	0.07		**0.04**	0.07	<0.05	13		0.064	0.2	3	
24-Oct-19	3793			108	<0.003	0.13	<0.2	0.09		**0.04**	0.08	<0.05	5		0.087	<0.1	3	
27-Apr-20	3905			106	<0.003	0.32	0.3	0.06		<0.03	0.06	<0.05	21		0.046	<0.1	<2	
15-Jul-20	3957			131	0.005	0.25	0.8	0.11		**0.04**	0.13	<0.05	47		0.093	0.3	<2	
14-Oct-20	4001			117	0.008	0.67	0.7	0.18		<0.03	0.09	<0.05	**104**		0.158	0.4	4	
06-May-21	4073			95.1	<0.003	0.76	0.3	0.11		<0.03	0.08	<0.05	30		0.062	0.2	3	
06-Jul-21	4137			103	0.006	0.16	0.6	0.09		<0.03	0.11	<0.05	37		0.082	0.3	<2	
12-Oct-21	4205			160	0.027	0.66	1.5	1.27		<0.03	0.1	<0.05	**280**		0.262	<0.1	11	
25-Apr-22	4051			86.64	0.01	0.37	0.5	0.23		<0.03	0.12	<0.05	32		0.063	0.3	<2	
05-Jul-22	4275			140	0.009	0.27	0.3	<0.09		<0.03	0.09	0.08	13		0.049	0.1	<2	547
29-Sep-22	4331			131	0.025	0.54	0.6	0.33		<0.03	0.27	<0.05	**139**		0.167	0.3	4	
24-Apr-23	4401			82	<0.02	<2	0.9	0.08		**0.054**	<1	<0.1	40		0.2	<10	<5	
05-Jul-23	4453			146	<0.005	0.6	2.3	0.06		**0.033**	0.59	0.02	19		0.3	0.9	8	
28-Sep-23	4508			142	0.011	0.8	1.7	0.36		**0.116**	0.37	<0.01	**125**		0.3	<0.5	4	
23-Apr-24	4579			97.5	0.005	0.4	0.8	<0.05		0.018	0.33	<0.01	20		0.2	<0.5	3	
04-Jul-24	4631	<0.5	4	146	<0.1	2	1	<0.1	<1	<5	0.4	<0.1	4	<0.5	0.3	2	6	
25-Sep-24	2060974	<0.5	3	159	0.009	0.9	2	0.19	<1	**0.022**	0.94	<0.01	**82**	<0.5	0.2	1.1	6	
23-Apr-25	250917105	<0.1	0.38	95.9	<0.005	<0.5	<0.5	<0.05	0.312	0.0132	0.091	<0.01	26.6	<0.02	<0.1	<0.5	<3	
14-Jul-25	251924206			155	<0.005	<0.5	<0.5	<0.05		**0.0309**	0.07	<0.01	<3		<0.1	<0.5	<3	
15-Oct-25	252965903			190	0.0099	0.65	0.77	0.482		**0.0504**	0.1	<0.01	**244**		0.18	0.61	5.5	
TOTAL SAMPLES		3	21	115	116	115	116	117	10	133	109	112	116	8	116	116	116	32
AVERAGE 2025				147	<0.005	<0.5	<0.5	0.161		0.03150	0.1	<0.01	90		<0.1	<0.5	<3	

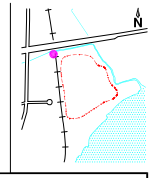
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

S-7

MILL CREEK

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
03-May-16	3151			85	<0.02	<2	0.7	0.05		0.01	<1	<0.02	30		<0.1	2.4	<5	383
13-Jul-16	3245			146	<0.02	<2	0.5	0.12		**0.04**	<1	<0.02	40		<0.1	3.2	<5	461
05-Oct-16	3261			148	<0.02	<2	0.5	0.34		**0.04**	<1	<0.02	40		0.1	3.7	<5	466
18-Apr-17	3367			79	<0.014	<1	0.3	0.04		0.02	<1	<0.02	40		<0.1	2.1	<5	376
12-Jul-17	3383			106	0.129	<2	**5.1**	0.49	<10	**0.04**	<1	<0.02	40		0.3	4.4	6	370
13-Oct-17	3440			110	<0.014	<2	0.5	0.09		**0.03**	<1	<0.02	60		<0.1	2.5	<5	423
07-May-18	3508			96.3	0.003	0.21	0.36	0.03		<0.03	0.07	<0.05	4		0.067	0.1	3	
11-Jul-18	3563			144	0.012	0.43	0.72	0.27		**0.03**	0.08	<0.05	17		0.099	0.3	4	
11-Oct-18	3640			136	0.005	2.03	0.31	0.09		0.02	0.09	<0.05	<1		0.095	0.4	2	
17-Apr-19	3686			79.8	0.003	0.11	0.3	<0.01		<0.03	0.07	<0.05	11		0.05	0.2	<2	
11-Jul-19	3738			122	<0.003	0.27	0.5	0.12		**0.04**	0.08	<0.05	42		0.076	0.1	4	
24-Oct-19	3794			107	0.004	0.11	0.3	0.06		**0.03**	0.07	<0.05	29		0.07	<0.1	4	
27-Apr-20	3906			106	0.004	0.32	0.3	0.04		<0.03	0.07	<0.05	19		0.046	0.1	<2	
15-Jul-20	3958			136	0.009	0.28	0.6	0.13		<0.03	0.16	<0.05	69		0.112	0.3	<2	
14-Oct-20	4002			120	0.006	0.37	0.5	<0.01		<0.03	0.08	<0.05	27		0.099	0.3	2	
30-Apr-21	4074			91.1	0.003	0.39	0.5	0.13		<0.03	0.11	<0.05	61		0.08	0.3	3	
06-Jul-21	4138			105	0.007	0.16	0.6	0.17		<0.03	0.09	<0.05	44		0.101	0.4	2	
12-Oct-21	4206			149	0.005	0.28	0.4	0.18		<0.03	0.09	<0.05	56		0.09	<0.1	3	
25-Apr-22	4052			87.89	0.003	0.4	0.6	0.34		<0.03	0.13	<0.05	69		0.077	0.3	3	
06-Jul-22	4276			131	0.009	0.22	0.4	0.11		<0.03	0.12	0.08	63		0.094	0.1	2	544
29-Sep-22	4332			127	0.017	0.4	0.4	0.13		<0.03	0.25	<0.05	63		0.141	0.3	<2	
24-Apr-23	4402			83	<0.02	<2	0.9	0.03		0.007	<1	<0.1	40		0.2	<10	**56**	
06-Jul-23	4454			145	0.008	0.6	2.3	0.09		**0.022**	0.55	0.02	42		0.3	0.8	2	
02-Oct-23	4509			143	0.008	0.5	2.4	0.14		**0.04**	0.4	<0.01	39		0.3	0.9	3	
22-Apr-24	4580			99.1	0.008	0.5	1.2	0.07		**0.021**	0.2	<0.01	4		0.2	<0.5	3	
03-Jul-24	4632	<0.5	4	148	<0.1	2	1	<0.1	<1	<5	0.4	<0.1	6	<0.5	0.3	1	5	
26-Sep-24	2060975	<0.5	3	160	<0.005	0.6	1.8	0.12	<1	0.007	0.81	<0.01	46	<0.5	0.2	0.6	3	
24-Apr-25	250917106	<0.1	0.45	106	<0.005	<0.5	<0.5	0.057	0.324	0.014	0.088	<0.01	35.4	<0.02	<0.1	<0.5	<3	
15-Jul-25	251924207			166	0.0054	<0.5	0.57	0.232		**0.0255**	0.11	<0.01	**130**		0.11	<0.5	5.8	
15-Oct-25	252965904			183	<0.005	<0.5	<0.5	0.085		0.0161	0.074	<0.01	41.6		<0.1	<0.5	<3	
TOTAL SAMPLES		3	22	116	117	116	117	118	10	137	110	113	117	8	117	117	117	32
AVERAGE 2025				152	<0.005	<0.5	<0.5	0.125		0.01853	0.09	<0.01	69		<0.1	<0.5	<3	

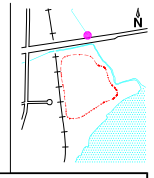
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

S-8

BEN'S DITCH

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
02-May-16	3152			125	<0.02	<2	2.5	0.22		0.02	<1	<0.02	40		0.2	4.1	7	649
13-Jul-16	3246			136	<0.02	<2	1.1	0.18		**0.04**	<1	<0.02	30		<0.1	3.8	<5	584
05-Oct-16	3262			145	<0.02	<2	1.4	0.53		**0.03**	<1	<0.02	**80**		0.1	4.4	<5	655
18-Apr-17	3368			112	0.021	<1	2.9	0.49		**0.04**	<1	<0.02	60		0.1	3.5	14	654
13-Jul-17	3384			74	0.316	<2	**6.8**	1.28	<10	**0.07**	<1	<0.02	70		0.3	6.4	14	333
12-Oct-17	3441			124	0.045	<2	**5.2**	4.37		**0.13**	<1	0.03	**110**		0.5	3.6	**49**	470
07-May-18	3509			112	0.003	0.24	1.98	0.1		<0.03	0.24	<0.05	9		0.114	0.5	6	
11-Jul-18	3564			130	0.007	0.24	1.06	0.34		**0.04**	0.27	<0.05	19		0.115	0.7	4	
11-Oct-18	3641			183	0.026	1.05	1.89	1.63		**0.08**	0.26	<0.05	<1		0.414	1.5	11	
17-Apr-19	3687			106	0.019	0.3	2.4	0.44		<0.03	0.54	<0.05	40		0.159	1	10	
11-Jul-19	3739			132	0.006	0.23	1.1	0.18		**0.04**	0.34	<0.05	10		0.094	0.5	3	
24-Oct-19	3795			130	0.01	0.37	1.4	0.96		**0.05**	0.21	<0.05	12		0.223	0.4	10	
27-Apr-20	3907			150	0.016	0.57	1.2	0.4		**0.03**	0.37	<0.05	55		0.167	0.6	5	
15-Jul-20	3959			58	0.011	0.6	2.6	0.49		<0.03	0.18	<0.05	**144**		0.145	0.9	6	
14-Oct-20	4003			145	0.014	0.75	2.2	1.1		**0.03**	0.25	<0.05	**115**		0.335	1.5	9	
06-May-21	4075			119	0.014	0.55	1.7	0.66		**0.03**	0.26	<0.05	**106**		0.223	1.3	10	
06-Jul-21	4139			65.9	0.02	1.53	3.3	1.77		**0.07**	0.18	<0.05	**316**		0.246	1.1	14	
12-Oct-21	4207			154	0.024	0.46	2.1	1.26		**0.04**	0.22	<0.05	**112**		0.217	0.3	11	
25-Apr-22	4053			86.92	0.025	1.07	2.6	0.54		<0.03	0.26	<0.05	**90**		0.16	0.9	13	
05-Jul-22	4277			110	0.007	0.94	2.5	0.42		<0.03	0.32	0.07	**97**		0.152	0.7	8	556
29-Sep-22	4333			119	0.029	0.95	2.1	1.65		**0.04**	0.17	<0.05	**249**		0.29	1	9	
24-Apr-23	4403			106	<0.02	<2	2.3	0.2		**0.036**	<1	<0.1	50		0.3	<10	<5	
05-Jul-23	4455			84.5	<0.005	0.8	3.3	0.09		**0.088**	0.91	0.02	10		0.3	1	5	
28-Sep-23	4510			201	0.114	3.5	**14.1**	**8.57**		**0.238**	0.66	0.02	**1360**		**1.2**	3.4	**41**	
23-Apr-24	4581			128	0.018	0.8	2.9	0.28		**0.031**	0.85	<0.01	34		0.3	1.3	7	
04-Jul-24	4633	<0.5	4	133	<0.005	1.3	3.6	0.18	<1	**0.064**	0.42	<0.01	7	<0.5	0.3	1.6	7	
25-Sep-24	2060976	0.6	2	120	<0.1	<1	4.1	0.1	<1	<5	0.3	<0.01	5	<0.5	0.2	<1	9	
23-Apr-25	250917107	0.29	0.36	118	0.0125	<0.5	1.57	0.228	1.09	**0.0214**	0.248	<0.01	62	<0.02	0.14	0.78	8.1	
14-Jul-25	251924205			143	<0.005	<0.5	<0.5	0.061		**0.0581**	0.114	<0.01	7.8		0.19	0.82	5.4	
15-Oct-25	252965910			844	0.0127	0.56	1.02	1.11		**0.0347**	0.054	<0.01	**160**		0.41	1.33	6.9	

TOTAL SAMPLES	3	21	116	117	116	117	118	10	136	110	113	117	8	117	117	117	32
AVERAGE 2025			368	0.0084	<0.5	0.86	0.47		0.03807	0.139	<0.01	77		0.25	0.98	6.8	

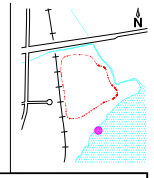
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

S-9

LAKE SIMCOE

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
16-Apr-09	0910933	<0.5		31	<0.1	<2	<2	<0.1	<0.5	0.01	<1	<0.1	40		<0.5	<10	<5	233
15-Jul-09	0921633	<0.5		31	<0.1	<2	<2	<0.1	<0.5	0.01	<1	<0.1	20		<0.5	<10	<5	218
21-Oct-09	0933462	<0.5		36	<0.1	<2	<2	0.4	<0.5	**0.07**	<1	**0.3**	**110**		0.8	<10	<5	228
14-Apr-10	2015	<0.5		30	<0.1	<2	<2	<0.1	<0.5	<0.01	<1	<0.1	20		<0.5	<10	7	
14-Jul-10	2066	<0.5		28	<0.1	<2	<2	<0.1	<0.5	**0.03**	<1	<0.1	<10		<0.5	<10	<5	
03-Nov-10	2170	<0.5		42	<0.1	<2	<2	1.3	1.4	**0.14**	<1	<0.1	**160**		<0.5	<10	<5	
27-Apr-11	2197	<0.1		39	<0.02	<2	<2	0.04	0.4	<0.01	<1	<0.02	**90**		<0.1	<10	10	
09-Aug-11	2285	0.5		42	<0.02	2	<2	0.35	0.4	**0.16**	<1	<0.02	**150**		0.1	<10	<5	
11-Oct-11	2345	0.1		35	<0.02	<2	<2	0.13	0.5	**0.04**	1	<0.02	30		<0.1	<10	<5	
02-May-12	2412	0.1		33	<0.02	<2	<2	<1	0.3	**0.07**	<1	<0.1	**80**		<0.1	<10	<5	
18-Jul-12	2430	<3		28	<0.1	<3	<2	<1	<1	**0.08**	<4	<0.1	16		<0.5	<3	<5	
31-Oct-12	2504	<3		28	<0.1	4	<2	<1	<1	<0.02	<4	<0.1	11		<0.5	<3	<5	
02-May-13	2574	<15		37	<20	<2	<2	<10	<7	<0.02	<25	<2	32		<2	<5	<5	
24-Jul-13	2665	<0.1		32	<0.02	<2	<2	<0.02	0.3	**0.52**	<1	<0.02	40		<0.1	<10	<5	
24-Oct-13	2684	<0.1		42	<0.02	<2	4	0.06	0.3	0.01	<1	<0.02	20		<0.1	<10	**93**	
05-May-14	2760	<0.1		28	<0.02	<0.2	4	0.18	0.5	**0.04**	<1	<0.02	40		<0.1	1.4	8	
18-Jul-14	2818	0.2		33	<0.02	<2	1.3	0.08	0.5	**0.13**	<1	<0.02	<10		<0.1	<10	13	
26-Sep-14	2880	0.3		34	0.05	<2	1	0.09	0.6	**0.09**	<1	<0.02	30		0.1	2.2	<5	
28-Apr-15	2962	0.1		33	0.04	<2	2.1	0.22	<10	**0.04**	<1	<0.02	20		<0.1	2.1	9	250
16-Jul-15	3024			35	<0.02	<2	0.1	0.04		**0.03**	<1	<0.02	30		0.1	1.9	<5	234
12-Jul-16	3247			29	<0.02	<2	0.3	<0.02		**0.03**	<1	<0.02	30		<0.1	1.6	<5	208
12-Jul-17	3385			27	0.131	<2	**5.3**	0.26	<10	**0.03**	<1	<0.02	20		0.1	3.7	<5	214
12-Jul-18	3565			26.7	0.003	0.12	0.51	0.03		0.02	0.07	<0.05	7		0.042	0.3	<2	
11-Jul-19	3740			25.8	<0.003	0.18	0.5	0.03		<0.03	0.08	<0.05	9		0.036	0.2	3	
21-Jul-20	3960			27.9	<0.003	0.16	0.6	0.02		<0.03	0.06	<0.05	6		0.043	0.3	<2	
21-Jul-21	4140			26.2	<0.003	0.12	<0.2	<0.09		<0.03	0.09	<0.05	3		0.06	<0.1	2	
04-Jul-22	4278			29.4	0.004	<0.08	0.4	<0.09		<0.03	0.07	0.05	3		0.022	0.2	<2	237
04-Jul-23	4456			33.8	<0.005	0.4	1.3	<0.05		0.014	0.29	0.01	13		0.2	<0.5	1	
02-Jul-24	4634	<0.5	2	37	<0.005	0.7	1.6	<0.05	<1	0.007	0.2	<0.01	17	<0.5	0.3	<0.5	5	
14-Jul-25	251924208			30.6	<0.005	<0.5	<0.5	<0.05		0.0074	0.077	<0.01	7.1		0.23	<0.5	<3	
TOTAL SAMPLES		23	19	94	95	94	95	96	30	114	88	91	95	6	95	95	95	27
AVERAGE 2025																		

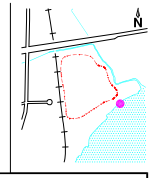
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

S-11

LAKE SIMCOE

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
03-May-16	3153			30	<0.02	<2	1	0.29		**0.06**	<1	<0.02	30		<0.1	1.7	<5	232
12-Jul-16	3248			30	<0.02	<2	0.5	0.16		**0.05**	<1	<0.02	40		<0.1	1.7	<5	203
06-Oct-16	3263			38	<0.02	<2	0.5	0.15		**0.03**	<1	<0.02	30		<0.1	2.5	<5	219
19-Apr-17	3369			43	0.045	<1	2.1	1.04		**0.13**	<1	0.04	60		0.4	2.2	12	293
12-Jul-17	3386			42	0.126	<2	5	0.32	<10	**0.03**	<1	<0.02	30		0.2	3.6	<5	275
13-Oct-17	3442			52	<0.014	<2	0.9	0.52		**0.10**	<1	<0.02	40		0.3	1.7	**31**	199
07-May-18	3510			28.4	0.008	0.4	0.72	0.1		<0.03	0.07	<0.05	15		0.079	0.3	5	
12-Jul-18	3566			31.9	0.005	0.29	1.27	0.26		**0.14**	0.09	<0.05	49		0.168	0.4	4	
12-Oct-18	3642			38.3	0.011	1.6	0.71	0.33		**0.12**	0.10	<0.05	<1		0.316	0.5	3	
17-Apr-19	3688			27	0.021	0.11	0.6	0.03		<0.03	0.14	<0.05	30		0.114	0.3	<2	
11-Jul-19	3741			35	0.005	0.27	0.7	0.16		<0.03	0.08	<0.05	40		0.091	0.3	3	
24-Oct-19	3796			33.5	0.008	0.17	0.6	0.16		<0.03	0.08	<0.05	74		0.113	<0.1	2	
28-Apr-20	3908			84.6	0.056	0.93	2.7	1.34		**0.14**	0.15	<0.05	**471**		**1.33**	0.9	11	
21-Jul-20	3961			43.9	0.005	0.24	0.9	0.07		<0.03	0.08	<0.05	36		0.211	0.5	3	
14-Oct-20	4004			32.6	0.018	0.23	1	0.15		<0.03	0.08	<0.05	44		0.118	0.4	3	
30-Apr-21	4076			39.8	0.011	0.28	1	0.13		<0.03	0.09	<0.05	69		0.7	0.5	3	
21-Jul-21	4141			28.1	<0.003	0.26	<0.2	<0.09		<0.03	0.09	<0.05	4		0.081	<0.1	<2	
12-Oct-21	4208			58.6	0.01	0.25	0.8	0.3		<0.03	0.09	<0.05	**125**		0.358	<0.1	4	
25-Apr-22	4254			50.38	0.019	0.37	1.1	0.5		<0.03	0.14	<0.05	**112**		0.295	0.6	4	
04-Jul-22	4279			29.3	<0.003	<0.08	0.5	<0.09		<0.03	0.08	0.06	14		0.133	0.2	<2	250
29-Sep-22	4334			32.7	0.008	0.31	0.5	0.12		<0.03	<0.04	<0.05	49		0.103	0.3	<2	
25-Apr-23	4404			34	<0.02	<2	0.8	0.03		**0.088**	<1	<0.1	30		0.1	<10	<5	
04-Jul-23	4457			46.1	0.005	0.5	1.7	0.06		0.016	0.47	<0.01	13		0.4	<0.5	2	
03-Oct-23	4511			63.9	0.006	0.7	3	0.23		**0.118**	0.61	<0.01	**148**		**2.1**	0.9	6	
23-Apr-24	4582			45.3	0.013	0.8	1.5	0.6		**0.128**	0.35	<0.01	**459**		0.5	0.9	4	
02-Jul-24	4635	<0.5	3	69	<0.1	0.8	2.1	0.1	<1	**0.074**	0.06	<0.01	**99**	<0.5	**1.3**	0.8	3	
26-Sep-24	2060977	<0.5	1	35	<0.1	<1	<1	<0.1	<1	**9.00**	<0.2	<0.1	8	<0.5	0.3	<1	2	
23-Apr-25	250917108	0.13	0.44	38.3	<0.005	<0.5	0.64	0.147	0.371	0.018	0.071	<0.01	**79.1**	<0.02	0.47	<0.5	<3	
14-Jul-25	251924209			52.9	0.0063	<0.5	0.9	0.22		**0.0478**	0.086	<0.01	71.8		**3.86**	0.57	4.5	
16-Oct-25	252965907			32.6	<0.005	<0.5	<0.5	<0.05		0.0092	0.075	<0.01	5.8		0.18	<0.5	<3	
TOTAL SAMPLES		3	21	96	97	96	97	98	10	113	91	93	97	8	97	97	97	25
AVERAGE 2025				41.3	<0.005	<0.5	0.5	0.12		0.02500	0.077	<0.01	52.23		1.503	<0.5	<3	

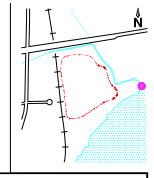
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

S-14

LAKE SIMCOE

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
09-Aug-99	101731		<2	30	0.1	<10	<1	1		<0.01	<5	<0.1	<50		<2	<20	<20	
08-Nov-99	101732		<2	30	<0.1	<10	2	<1		<0.01	<5	<0.1	<50		<2	<20	<20	
17-Apr-00	101733		<2	30	<0.1	<10	<1	<1		<0.01	<5	<0.1	<50		<2	<20	<20	
08-Aug-00	101734		<2	20	<0.1	<10	<1	<1		<0.01	<5	<0.1	<50		<0.2	<20	<20	
30-Apr-01	101735			30	<0.1	<10	1	<1		<0.01	<5	<0.1	<50		<0.5	<20	<20	182
11-Jul-01	101736		<1	40	0.5	<10	<0.5	**16**		**0.04**	<1	0.1	<50		**1.0**	<20	20	186
10-Jul-02	101737		2	30	**1.1**	<10	4	**6**			<5	**0.9**	<50		**2.2**	20	20	187
15-Jul-03	102576		<1	28	<0.1	<2	<2	<0.5		<0.01	<1	<0.1	<5		<0.1	<10	<5	193
06-Jul-04	1198		2	39	**0.9**	<1	<2	**10**		**0.11**	<1	<5	15		0.2	<10	16	500
15-Aug-05	58153		<1	51	**1.3**	<2	<2	**15**		0.02	<1	<0.1	**80**		0.2	<10	**26**	
08-Aug-06	6883		1	31	0.1	<2	<2	2		**0.03**	0.4	<0.1	<10		<5	<10	7	
09-Aug-07	7893		<0.5	28	<0.1	<2	<2	<0.1		<0.01	<1	<0.1	<10		<0.5	<10	<5	196
16-Jul-08	87163		1	28	<0.1	<2	<2	<0.1		<0.01	<1	<0.1	<10		<0.5	<10	20	198
15-Jul-09	0921631		<0.5	28	<0.1	<2	<2	<0.1		<0.01	4	<0.1	<10		<0.5	<10	<5	207
14-Jul-10	2071		<0.5	25	<0.1	<2	<2	<0.1		<0.01	<1	<0.1	<10		<0.5	<10	<5	
09-Aug-11	2290		0.7	24	<0.02	<2	<2	0.04		0.01	<1	<0.02	60		<0.1	<10	<5	
18-Jul-12	2435		<3	27	<0.1	<3	<2	<1		**0.05**	<4	<0.1	11		<0.5	<3	<5	
24-Jul-13	2670		0.5	31	<0.02	<2	<2	<0.02		<0.01	<1	<0.02	20		<0.1	<10	<5	
18-Jul-14	2823		0.6	36	<0.02	<2	1.3	0.11		<0.01	<1	<0.02	<10		<0.1	<10	13	
16-Jul-15	3026		0.4	28	<0.02	<2	<0.1	<0.02		<0.01	<1	<0.02	20		<0.1	1.8	<5	214
12-Jul-16	3249		0.3	28	<0.02	<2	0.5	<0.02		<0.01	<1	<0.02	20		<0.1	1.7	<5	213
12-Jul-17	3387		0.5	25	0.353	<2	4.3	0.38	<10	<0.01	<1	<0.02	10		0.1	3	<5	195
12-Jul-18	3567		0.4	27.3	0.003	0.11	0.62	0.05		<0.01	0.07	<0.05	5		0.013	0.3	<2	
11-Jul-19	3742		0.4	27.2	<0.003	0.14	1	0.06		<0.03	0.09	<0.05	3		0.024	0.2	3	
21-Jul-20	3962		0.4	29	<0.003	0.24	0.6	<0.01		<0.03	0.06	<0.05	2		0.025	0.3	<2	
21-Jul-21	4142		0.4	28.1	<0.003	0.23	<0.2	<0.09		**0.04**	0.07	<0.05	2		0.077	0.1	<2	
04-Jul-22	4280		0.3	27.7	<0.003	0.24	0.5	<0.09		<0.03	0.09	<0.05	4		0.033	0.2	<2	242
04-Jul-23	4458		<1	31	0.005	0.5	1.1	<0.05		0.006	0.34	<0.01	4		0.1	<0.5	<1	
02-Jul-24	4636	<0.5	0.5	34	<0.005	0.7	1.4	<0.05	<1	0.003	<0.05	<0.01	10	<0.5	0.1	<0.5	14	
14-Jul-25	251924210		0.4	29.3	<0.005	<0.5	<0.5	<0.05		0.005	0.063	<0.01	<3		<0.1	<0.5	<3	
TOTAL SAMPLES		1	34	65	66	65	66	66	8	86	60	64	66	6	66	66	66	14
AVERAGE 2025																		

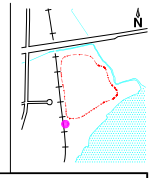
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

S-18

CN RAIL DRAIN

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P mg/L	Se	Ag	Al	Be	Co	Ni	Zn	TDS mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
15-Apr-09	0910924			186	0.1	<2	<2	<0.1		0.02	4	<0.1	10		<0.5	<10	**101**	775
16-Jul-09	0921629			231	<0.1	<2	<2	2.1		0.02	8	<0.1	10		<0.5	<10	**53**	923
22-Oct-09	0933458			208	<0.1	<2	<2	0.3		0.02	<1	**0.4**	<10		**1.4**	<10	**44**	886
15-Apr-10	2020			209	<0.1	<2	<2	0.2		<0.01	<1	<0.1	<10		<0.5	<10	**36**	
15-Jul-10	2075			186	<0.1	<2	<2	<0.1		**0.03**	<1	<0.1	<10		<0.5	<10	19	
04-Nov-10	2175			241	0.1	<2	<2	0.3		0.02	1	<0.1	<10		<0.5	<10	**35**	
26-Apr-11	2202			180	0.13	<2	<2	0.24		0.01	<1	<0.02	50		<0.1	<10	**104**	
08-Aug-11	2294			193	0.1	<2	<2	0.21		**0.03**	1	<0.02	60		<0.1	<10	**42**	
12-Oct-11	2350			285	0.12	<2	<2	0.51		**0.03**	3	<0.02	40		0.4	<10	**42**	
04-May-12	2417			185	0.15	<2	<2	<1		0.01	1	<0.1	**220**		<0.1	<10	**104**	
18-Jul-12	2439			235	0.3	<3	3	<1		**0.05**	<4	<0.1	26		<0.5	4	**110**	
31-Oct-12	2509			124	<0.1	7	2	<1		**0.06**	<4	<0.1	23		<0.5	6	**61**	
02-May-13	2579			154	<20	<2	<2	<10		**0.03**	<25	<2	17		<2	<5	**116**	
25-Jul-13	2674			206	0.27	<2	<2	0.58		**0.04**	<1	<0.02	40		<0.1	<10	**229**	
25-Oct-13	2689			151	0.2	<2	**6**	0.2		**0.05**	1	<0.02	40		<0.1	<10	**201**	
06-May-14	2765			153	0.15	0.3	2.5	0.16		**0.04**	<1	<0.02	60		0.1	2.7	**75**	
17-Jul-14	2827			214	0.23	<2	2.2	0.3		**0.03**	<1	<0.02	20		<0.1	<10	**193**	
25-Sep-14	2885			186	0.26	<2	2.5	0.63		**0.04**	<1	<0.02	30		0.2	4.9	**184**	
27-Apr-15	2967			153	0.12	<2	3.2	0.12		0.02	<1	<0.02	30		<0.1	4.1	**95**	660
17-Jul-15	3027			214	0.27	<2	3.4	1.09		**0.03**	1	0.04	50		<0.1	4.7	**108**	826
13-Jul-16	3250			201	0.26	<2	2.8	2.06		**0.06**	<1	<0.02	50		<0.1	4.7	**131**	793
12-Jul-17	3388			167	0.069	<2	1.2	0.2	<10	**0.05**	<1	<0.02	40		0.3	3.7	**71**	669
11-Jul-18	3568			192	0.116	0.24	0.91	0.14		**0.05**	0.40	<0.05	7		0.163	0.5	**85**	
11-Jul-19	3743			205	0.213	0.43	1.3	0.33		**0.07**	0.45	<0.05	42		0.07	0.6	**175**	
15-Jul-20	3963			194	0.041	0.42	1.1	0.44		**0.79**	0.23	<0.05	**136**		0.776	0.9	18	
06-Jul-21	4143			185	0.075	0.66	2.3	1.01		**0.10**	0.42	<0.05	**357**		0.478	1.3	**44**	
05-Jul-22	4281			195	0.119	0.46	1.3	0.55		**0.05**	0.52	<0.05	**105**		0.287	0.7	**76**	884
06-Jul-23	4459			209	0.076	0.7	4.2	0.1		**0.061**	0.99	0.05	16		0.6	1.7	**43**	
03-Jul-24	4637	<0.5	**6**	199	0.071	1.2	**5.2**	0.66	<1	**0.108**	0.74	<0.01	**177**	<0.5	0.8	3.3	**52**	
15-Jul-25	251924211			200	0.0546	<0.5	0.64	0.073		**0.047**	0.407	<0.01	12.6		0.18	0.65	**37.5**	
TOTAL SAMPLES		1	19	68	68	67	68	69	3	68	68	67	68	2	68	68	68	27
AVERAGE 2025																		

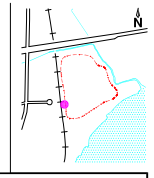
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

D-5

SURFACE WATER

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
16-May-14	2774			192	<0.02	<0.2	0.9	0.25		**0.08**	<1	<0.02	60		0.6	3.4	7	
07-Oct-14	2951			453	0.04	<2	**7**	0.82		**0.09**	2	<0.02	30		**1.2**	5.6	9	
20-Apr-15	3015			218	0.07	<2	4.7	0.61		**0.07**	<1	<0.02	20		0.9	5.1	17	437
29-Oct-15	3088			176	<0.02	<2	0.9	0.06		**0.08**	<1	<0.02	40		0.6	6.3	5	761
22-Apr-16	3161			521	0.05	<2	1.7	1.16		**0.23**	<1	<0.02	60		**2.6**	4.9	<5	648
21-Oct-16	3271			188	0.04	<2	1.9	0.08		**0.03**	<1	<0.02	60		0.9	6	<5	1100
20-Apr-17	3376			251	0.058	<1	1	0.42	8.4	**0.12**	<1	<0.02	**90**		**2.1**	7.1	9	656
16-Oct-17	3449			481	0.094	<1	0.9	0.19		**0.19**	<1	<0.02	**90**		**1.2**	5	**61**	836
26-Apr-18	3517			241	<0.003	0.15	0.93	0.02		<0.03	0.12	<0.05	12		0.284	1.1	<2	
26-Apr-19	3695			200	0.067	0.4	2	0.53		**0.05**	0.17	<0.05	**191**		0.535	1.8	4	
17-Oct-19	3803			360	<0.003	0.27	0.9	0.11		**0.04**	0.23	<0.05	2		0.62	0.6	3	
23-Apr-20	3899			384	0.015	0.38	0.9	0.38		**0.11**	0.18	<0.05	7		**1.6**	2.3	2	
13-Oct-20	4009			199	0.026	0.59	1.9	1.17		**0.03**	0.2	<0.05	**284**		**1.9**	1.6	15	
29-Apr-21	4081			263	<0.003	0.79	0.6	0.09		<0.03	0.15	<0.05	22		0.43	1.4	<2	
18-Oct-21	4213			262	0.036	0.56	1.4	0.41		<0.03	0.24	<0.05	**144**		0.557	1.1	5	
26-Apr-22	4259			240	0.003	0.29	0.7	0.21		<0.03	0.19	<0.05	40		0.3	1.2	<2	
11-Oct-23	4518			406	0.015	0.7	1.7	0.22		**0.047**	0.94	<0.01	**95**		**1.4**	2.8	2	
12-Apr-24	4589	<0.5	3	169	0.014	0.6	1.7	0.22	1	**0.037**	0.24	0.01	**142**	<0.5	0.4	0.9	3	
07-Oct-25	252881514			366	0.0344	1.06	1.88	1.11		**0.0999**	0.251	<0.01	**513**		0.83	1.59	11.3	
TOTAL SAMPLES		1	1	19	19	19	19	19	2	19	19	19	19	1	19	19	19	6
AVERAGE 2025																		

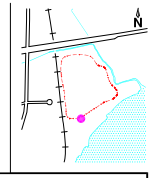
all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

D-6

SURFACE WATER

SURFACE WATER STATION



DATE	SAMPLE #	Sb	As	Ba	Cd	Cr	Cu	Pb	Mo	P	Se	Ag	Al	Be	Co	Ni	Zn	TDS
										mg/L								mg/L
	PWQO	20	5		0.5		5	5	40	0.02	100	0.1	75	1100	0.9	25	20	
16-May-14	2775			134	<0.02	<0.2	1.2	0.03		0.01	<1	<0.02	60		<0.1	2.6	16	
07-Oct-14	2952			155	0.06	<2	**5.7**	0.55		**0.06**	1	<0.02	30		<0.1	4.1	**38**	
20-Apr-15	3016			112	0.05	<2	3.4	0.43		0.02	<1	<0.02	20		0.2	3.8	**22**	437
29-Oct-15	3089			223	0.16	<2	**5.1**	2.05		**0.19**	<1	0.07	40		0.4	6.6	**63**	692
22-Apr-16	3162			140	<0.02	<2	1.1	0.03		0.02	<1	<0.02	30		0.1	2.8	9	583
19-Oct-16	3272			219	0.08	<2	3.7	1.32		**0.15**	<1	<0.02	50		0.4	4.3	**44**	759
20-Apr-17	3377			104	<0.014	<1	1	<0.02	0.5	**0.03**	<1	<0.02	70		<0.1	2.7	8	501
16-Oct-17	3450			183	0.015	<1	0.9	0.04		**0.07**	<1	<0.02	70		<0.1	3.3	**48**	684
26-Apr-18	3518			81.8	0.008	0.17	1.15	0.04		**0.04**	0.42	<0.05	29		0.037	0.4	8	
26-Apr-19	3696			95.2	0.008	0.18	1	0.08		**0.04**	0.16	<0.05	**114**		0.02	5.5	5	
17-Oct-19	3804			190	0.005	0.34	0.9	0.07		**0.04**	0.26	<0.05	<1		0.073	0.6	14	
23-Apr-20	3900			123	0.004	0.24	0.7	0.04		<0.03	0.24	<0.05	24		0.045	0.4	8	
13-Oct-20	4010			155	0.034	0.35	1.1	0.23		**0.06**	0.19	<0.05	**126**		0.167	0.2	**24**	
29-Apr-21	4082			132	0.005	0.15	0.7	<0.09		<0.03	0.23	<0.05	5		0.04	0.4	4	
18-Oct-21	4214			441	0.307	2.8	**8.8**	3.34		**0.37**	1.31	<0.05	**1170**		**1.27**	3.5	**228**	
26-Apr-22	4260			111	0.01	12.6	1.2	0.2		<0.03	0.37	<0.05	9		0.048	0.6	3	
11-Oct-23	4519			161	0.012	0.5	1.6	<0.05		**0.042**	0.73	<0.01	17		0.3	<0.5	4	
12-Apr-24	4590	<0.5	2	42.2	0.023	0.7	2	1.02	<1	**0.127**	0.19	0.01	**364**	<0.5	0.4	1.2	7	
07-Oct-25	252881515			238	0.104	1.22	2.95	0.955		**0.284**	0.425	0.01	**503**		0.36	2.18	**50.6**	
TOTAL SAMPLES		1	1	19	19	19	19	19	2	19	19	19	19	1	19	19	19	6
AVERAGE 2025																		

all Concentrations ug/L unless otherwise indicated

Anomalies shown in *Italics* / Exceedence in **BOLD**

APPENDIX F

Documentation

AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL
NUMBER 5204-B4RRK2
Issue Date: December 23, 2022

The Corporation of the City of Orillia
50 Andrew St S, No. 300
Orillia, Ontario
L3V 7T5

Site Location: Kitchener Street Landfill Site (Orillia)
100 Kitchener Street
Lot 11 & 12, Concession 4
Orillia City, County of Simcoe
L3V 6Z9

You have applied under section 20.2 of Part II.1 of the Environmental Protection Act , R.S.O. 1990, c. E. 19 (Environmental Protection Act) for approval of:

the use and operation of a 40.5 hectare Waste Disposal Site which includes the following:
a. a 24.3 hectare landfill site for the disposal of solid, non-hazardous waste;
b. a Public Drop-Off and Transfer Area for the transfer and temporary storage of solid, non-hazardous waste;
c. a Composting Facility for the open windrow composting of organic waste;
d. a Household Hazardous Waste Depot for the transfer, bulking and temporary storage of Waste Electrical and Electronic Equipment and the following classes of hazardous waste: 112, 121, 145, 146, 147, 148, 212, 213, 221, 242, 243, 252, 261, 263, 312 limited to Sharps Waste, and 331 as outlined in the "New Ontario Waste Classes" dated January 1986;
e. a Reuse Depot for the temporary storage and transfer of reusable items limited to solid, non-hazardous waste, Waste Electrical and Electronic Equipment, and Ontario waste classes: 145 (paint), 147 (fertilizer), 148 (cleaning products), 212 (antifreeze), 213 (car products), 252 (oil), 263 (caulking, fibre glass, and asphalt patches/tars), and 331 (aerosols and propane) as defined in the "New Ontario Waste Classes" dated January 1986, or the most recent version.

For the purpose of this environmental compliance approval, the following definitions apply:

"Approval" means this Environmental Compliance Approval No. A250601;
"Brush and Tree Wood" means branches greater than 2.5 cm in diameter, Christmas trees, tree stumps and other like material;
"Competent Personnel" means an employee who has received training in accordance

with Conditions 50.1 and 50.2 and is qualified because of knowledge, training and experience, to organize the work and its performance;
"Composting Facility" means the part of the Site that is used to compost organic waste including food waste and Leaf and Yard Waste from residential, industrial, commercial, and institutional sources;
"Compost" has the same meaning as set out in the document "Ontario Compost Quality Standards" dated July 25, 2012, as amended.
"Composting" has the same meaning as set out in the document "Ontario Compost Quality Standards" dated July 25, 2012, as amended. Composting consists of the thermophilic phase (also known as the active composting or pasteurization phase) and the curing phase.
"Compost Quality Standards" means the Ministry standards for compost as set out in the document entitled "Ontario Compost Quality Standards" dated July 25, 2012, as amended;
"Compost Standards Document" means the Ministry's document entitled "Ontario Compost Quality Standards" dated July 25, 2012, as amended and including the following documents to provide operational guidance to accompany the "Ontario Compost Quality Standards":
a. Guidance for Generators of Category AA, A, and B Compost and the Ontario Compost Quality Standards – Maturity, Effective July 1st, 2015, as amended;
b. Guidance for Generators of Category AA, A, and B Compost and the Ontario Compost Quality Standards – Foreign Matter, Effective July 1st, 2015, as amended;
c. Guidance for Generators of Category AA, A, and B Compost and the Ontario Compost Quality Standards – Sharp Foreign Matter, Effective July 1st, 2015, as amended;

“Contaminant Attenuation Zone” or “CAZ” means the Contaminant Attenuation Zone;

“Director” means any Ministry employee appointed in writing by the Minister pursuant to section 5 of the Act as a Director for the purposes of Part II.1 of the EPA;
“District Manager” means the District Manager in the Barrie District Office;
“District Office” refers to the Ministry of the Environment, Conservation and Parks' Barrie District Office;
“EPA” means the *Environmental Protection Act,* R.S.O. 1990, C.E-19, as amended from time to time;
"Finished Compost" means the Organic Waste that has been fully processed, as required, and is considered ready for sampling and testing for compliance with the Compost Quality Standards;
“Guideline” means the Ministry publication entitled "Guideline for the Production of Compost in Ontario", dated July 2012, or the most recent revision;
"Household Hazardous Waste Depot " or “HHW Depot” means the part of the Site that is used to transfer, bulk and temporarily store Waste Electrical and Electronic Equipment and the following Ontario waste classes: 112, 121, 145, 146, 147, 148, 212,

213, 221, 242, 243, 252, 261, 263, 312 limited to Sharps Waste, and 331 as outlined in the “New Ontario Waste Classes” dated January 1986, as amended.
"Immature Compost" means the Organic Waste which has been thermophilically composted but not cured and screened, if screening is required;
“Leaf and Yard Waste” means waste consisting of leaves, grass clippings, pumpkins and other plant materials and includes branches no larger than 2.5 cm in diameter;
"Ministry" refers to the Ontario Ministry of the Environment, Conservation and Parks;
"Ontario Regulation 267" means Ontario Regulation 267/03 made under the *Nutrient Management Act, 2002;*
“Operator” has the same meaning as “operator” as defined in s.25 of the EPA;
"Organic Waste" means solid non-hazardous waste derived from plants or animals, including wastes consisting of other compounds of carbon, all readily biodegradable, and limited to wastes listed in Condition 45.1 of this Approval;
"Organic Waste Mix" means the mixture of the incoming Organic Waste, the amendment materials, overs from the screening process and/or additives approved in this Approval;
“Owner" means the Corporation of the City of Orillia and its successors and assigns;
“OWRA” means the *Ontario Water Resources Act,* R.S.O. 1990, c. O.40, as amended;
“PA” means the *Pesticides Act,* R.S.O. 1990, c. P-11, as amended from time to time;
“Point of Compliance” means the boundary at which the Reasonable Use Guideline shall be evaluated;
"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;
"Public Drop-Off and Transfer Area" means the part of the Site that is used to receive, temporarily store and transfer solid, non-hazardous waste from residential, industrial, commercial and institutional sources.
“PWQO” means the Provincial Water Quality Objectives included in the Ministry Guideline entitled “Water Management - Policies, Guidelines, Provincial Water Quality Objectives of the Ministry of the Environment” dated July 1994;
“QA/QC” means quality assurance and quality control;
“Reasonable Use Guideline” means the Ministry Guideline B-7 entitled "Incorporation of the Reasonable Use Concept into MOE Groundwater Management Activities", dated April 1994;
“Regulation 347" or “Reg. 347” means Regulation 347, R.R.O. 1990, General - Waste Management, made under the EPA, as amended from time to time;
“Reuse Depot” means the part of the Site that is used to temporarily store and transfer reusable items limited to solid, non-hazardous waste, Waste Electrical and Electronic Equipment, and Ontario waste classes: 145 (paint), 147 (fertilizer), 148 (cleaning products), 212 (antifreeze), 213 (car products), 252 (oil), 263 (caulking, fibre glass, and asphalt patches/tars), and 331 (aerosols and propane) as defined in the “New Ontario Waste Classes” dated January 1986, or the most recent version; and
“Site” means the entire waste disposal site, including the buffer lands, and contaminant

attenuation zone approved by this Approval, shown and identified in Schedule “A”; and
“Solid Non-Hazardous Waste” means municipal waste, solid non-hazardous industrial waste or materials that do not exceed Schedule 4 of Regulation 347.
“Source Separated Organics” or "SSO" means waste that has been segregated by the generator consisting of solid or semi-solid food waste from residential, commercial or institutional kitchens, restaurants and food processing operations including meat, bone, dairy and dairy related products, packaging materials that have been in direct contact with and are contaminated by these wastes, and other waste of vegetable and animal origin or waste of a similar nature, designated by the Owner as compatible with the Owner's waste processing operation.
"Standards Document" means the Ministry document entitled “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act”, revised version April 15, 2011, or the most recent version;
“Storage Building” means the Storage Building that is shown on the east side of Figure 3: Waste Diversion Site Plan listed in the Design, Operations and Maintenance Plan (Item 56 of Schedule “A”).
"Waste Electrical and Electronic Equipment" means devices listed in Schedules 1 through 7 of Ontario Regulation 393/04 Waste Electrical and Electronic Equipment made under the Waste Diversion Act, 2002.

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

TERMS AND CONDITIONS

GENERAL

1.0 Compliance

1.1 The Owner shall ensure that any person authorized to carry out work on or operate any aspect of the Site is notified of the Approval and the conditions herein and shall take all reasonable measures to ensure the person complies with the same.
1.2 Any person authorized to carry out work on or operate any aspect of the Site shall comply with the conditions of this Approval.

2.0 In Accordance

2.1 Except as otherwise provided for in this Approval, the Site shall be designed, developed, constructed, operated and maintained in accordance with the conditions in this Approval and the supporting documentation listed in Schedule “A”.

3.0 Other Legal Obligations

3.1 The issuance of, and compliance with, this Approval does not:
(a) relieve any person of any obligation to comply with any provision of the EPA or any other 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 request that any further information related to compliance with this Approval be provided to the Ministry;

unless a provision of this Approval specifically refers to the other requirement or authority and clearly states that the other requirement or authority is to be replaced or limited by this Approval.

4.0 Adverse Effect

4.1 The Owner and Operator shall take steps to minimize and ameliorate 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.

4.2 Despite an Owner, Operator or any other person fulfilling any obligations imposed by this Approval, the person remains responsible for any contravention of any other condition of this Approval 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.

5.0 Furnish Information

5.1 Any information requested by the Ministry concerning the Site and its operation under this Approval, including but not limited to any records required to be kept by this Approval shall be provided in a timely manner.

5.2 The receipt of any information by the Ministry or the failure of the Ministry to prosecute any person or to require any person to take any action, under this Approval or under any statute, regulation or subordinate legal instrument, in relation to the information, shall not be construed as:

(a) an approval, waiver, or justification by the Ministry of any act or omission of any person that contravenes any condition of this Approval or any statute, regulation or other subordinate legal requirement; or

(b) acceptance by the Ministry of the information's completeness or accuracy.

5.3 Any information related to this Approval and contained in Ministry files may be made available to the public in accordance with the provisions of the *Freedom of Information and Protection of Privacy Act* , RSO 1990, CF-31.

6.0 Interpretation

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

6.2 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 in writing **.**

6.3 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.

6.4 The conditions of this Approval are severable. If any condition of this Approval, or the application of any condition of this Approval to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this Approval shall not be affected thereby.

7.0 Certificate of Requirement

7.1 Pursuant to Section 197 of the EPA, no person having an interest in the Site shall deal with the Site in any way without first giving a copy of this Approval to each person acquiring an interest in the Site as a result of the dealing.
7.2 If not completed by the issuance of this Approval, then two (2) copies of a completed Certificate of Requirement, containing a registerable description of the Site, shall be submitted to the Director for the Director's signature within sixty (60) calendar days of the date of this Approval.
7.3 If not completed by the issuance of this Approval, then the Certificate of Requirement shall be registered in the appropriate land registry office on title to the Site and a duplicate registered copy shall be submitted to the Director within 10 calendar days of receiving the Certificate of Requirement signed by the Director.

8.0 No Transfer or Encumbrance

8.1 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 is satisfied with the arrangements made to ensure that all conditions of this Approval will be carried out and that sufficient financial assurance is deposited with the Ministry to ensure that these conditions will be carried out.

9.0 Change of Owner

9.1 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 in the following information:
(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 or Operator is or at any time becomes a partnership and 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 or Operator 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. C.39, shall be included in the notification.
9.2 In the event of any change in the ownership of the Site, other than a change to a successor municipality, the Owner shall notify in writing the succeeding owner of the existence of this Approval, and a copy of such notice shall be forwarded to the Director and District Manager.

10.0 Inspections

10.1 No person shall hinder or obstruct a Provincial Officer from carrying out any and all inspections authorized by the OWRA, the EPA, or the PA, of any place to which this Approval relates, and without limiting the foregoing:
(a) to enter upon the premises where the approved works are located, or the location where the records required by the conditions of this Approval are kept;
(b) to have access to, inspect, and copy any records required to be kept by the conditions of this Approval;

(c) to inspect the Site, related equipment and appurtenances;
(d) to inspect the practices, procedures, or operations required by the conditions of this Approval; and
(e) to sample and monitor for the purposes of assessing compliance with the terms and conditions of this Approval or the EPA, the OWRA or the PA.

WASTE MINIMIZATION

11.0 Waste Advisory Committee and Waste Minimization Plan

11.1 The Owner shall maintain and fund, a waste advisory committee ("committee") which will incorporate, as a minimum, the following features:
(a) The committee's mandate is to advise and assist the Owner in:
i. the preparation and implementation of a Waste Minimization Plan;
ii. improving the operation and management of the landfill;
iii. reviewing all action plans with respect to waste management which are under consideration by the Owner;
iv. advising the Owner on all issues relating to waste management; and
v. such other waste management matters that may from time to time be referred to by the Owner.
(b) Membership on the committee will include representatives of local public interest groups, Orillia residents, the business community and elected officials, with City staff in an advisory capacity;
(c) the committee's members will be appointed by the City Council after each municipal election;
(d) the committee shall be comprised of no less than 8 members at any time; and
(e) adequate funding shall be allocated to the committee on a regular, budgetary basis.
11.2 (1) By **June 30, 2021** and every five (5) years thereafter the Owner shall submit to the District Manager for review, an updated five (5) Year Waste Minimization plan that addresses the following:
(a) A statement of goals, to include that:
i. all waste received at the landfill will be sorted;
ii. no toxic substances will be landfilled;
iii. no reusable, recyclable or compostable materials will be landfilled.
(b) A multi-dimensional, community-wide and sustained public education program which will promote the goals.
(c) A phased plan with specific target objectives including:
i. sorting and separating at the source;
ii. reduction, reuse and recycling;
iii. household and municipal composting;
iv. a community resource centre; and
v. the strategic use of bans on materials such as cardboard.
(2) As a component of the waste minimization plan, the Owner shall prepare a strategy plan that shall discuss how the plan shall be implemented. Some of the details to be included in the plan shall include but not be limited to the following:

(a) all financial, technical and human resources necessary for the implementation of the plan;

(b) the timetable when each component of the plan will become operational;
(c) the amount of solid waste reduction and diversion (re-use, re-cycle and compost) which is projected for each component of the plan;
(d) details of how the implementation of each component of the plan will be managed;
(e) methods and frequency of monitoring the progress of implementation of each component of the plan; and
(f) procedures for assessing new or unforeseen opportunities.
(3) In preparing the strategy, the Owner will consider the recommendations of the Committee, and community members from the City.
11.3 The Owner shall continue to evaluate alternative approaches to solid waste management and shall implement waste diversion programs which are technically and economically feasible provided that:
(a) the Owner has notified and obtained written approval from the District Manager prior to implementation of the program; and
(b) the implementation of the waste diversion program does not entail design changes to the Site. Programs involving changes to the Site design require Director's approval.

CONSTRUCTION, INSTALLATION AND PLANNING

12.0 Major Works

12.1 For the purposes of this Approval, Major Works includes, but is not limited to the following:
i. Stormwater management system; and
ii. Gas management system.
12.2 A final detailed design shall be prepared for each Major Work to be constructed at the Site consistent with the conceptual design of the Site as presented in the Design, Operations and Maintenance Plan (Item 56 of Schedule “A”).
12.3 The final detailed design of each Major Work shall include the following:
i. design drawings and specifications;
ii. a detailed quality assurance / quality control (QA/QC) program for construction of the major work, including necessary precautions to avoid disturbance to the underlying soils; and;
iii. details on the monitoring, maintenance, repair and replacement of the engineered components of the major work, if any.
12.4 The final detailed design of each Major Work shall be submitted to the Director for approval, with two (2) copies to the District Manager.
12.5 No construction of a Major Work shall commence prior to the Director approving, in writing, the final detailed design of that Major Work. Each major work shall be constructed in accordance with the approved final detailed design and the QA/QC procedures shall be implemented as approved by the Director.

12.6 Any design optimization or modification that is inconsistent with the conceptual design shall be clearly identified, along with an explanation of the reasons for the change.

GENERAL OPERATIONS

13.0 Operations Manual

13.1 The Design, Operations and Maintenance Plan shall be retained at the Site; kept up to date through periodic revisions; and be available for inspection by Ministry staff. Changes to the Design, Operations and Maintenance Plan shall be submitted to the Director for approval.

14.0 Hours of Operation

14.1 The Owner shall set operational hours to the public which provides an adequate level of service. The hours of operation to the public shall be any day of the week, during daylight hours.

14.2 Hours of operation to the public may be changed by the Owner at any time, provided that the hours are correctly posted at the Site gate, and that suitable public notice is given of any change.

14.3 The Owner shall notify the District Manager, in writing, of any changes to the hours of operation to the public.

14.4 On-Site equipment used for daily Site preparations and closing activities shall only be used Monday through Saturday from 6:00 AM to 8:00 PM.

14.5 No waste shall be received or removed at the Site except during Monday through Saturday from 8:00 AM to 6:00 PM and while under the supervision of Competent Personnel.

14.6 Despite Condition 14.5, the Site may temporarily receive waste outside of the set hours of operation only during emergency situations and under the supervision of Competent Personnel .

15.0 Site Access

15.1 Access to the Site for disposal and related waste operations is limited to the main entrance off of Kitchener Street.

16.0 Site Security

16.1 During non-operating hours, the Site entrance and exit gates shall be locked and the Site shall be secured against access by unauthorized persons.

17.0 Roads and Traffic

17.1 The access road and on-Site roads shall be provided and maintained in a manner that vehicles hauling waste to and on the Site may travel readily and safely on any operating day. On-Site roads must be clear of mud, ice and debris which may create hazardous conditions.

18.0 Waste Inspection and Procedures

18.1 i. The Owner shall ensure that Competent Personnel are available at all times during the hours of operation of this Site.

ii. Competent Personnel shall conduct appropriate inspections and ensure that appropriate controls are in place to prevent the acceptance of non-approved waste as reflected by this Approval and to prevent the acceptance of waste from outside the

approved service area.
iii. The Owner shall record in the daily records any occurrence of non-approved waste delivered to the Site, the name of the waste hauler delivering the waste and waste generator (if known).
iv. The Owner shall forthwith notify the District Manager of any and all waste load refusals at the Site related to requirements in this Approval, including service area and waste types.
18.2 The loading or unloading of waste shall occur under the supervision of Competent Personnel.
18.3 Waste vehicles must be directed to appropriate areas for waste disposal.

19.0 Litter Control

19.1 The Owner shall take all practical steps to prevent the escape of litter from the Site. All loose, windblown litter shall be collected on a daily basis and disposed of at the landfill working face when the Site is active and at a licensed waste disposal site when the Site no longer accepts waste for final disposal.

20.0 Vermin, Scavenging, Dust, Odour, Noise, etc.

20.1 The Site shall be operated and maintained such that the vermin, vectors, dust, odour, noise and traffic do not create an adverse effect off-Site.
20.2 No scavenging is to occur at the Site.
20.3 The Owner shall control fugitive dust emissions from onsite sources including but not limited to onsite roads, stockpiled cover material and closed landfill area prior to seeding especially during times of dry weather conditions. If necessary, major sources of dust shall be treated with water and/or dust suppression materials to minimize the overall dust emissions from the Site.
20.4 The Owner shall comply with noise criteria in Ministry Guideline entitled "Noise Guidelines for Landfill Sites."

21.0 Signage

21.1 A sign shall be maintained at the main entrance/exit to the Site on which is legibly displayed the following information:
(a) the name of the Site and Owner;
(b) the number of the Approval;
(c) the name of the Operator;
(d) the normal hours of operation;
(e) the allowable and prohibited waste types;
(f) a warning against unauthorized access;
(g) the telephone number to which complaints may be directed;
(h) a twenty-four (24) hour emergency telephone number (if different from above); and
(i) a warning against dumping outside the Site
21.2 The Owner shall post and maintain signs to direct vehicles to working face and recycling areas.

22.0 Burning of Waste

22.1 The burning of waste is not permitted at the Site.

23.0 Handling of Wastes

23.1 All wastes accepted or generated at this Site shall be managed and disposed in accordance with the EPA and Regulation 347.

LANDFILL

24.0 Capacity

24.1 The Owner shall only accept and deposit waste for landfilling at the Site as long as the total Site capacity for waste and waste cover, excluding final cover, does not exceed 1,300,000 cubic meters.

25.0 Service Area and Waste Type

25.1 Only municipal waste as defined by Reg. 347 that has been generated in the City of Orillia shall be landfilled at the Site. No liquid industrial waste or hazardous waste as defined under Reg. 347 shall be disposed of at the landfill.

25.2 (a) The Owner shall accept contaminated materials for landfilling in accordance with the plan for the Receipt of Contaminated Materials as identified in the Design, Operations and Maintenance Plan (Item 56 of Schedule “A”).

(b) In the event additional testing is required to stockpile contaminated materials as identified in Item 56 of Schedule "A", and the analytical results identify the contaminated materials as not being solid non-hazardous waste, the Owner shall have those contaminated materials transported to an appropriate waste disposal site forthwith.

26.0 Landfill Staging

26.1 Waste landfilling operations shall proceed in the various cells in the following order:

i. Cell 5;
ii. Cell 8;
iii. Cell 9;
iv. Cell 10;
v. Cell 11; and
vi. Cell 12.

27.0 Landfill Operations

27.1 No use shall be made of the peat zone in or around the landfill that might reduce the effective attenuation capability of the peat to handle leachate migration away from the landfill.

27.2 The Owner shall clearly define the boundaries of the limit of waste by installing permanent markers that are visible year-round.

27.3 Composting operations shall occur within the approved footprint of the landfill.

27.4 No waste shall be landfilled within one (1) metre of the seasonal high water table and no waste shall be landfilled in ponded water at any time. The limits on the depth of fill shall be clearly marked within the fill area to ensure the minimum one metre separation distance is maintained.

27.5 No waste shall be placed above the final contours shown in the plans and specifications noted as part of the Design, Operations and Maintenance Plan (Item 56 of Schedule “A”).

27.6 No waste shall be landfilled outside of the limit of fill area as shown in the Design,

Operations and Maintenance Plan (Item 56 of Schedule “A”).

28.0 Asbestos Waste

28.1 Any waste that is considered asbestos waste shall be handled in accordance with Section 17 of Reg. 347, as amended from time to time.

28.2 A suitable sized excavation for the asbestos waste shall be made by the Owner in a location away from the active landfilling face, or the active face of the landfill shall be shut down during this procedure to bury the asbestos containing waste.

28.3 All asbestos waste shall be inspected to ensure that the asbestos waste is properly bagged or contained and free from puncture, tears or leaks.

28.4 The asbestos waste shall be placed in the excavation to avoid damage to the containers and to prevent dust and spillage.

28.5 Upon completion of the unloading and deposition of the asbestos in the excavation, at least 1.25 metres of cover or waste material shall be placed over the asbestos.

28.6 All asbestos waste shall be deposited to a level no higher than 1.25 metres below the general elevation of the disposal area to ensure that daily cover material removal in the future does not encounter the asbestos waste.

29.0 Cover Material

29.1 (1) Daily Cover - By the end of each working day, the entire working face shall be covered and compacted with a minimum thickness of 150 mm of daily cover material.

(2) Intermediate Cover - In areas where landfilling has been temporarily discontinued for more than one (1) month, a minimum thickness of 300 mm of soil cover material shall be placed and compacted.

(3) Final Cover – In areas where landfilling has reached the final grade, the final cover shall be placed in accordance with the Design, Operations and Maintenance Plan (Item 56 of Schedule “A”) which includes the following:

(a) 300 mm of clear stone or fill;
(b) 16 oz geotextile layer;
(c) 40 mm LLDPE geomembrane;
(d) 16 oz geotextile layer;
(e) 200 mm of sand;
(f) 12 oz geotextile layer;
(g) 350 mm of fill;
(h) 150 mm of top soil; and
(i) vegetation.

29.2 The following materials, may be used as daily cover material in accordance with the Design, Operations and Maintenance Plan (Item 56 in Schedule "A"):

(a) Heavy-duty reinforced vinyl membrane may be used provided that a stockpile of soil is made available at the Site, at all times should the weather conditions render use of the alternative daily cover unsuitable;
(b) Excavated soils from the Site;
(c) Clean and contaminated soils accepted at the Site for landfilling;
(d) Wood chips;

29.3 The contaminated soil listed in Condition 29.2 shall meet the Toxicity Characteristic Leaching Procedure (TCLP) criteria specified in Schedule IV of Reg. 347 as amended from time to time.
29.4 Only clean native soil or soil that meets Table 7 of the Standards Document for industrial/commercial/community property use shall be used for intermediate and final cover.
29.5 The application of daily cover material shall not result in any nuisance including odour, dust, and litter.

30.0 Landfill Gas
30.1 The Owner shall ensure that the on-Site structures approved in this notice and all future structures will:
(a) be situated and constructed in a manner which minimizes the potential for explosive hazards due to landfill gas;
(b) have methane detection and alarm equipment installed and maintained, with active venting or an effective passive venting system to relieve any possible landfill gas accumulation; and
(c) be routinely monitored for explosive methane gas levels, especially enclosed structures which at times are occupied by people.
30.2 The design of the Site and any plans, specifications and descriptions for the control of landfill gas must ensure that the subsurface migration of landfill gas meets the limits identified in Section (14) of O. Reg. 232/98 (Ontario Regulation 232/98 - Landfilling Sites).
31.0 Surface Water Management
31.1 Surface water runoff from the landfilling area shall be collected and directed to the on-Site stormwater management ponds, and shall not be directly discharged off-Site.
31.2 Temporary berms and ditches shall be constructed around the active waste disposal area, as necessary, to prevent clean surface water runoff generated in non-operating areas from contacting the active working face.
32.0 Buffer
32.1 A minimum buffer area width of thirty (30) metres shall be maintained between the perimeter of the approved fill area and the property line.
33.0 Landfill Gas Collection System
33.1 The Owner shall construct and operate a landfill gas collection system in accordance with the detailed design listed in Items 55 and 56 of Schedule “A”.
33.2 For the landfill gas collection system in Cells 5 through 12, the Owner shall submit the final detailed design to the Director for approval, with copies to the District Manager prior to construction. Approval from the Director is required prior to commencing construction of the landfill gas collection system in Cells 5 through 12.
33.3 Within one hundred and twenty (120) days of commissioning of each stage of the gas collection system, the Owner shall submit to the District Manager a construction report detailing the construction activities and any design changes made to the landfill gas collection system during construction.

33.4 (1) Following commissioning of the landfill gas collection system, at least once a year, the Owner shall conduct an evaluation of the effectiveness of the landfill gas collection system and submit to the District Manager. This shall include an assessment of the system design, adequacy of the vent spacing to prevent ballooning of the final cover, and any possible improvements that can be implemented.
(2) Should there be an indication of inadequate system performance based on regular monitoring results or the system effectiveness evaluation required in Condition 33.4 (1) the Owner shall forthwith prepare a detailed plan for improvement of the gas collection system and submit to the Director for approval.
33.5 Any gas vent that needs to be replaced due to damage or is deemed to be not functioning properly, the Owner shall replace the gas vent within a reasonable time frame of identifying the need for replacement. Any such changes to the gas collection system shall be documented in the annual report.

PUBLIC DROP-OFF AND TRANSFER AREA

34.0 Service Area and Waste Type

34.1 (1) Only solid, non-hazardous waste generated from residential, commercial, institutional and industrial sources (including construction and demolition waste) within the City of Orillia shall be accepted at the Public Drop-Off and Transfer Area for temporary storage and transfer.
(2) With the exception of wood waste, no putrescible waste shall be accepted at the Public Drop-Off and Transfer Area;
(3) Asbestos waste shall not be accepted at the Public Drop-Off and Transfer Area; and
(4) If incidental amounts of non-approved wastes are accepted at the Public Drop-Off and Transfer Area, the Owner shall remove the non-approved waste forthwith.

35.0 Capacity

35.1 The Owner shall ensure that:
(a) the maximum amount of waste stored at the Public Drop-Off and Transfer Area shall not exceed 90 cubic meters; and
(b) with the exception of statutory holidays, the Owner shall ensure that incoming waste material shall be removed from the Public Drop-Off and Transfer Area within 2 weeks of receipt.
35.2 In the event that waste or recyclable materials cannot be removed from the Public Drop-Off and Transfer Area and the total approved storage capacity is reached, the Owner shall cease accepting additional waste to ensure the total approved storage capacity does not exceed the maximum amount approved by this Approval.

36.0 Storage and Operations

36.1 Waste shall be placed in the appropriate bins before the end of each operating day. No overnight storage of waste on the pad is permitted.
36.2 All storage bins shall be covered prior to the end of each operating day.
36.3 All storage containers/bins used to store waste and/or recyclable materials shall be maintained in good condition to prevent leakage. The Owner shall immediately remove from service any leaking container. Containers/bins used to store clean scrap metal may be equipped with drainage holes to permit the drainage of rainwater.

HOUSEHOLD HAZARDOUS WASTE (HHW) DEPOT

37.0 Service Area and Waste Type

37.1 (1) Only the following types of wastes that were generated by residential, industrial, commercial and institutional sources within the City of Orillia and the Townships of Ramara, Severn, and Oro-Medonte shall be accepted at the Site for temporary storage, bulking, and transfer at the HHW Depot:

(a) Ontario waste classes: 112, 121, 145, 146, 147, 148, 212, 213, 221, 242, 243, 252, 261, 263, 312 limited to Sharps Waste, and 331 as defined in the “New Ontario Waste Classes” dated January 1986, or the most recent version, including wet cell batteries and small dry cell batteries, household cleaners and detergents, aerosols, waxes and polishes, fluorescent tubes, energy efficient light bulbs, mercury switches and thermostats; and

(b) Waste Electrical and Electronic Equipment.

(2) The quantity of industrial, commercial and institutional waste accepted shall not exceed ten percent (10%) of the total waste accepted at the HHW Depot.

38.0 Capacity

38.1 The Owner shall ensure that:

(a) the total amount of waste received at the HHW Depot shall not exceed 8 cubic meters per day;

(b) the total amount of Waste Electrical and Electronic Equipment that is received at the HHW Depot shall not exceed 6 cubic meters per day;

(c) the maximum amount of waste stored at the HHW Depot shall not exceed 48 cubic meters;

(d) the maximum amount of Waste Electrical and Electronic Equipment stored at the HHW Depot and Storage Building shall not exceed 38 cubic meters; and

(e) with the exception of statutory holidays, the Owner shall ensure that incoming waste material shall be removed from the HHW Depot and Storage Building within 90 days.

38.2 In the event that waste or recyclable materials cannot be removed from the HHW Depot and the total approved storage capacity is reached, the Owner shall cease accepting additional waste to ensure the total approved storage capacity does not exceed the maximum amount approved by this Approval.

39.0 Site Access

39.1 The HHW Depot shall be maintained in a secure manner at all times, such that unauthorized persons cannot enter.

39.2 All points of access to the HHW Depot shall be posted to warn that the area contains hazardous materials.

40.0 HHW Depot Operations

40.1 Incoming waste shall be inspected by Competent Personnel prior to being accepted at the HHW Depot to ensure that the HHW Depot is approved to accept that type of waste.

40.2 (1) The City shall ensure that no PCB waste are accepted at the Site.

(2) Oil and oil-based paints which have been manufactured prior to 1972, paints and thinners having an oily appearance, rubber based paints (concrete paints/stains),

adhesives, urethane elastomers manufactured prior to 1977, pesticides manufactured prior to 1977, any of these materials whose manufacturing date cannot be determined, and any container having contained these materials may contain PCBs. The City shall undertake a waste screening procedure for PCBs that includes, but is not limited to the following:
(a) The City shall ensure that an approved PCB storage site is available to take and store any confirmed PCB waste that is inadvertently received at the Site;
(b) The City shall ensure a waste tracking system is established to property identify the source of any confirmed PCB waste;
(c) Any PCB suspect material shall be segregated and shall not be mixed or bulked. All PCB suspect material shall be sampled and analyzed for PCB content. Each individual suspect container or a representative proportional composite of not more than ten (10) individual suspect containers shall be sampled and analyzed;
(d) Any material that may be mixed or bulked shall be sampled and analyzed for PCB content. Each individual bulk container or drum shall be sampled and analyzed; and
(e) Any material that has measure levels greater than fifty (50) parts per million is considered to be PCB waste as defined in Ontario Regulation 362. PCB waste shall be removed from the Site to an approved PCB storage site in accordance with written instructions from a Director as defined in Ontario Regulation 362, or a Waste Management System Environmental Compliance Approval which specifies the manner in which PCB waste may be stored, handled, collected, transported or disposed of.
(3) Light ballasts and/or capacitors, that are suspected of containing PCBs, shall be handled as follows:
(i) they shall be stored segregated from other waste, in a clearly labelled, leak-proof container;
(ii) the number of light ballasts and capacitors that may be stored at the HHW Depot shall be limited to a maximum of 35 individual units;
(iii) They shall only be transported to a PCB waste site as defined by Ontario Regulation 262, Waste Management - PCBs, made under the EPA.
40.3 All storage of waste shall be in accordance with the Ministry's "Guidelines for Environmental Protection Measures at Chemical and Waste Storage Facilities," dated May 2007, and its amendments;
40.4 All Sharps Waste received at the Site shall be labelled, handled and stored in accordance with Ministry’s “Guideline C-4: The Management of Biomedical Waste in Ontario” dated November 2009, and its amendments.
40.5 The HHW Depot shall be inspected by Competent Personnel on each operating day to ensure the proper storage and handling of hazardous waste and that the integrity of waste containers is intact.

41.0 Health and Safety

41.1 The Owner shall ensure that adequate firefighting equipment is available at the HHW Depot location at all times and that on-Site staff are familiar with the use of such equipment.
41.2 The City shall ensure that the local police and fire departments are informed of the

operation at the HHW Depot at all times and are kept up-to-date on the types and quantities of waste that the facility handles.
41.3 Not less than once per calendar year, the City shall ensure that a fire and explosion prevention inspection is carried out by a qualified person who is either a representative from the City of Orillia Fire Department, a Professional Engineer or who has specialized training in fire and explosion hazards.

REUSE DEPOT

42.0 Service Area and Waste Type

42.1 Only the following types of wastes that were generated by residential, industrial, commercial and institutional sources within the City of Orillia and the Townships of Ramara, Severn, and Oro-Medonte shall be accepted at the Site for temporary storage, and transfer at the Reuse Depot:
(a) Ontario waste classes: 145 (paint), 147 (fertilizer), 148 (cleaning products), 212 (antifreeze), 213 (car products), 252 (oil), 263 (caulking, fibre glass, and asphalt patches/tars), and 331 (aerosols and propane) as defined in the “New Ontario Waste Classes” dated January 1986, or the most recent version;
(b) Waste Electrical and Electronic Equipment; and
(c) Solid non-hazardous waste.

43.0 Capacity

43.1 The Owner shall ensure that:
(a) the total amount of waste received at the Reuse Depot shall not exceed 25 cubic meters per day;
(b) the maximum amount of waste stored at the Reuse Depot shall not exceed 25 cubic meters; and
(c) with the exception of statutory holidays, the Owner shall ensure that incoming waste material shall be removed from the Reuse Depot within 90 days.
43.3 Incoming waste shall be inspected by Competent Personnel, prior to being accepted at the Reuse Depot, to ensure that the Reuse Depot is approved to accept that type of waste.

44.0 Site Access

44.1 The Reuse Depot shall be maintained in a secure manner during non-operating hours, such that unauthorized persons cannot enter.
44.2 All points of access to the Reuse Depot shall be posted to warn that the area contains hazardous materials.

COMPOSTING

45.0 Service Area and Waste Type

45.1 This Site is approved to receive Leaf and Yard Waste, wood chips, Source Separated Organics and Brush and Tree Wood from residential, institutional, commercial and industrial sectors located within the geographic boundaries of the City of Orillia and the Townships of Ramara, Severn and Oro-Medonte for composting at the Composting Facility.
45.2 The Site is prohibited from accepting the following categories of waste in any amounts:

(a) sewage biosolids;
(b) pulp and paper biosolids;
(c) domestic septage;
(d) pet waste, diapers and hygiene products;
(e) any waste that exceeds the metal concentrations set out in Schedule "B" of this Approval.

46.0 Capacity

46.1 The Site is approved to receive a total maximum of 200 tonnes per day of waste approved in Condition 45.1, subject to the following individual annual limits:
(a) 2,900 tonnes per year of Leaf and Yard Waste;
(b) 550 tonnes per year of woodchips;
(c) 1,900 tonnes per year of Source Separated Organics; and
(d) 800 tonnes per year of Brush and Tree Wood.

47.0 Compost Operations

47.1 Incoming waste shall be inspected by Competent Personnel prior to being received to ensure that the Composting Facility is approved to accept that type of waste.
47.2 The Owner shall conduct composting operations as follows:
(a) all waste receipt, waste processing (excluding wood chipping/grinding) and active composting and curing phases shall take place on the compost pad;
(b) windrows shall be arranged in a manner which permits equipment access to the composting and storage areas for efficient turning of the windrows, to allow access for emergency vehicles and to permit efficient drainage of surface water from the compost pad;
(c) windrows shall be constructed at bulk densities and heights which promote aerobic conditions;
(d) during the pathogen inactivation phase:
i. all waste being composted must be maintained at a temperature of at least 55 ^{o} C for a cumulative time period of at least 15 days;
ii. the temperature must be monitored and recorded daily at locations at least one metre internal to the face of each windrow;
iii. the temperature readings shall be taken every fifteen (15) metres along the length of the windrow section or at six (6) representative locations, whichever method yields more locations; and
iv. the windrow must be turned at least once every three (3) days and /or at least five (5) times throughout the fifteen (15) day period;
(e) during the remaining portion of the composting process, the temperature of the windrows shall be monitored a minimum of weekly and the windrows shall be turned as required to maintain aerobic conditions;
(f) compost shall be cured for six (6) months;
(g) during the curing phase, the windrows shall be turned at least once per month; and
(h) no compost shall be removed from the composting pad until it has completed the entire composting process including the curing phase; and

(i) only clean water shall be used to moisten windrows during the thermophilic phase and curing phase.

47.3 The Owner shall either use dedicated equipment for handling pre- and post-pathogen inactivation phase compost or shall thoroughly clean equipment in between handling pre- and post-pathogen inactivation phase compost.

48.0 Finished Compost Quality Monitoring

48.1 The Owner shall sample and analyse the Finished Compost in accordance with the following requirements:

a. the Owner shall maintain a Quality Assurance/Quality Control (QA/QC) program for sampling and analysis of the Organic Waste and the Finished Compost, as required by this Approval;
b. all required analytical results shall be from a laboratory service provider accredited to the ISO/IEC:17025:2005 standard;
c. the Owner shall contact their laboratory service provider for recommended sample preparation methods, sample containers, and other materials and instructions for sample collection and handling and shall prepare a written sampling protocol. This protocol shall be made available to the Ministry staff, upon request;
d. The Organic Waste, Organic Waste Mix, Immature Compost, and Finished Compost sampling/composite sample preparation and testing methods and procedures shall be as set out in Appendix 1 and Appendix 2 of the Compost Standards Document;
e. Retesting due to sample failure is as set out in the Compost Standards Document.

48.2 Compost shall comply with the pathogen reduction Compost Quality Standards set out in the Compost Standards Document. Until such a time that the Compost Standards Document dated July 25, 2012 is amended, the Organic Waste Mix is considered to be Immature Compost when it complies with the following pathogen reduction requirements:

a. using the windrow composting method, the Organic Waste Mix has been maintained at a minimum temperature of 55 degrees Celsius for at least 15 (fifteen) days; and
b. the Organic Waste Mix does not exceed the following pathogen concentrations:
    i. 1,000 colony forming units (CFU) E. coli or most probable number (MPN)/gram total solids (on a dry weight basis); and
    ii. 3 MPN Salmonella/4 grams total solids (on a dry weight basis, based on an analysis of the entire 4g sample).

48.3 Compost shall comply with the maturity requirements set out in the Compost Standards Document. Until such a time that the Compost Standards Document dated

July 25, 2012 is amended, Immature Compost is considered to be Finished Compost when it complies with the following maturity requirements:

a. the Immature Compost has been maintained at ≥ 40% moisture during curing; and
b. the Immature Compost has been cured for a minimum period of twenty one (21) days from the day the last portion of material went into the batch, and the respiration rate is:
    i. less than, or equal to, 400 milligrams of oxygen per kilogram of volatile solids (on a dry weight basis) per hour; or
    ii. less than, or equal to, 4 milligrams of carbon in the form of carbon dioxide per gram of organic matter (on a dry weight basis) per day.

48.4 Compost shall comply with the metal, total foreign matter and sharp foreign matter content limits set out in the Compost Standards Document for its intended end use criteria. Until such a time that the Compost Standards Document dated July 25, 2012 is amended, Finished Compost is considered to be Compost when it complies with the following requirements:

a. Compost must not contain regulated metals in a concentration that exceeds any of the limits set out in Table 3.1 of the Compost Standards Document, as calculated on a dry weight basis, for the applicable end-use of the Organic Waste processed at the Site. Until such a time that the Compost Standards Document dated July 25, 2012 is amended, Finished Compost must not exceed the metal concentrations in Table 3.1 of Schedule "C" for the applicable end-use of the Organic Waste processed at the Site.
b. Compost shall comply with the total foreign matter content and sharp foreign matter content limits set out in Table 3.3, of the Compost Standards Document, as calculated on a dry weight basis, for the applicable end-use of the Organic Waste processed at the Site. Until such a time that the Compost Standards Document dated July 25, 2012 is amended, Finished Compost must not exceed the foreign matter content and sharp foreign matter concentrations in Table 3.3 of Schedule "C" for the applicable end-use of the Organic Waste processed at the Site.

48.5 Prior to being transferred from the Site, the Owner shall:

a. conduct quality control testing of the Organic Waste Mix, the Immature Compost and the Finished Compost in accordance with the requirements set out in the Compost Standards Document and listed in conditions 48.1 to 48.4. The quality control testing under condition 48.4 shall only be conducted on Finished Compost; and
b. conduct a review of the data associated with the batch of Compost, which shall

include, but not be limited to:

i. temperature readings and residency times achieved during the composting process; and

ii. analytical results of the Compost.

48.6 Finished Compost is considered to be Compost when it complies with Compost Quality Standards for the intended end use category.

48.7 Finished Compost which does not exceed the maximum concentrations for metals as set out in Column 2 of Table 3.1 of the Compost Standards Document and which complies with the foreign matter quality requirements, the maturity criteria, the pathogen reduction requirements and the pasteurization temperature and residency time requirements set out in the Compost Standards Document may be transferred off Site:

a. for unrestricted use as Category AA Compost; or

b. for use as a non-agricultural source material in accordance with the NMA.

48.8 Finished Compost which does not exceed the maximum concentrations for metals as set out in Column 3 of Table 3.1 of the Compost Standards Document and which complies with the foreign matter quality requirements, the maturity criteria, the pathogen reduction requirements and the pasteurization temperature and residency time requirements set out in the Compost Standards Document may be transferred off Site:

a. for unrestricted use as Category A Compost, provided that the labelling requirements as specified in the Compost Standards Document are met; or

b. for use as a non-agricultural source material in accordance with the NMA.

48.9 Finished Compost which does not exceed the maximum concentrations for metals as set out in Column 4 of Table 3.1 of the Compost Standards Document and which complies with the foreign matter quality requirements, the maturity criteria, the pathogen reduction requirements and the pasteurization temperature and residency time requirements set out in the Compost Standards Document may be transferred off Site:

a. for use as a non-agricultural source material in accordance with the NMA; or

b. for use at a waste disposal facility approved to receive this type of waste.

48.10 Finished Compost which does not exceed the maximum concentrations for metals as set out in Table 3.1 of the Compost Standards Document and which complies with the foreign matter quality requirements, the pathogen reduction requirements and the pasteurization temperature and residency time requirements but

not with the maturity requirements set out in the Compost Standards Document is considered to be an Immature Compost and a waste and shall:

a. continue to undergo curing at the Site; or
b. be disposed of as waste at a waste disposal site approved by the Ministry, or its equivalent if in jurisdictions outside of Ontario, to accept such waste.

48.11 Finished Compost which does not exceed the maximum concentrations for metals as set out in Table 3.1 of the Compost Standards Document and which complies with the foreign matter quality requirements, the maturity requirements but not with the pathogen reduction requirements and the pasteurization temperature and residency time requirements set out in the Compost Standards Document is considered to be a waste and shall:

a. be returned to the Composting process for pasteurization as set out in this Approval; or
b. be disposed of as waste at a waste disposal site approved by the Ministry, or its equivalent if in jurisdictions outside of Ontario, to accept such waste.

48.12 If Finished Compost exceeds the maximum concentrations for metals in Compost for its intended end use, as set out in Table 3.1 of the Compost Standards Document, but meets the maximum concentrations for metals in feedstock listed in Table 3.2 of the Compost Standards Document, it may be returned to the Composting process as waste for re-processing.

48.13 Finished Compost which does not exceed the maximum concentrations for metals as set out in Table 3.1 of the Compost Standards Document and which complies with the maturity requirements and the pathogen reduction requirements and the pasteurization temperature and residency time requirements but not with the foreign matter quality requirements set out in the Compost Standards Document is considered to be a waste and shall:

a. be re-screened as set out in this Approval; or
b. be disposed of as waste at a waste disposal site approved by the Ministry, or its equivalent if in jurisdictions outside of Ontario, to accept such waste.

49.0 Stormwater Management

49.1 The compost pad shall be designed and maintained to minimize the accumulation of standing water on the compost pad. All surface water and compost impacted water shall be collected and managed by either through recirculation into the composting process or disposal in accordance with Regulation 347 or the OWRA.

TRAINING

50.0 Training

50.1 Staff shall be trained in the operation and management of the Site, or area(s)

within the Site, in accordance with the specific job requirements of each individual operator, and which may include procedures for receiving, screening and handling of waste, health and safety concerns pertaining to the waste that the operator will handle, maintenance of the specific equipment which they operate at the Site and emergency response procedures.

50.2 The Owner shall ensure that Site personnel who operate any aspect of the Site or carry out any activity required under this Approval are trained and receive annual refresher training in:

(a) the relevant waste management legislation including EPA, Reg. 347, regulations and guidelines;
(b) major environmental and occupational health and safety concerns pertaining to the waste to be handled;
(c) the proper handling of wastes;
(d) the management procedures including the use and operation of equipment for the processes and wastes to be handled;
(e) the emergency response procedures;
(f) the specific written procedures for the control of nuisance conditions;
(g) the terms, conditions and operating requirements of this Approval; and
(h) proper inspection, receiving and recording procedures and the activities to be undertaken during and after a load rejection.

INSPECTIONS AND RECORD KEEPING

51.0 Daily Inspections and Log Book

51.1 An inspection of the entire Site and all equipment on the Site shall be conducted each day the Site is in operation to ensure that the Site is being operated in compliance with this Approval. Any deficiencies discovered as a result of the inspection shall be remedied immediately, including temporarily ceasing operations at the Site if needed.

51.2 A record of the daily Site inspections shall be kept in a daily log book or a dedicated electronic file that includes:

(a) the name and signature of person that conducted the inspection;
(b) the date and time of the inspection;
(c) the list of any deficiencies discovered;
(d) the recommendations for remedial action; and
(e) the date, time and description of actions taken.

52.0 Monthly Inspections and Log Book

52.1 During Site operations, the Owner shall inspect the Site monthly for the following items but not limited to these items:

(a) General settlement areas or depressions on the waste mound;
(b) Shear and tension cracks on the waste mound;
(c) Condition of surface water drainage works;
(d) Erosion and sedimentation in surface water drainage system;
(e) Presence of any ponded water on the waste mound;
(f) Adequacy of cover material;
(g) Evidence of vegetative stress, distressed poplars or side slope plantings on or adjacent to the waste mound;

(h) Condition of groundwater monitoring wells and gas wells;
(i) Presence of insects, vermin, rodents and scavenging animals on or adjacent to the waste mound;
(j) Condition of fence surrounding the Site;
(k) Condition of on-Site ponds; and,
(l) General Site appearance.
52.2 The Owner shall inspect the waste mound and surrounding areas monthly for presence of leachate seeps. The Owner will make best efforts to repair leachate seeps within 48 hours of discovery, depending on weather and ground conditions. In the event the leachate seeps are not addressed within 48 hours of discovery, the Owner shall document in the daily log book the reasons for which the seep(s) were not repaired within the 48 hour timeframe.
52.3 The Owner shall establish and maintain a written record of the monthly Site inspections. This record shall be in the form of a log and/or a dedicated electronic file and it shall include, as a minimum, the following information:
(a) date and time of inspection;
(b) name, title and signature of trained personnel that conducted the inspection;
(c) a listing of any deficiencies observed;
(d) recommendations for remedial action; and
(e) the date, time and description of actions taken to address the deficiency.

53.0 Record Keeping

53.1 The Owner shall establish and maintain a written record of daily operations at the Site. This record must be in a form of a log and/or a dedicated electronic file and it shall include as a minimum the following information:
(a) the type, date and time of arrival, hauler, and quantity (tonnes) of all waste received at the Site;
(b) the type, date and time of departure, destination and quantity (tonnes) of all Category A, Category B, non-agricultural source material or waste transferred from the Site;
(c) quantity of finished compost transferred from the Site;
(d) daily compost temperature reading; and
(e) activities undertaken on Site.
53.2 The Owner shall maintain a written record of all compost related monitoring, sampling and testing activities at the Site. This record shall include, as a minimum, the following information:
(a) sample collection locations and volume of the samples collected;
(b) day and time of collection;
(c) sample handling procedures;
(d) parameters tested for and the resulting concentrations;
(e) name of the laboratory facility doing the testing; and
(f) conclusions drawn with respect to the results of the testing.
53.3 The Owner shall maintain a written record of all emergency situations at the Site. This record shall include, as a minimum, the following information:

(a) type of the emergency situation and the resulting environmental impact;
(b) date, time, location and cause of the emergency situation;
(c) actions taken to address the impact;
(d) description of how any waste generated as a result of the emergency situation was stored and/or removed from the Site; and
(e) actions taken to prevent the re-occurrence of a similar emergency situation in the future.

53.4 The Owner shall establish and maintain a written record of complaints received about the Site. The records shall be kept at the Municipal Office. This record shall be in the form of a log or a dedicated electronic file and it shall include, as a minimum, the following information:
(a) date and time of any complaints received at the Site;
(b) name, address and telephone number of the complainant (if provided);
(c) nature of the complaint;
(d) activities taking place on Site at the time of the complaint;
(e) meteorological conditions at the time of the complaint.
(f) date and description of any remedial actions taken to address the received complaints.

53.5 The Owner shall establish and maintain a written record of all occurrences of refusal of acceptance or discovering of unapproved waste landfilled at the Site. This record shall be in a form of a log or a dedicated electronic file and it shall include, as a minimum, the following information:
(a) waste generator (if known);
(b) type of unapproved waste;
(c) an approximation on the amount of unapproved waste;
(d) nature of unapproved waste;
(e) steps taken to remove waste material; and
(f) actions taken by the Owner to prevent recurrence.

53.6 The Owner shall maintain a written record of employee training required by Condition 50.1 and 50.2 which shall include:
(a) date of training;
(b) name and signature of person who has been trained; and
(c) description of the training provided.

54.0 Record Retention

54.1 Except as authorized in writing by the Director, all records required by this Approval shall be retained at the Site for a minimum of two (2) years from their date of creation.

54.2 The Owner shall retain all documentation listed in Schedule “A” for as long as this Approval is valid.

54.3 The Owner shall retain employee training records as long as the employee is working at the Site.

54.4 The Owner shall make all of the above documents available for inspection upon request of Ministry staff.

MONITORING, TRIGGER MECHANISM, AND CONTINGENCY PLANS

55.0 Environmental Monitoring Program

55.1 (1) The Owner shall conduct environmental monitoring at the Site in accordance with the environmental monitoring program outlined in Schedule “D”.

(2) In the event the Owner recommends any changes to the environmental monitoring plan in the Annual Report, the Owner shall provide a cover letter with the submission of the annual report that clearly indicates the report contains proposed changes to the environmental monitoring plan and request the District Office review the proposed changes. The cover letter shall be addressed to the District Manager.

(3) Within fourteen (14) days of receiving written correspondence from the District Office confirming that the District Office is in agreement with the proposed changes to the environmental monitoring program identified in Condition 55.1 (2), the Owner shall forward a letter identifying the proposed changes, copies of the correspondences from the District Manager and all other correspondences and responses related to Condition 55.1 (2), to the Director requesting the Approval be amended to approve the proposed changes to the environmental monitoring plan prior to implementation.

(4) In the event any other changes to the environmental monitoring program are proposed outside of the recommendation of the annual report, the Owner shall follow current ministry procedures for seeking approval for amending the Approval.

56.0 Groundwater Monitors

56.1 The Owner shall ensure all groundwater monitoring wells are properly capped, locked and protected from damage.

56.2 All groundwater monitoring wells whether included in the monitoring program or not shall be assessed, repaired, replaced or decommissioned as required. Any well being decommissioned shall be decommissioned in accordance with good standard practice that will prevent contamination through the abandoned well and in accordance with Ontario Regulation 903.

56.3 The Owner shall repair or replace any monitoring well included in the monitoring program which is destroyed or in any way made inoperable for sampling such that no more than one sampling event is missed.

56.4 Any monitoring well included in the monitoring program that is no longer required as part of the groundwater monitoring program may be decommissioned provided its removal from the monitoring program has been approved by the Director. A report on the decommissioning shall be provided in the annual monitoring report for the period during which the well was decommissioned.

57.0 Compliance Criteria

57.1 The Site shall be operated in such a way to ensure compliance with the Ministry's PWQOs at monitoring points along the property line that have the potential to be impacted by leachate from the Site.

58.0 Trigger Mechanism and Contingency Plans

58.1 The Trigger Mechanism Plan shall be carried out by the Owner in accordance with Items 20 through 24 set out in Schedule "A".

58.2 In the event of a confirmed exceedance of a site-specific trigger level, the Owner

shall immediately notify the District Manager, and an investigation into the cause and the need for implementation of remedial or contingency actions shall be carried out by the Owner in accordance with the approved trigger mechanisms and associated contingency plans.

58.3 In the event the Owner has to implement contingency plans to address exceedances of the groundwater or surface water trigger mechanisms, the conceptual contingency plans identified in Item 31 in Schedule "A" are deemed acceptable as possible options for addressing the exceedances. For any contingency plan, the Owner shall submit all necessary information and detailed designs for approval and obtain approval for the detailed design prior to implementing any contingency plan.

58.4 If monitoring results, investigative activities and/or trigger mechanisms indicate the need to implement contingency measures, the Owner shall ensure that the following steps are taken:

(a) The Owner shall notify the Director and District Manager, in writing, of the need to implement contingency measures, no later than 30 days after confirmation of the exceedances;

(b) Detailed plans, specifications and descriptions for the design, operation and maintenance of the contingency measures shall be prepared and submitted by the Owner to the Director and District Manager for approval within 90 days after confirmation of the exceedances; and

(c) The contingency measures shall be implemented by the Owner upon approval by the Director.

58.5 The Owner shall ensure that any proposed changes to the Site-specific trigger levels for leachate impacts to the surface water or groundwater, shall be approved in advance by the Director prior to implementation.

COMPLAINTS PROCEDURE AND EMERGENCY SITUATIONS

59.0 Complaints Procedure

59.1 If at any time the Owner receives complaints regarding the operation of the Site, the Owner shall respond to these complaints according to the following procedure:

(a) The Owner shall record each complaint in accordance with Condition 53.4;

(b) The Owner, upon notification of the complaint, shall initiate appropriate steps to determine all possible causes of the complaint, proceed to take the necessary actions to eliminate the cause of the complaint and forward a formal reply to the complainant; and

(c) The Owner shall retain on-Site a report written within one (1) week of the complaint date, listing the actions taken to resolve the complaint and any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the re-occurrence of similar incidents.

59.2 The Owner shall post the Site complaints procedure at the Site entrance along with the name and phone number of a suitable, local contact to receive complaints or questions related to the Site. All complaints and the Owner’s actions taken to remedy the complaints must be summarized in the Annual Report.

59.3 With the exception of weekends and statutory holidays, all complaints received by

the Owner are to be reported to the District Manager within (2) business days of receipt.

60.0 Emergency Situations

60.1 In the event of a fire or discharge of a contaminant to the environment, Site staff shall contact the Ministry's Spills Action Centre (1-800-268-6060) and the District Office of the Ministry, as well as other applicable agencies as required.

60.2 The Owner shall submit to the District Manager a written report within three (3) days of the spill or incident, outlining the nature of the incident, remedial measures taken and measures taken to prevent future occurrences at the Site.

60.3 The Owner shall maintain an Emergency Response Manual for the Site, in consultation with local emergency response agencies. The Emergency Response Manual should indicate the responsibility of each of the stakeholders with respect to handling possible emergency situations, including the situation of a HHW Depot hazardous spill.

60.4 The Emergency Response Manual shall be updated on an as-needed basis and be provided to the District Manager within one month of the revision date.

60.5 The Owner shall ensure that adequate firefighting and contingency spill cleanup equipment is available and that emergency response personnel are familiar with its use and location.

REPORTING

61.0 Annual Reporting

61.1 A written report on the development, operation, closure and monitoring of the Site shall be completed annually (the “Annual Report”). The Annual Report shall be submitted to the District Manager by **April 30** of each year and shall cover the year ending the preceding December 31st.

61.2 The Annual Report shall include but not be limited to the following:

(a) a summary of type and quantity of incoming waste accepted during the reporting period;

(b) a summary of the amount of wastes refused for disposal at the Site, the reasons for refusal and the carrier who brought the waste to the Site;

(c) a summary of the total volume of waste, daily cover, intermediate cover, and final cover deposited or placed at the landfill during the reporting period, the remaining capacity of the landfill and remaining life expectancy of the landfill;

(d) a discussion on the progress of landfilling and the application of the final cover and vegetative cover;

(e) a summary of the Reuse Depot and HHW Depot operations;

(f) a section of text describing the landfill's hydrogeologic setting;

(g) a water table contour map;

(h) a location map illustrating the Site relative to nearby potentially sensitive groundwater and/or surface water features;

(i) a Site plan(s) illustrating the approved landfill footprint;

(j) stratigraphic cross-sections which clearly illustrate the subsurface distribution of geological materials;

(k) a description of the QA/QC sampling protocols and any problems encountered during the sampling events which may have impacted the reliability of analytical results;
(l) the status of all monitoring wells and a statement as to compliance with Ontario Regulation 903;
(m) a complete list of all sampling locations, sampling frequencies, target parameters and trigger levels assessed in the Environmental Monitoring Program for the reporting period;
(n) a table presenting all analytical results for all parameters. The analytical results for the critical contaminants must be presented graphically on time-series graphs, and must be compared to the trigger levels for compliance with Conditions 57 and 58;
(o) interpretive analysis of the results of all groundwater and surface water monitoring, including an assessment of the need to amend the monitoring programs, especially as they concern future sampling parameters, frequency and protocol;
(p) an assessment with regards to compliance of the groundwater and surface water quality with regards to the PWQOs;
(q) a discussion on the contaminated attenuation zone and the adequacy of the area for attenuation;
(r) a description of any significant landfill gas collection system maintenance or operational problems encountered and the actions taken for remediation;
(s) any changes to the gas collection system implemented over the reporting period including the installation of new extraction vents;
(t) a summary of any complaints received and the steps taken to identify, resolve and remediate the issue;
(u) any environmental and operational problems encountered during the operation of the Site (including odour and vector problems) and any mitigative actions taken;
(v) a statement as to compliance with all terms and conditions of this Approval and all other relevant Ministry groundwater and surface water requirements;
(w) any recommendations to minimize impacts and improve Site operations and monitoring programs; and
(x) any other information with respect to the Site which the District Manager or Director may require from time to time.
61.3 A written report on the development, operation, closure and monitoring of the Composting Facility shall be completed annually (the “Composting Facility Annual Report”). The Composting Facility Annual Report shall be submitted to the District Manager by **April 30** of each year and shall cover the year ending the preceding December 31st.
61.4 The Composting Facility Annual Report shall include but not be limited to the following:
(a) a monthly mass balance of the Organics Waste received, processed, and transferred from the Site as finished compost, Category A, Category B, non-agricultural source material and outgoing residual wastes;
(b) a summary of pile locations, pile record forms, pile residence time, temperature monitoring records, turning records, sampling analysis records and results to verify that

all compost transferred from the Site met the requirements of Condition 48.0;
(c) any environmental and operational problems encountered during the operation of the Composting Facility (including odour and vector problems) and any mitigative actions taken;
(d) a statement as to compliance with all Composting Facility related terms and conditions;
(e) any recommendations to minimize impacts and improve Composting Facility operations and monitoring programs.

SITE CLOSURE

62.0 HHW Depot

62.1 (a) The Owner shall submit, for approval by the Director, a written Closure Plan at least six (6) months prior to the permanent closure of the HHW Depot. This plan must include, as a minimum, a description of the work that will be done to facilitate closure of the HHW Depot and a schedule for completion of that work; and
(b) Within ten (10) days after closure of the HHW Depot, the Owner shall notify the Director, in writing, that the HHW Depot is closed and that the HHW Depot Closure Plan has been implemented.

63.0 Composting Facility

63.1 (a) The Owner shall submit, for approval by the Director, a written Closure Plan at least six (6) months prior to the permanent closure of the Composting Facility. This plan must include, as a minimum, a description of the work that will be done to facilitate closure of the Composting Facility and a schedule for completion of that work; and
(b) Within ten (10) days after closure of the Composting Facility, the Owner shall notify the Director, in writing, that the Composting Facility is closed and that the Composting Facility Closure Plan has been implemented.

64.0 Landfill

64.1 At least two (2) years prior to closure or when 90% of the Site capacity is reached, whichever comes first, the Owner shall submit to the Director for approval, with copies to the District Manager, a detailed Site closure plan pertaining to the termination of landfilling operations at this Site, the Reuse Depotand the Public Drop-off and Transfer Area,post-closure inspection, maintenance, monitoring, and end use. The plan shall include the following:
(a) a plan showing Site appearance after closure;
(b) a description of the proposed end use of the Site, that shall include a discussion on the EA commitment to dedicate portion of the lands within the Site that are not required for Site post-closure operations and monitoring, to be used for community recreational purpose.
(c) a description of the procedures for closure of the Site:

i. advance notification of the public of the landfill closure;
ii. posting a sign at the Site entrance indicating the landfill is

closed and identifying any alternative was disposal arrangements;
iii. completion, inspection and maintenance of the final cover and landscaping;
iv. Site security;
v. removal of unnecessary landfill-related structures, buildings and facilities; and
vi. final construction of any control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas;

(d) a schedule indicating the time-period for implementing sub-conditions i) to vi) above.
(e) descriptions of the procedures for post-closure care of the Site, including:

i. Operation, inspection and maintenance of the control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas;
ii. Record keeping and reporting; and
iii. Complaint contact and response procedures;

(f) an assessment of the adequacy of and need to implement the contingency plans for leachate and methane gas;
(g) an updated estimate of the Contaminating Lifespan of the Site, based on the results of the monitoring programs to date; and
(h) A description of how pollinator friendly plants were considered in the final vegetative cover for the landfill and/or in the landscaping within the Site.
64.2 A vegetative cover consisting of vegetation that is suited to local conditions and that is capable with minimal care of providing vigorous, plentiful cover no later than its third growing season shall be established over the entire landfill cover to control erosion and minimize evapotranspiration. The Owner shall complete planting as soon as possible after reaching final contours. The vegetative cover seed shall be in accordance with Ontario Provincial Standard Specifications and good practice.
64.3 Final slopes above grade at the time of Site closure within the waste fill area shall be within the range of 4H:1V (25%) and 20H:1V (5%).

65.0 Post-Closure

65.1 The Site shall be closed in accordance with the closure plans as approved by the Director.
65.2 Upon closure of the Site, the Owner shall update the sign at the front gate of the Site to indicate the following:
i. the name of the Site and Owner;

ii. the Environmental Compliance Approval number;
iii. the name of the Operator;
iv. a warning against unauthorized access;
v. the telephone number to which complaints or questions may be directed;
vi. 24 hour emergency telephone number;
vii. the Site is closed;
viii. dumping outside of the gate is illegal; and
ix. alternative locations for waste disposal.
65.3 Upon closure of the Site, the following features will be inspected, recorded and maintained on a monthly basis:
i. evidence of settlement;
ii. evidence of leachate seeps;
iii. cover soil integrity;
iv. evidence of illegal waste dumping;
v. vegetative cover; and
vi. surface water drainage works.
65.4 Any deficiencies identified in Condition 65.3 shall be repaired within one month time of notice.
65.5 Illegal waste shall be removed and disposed of within 48 hours of detection.
65.6 An inspection of the entire Site shall be conducted by the Owner twice per year.

SCHEDULE "A"

This Schedule "A" forms part of Environmental Compliance Approval No. A250601

1. Hydrogeological Site Assessment and 1989 Monitoring Report prepared by Gartner Lee Limited and dated June 1990
2. City of Orillia Landfill 1990 Monitoring Final Report prepared by Gartner Lee Limited and dated July 1991.
3. Response to MOE comments on the report entitled "Supporting Documentation to an Application for a Certificate of Approval, Kitchener Street Landfill Service Area Interim Expansion" prepared by Proctor and Redfern Limited and dated September 1990.
4. Supporting documentation to an Application for a Certificate of Approval, Kitchener Street Landfill Service Area Interim Expansion prepared by Proctor and Redfern Limited and dated September 1990 (Revised November 1990).
5. Letters dated September 8, 1998 and September 10, 1998, from the City of Orillia to Approvals Branch, MOE
6. A letter report dated August 15, 1998, by Dixon Hydrogeology Limited on the proposed alternative final cover and attached Site Location Map (Figure 1).
7. A letter dated December 2, 1998, to Tesfaye Gebrezghi, Environmental Assessment and Approvals Branch, MOE, and attached technical papers on GCL.
8. A letter dated February 15, 1999, to Tesfaye Gebrezghi, Environmental Assessment and Approvals Branch, MOE, regarding final covers and attached February 1991 Proctor and Redfern map (Figure 3) showing elevation contours.
9. Letter dated August 18, 1992 to Mr. Ian Gray, District Officer, Ministry of the Environment from Mr. R.F. Meadley City Engineer, Commissioner of Public Works, City

of Orillia that provided a comprehensive plan for receipt of contaminated materials directed to the landfill.
10. Letter dated June 9, 1995 to Mr. Ian Gray, District Officer, Ministry of the Environment from Mr. Peter Dance, Manager of Environmental Services, City of Orillia providing a revision/amendment to the comprehensive plan for receipt of contaminated material directed to the landfill.
11. Letter report and supporting documentation dated December 21, 2005 addressed to Mr. Ian Parrott, Ministry of the Environment from Mr. Peter Dance, City of Orillia. The report is entitled " *City of Orillia - Condition 17(2) - Receipt of Contaminated Material - Provisional Certificate of Approval No. A250601 - Kitchener Street Landfill* " prepared by the City of Orillia. The supporting documentation included a letter dated December 15, 2005 to Mr. Greg Preston, City of Orillia from Mr. Ben Kempel, Conestoga Rover and Associates that provided a peer review of the letter report.
12. Letter dated June 1, 2006 to Mr. Peter Dance, City of Orillia from Mr. Dale Gable, Ministry of the Environment providing comments on the Plan for Receipt of Contaminated Material .
13. Letter dated May 1, 2006 addressed to Mr. Ian Parrott, Ministry of the Environment from Mr. Peter Dance, City of Orillia requesting an amendment to the Design and Operations Plan to permit the use of a steel clad building to store for the diversion program at the Site.
14. Letter dated June 1, 2006 addressed to Mr. Peter Dance, City of Orillia, from Mr. Dale Gable, Ministry of the Environment requesting additional information on landfill gas monitoring for the proposed building.
15. Letter dated June 8, 2006 addressed to Mr. Dale Gable, Ministry of the Environment from Mr. Peter Dance, City of Orillia providing information on the construction of the building and landfill gas monitoring for the building.
16. Letter Report entitled " *City of Orillia - Condition 34 (Updated Environmental Monitoring Program) Provisional Certificate of Approval No. A250601 - Kitchener Street Waste Diversion Site* " dated December 21, 2005 addressed to Mr. Ian Parrott, Ministry of the Environment from Mr. Peter Dance, City of Orillia.
17. Letter dated November 27, 2006 addressed to Mr. Peter Dance, City of Orillia from Mr. Dale Gable, Ministry of the Environment requesting toluene be added to the parameter suite for BH 26.
18. Letter dated December 7, 2006 addressed to Mr. Dale Gable, Ministry of the Environment from Mr. Peter Dance, City of Orillia indicating toluene has been added to the parameter suite for environmental monitoring well BH 26.
19. Letter dated January 4, 2007 addressed to Mr. Dale Gable, Ministry of the Environment from Mr. Peter Dance, City of Orillia indicating that zinc shall be added to analytical suite for borehole 5-I, 17-III and 22-IR.
20. Letter report dated February 27, 2006 addressed to Mr. Greg Preston, City of Orillia from Mr. Frank Barone, Golder Associates Ltd. The report is entitled " *Proposed Groundwater Trigger Mechanism - Kitchener Street Waste Diversion Site - City of Orillia* ".

21. Letter dated September 29, 2006 addressed to Mr. Phil Bye, Ministry of the Environment from Mr. Frank Barone, Golder Associates Ltd. providing a response on the Ministry's comments on the peat attenuation study.
22. Letter dated November 28, 2006 addressed to Mr. Peter Dance, City of Orillia from Mr. Dale Gable, Ministry of the Environment providing comments on the trigger mechanism plan.
23. Letter dated December 11, 2006 addressed to Mr. Dale Gable, Ministry of the Environment from Mr. Peter Dance, City of Orillia providing a rationale for the trigger mechanism level for ammonia.
24. Letter dated January 2, 2007 addressed to Mr. Peter Dance, City of Orillia from Mr. Dale Gable, Ministry of the Environment indicating the proposed trigger mechanism for ammonia is acceptable.
25. Report entitled " *Assessment of Attenuation Capacity - Kitchener Street Landfill Waste Diversion Site* " prepared by Golder Associates Ltd. dated October 2005.
26. Report entitled " *Kitchener Street Waste Diversion Site - Design, Operation and Maintenance Plan* " prepared by City of Orillia dated December 2005.
27. Letter dated May 23, 2006 addressed to Mr. Peter Dance, City of Orillia from Mr. Phil Bye, Ministry of the Envrionment providing comments on the Assessment of Attenuation Capacity Study.
28. Letter dated September 29, 2006 addressed to Mr. Phil Bye, Ministry of the Environment from Mr. Peter Dance, City of Orillia providing responding to Ministry comments on the attenuation study.
29. Letter dated December 18, 2006 addressed to Mr. Peter Dance, City of Orillia from Mr. Dale I. Gable, Ministry of the Environment requesting additional information pertaining to the Design, Operations and Maintenance Plan.
30. Letter dated January 8, 2007 addressed to Mr. Dale Gable, Ministry of the Environment from Mr. Peter Dance, City of Orillia providing additional information on the Design, Operations and Maintenance Plan as requested in the December 18, 2006 letter.
31. Letter dated June 20. 2006 addressed to Mr. Dale Gable, Ministry of the Environment from Mr. Peter Dance, City of Orillia providing conceptual contingency plans as required by the Certificate.
32. Application for a Certificate of Approval for a Waste Disposal Site signed by Peter G. Dance, director of Public Works, City of Orillia, dated July 25, 2011.
33. Letter dated July 25, 2011 addressed to S. Sideris, Ministry of Environment from P. Dance, City of Orillia requesting an amendment to Certificate of Approval No. A250601 to permit the construction and operation of a push wall bin system and establish diversion depots for asphalt shingles, plastic flower pots and mattresses, including the following attachments:
- Description of push wall bin system (with plans)
- Description of diversion depots for asphalt shingles, flower pots & mattresses
- Comments on Certificate of Approval Application form
34. Letter dated November 12, 2014 addressed to Cindy Hood, MOECC, Barrie District

Office from Andrew Schell, C.E.T., Director of Environmental Services, City of Orillia regarding Revised Water Monitoring Program.
35. Letter dated December 17, 2014 addressed to Andrew Schell, C.E.T., Director of Environmental Services, City of Orillia from Cindy Hood, MOECC, Barrie District Office providing response to November 12, 2014 Letter the district is in agreement with proposed change.
36. Letter and supporting documentation dated December 19, 2014 addressed to MOECC, EAASIB, 2 St. Clair Ave. West, Floor 12A, Toronto, ON, M4V 1L5 from Andrew Schell, C.E.T., Director of Environmental Services, City of Orillia regarding ECA #A250601 Application Revised Environmental Monitoring Program.
37. Application dated October 5, 2015 addressed to the Ministry of the Environment and Climate Change from Mr. Andrew Schell, City of Orillia requesting an amendment to the Design and Operations Plan to permit the demolition of the existing Equipment Building and small office and replace both with a new equipment building with an administration wing, including all attachments.
38. Environmental Compliance Approval Application dated June 9, 2016 and signed Mr. Andrew Schell, Director of Environmental Services, the Corporation of the City of Orillia, including the attached supporting documentation.
39. Report titled "City of Orillia, Kitchener Street Waste Diversion Site, Design, Operation and Maintenance Plan Update" dated February 2016 prepared by SLR Global Environmental Solutions.
40. Report titled "Kitchener Street Waste Diversion Site, City of Orillia, 2014 Annual Monitoring Report" dated April 2015 prepared by Golder Associates Ltd.
41. Environmental Compliance Approval Application, signed by Peter G. Dance, Director of Public Works, City of Orillia, dated September 26, 2012.
42. Part E: Green Bin / Yard Waste Windrow Composting, Design, Operations & Maintenance Plan, prepared by the Public Works Department, revised January 2013.
43. Environmental Compliance Approval Application, signed by Andrew Schell, Director of Environmental Services, City of Orillia, dated July 8, 2016.
44. Composting Site Design, Operations & Maintenance Plan, prepared by City of Orillia Environmental Services Department, Revised July 2016.
45. Covering letter dated August 23, 1990 from the City of Orillia to the Ministry of the Environment.
46. The application dated August 23, 1990 submitted by the City of Orillia for a Provisional Certificate of Approval, Waste Disposal Site (Transfer).
47. Letter and report dated August 27, 1990 from Laidlaw Environmental Services to the City of Orillia regarding their proposal to provide services for the proposed Household Hazardous Waste facility.
48. Technical report entitled “Household Hazardous Waste Facility” prepared by the City of Orillia.
49. Site plan and site location plan dated July, 1990.
50. City of Orillia map showing location of the Orillia Sanitary Landfill Site
51. Copy of Generator Registration Report dated August 20, 1990

52. Letter dated August 30, 1994 addressed to Dave Bell of the Ministry of Environment and Energy from Peter G. Dance, P. Eng., Manager of Environmental Services, City of Orillia.
53. Environmental Compliance Approval Application dated September 17, 2017 and signed by Andrew Schell, Director of Environmental Services and Operations, the Corporation of the City of Orillia, including the attached supporting documentation.
54. Report titled "Waste Diversion Site Consolidated Design, Operations and Maintenance Plan" dated September 2018 and prepared by the City of Orillia.
55. Detailed final cover and passive gas collection design drawings for Cells 1 to 4 titled “Detailed Design of Capping System for Cells 1-4” dated September 10, 2018 and prepared by SLR Consulting.
56. "Waste Diversion Site Consolidated Design, Operations and Maintenance Plan" dated November 2022 and prepared by the City of Orillia.
57. Environmental Compliance Approval Application dated October 19, 2021 and signed by Andrew Schell, General Manager of Environment and Infrastructure Services Department, the Corporation of the City of Orillia, including the attached supporting documentation.
58. Emails dated October 16, 2022, December 8, 2022, and December 14, 2022 from Greg Preston, City of Orillia, to Nick Zambito, Ministry, regarding the Ministry's comments on the application and the City of Orillia's response.

SCHEDULE "B"

This Schedule "B" forms part of Environmental Compliance Approval No. A250601

Table 3.2 - Maximum Concentration for Metals in Feedstock

Item	Column 1	Column 2
	Metal	**Feed for Category AA Compost**
		mg/kg dry weight
1.	**Arsenic**	75
2.	**Cadmium**	20
3.	**Chromium**	1060
4.	**Cobalt**	150
5.	**Copper**	**760**
6.	**Lead**	500
7.	**Mercury**	5
8.	**Molybdenum**	**20**
9.	**Nickel**	180
10.	**Selenium**	14
11.	**Zinc**	1850

SCHEDULE "C"

This Schedule "C" forms part of Environmental Compliance Approval No. A250601

Compost Quality Standards

TABLE 3.1 - Maximum Concentration of Metals in Compost

Item	Column 1	Column 1	Column 2
	Metal	Category AA Compost	Category A Compost
		mg/kg dry weight	***mg/kg dry weight***
1.	**Arsenic**	13	13
2.	**Cadmium**	3	3
3.	**Chromium**	210	210
4.	**Cobalt**	34	34
5.	**Copper**	100	400
6.	**Lead**	150	150
7.	**Mercury**	0.8	0.8
8.	**Molybdenum**	5	5
9.	**Nickel**	62	62
10.	**Selenium**	2	2
11.	**Zinc**	500	700

TABLE 3.3 - Maximum Concentration of Foreign Matter and Sharps in Compost

Parameter	Category AA Compost	Category A Compost
Foreign matter	Total foreign matter greater than 3 mm shall not exceed 1.0%, calculated on a dry weight basis, and plastic cannot exceed 0.5%; and Compost shall not contain any foreign matter greater than 25 mm per 500 ml.	Total foreign matter greater than 3 mm shall not exceed 1.0%, calculated on a dry weight basis, and plastic cannot exceed 0.5%; and Compost shall not contain any foreign matter greater than 25 mm per 500 ml.
Sharp foreign matter	Compost shall contain no material of a size or shape that can reasonably cause human or animal injury.	Compost shall contain no material of a size or shape that can reasonably cause human or animal injury.

TABLE A1 - Baseline Sampling Frequency of Compost (Metals, Pathogens, Maturity and Foreign Matter)

Compost Produced Annually (wet	Baseline Number of Samples (per year)*	Minimum Additional Samples for Compost Containing Human Body Waste Feedstock (per year)

tonnes)		
<5000	4	+ 2
5000-15000	6	+ 2
15000-50000	12	+ 4
>50000	+ 2 more samples for every additional 10,000 tonnes above the 12 Baseline samples.	+ 4 additional samples above the Baseline Number of Samples

*The Owner is permitted to reduce the baseline sampling frequency above by 50%. However, the baseline sampling frequency shall be resumed in accordance with section A1.1.3 of the Compost Standards Document if any individual sample fails to meet any one of the quality standards and/or whenever there is a change in the feedstock or compost characteristics.

SCHEDULE "D"

This Schedule "D" forms part of Environmental Compliance Approval No. A250601

Parameters	**Groundwater Monitoring Stations – Spring & Fall**	**Groundwater Monitoring Stations – Summer**
Major Ions and Total Phosphorus	1-IR, 1-III, 2-III, 3-IR, 3-IIR, 4-11, 5-IR, 5-IIIR, 6R*, 8R, 10R, 11R, 14-IIIR, 16-I, 16-IVR, 17-III, 17-IVR, 18R, 20R, 21-IR, 21-II, 22-IR, 22-II, 26, 27-I, 27-IIR, 29-I, 29-II, 30-1, 30-II *6R excludes major ions	1-IR, 1-III, 2-II, 2-III, 3-IR, 3-IIR, 4-11, 5-IR, 5-IIIR, 6R*, 8R, 10R, 11R, 14-I, 14-IIIR, 15-IIIR, 16-I, 16-IVR, 17-III, 17-IVR, 18R, 20R, 21-IR, 21-II, 22-IR, 22-II, 23, 24R, 25, 26, 27-I, 27-IIR, 29-I, 29-II, 30-1, 30-II *6R excludes major ions
Trace Metals and o-Phosphate	3-IIR, 5-IR, 17-III, 17-IVR, 22-IR, 22-II, 26, 27-IIR, 29-I, 29-II, 30-1, 30-II	1-IR, 2-II, 3-IR, 3-IIR, 4-11, 5-IR, 14-I, 16-I, 17-III, 17-IVR, 21-IR, 22-IR, 22-II, 25, 26, 27-IIR, 29-I, 29-II, 30-1, 30-II
BTEX	5-IR, 5-IIIR, 6R, 11R, 17-III, 22-IR, 22-II, 26	5-IR, 5-IIIR, 6R, 11R, 17-III, 22-IR, 22-II, 26
VOC	3-IR, 3-IIR, 21-IR, 21-II	3-IR, 3-IIR, 21-IR, 21-II
Arsenic	-	3-IIR
Water Levels*	1-IR, 1-II, 1-III, 2-I, 2-II, 2-III, 3-IR, 3-IIR, 4-I, 4-11, 5-IR, 5-IIR, 5-IIIR, 6, 7, 8, 10R, 11R, 13, 14-I, 14-II, 14-III, 15-I, 15-II, 15-III, 16-I, 16-II, 16-III, 16-IV, 17-I, 17-II, 17-III, 17-	

	IVR, 18R, 19, 20R, 21-IR, 21-II, 22-IR, 22-II, 23, 24R, 25, 26, 27-I, 27-IIR, 29-I, 29-II, 30-1, 30-II, T1, T2, and T3 * Water levels are measured in each sampling session.

Parameters	**Surface Water Monitoring Stations – Spring & Fall**	**Surface Water Monitoring Stations – Summer**
Major Ions (with BOD), Trace Metals, o-Phosphate, Total Phosphorus, and Suspended Solids	S-1, S-2, S-3, S-4, S-6, S-7, S-8, S-11, D-1, D-2, D-3, D-4, D-5, D-6	S-1, S-2, S-3, S-4, S-6, S-7, S-8, S-9, S-11, S-14, S-18, S-19
Arsenic	S-2	S-2, S-14

Notes:(1) Major ions include: alkalinity, conductivity, hardness, pH, chloride, sulphate, calcium, magnesium, sodium, potassium, phenols, nitrite, nitrate, ammonia, TKN, organic nitrogen, COD, DOC, DIC, iron, manganese.
(2) Trace metals include: aluminum, barium, cadmium, chromium, cobalt, copper, lead, nickel, selenium, silver, and zinc.
(3) o-Phosphate measured at same locations as Trace Metals.
(4) 2 field blanks and 2 travel blanks required.

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

1. The reason for inclusion of the definitions is to define the specific meaning of terms and simplify the wording of conditions in this Environmental Compliance Approval.

2. The reason for Conditions 1.0 and 2.0 is to ensure that the Site is designed, operated, monitored and maintained in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider.

3. The reason for Conditions 3.0, 4.0 and 6.0 is to clarify the legal rights and responsibilities of the Owner under this Approval.

4. Conditions 5.1 and 5.2 are included to ensure that the appropriate Ministry staff have ready access to information and the operations of the Site, which are approved under this Approval.

5. Condition 5.3 has been included in order to clarify what information may be subject to the Freedom of Information Act.

6. Condition 7.0 is included, pursuant to subsection 197(1) of the EPA, to provide that any persons having an interest in the Site are aware that the land has been approved

and used for the purposes of waste disposal.

7. The reasons for Condition 8.0 are to restrict potential transfer or encumbrance of the Site without the approval of the Director and to ensure that any transfer of encumbrance can be made only on the basis that it will not endanger compliance with this Approval.

8. The reasons for Condition 9.0 are to ensure that the Site is operated under the corporate name which appears on the application form submitted for this approval and to ensure that the Director is informed of any changes.

9. The reason for Condition 10.0 is to ensure that appropriate Ministry staff have ready access to the Site for inspection of facilities, equipment, practices and operations required by the conditions in this Environmental Compliance Approval. This condition is supplementary to the powers of entry afforded a Provincial Officer pursuant to the EPA and OWRA.

10. The reasons for Condition 11.1 is to ensure the Owner has an established plan to address waste minimization for the landfill, educating the public on waste reduction at their homes and business and encourage the public on methods of reduction.

11. The reasons for Conditions 11.2 and 11.3 are to ensure the Owner investigates and evaluates alternative approaches to solid waste management. This is to ensure the long-term health and safety of the public and the environment.

12. The reason for Conditions 12.0, 13.0 and 26.0 is to ensure that the Site is designed, constructed and operated in an environmentally acceptable manner, based on the conceptual design and operations for the Site.

13. The reasons for Condition 14.0 are to specify the normal hours of operation for the landfill Site and a mechanism for amendment of the hours of operation.

14. The reasons for Conditions 15.0, 16.0 and 44.0 are to specify site access to/from the Site and to ensure the controlled access and integrity of the Site by preventing unauthorized access when the Site is closed and no site attendant is on duty.

15. The reason for Condition 17.0 is to ensure that access roads are clear and do not pose a safety hazard to the general public.

16. Condition 18.0 is necessary in order to ensure that all waste loads are inspected and waste that is disposed of at the site is in accordance with the terms and conditions in this Environmental Compliance Approval.

17. The reasons for Conditions 19.0, 20.0, 30.0, 31.0, 33.0, 36.0, 40.0, 41.0, 47.0 are to ensure that the Site is operated, inspected and maintained in an environmentally acceptable manner and does not result in a hazard or nuisance to the natural environment or any person.

18. The reason for Condition 21.0 is to ensure that users of the Site are fully aware of important information and restrictions related to Site operations under this Approval.

19. The reason for Condition 22.0 is that open burning of municipal waste is unacceptable because of concerns with air emissions, smoke and other nuisance affects, and the potential fire hazard.

20. Condition 23.0 is included in order to ensure that waste disposal, waste transfer operations at the site is undertaken in accordance with applicable Ministry of the Environment regulations and guidelines. Compliance with these regulations and guidelines will ensure that the site does not cause and adverse effect on the environment.

21. The reason for Conditions 24.0, 27.0 and 32.0 is to specify restrictions on the extent of landfilling at this Site based on the Owner’s application and supporting documentation. These limits define the approved volumetric capacity of the site. Approval to landfill beyond these limits would require an application with supporting documentation submitted to the Director.

22. The reason for Condition 25.0 is to specify the approved areas from which waste may be accepted for landfilling and the types and amounts of waste that may be accepted for disposal at the landfill, based on the Owner’s application and supporting documentation.

23. The reason for Condition 28.0 is to ensure asbestos waste is handled and disposed of in accordance with Reg. 347 as amended from time to time. Proper handling and disposal of asbestos waste ensures that the asbestos waste does not cause an adverse impact on the environment and also does not affect human health.

24. The reason for Condition 29.0 is to ensure that landfilling operations are conducted in an environmentally acceptable manner. Daily and intermediate cover is used to control potential nuisance effects, to facilitate vehicle access on the site, and to ensure an acceptable site appearance is maintained. The final cover is used to minimize leachate generation by limiting stormwater infiltration and to provide an aesthetically pleasing and suitable end use for the site.

25. The reason for Condition 33.0 is to protect the geomembrane used in the final cover

by preventing the ballooning of the geomembrane through landfill gas venting. As Cells 1 to 4 have been closed for over 20 years, landfill gas generation in these cells has been greatly reduced.

26. The reason for Conditions 34.0 and 35.0 is to specify the approved areas from which waste may be accepted for public drop-off and the types and amounts of waste that may be accepted for public drop-off, based on the Owner's application and supporting documentation.

27. The reason for Conditions 37.0 and 38.0 is to specify the approved areas from which waste may be accepted at the Household Hazardous Waste Depot and the types and amounts of waste that may be accepted at the Household Hazardous Waste Depot, based on the Owner's application and supporting documentation.

28. The reasons for Condition 39.0 is to specify site access to/from the Household Hazardous Waste Depot and to ensure the controlled access and integrity of the Household Hazardous Waste Depot by preventing unauthorized access. This is to ensure the health and safety of the public.

29. The reason for Conditions 42.0 and 43.0 is to specify the approved areas from which waste may be accepted for reuse and the types and amounts of waste that may be accepted for reuse, based on the Owner's application and supporting documentation.

30. The reason for Conditions 44.0 and 45.0 is to specify the approved areas from which waste may be accepted for composting and the types and amounts of waste that may be accepted for composting, based on the Owner's application and supporting documentation.

31. The reason for Condition 48.0 is to ensure that the finished compost does not pose a hazard to the health and safety of the environment or people, and to provide options for the Owner in the event that the resulting compost is not suitable for unrestricted use.

32. The reason for Condition 49.0 is to ensure that stormwater runoff and leachate generated at the Site is disposed of in an environmentally acceptable manner and to ensure that the compost mass which has completed the pathogen inactivation phase is not re-innoculated with pathogens.

33. The reason for Condition 50.0 is to ensure that the Site is supervised and operated by properly trained staff in a manner which does not result in a hazard or nuisance to the natural environment or any person.

34. Conditions 51.0, 52.0 and 53.0 are needed to ensure regular inspections of the site

are conducted in order to protect the natural environment and to ensure that detailed records of Site inspections are recorded and maintained for inspection and information purposes.

35. The reason for Condition 54.0 is to ensure that accurate waste records are maintained to ensure compliance with the conditions in this Environmental Compliance Approval (such as fill rate,site capacity, record keeping, annual reporting, and financial assurance requirements), the EPA and its regulations.

36. The reason for Conditions 55.0 and 57.0 is to demonstrate that the landfill site is performing as designed and the impacts on the natural environment are acceptable. Regular monitoring allows for the analysis of trends over time and ensures that there is an early warning of potential problems so that any necessary remedial/contingency action can be taken.

37. The reasons for Condition 56.0 are to ensure the integrity of the groundwater monitoring network and protection of the natural environment.

38. The reason for Condition 58.0 is to ensure that the Owner follows a plan with an organized set of procedures for identifying and responding to unexpected but possible problems at the Site. A remedial action / contingency plan is necessary to ensure protection of the natural environment.

39. The reason for Condition 59.0 is to ensure that any complaints regarding landfill operations at this Site are responded to in a timely and efficient manner.

40. The reasons for Condition 60.0 are to ensure that the Ministry is informed of any spills or fires at the Site and to provide public health and safety and environmental protection.

41. The reasons for Condition 61.0 are 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.

42. The reasons for Conditions 62.0, 63.0 and 64.0 are to ensure that final closure of the Site is completed in an aesthetically pleasing manner and to ensure the long-term protection of the natural environment.

43. The reason for Condition 65.0 is to ensure the waste transfer and processing facility is closed in an appropriate manner.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). 5204-B4RRK2 issued on October 9, 2018

In accordance with Section 139 of the *Environmental Protection Act,* you may by written notice served upon me and the Ontario Land 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 ("the Notice") shall state:

a. 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;
b. 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:

1. The name of the appellant;
2. The address of the appellant;
3. The environmental compliance approval number;
4. The date of the environmental compliance approval;
5. The name of the Director, and;
6. 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:

Registrar*
Ontario Land Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5
OLT.Registrar@ontario.ca

and

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

*** Further information on the Ontario Land Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349 or 1 (866) 448-2248, or** www.oltt.gov.on.ca

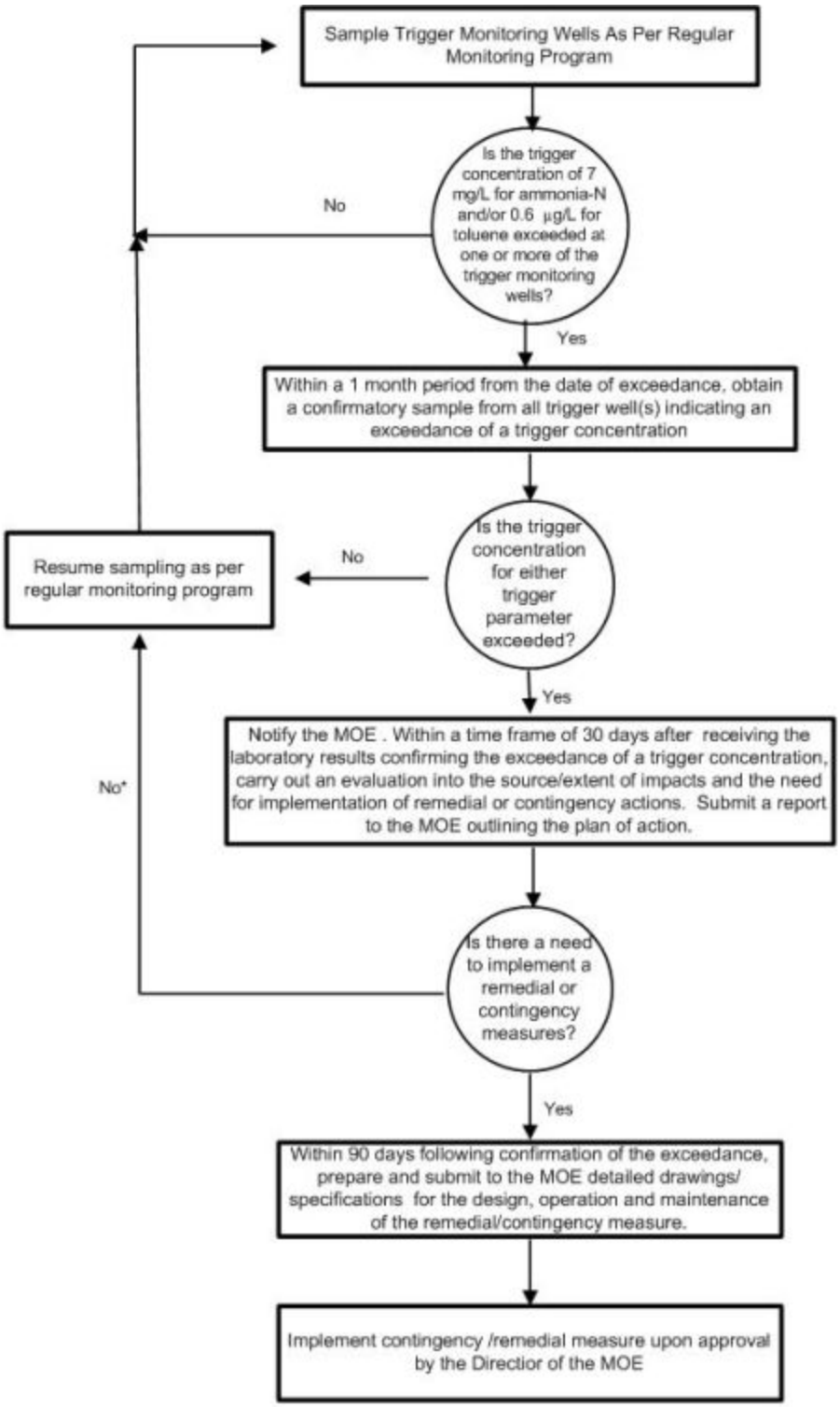
The above noted activity is approved under s.20.3 of Part II.1 of the *Environmental Protection Act.*

DATED AT TORONTO this 23rd day of December, 2022



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

NZ/
c: District Manager, MECP Barrie
Greg Preston M.Sc., B.Sc.(Env.)
Manager of Environmental Services, The Corporation of the City of Orillia



* - Any proposed changes to the trigger mechanism shall be approved by the Director of the MOE prior to implementation

APPENDIX G

Certificates of Analysis

CERTIFICATE OF ANALYSIS

Work Order	: **WT2508641**		
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 17-Apr-2025 14:00
PO	: 86912	Date Analysis Commenced	: 21-Apr-2025
C-O-C number	: ----	Issue Date	: 29-Apr-2025 22:03
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Metals, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Centralized Prep, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Sarah Birch	VOC Section Supervisor	VOC, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

TRAVEL BLANK: Two (2) vials not received at laboratory, but requested on Chain of Custody / analytical request form; subsample cannot be obtained from other containers to meet request. The requested analysis cannot be performed.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DLUI	Detection Limit Raised: Unknown interference generated an apparent false positive test result.
PEHT	Parameter exceeded recommended holding time prior to analysis.
RRR	Refer to report comments for issues regarding this analysis.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH 1-IR	BH 1-III	BH2- III	BH4- IIR	BH6R
Client sample ID									
Client sampling date / time					16-Apr-2025 14:15	16-Apr-2025 14:10	16-Apr-2025 11:35	15-Apr-2025 13:25	15-Apr-2025 14:05
					WT2508641-001	WT2508641-002	WT2508641-003	WT2508641-004	WT2508641-005
					Result	Result	Result	Result	Result
Sample Preparation									
Dissolved carbon filtration location	----	EP358/WT	-	-	lab	lab	lab	lab	lab
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L	232	291	1230	753	1090
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2	mg/L	----	----	0.00 DLM	0.00 DLM	0.00 DLM
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	<2.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2	mg/L	----	----	0.00 DLM	0.00 DLM	0.00 DLM
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	<2.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	232	291	1230	753	1090
Conductivity	----	E100/WT	2.0	µS/cm	740	1520	2820	1440	1970
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L	234	337	1060	449	837
pH	----	E108/WT	0.10	pH units	7.86	7.32	7.37	7.80	7.65
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	0.123	0.186	15.5	0.0407	41.6
Ammonia, total (as NH3)	7664-41-7	EC298D/WT	0.0050	mg/L	0.150	0.227	18.9	0.0496	50.8
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	112	343 DLDS	341 DLDS	260 DLDS	71.5 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	0.360	<0.100 DLDS	0.156 DLDS	<0.100 DLDS	<0.100 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	0.605	4.29	20.6	0.751	62.1
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	<0.020	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	0.579 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.010	<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	0.504 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L	0.482	4.10	5.10	0.710	20.5
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	0.133	1.43	0.422	3.36	0.692

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH 1-IR	BH 1-III	BH2- III	BH4- IIR	BH6R
Client sample ID									
Client sampling date / time					16-Apr-2025 14:15	16-Apr-2025 14:10	16-Apr-2025 11:35	15-Apr-2025 13:25	15-Apr-2025 14:05
					WT2508641-001	WT2508641-002	WT2508641-003	WT2508641-004	WT2508641-005
					Result	Result	Result	Result	Result
Anions and Nutrients									
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	13.7	11.9 DLDS	8.25 DLDS	17.9 DLDS	10.6 DLDS
ammonia, total (as NH4)	8013-59-0	EC298D/WT	0.0050	mg/L	0.159	0.240	20.0	0.0525	53.7
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	12.9	44.7	51.3	3.73	29.8
Ion Balance									
Anion sum	----	EC101/WT	0.10	meq/L	8.10	15.7	34.4	22.8	24.1
Cation sum	----	EC101/WT	0.10	meq/L	8.46	15.8	35.0	14.8	26.5
Ion balance (cations/anions)	----	EC101/WT	0.010	%	104	101	102	64.9	110
Ion balance (APHA)	----	EC101/WT	0.01	%	2.17	0.32	0.86	-21.3	4.74
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	0.0080	0.0317	0.0108 DLHC	0.0022	0.0165 DLHC
Antimony, dissolved	7440-36-0	E421/WT	0.00010	mg/L	<0.00010	0.00014	<0.00100 DLHC	<0.00010	<0.00100 DLHC
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L	0.00040	0.00116	<0.00100 DLHC	0.00018	<0.00100 DLHC
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	0.148	0.0843	0.686 DLHC	0.400	0.411 DLHC
Beryllium, dissolved	7440-41-7	E421/WT	0.000020	mg/L	<0.000020	<0.000020	<0.000200 DLHC	<0.000020	<0.000200 DLHC
Bismuth, dissolved	7440-69-9	E421/WT	0.000050	mg/L	<0.000050	<0.000050	<0.000500 DLHC	<0.000050	<0.000500 DLHC
Boron, dissolved	7440-42-8	E421/WT	0.010	mg/L	0.097	0.017	0.492 DLHC	0.052	2.18 DLHC
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	<0.0000050	0.0000054	<0.0000500 DLHC	0.0000114	<0.0000500 DLHC
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	67.9	117	285 DLHC	143	207 DLHC
Cesium, dissolved	7440-46-2	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000100 DLHC	<0.000010	<0.000100 DLHC
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00500 DLHC	<0.00050	<0.00500 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH 1-IR	BH 1-III	BH2- III	BH4- IIR	BH6R
Client sample ID					BH 1-IR	BH 1-III	BH2- III	BH4- IIR	BH6R
Client sampling date / time					16-Apr-2025 14:15	16-Apr-2025 14:10	16-Apr-2025 11:35	15-Apr-2025 13:25	15-Apr-2025 14:05
					WT2508641-001	WT2508641-002	WT2508641-003	WT2508641-004	WT2508641-005
					Result	Result	Result	Result	Result
Dissolved Metals									
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	0.00067	0.00034	0.00253 DLHC	0.00056	0.00168 DLHC
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	<0.00020	0.00044	<0.00200 DLHC	0.00108	<0.00200 DLHC
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	1.70	0.921	5.07 DLHC	0.240	4.52 DLHC
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	<0.000050	0.000081	<0.000500 DLHC	<0.000050	<0.000500 DLHC
Lithium, dissolved	7439-93-2	E421/WT	0.0010	mg/L	0.0044	0.0025	0.0132 DLHC	0.0010	0.0263 DLHC
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	15.7	11.0	84.9 DLHC	22.3	77.7 DLHC
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.297	0.321	0.948 DLHC	0.122	0.506 DLHC
Molybdenum, dissolved	7439-98-7	E421/WT	0.000050	mg/L	0.00203	0.000636	0.0156 DLHC	0.000383	<0.000500 DLHC
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	0.00088	0.00082	0.0286 DLHC	0.00057	0.00626 DLHC
Phosphorus, dissolved	7723-14-0	E421/WT	0.050	mg/L	<0.050	<0.050	<0.500 DLHC	<0.050	<0.500 DLHC
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	1.76	0.596	49.3 DLHC	1.77	58.1 DLHC
Rubidium, dissolved	7440-17-7	E421/WT	0.00020	mg/L	0.00221	0.00069	0.0109 DLHC	0.00358	0.0183 DLHC
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	<0.000050	0.000240	<0.000500 DLHC	0.000076	<0.000500 DLHC
Silicon, dissolved	7440-21-3	E421/WT	0.050	mg/L	9.72	4.55	10.2 DLHC	4.18	9.56 DLHC
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000100 DLHC	<0.000010	<0.000100 DLHC
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	83.9	207	259 DLHC	133	119 DLHC
Strontium, dissolved	7440-24-6	E421/WT	0.00020	mg/L	0.540	0.239	1.89 DLHC	0.342	0.772 DLHC
Sulfur, dissolved	7704-34-9	E421/WT	0.50	mg/L	5.58	6.19	<5.00 DLHC	7.30	<5.00 DLHC
Tellurium, dissolved	13494-80-9	E421/WT	0.00020	mg/L	<0.00020	<0.00020	<0.00200 DLHC	<0.00020	<0.00200 DLHC
Thallium, dissolved	7440-28-0	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000100 DLHC	0.000016	<0.000100 DLHC
Thorium, dissolved	7440-29-1	E421/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00100 DLHC	<0.00010	<0.00100 DLHC

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH 1-IR	BH 1-III	BH2- III	BH4- IIR	BH6R
					Client sampling date / time	16-Apr-2025 14:15	16-Apr-2025 14:10	16-Apr-2025 11:35	15-Apr-2025 13:25	15-Apr-2025 14:05
						WT2508641-001	WT2508641-002	WT2508641-003	WT2508641-004	WT2508641-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Tin, dissolved	7440-31-5	E421/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00100 DLHC	<0.00010	<0.00100 DLHC
Titanium, dissolved	7440-32-6	E421/WT	0.00030	mg/L		0.00068	0.00100	<0.00300 DLHC	<0.00030	<0.00300 DLHC
Tungsten, dissolved	7440-33-7	E421/WT	0.00010	mg/L		0.00014	<0.00010	<0.00100 DLHC	<0.00010	<0.00100 DLHC
Uranium, dissolved	7440-61-1	E421/WT	0.000010	mg/L		0.000636	0.000087	0.000559 DLHC	0.00342	0.000472 DLHC
Vanadium, dissolved	7440-62-2	E421/WT	0.00050	mg/L		0.00159	0.00059	<0.00500 DLHC	<0.00050	<0.00500 DLHC
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		0.0011	0.0021	<0.0100 DLHC	0.0019	<0.0100 DLHC
Zirconium, dissolved	7440-67-7	E421/WT	0.00030	mg/L		0.00059	<0.00030	<0.00300 DLHC	<0.00030	<0.00300 DLHC
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		<3.0 PEHT, BODL, RRR	<3.0 BODL, PEHT, RRR	17.8 PEHT, RRR	<3.0 BODL, PEHT, RRR	21.3 PEHT, RRR
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		42	256	154	86	420
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0012	<0.0010	0.0013	<0.0010	0.0014

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH10R	BH11R	BH14-IIIR	BH18R	BH29-I
					Client sampling date / time	15-Apr-2025 14:35	16-Apr-2025 11:50	16-Apr-2025 10:30	16-Apr-2025 15:00	14-Apr-2025 11:40
						WT2508641-006	WT2508641-007	WT2508641-008	WT2508641-009	WT2508641-010
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		lab	lab	lab	lab	lab
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		512	408	533	265	270

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH10R	BH11R	BH14-IIIR	BH18R	BH29-I
					Client sampling date / time	15-Apr-2025 14:35	16-Apr-2025 11:50	16-Apr-2025 10:30	16-Apr-2025 15:00	14-Apr-2025 11:40
						WT2508641-006	WT2508641-007	WT2508641-008	WT2508641-009	WT2508641-010
						Result	Result	Result	Result	Result
Physical Tests										
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		512	408	533	265	270
Conductivity	----	E100/WT	2.0	µS/cm		1180	1070	1180	2390	472
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		488	356	529	633	254
pH	----	E108/WT	0.10	pH units		7.77	7.74	7.90	7.18	7.80
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.894	0.0799	1.94	0.782	0.141
Ammonia, total (as NH3)	7664-41-7	EC298D/WT	0.0050	mg/L		1.09	0.0975	2.37	0.954	0.172
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		102 DLDS	109 DLDS	82.2 DLDS	638 DLDS	1.22
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.160 DLDS	0.158 DLDS	0.109 DLDS	<0.100 DLDS	0.091
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		2.87	1.64	6.03	8.05	1.33
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	<0.020
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	0.061 DLDS	0.012
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		1.98	1.56	4.09	7.27	1.19
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		----	----	----	----	0.0012
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.575	0.0768	0.262	1.42	0.140
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		2.38 DLDS	19.1 DLDS	27.9 DLDS	34.3 DLDS	0.54
ammonia, total (as NH4)	8013-59-0	EC298D/WT	0.0050	mg/L		1.15	0.103	2.50	1.01	0.182
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		18.2	30.2	35.3	71.9	8.07

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH10R	BH11R	BH14-IIIR	BH18R	BH29-I
					Client sampling date / time	15-Apr-2025 14:35	16-Apr-2025 11:50	16-Apr-2025 10:30	16-Apr-2025 15:00	14-Apr-2025 11:40
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2508641-006	WT2508641-007	WT2508641-008	WT2508641-009	WT2508641-010
						Result	Result	Result	Result	Result
Ion Balance										
Anion sum	----	EC101/WT	0.10	meq/L		13.2	11.6	13.6	24.0	5.45
Cation sum	----	EC101/WT	0.10	meq/L		13.5	12.5	14.6	23.3	5.21
Ion balance (cations/anions)	----	EC101/WT	0.010	%		102	108	107	97.1	95.6
Ion balance (APHA)	----	EC101/WT	0.01	%		1.12	3.73	3.55	-1.48	-2.25
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		0.0171	0.0667	0.0146	0.135 DLHC	0.0140
Antimony, dissolved	7440-36-0	E421/WT	0.00010	mg/L		<0.00010	0.00012	<0.00010	<0.00100 DLHC	0.00035
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L		0.00041	0.00088	0.00061	0.00174 DLHC	0.00055
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.310	0.176	0.187	0.180 DLHC	0.0536
Beryllium, dissolved	7440-41-7	E421/WT	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000200 DLHC	<0.000020
Bismuth, dissolved	7440-69-9	E421/WT	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000500 DLHC	<0.000050
Boron, dissolved	7440-42-8	E421/WT	0.010	mg/L		0.378	0.376	0.308	<0.100 DLHC	0.021
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000500 DLHC	0.0000063
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		129	94.6	136	220 DLHC	93.8
Cesium, dissolved	7440-46-2	E421/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000100 DLHC	<0.000010
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00050	0.00069	<0.00050	<0.00500 DLHC	<0.00050
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00041	0.00070	0.00031	0.00109 DLHC	0.00060
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00020	0.00060	<0.00020	<0.00200 DLHC	0.00085
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		1.82	0.937	0.978	2.50 DLHC	0.628
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		0.000066	0.000129	0.000069	0.00111 DLHC	0.000266
Lithium, dissolved	7439-93-2	E421/WT	0.0010	mg/L		0.0102	0.0042	0.0100	<0.0100 DLHC	0.0011

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH10R	BH11R	BH14-IIIR	BH18R	BH29-I
					Client sampling date / time	15-Apr-2025 14:35	16-Apr-2025 11:50	16-Apr-2025 10:30	16-Apr-2025 15:00	14-Apr-2025 11:40
						WT2508641-006	WT2508641-007	WT2508641-008	WT2508641-009	WT2508641-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		40.4	29.0	45.9	20.3 DLHC	4.69
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.433	0.156	0.451	0.686 DLHC	0.142
Molybdenum, dissolved	7439-98-7	E421/WT	0.000050	mg/L		0.000176	0.000930	0.000154	0.000568 DLHC	0.000560
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		0.00295	0.00535	0.00186	<0.00500 DLHC	0.00077
Phosphorus, dissolved	7723-14-0	E421/WT	0.050	mg/L		0.066	<0.050	0.160	<0.500 DLHC	<0.050
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		15.1	23.5	21.4	<0.500 DLHC	0.709
Rubidium, dissolved	7440-17-7	E421/WT	0.00020	mg/L		0.00241	0.00230	0.00441	<0.00200 DLHC	0.00140
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		0.000380	0.000443	0.000902	<0.000500 DLHC	0.000647
Silicon, dissolved	7440-21-3	E421/WT	0.050	mg/L		8.96	7.47	4.60	5.81 DLHC	3.55
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000100 DLHC	<0.000010
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		74.6	109	75.1	240 DLHC	2.05
Strontium, dissolved	7440-24-6	E421/WT	0.00020	mg/L		0.699	0.341	0.463	0.459 DLHC	0.283
Sulfur, dissolved	7704-34-9	E421/WT	0.50	mg/L		2.98	8.30	11.7	11.6 DLHC	<0.50
Tellurium, dissolved	13494-80-9	E421/WT	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00200 DLHC	<0.00020
Thallium, dissolved	7440-28-0	E421/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000100 DLHC	<0.000010
Thorium, dissolved	7440-29-1	E421/WT	0.00010	mg/L		<0.00010	0.00019	<0.00010	<0.00100 DLHC	<0.00010
Tin, dissolved	7440-31-5	E421/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00100 DLHC	<0.00010
Titanium, dissolved	7440-32-6	E421/WT	0.00030	mg/L		0.00133	0.00289	<0.00090 DLUI	0.00510 DLHC	0.00047
Tungsten, dissolved	7440-33-7	E421/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00100 DLHC	0.00023
Uranium, dissolved	7440-61-1	E421/WT	0.000010	mg/L		0.000023	0.000859	0.000067	0.00134 DLHC	0.00120
Vanadium, dissolved	7440-62-2	E421/WT	0.00050	mg/L		0.00061	0.00117	<0.00050	<0.00500 DLHC	0.00120

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH10R	BH11R	BH14-IIIR	BH18R	BH29-I
Client sample ID									
Client sampling date / time					15-Apr-2025 14:35	16-Apr-2025 11:50	16-Apr-2025 10:30	16-Apr-2025 15:00	14-Apr-2025 11:40
					WT2508641-006	WT2508641-007	WT2508641-008	WT2508641-009	WT2508641-010
					Result	Result	Result	Result	Result
Dissolved Metals									
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	0.0034	0.0015	0.0022	<0.0100 DLHC	0.0045
Zirconium, dissolved	7440-67-7	E421/WT	0.00030	mg/L	<0.00030	0.00042	<0.00030	<0.00300 DLHC	<0.00030
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	Field	Field
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	<3.0 BODL, PEHT, RRR	<3.0 BODL, PEHT, RRR	<3.0 BODL, PEHT, RRR	<3.0 BODL, PEHT, RRR	<3.0 BODL, PEHT, RRR
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	115	83	161	366	46
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	<0.0010	0.0010	<0.0010	<0.0010	0.0031
Volatile Organic Compounds [Fuels]									
Benzene	71-43-2	E611A/WT	0.50	µg/L	----	<0.50	----	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L	----	<0.50	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L	----	<0.50	----	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L	----	<0.50	----	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L	----	<0.50	----	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L	----	<0.40	----	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L	----	<0.30	----	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L	----	<0.50	----	----	----
BTEX, total	----	E611A/WT	1.0	µg/L	----	<1.0	----	----	----
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%	----	93.8	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%	----	100	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH29-II	BH 514- IIIR	TRAVEL BLANK	----	----
					Client sampling date / time	14-Apr-2025 11:45	16-Apr-2025 14:20	14-Apr-2025 00:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2508641-011	WT2508641-012	WT2508641-013	----	----
						Result	Result	Result	----	----
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		lab	lab	----	----	----
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		585	536	<2.0	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		585	536	<2.0	----	----
Conductivity	----	E100/WT	2.0	µS/cm		1050	1170	<2.0	----	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		587	527	----	----	----
pH	----	E108/WT	0.10	pH units		7.50	7.90	5.75	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.0243	1.92	<0.0050	----	----
Ammonia, total (as NH3)	7664-41-7	EC298D/WT	0.0050	mg/L		0.0296	2.34	<0.0050	----	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		73.6 DLDS	80.8 DLDS	<0.50	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		<0.100 DLDS	0.108 DLDS	<0.020	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		0.480	5.66	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.020	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	<0.010	----	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		0.456	3.74	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		<0.0010	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.404	0.262	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		25.7 DLDS	29.3 DLDS	<0.30	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH29-II	BH 514- IIIR	TRAVEL BLANK	----	----
Client sample ID									
Client sampling date / time					14-Apr-2025 11:45	16-Apr-2025 14:20	14-Apr-2025 00:00	----	----
					WT2508641-011	**WT2508641-012**	**WT2508641-013**	**----**	**----**
					Result	Result	Result	----	----
Anions and Nutrients									
ammonia, total (as NH4)	8013-59-0	EC298D/WT	0.0050	mg/L	0.0313	2.48	<0.0050	----	----
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	7.13	34.6	----	----	----
Ion Balance									
Anion sum	----	EC101/WT	0.10	meq/L	14.3	13.6	<0.10	----	----
Cation sum	----	EC101/WT	0.10	meq/L	12.6	14.5	<0.10	----	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%	88.1	107	100	----	----
Ion balance (APHA)	----	EC101/WT	0.01	%	-6.32	3.20	0.0	----	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	0.0033	0.0143	<0.0010	----	----
Antimony, dissolved	7440-36-0	E421/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L	0.00030	0.00059	<0.00010	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	0.221	0.185	<0.00010	----	----
Beryllium, dissolved	7440-41-7	E421/WT	0.000020	mg/L	<0.000020	<0.000020	<0.000020	----	----
Bismuth, dissolved	7440-69-9	E421/WT	0.000050	mg/L	<0.000050	<0.000050	<0.000050	----	----
Boron, dissolved	7440-42-8	E421/WT	0.010	mg/L	0.050	0.310	<0.010	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	0.0000456	<0.0000050	<0.0000050	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	184	136	<0.050	----	----
Cesium, dissolved	7440-46-2	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	0.00094	0.00032	<0.00010	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH29-II	BH 514- IIIR	TRAVEL BLANK	----	----
Client sample ID					BH29-II	BH 514- IIIR	TRAVEL BLANK	----	----
Client sampling date / time					14-Apr-2025 11:45	16-Apr-2025 14:20	14-Apr-2025 00:00	----	----
					WT2508641-011	WT2508641-012	WT2508641-013	----	----
					Result	Result	Result	----	----
Dissolved Metals									
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	0.00064	<0.00020	<0.00020	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	0.687	0.955	<0.010	----	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	0.000147	0.000066	<0.000050	----	----
Lithium, dissolved	7439-93-2	E421/WT	0.0010	mg/L	0.0040	0.0102	<0.0010	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	31.0	45.6	<0.0050	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.979	0.454	<0.00010	----	----
Molybdenum, dissolved	7439-98-7	E421/WT	0.000050	mg/L	0.000129	0.000131	<0.000050	----	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	0.00116	0.00174	<0.00050	----	----
Phosphorus, dissolved	7723-14-0	E421/WT	0.050	mg/L	<0.050	0.168	<0.050	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	1.13	21.5	<0.050	----	----
Rubidium, dissolved	7440-17-7	E421/WT	0.00020	mg/L	0.00119	0.00441	<0.00020	----	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	0.000061	0.000766	<0.000050	----	----
Silicon, dissolved	7440-21-3	E421/WT	0.050	mg/L	11.4	4.66	<0.050	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	18.3	74.9	<0.050	----	----
Strontium, dissolved	7440-24-6	E421/WT	0.00020	mg/L	0.410	0.442	<0.00020	----	----
Sulfur, dissolved	7704-34-9	E421/WT	0.50	mg/L	10.1	11.6	<0.50	----	----
Tellurium, dissolved	13494-80-9	E421/WT	0.00020	mg/L	<0.00020	<0.00020	<0.00020	----	----
Thallium, dissolved	7440-28-0	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----
Thorium, dissolved	7440-29-1	E421/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----
Tin, dissolved	7440-31-5	E421/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH29-II	BH 514- IIIR	TRAVEL BLANK	----	----
					Client sampling date / time	14-Apr-2025 11:45	16-Apr-2025 14:20	14-Apr-2025 00:00	----	----
						WT2508641-011	WT2508641-012	WT2508641-013	----	----
						Result	Result	Result	----	----
Dissolved Metals										
Titanium, dissolved	7440-32-6	E421/WT	0.00030	mg/L		0.00033	<0.00090 DLUI	<0.00030	----	----
Tungsten, dissolved	7440-33-7	E421/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00010	----	----
Uranium, dissolved	7440-61-1	E421/WT	0.000010	mg/L		0.000484	0.000063	<0.000010	----	----
Vanadium, dissolved	7440-62-2	E421/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		0.0050	0.0022	<0.0010	----	----
Zirconium, dissolved	7440-67-7	E421/WT	0.00030	mg/L		<0.00030	<0.00030	<0.00030	----	----
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	----	----
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		<3.0 BODL, PEHT, RRR	<3.0 BODL, PEHT, RRR	----	----	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		34	160	----	----	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2508641**	Page	: 1 of 32
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 17-Apr-2025 14:00
PO	: 86912	Issue Date	: 29-Apr-2025 22:02
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Method Blank value outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Physical Tests	QC-MRG2-1960319 001	----	Alkalinity, bicarbonate (as CaCO3)	----	E290	3.7 mg/L B	2 mg/L	Blank result exceeds permitted value
Physical Tests	QC-MRG2-1960319 001	----	Alkalinity, total (as CaCO3)	----	E290	3.7 mg/L B	2 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Matrix Spike (MS) Recoveries								
Dissolved Metals	WT2508641-002	BH 1-III	Silver, dissolved	7440-22-4	E421	61.0 % MES	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH 1-III	E550	16-Apr-2025	----	----	----		21-Apr-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH 1-IR	E550	16-Apr-2025	----	----	----		21-Apr-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH 514- IIIR	E550	16-Apr-2025	----	----	----		21-Apr-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH18R	E550	16-Apr-2025	----	----	----		21-Apr-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH10R	E550	15-Apr-2025	----	----	----		21-Apr-2025	4 days	5 days	× EHT
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH11R	E550	16-Apr-2025	----	----	----		21-Apr-2025	4 days	5 days	× EHT
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH14-IIIR	E550	16-Apr-2025	----	----	----		21-Apr-2025	4 days	5 days	× EHT

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH2- III	E550	16-Apr-2025	----	----	----		21-Apr-2025	4 days	5 days	× EHT
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH4- IIR	E550	15-Apr-2025	----	----	----		21-Apr-2025	4 days	5 days	× EHT
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH6R	E550	15-Apr-2025	----	----	----		21-Apr-2025	4 days	5 days	× EHT
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH29-I	E550	14-Apr-2025	----	----	----		21-Apr-2025	4 days	7 days	× EHT
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH29-II	E550	14-Apr-2025	----	----	----		21-Apr-2025	4 days	7 days	× EHT
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E559-L	14-Apr-2025	----	----	----		24-Apr-2025	28 days	10 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-II	E559-L	14-Apr-2025	----	----	----		24-Apr-2025	28 days	10 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH 1-III	E559-L	16-Apr-2025	----	----	----		24-Apr-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH 1-IR	E559-L	16-Apr-2025	----	----	----		24-Apr-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH 514- IIIR	E559-L	16-Apr-2025	----	----	----		24-Apr-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E559-L	16-Apr-2025	----	----	----		24-Apr-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIIR	E559-L	16-Apr-2025	----	----	----		24-Apr-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E559-L	16-Apr-2025	----	----	----		24-Apr-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH2- III	E559-L	16-Apr-2025	----	----	----		24-Apr-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E559-L	15-Apr-2025	----	----	----		24-Apr-2025	28 days	9 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH4- IIR	E559-L	15-Apr-2025	----	----	----		24-Apr-2025	28 days	9 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E559-L	15-Apr-2025	----	----	----		24-Apr-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH 1-III	E562	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH 1-IR	E562	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH 514- IIIR	E562	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E562	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIIR	E562	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E562	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH2- III	E562	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E562	15-Apr-2025	23-Apr-2025	28 days	8 days	✓	23-Apr-2025	28 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH4- IIR	E562	15-Apr-2025	23-Apr-2025	28 days	8 days	✓	23-Apr-2025	28 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E562	15-Apr-2025	23-Apr-2025	28 days	8 days	✓	23-Apr-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E562	14-Apr-2025	23-Apr-2025	28 days	9 days	✓	23-Apr-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-II	E562	14-Apr-2025	23-Apr-2025	28 days	9 days	✓	23-Apr-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH 1-III	E298	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH 1-IR	E298	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH 514- IIIR	E298	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E298	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIIR	E298	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E298	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH2- III	E298	16-Apr-2025	23-Apr-2025	28 days	7 days	✓	23-Apr-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E298	15-Apr-2025	23-Apr-2025	28 days	8 days	✓	23-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH4- IIR	E298	15-Apr-2025	23-Apr-2025	28 days	8 days	✓	23-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E298	15-Apr-2025	23-Apr-2025	28 days	8 days	✓	23-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E298	14-Apr-2025	23-Apr-2025	28 days	9 days	✓	23-Apr-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-II	E298	14-Apr-2025	23-Apr-2025	28 days	9 days	✓	23-Apr-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
TRAVEL BLANK	E298	14-Apr-2025	23-Apr-2025	28 days	9 days	✓	24-Apr-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH 1-III	E235.Cl	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH 1-IR	E235.Cl	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH 514- IIIR	E235.Cl	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH11R	E235.Cl	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH14-IIIR	E235.Cl	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH18R	E235.Cl	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH2- III	E235.Cl	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH10R	E235.Cl	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	24-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH4- IIR	E235.Cl	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	24-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH6R	E235.Cl	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	24-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.Cl	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH29-II	E235.Cl	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
TRAVEL BLANK	E235.Cl	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH29-I	E378-U	14-Apr-2025	22-Apr-2025	7 days	8 days	× EHT	23-Apr-2025	7 days	8 days	× EHT
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH29-II	E378-U	14-Apr-2025	22-Apr-2025	7 days	8 days	× EHT	23-Apr-2025	7 days	8 days	× EHT
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH 1-III	E235.F	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH 1-IR	E235.F	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH 514- IIIR	E235.F	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH11R	E235.F	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH14-IIIR	E235.F	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH18R	E235.F	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH2- III	E235.F	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH10R	E235.F	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	24-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH4- IIR	E235.F	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	24-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH6R	E235.F	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	24-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.F	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH29-II	E235.F	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
TRAVEL BLANK	E235.F	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH 1-III	E235.NO3	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH 1-IR	E235.NO3	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH 514- IIIR	E235.NO3	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH11R	E235.NO3	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH14-IIIR	E235.NO3	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH18R	E235.NO3	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH2- III	E235.NO3	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH10R	E235.NO3	15-Apr-2025	22-Apr-2025	7 days	7 days	✓	24-Apr-2025	7 days	7 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH4- IIR	E235.NO3	15-Apr-2025	22-Apr-2025	7 days	7 days	✓	24-Apr-2025	7 days	7 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH6R	E235.NO3	15-Apr-2025	22-Apr-2025	7 days	7 days	✓	24-Apr-2025	7 days	7 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.NO3	14-Apr-2025	22-Apr-2025	7 days	8 days	× EHT	24-Apr-2025	7 days	8 days	× EHT

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH29-II	E235.NO3	14-Apr-2025	22-Apr-2025	7 days	8 days	× EHT	24-Apr-2025	7 days	8 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
TRAVEL BLANK	E235.NO3	14-Apr-2025	22-Apr-2025	7 days	8 days	× EHT	24-Apr-2025	7 days	8 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH 1-III	E235.NO2	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH 1-IR	E235.NO2	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH 514- IIIR	E235.NO2	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH11R	E235.NO2	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH14-IIIR	E235.NO2	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH18R	E235.NO2	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH2- III	E235.NO2	16-Apr-2025	22-Apr-2025	7 days	6 days	✓	24-Apr-2025	7 days	6 days	× EHT

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH10R	E235.NO2	15-Apr-2025	22-Apr-2025	7 days	7 days	✓	24-Apr-2025	7 days	7 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH4- IIR	E235.NO2	15-Apr-2025	22-Apr-2025	7 days	7 days	✓	24-Apr-2025	7 days	7 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH6R	E235.NO2	15-Apr-2025	22-Apr-2025	7 days	7 days	✓	24-Apr-2025	7 days	7 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH29-I	E235.NO2	14-Apr-2025	22-Apr-2025	7 days	8 days	× EHT	24-Apr-2025	7 days	8 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH29-II	E235.NO2	14-Apr-2025	22-Apr-2025	7 days	8 days	× EHT	24-Apr-2025	7 days	8 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] TRAVEL BLANK	E235.NO2	14-Apr-2025	22-Apr-2025	7 days	8 days	× EHT	24-Apr-2025	7 days	8 days	× EHT
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH 1-III	E235.SO4	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH 1-IR	E235.SO4	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH 514- IIIR	E235.SO4	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH11R	E235.SO4	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH14-IIIR	E235.SO4	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH18R	E235.SO4	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH2- III	E235.SO4	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	24-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH10R	E235.SO4	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	24-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH4- IIR	E235.SO4	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	24-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH6R	E235.SO4	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	24-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.SO4	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH29-II	E235.SO4	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
TRAVEL BLANK	E235.SO4	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E318	14-Apr-2025	24-Apr-2025	28 days	10 days	✓	24-Apr-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-II	E318	14-Apr-2025	24-Apr-2025	28 days	10 days	✓	24-Apr-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH 1-III	E318	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH 1-IR	E318	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH 514- IIIR	E318	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E318	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIIR	E318	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E318	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH2- III	E318	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E318	15-Apr-2025	24-Apr-2025	28 days	9 days	✓	24-Apr-2025	28 days	9 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH4- IIR	E318	15-Apr-2025	24-Apr-2025	28 days	9 days	✓	24-Apr-2025	28 days	9 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E318	15-Apr-2025	24-Apr-2025	28 days	9 days	✓	24-Apr-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E372-U	14-Apr-2025	24-Apr-2025	28 days	10 days	✓	24-Apr-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-II	E372-U	14-Apr-2025	24-Apr-2025	28 days	10 days	✓	24-Apr-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH 1-III	E372-U	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH 1-IR	E372-U	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH 514- IIIR	E372-U	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E372-U	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIIR	E372-U	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E372-U	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH2- III	E372-U	16-Apr-2025	24-Apr-2025	28 days	8 days	✓	24-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E372-U	15-Apr-2025	24-Apr-2025	28 days	9 days	✓	24-Apr-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH4- IIR	E372-U	15-Apr-2025	24-Apr-2025	28 days	9 days	✓	24-Apr-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E372-U	15-Apr-2025	24-Apr-2025	28 days	9 days	✓	24-Apr-2025	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH 1-III	E421	16-Apr-2025	21-Apr-2025	180 days	5 days	✓	21-Apr-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH 1-IR	E421	16-Apr-2025	21-Apr-2025	180 days	5 days	✓	21-Apr-2025	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH 514- IIIR	E421	16-Apr-2025	21-Apr-2025	180 days	5 days	✓	21-Apr-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH11R	E421	16-Apr-2025	21-Apr-2025	180 days	5 days	✓	21-Apr-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH14-IIIR	E421	16-Apr-2025	21-Apr-2025	180 days	5 days	✓	21-Apr-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH18R	E421	16-Apr-2025	21-Apr-2025	180 days	5 days	✓	21-Apr-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH2- III	E421	16-Apr-2025	21-Apr-2025	180 days	5 days	✓	21-Apr-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH10R	E421	15-Apr-2025	21-Apr-2025	180 days	6 days	✓	21-Apr-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH4- IIR	E421	15-Apr-2025	21-Apr-2025	180 days	6 days	✓	21-Apr-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH6R	E421	15-Apr-2025	21-Apr-2025	180 days	6 days	✓	21-Apr-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH29-I	E421	14-Apr-2025	21-Apr-2025	180 days	7 days	✓	21-Apr-2025	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH29-II	E421	14-Apr-2025	21-Apr-2025	180 days	7 days	✓	21-Apr-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
TRAVEL BLANK	E421	14-Apr-2025	21-Apr-2025	180 days	7 days	✓	21-Apr-2025	180 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
BH 1-III	E358-L	16-Apr-2025	21-Apr-2025	3 days	5 days	× EHT	22-Apr-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
BH 1-IR	E358-L	16-Apr-2025	21-Apr-2025	3 days	5 days	× EHT	22-Apr-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
BH 514- IIIR	E358-L	16-Apr-2025	21-Apr-2025	3 days	5 days	× EHT	22-Apr-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
BH11R	E358-L	16-Apr-2025	21-Apr-2025	3 days	5 days	× EHT	22-Apr-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
BH14-IIIR	E358-L	16-Apr-2025	21-Apr-2025	3 days	5 days	× EHT	22-Apr-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
BH18R	E358-L	16-Apr-2025	21-Apr-2025	3 days	5 days	× EHT	22-Apr-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
BH2- III	E358-L	16-Apr-2025	21-Apr-2025	3 days	5 days	× EHT	22-Apr-2025	28 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] BH10R	E358-L	15-Apr-2025	21-Apr-2025	3 days	6 days	× EHT	22-Apr-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] BH4- IIR	E358-L	15-Apr-2025	21-Apr-2025	3 days	6 days	× EHT	22-Apr-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] BH6R	E358-L	15-Apr-2025	21-Apr-2025	3 days	6 days	× EHT	22-Apr-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] BH29-I	E358-L	14-Apr-2025	21-Apr-2025	3 days	7 days	× EHTL	22-Apr-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] BH29-II	E358-L	14-Apr-2025	21-Apr-2025	3 days	7 days	× EHTL	22-Apr-2025	28 days	1 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH 1-III	E290	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH 1-IR	E290	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH 514- IIIR	E290	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH11R	E290	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH14-IIIR	E290	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH18R	E290	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH2- III	E290	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH10R	E290	15-Apr-2025	22-Apr-2025	14 days	7 days	✓	22-Apr-2025	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH4- IIR	E290	15-Apr-2025	22-Apr-2025	14 days	7 days	✓	22-Apr-2025	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH6R	E290	15-Apr-2025	22-Apr-2025	14 days	7 days	✓	22-Apr-2025	14 days	7 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH29-I	E290	14-Apr-2025	22-Apr-2025	14 days	8 days	✓	22-Apr-2025	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH29-II	E290	14-Apr-2025	22-Apr-2025	14 days	8 days	✓	22-Apr-2025	14 days	8 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] TRAVEL BLANK	E290	14-Apr-2025	22-Apr-2025	14 days	8 days	✓	22-Apr-2025	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH 1-III	E100	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	22-Apr-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH 1-IR	E100	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	22-Apr-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH 514- IIIR	E100	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	22-Apr-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH11R	E100	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	22-Apr-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH14-IIIR	E100	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	22-Apr-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH18R	E100	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	22-Apr-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH2- III	E100	16-Apr-2025	22-Apr-2025	28 days	6 days	✓	22-Apr-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH10R	E100	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	22-Apr-2025	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH4- IIR	E100	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	22-Apr-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH6R	E100	15-Apr-2025	22-Apr-2025	28 days	7 days	✓	22-Apr-2025	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH29-I	E100	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	22-Apr-2025	28 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH29-II	E100	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	22-Apr-2025	28 days	8 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] TRAVEL BLANK	E100	14-Apr-2025	22-Apr-2025	28 days	8 days	✓	22-Apr-2025	28 days	8 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH 1-III	E108	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH 1-IR	E108	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH 514- IIIR	E108	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH11R	E108	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH14-IIIR	E108	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] BH18R	E108	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH2- III	E108	16-Apr-2025	22-Apr-2025	14 days	6 days	✓	22-Apr-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH10R	E108	15-Apr-2025	22-Apr-2025	14 days	7 days	✓	22-Apr-2025	14 days	7 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH4- IIR	E108	15-Apr-2025	22-Apr-2025	14 days	7 days	✓	22-Apr-2025	14 days	7 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH6R	E108	15-Apr-2025	22-Apr-2025	14 days	7 days	✓	22-Apr-2025	14 days	7 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH29-I	E108	14-Apr-2025	22-Apr-2025	14 days	8 days	✓	22-Apr-2025	14 days	8 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH29-II	E108	14-Apr-2025	22-Apr-2025	14 days	8 days	✓	22-Apr-2025	14 days	8 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] TRAVEL BLANK	E108	14-Apr-2025	22-Apr-2025	14 days	8 days	✓	22-Apr-2025	14 days	8 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH11R	E611A	16-Apr-2025	23-Apr-2025	14 days	7 days	✓	23-Apr-2025	14 days	7 days	✓

Legend & Qualifier Definitions

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	1960320	1	15	6.6	5.0	✓
pH by Meter	E108	1960318	1	15	6.6	5.0	✓
Chloride in Water by IC	E235.Cl	1960325	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1960322	1	15	6.6	5.0	✓
Nitrite in Water by IC	E235.NO2	1960324	1	20	5.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1960323	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1960326	1	17	5.8	5.0	✓
Alkalinity Species by Titration	E290	1960319	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1961578	2	39	5.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1961579	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1959124	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1961580	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1960328	1	7	14.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1958891	1	17	5.8	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1958982	0	12	0.0	5.0	×
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1963836	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1961581	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1961677	1	7	14.2	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	1960320	1	15	6.6	5.0	✓
pH by Meter	E108	1960318	1	15	6.6	5.0	✓
Chloride in Water by IC	E235.Cl	1960325	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1960322	1	15	6.6	5.0	✓
Nitrite in Water by IC	E235.NO2	1960324	1	20	5.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1960323	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1960326	1	17	5.8	5.0	✓
Alkalinity Species by Titration	E290	1960319	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1961578	2	39	5.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1961579	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1959124	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1961580	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1960328	1	7	14.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1958891	1	17	5.8	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1958982	1	12	8.3	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1963836	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1961581	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
BTEX by Headspace GC-MS	E611A	1961677	1	7	14.2	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	1960320	1	15	6.6	5.0	✓
Chloride in Water by IC	E235.Cl	1960325	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1960322	1	15	6.6	5.0	✓
Nitrite in Water by IC	E235.NO2	1960324	1	20	5.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1960323	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1960326	1	17	5.8	5.0	✓
Alkalinity Species by Titration	E290	1960319	1	20	5.0	5.0	✓
Ammonia by Fluorescence	E298	1961578	2	39	5.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1961579	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1959124	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1961580	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1960328	1	7	14.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1958891	1	17	5.8	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1958982	1	12	8.3	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1963836	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1961581	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1961677	1	7	14.2	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	1960325	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1960322	1	15	6.6	5.0	✓
Nitrite in Water by IC	E235.NO2	1960324	1	20	5.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1960323	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1960326	1	17	5.8	5.0	✓
Ammonia by Fluorescence	E298	1961578	2	39	5.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1961579	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1959124	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1961580	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1960328	1	7	14.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1958891	1	17	5.8	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1963836	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1961581	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1961677	1	7	14.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ion Balance using Dissolved Metals	EC101 ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Ammonia (as N) to (as NH3) or (as NH4)	EC298D ALS Environmental - Waterloo	Water	Calculation	Ammonia, total (as NH3) or (as NH4) is a calculation. Ammonia, total (as N) is multiplied by 1.22 to derive ammonia, total (as NH3). Ammonia, total (as N) is multiplied by 1.29 to derive ammonia, total (as NH4).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WT2508641**	Page	: 1 of 14
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 17-Apr-2025 14:00
PO	: 86912	Date Analysis Commenced	: 21-Apr-2025
C-O-C number	: ----	Issue Date	: 29-Apr-2025 22:02
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Centralized Prep, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Waterloo Metals, Waterloo, Ontario
Sarah Birch	VOC Section Supervisor	Waterloo VOC, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1960318)											
WT2508737-001	Anonymous	pH	----	E108	0.10	pH units	8.07	8.10	0.371%	4%	----
Physical Tests (QC Lot: 1960319)											
WT2508737-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	262	264	0.768%	20%	----
Physical Tests (QC Lot: 1960320)											
WT2508737-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	570	570	0.00%	10%	----
Anions and Nutrients (QC Lot: 1960322)											
WT2508737-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.115	0.114	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1960323)											
WT2508737-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.335	0.335	0.0604%	20%	----
Anions and Nutrients (QC Lot: 1960324)											
WT2508737-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1960325)											
WT2508737-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	16.6	16.6	0.143%	20%	----
Anions and Nutrients (QC Lot: 1960326)											
WT2508737-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	39.2	39.1	0.184%	20%	----
Anions and Nutrients (QC Lot: 1960328)											
WT2508699-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0021	0.0020	0.00008	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1961578)											
HA2501097-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	<0.0050	<0.0050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1961579)											
WT2508573-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.200	mg/L	0.753	0.985	0.232	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1961580)											
WT2506992-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0195	0.0200	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1962798)											
HA2500862-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0253	0.0246	0.0007	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1959124)											
TY2503508-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	4.34	4.35	0.0007	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1958891)											
WT2508641-001	BH 1-IR	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0080	0.0083	0.0004	Diff <2x LOR	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1958891) - continued											
WT2508641-001	BH 1-IR	Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00040	0.00039	0.00001	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.148	0.145	1.78%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.097	0.100	0.003	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	67.9	65.9	3.03%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00067	0.00068	0.000009	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	1.70	1.72	1.19%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0044	0.0042	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	15.7	15.5	0.840%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.297	0.291	1.87%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00203	0.00204	0.477%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00088	0.00092	0.00004	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.76	1.77	0.294%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00221	0.00224	1.62%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	0.000052	0.000002	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	9.72	9.81	0.961%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	83.9	84.4	0.676%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.540	0.551	2.05%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	5.58	5.59	0.168%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.00068	0.00067	0.00002	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00014	0.00014	0.000003	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000636	0.000626	1.54%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1958891) - continued											
WT2508641-001	BH 1-IR	Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00159	0.00162	0.00003	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0011	0.0011	0.00006	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00059	0.00060	0.000007	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1961581)											
WT2506992-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	0.0011	0.0012	0.00005	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1963836)											
WT2508641-001	BH 1-IR	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	42	46	4	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1961677)											
TY2503698-001	Anonymous	Benzene	71-43-2	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611A	0.40	µg/L	0.57	0.47	0.10	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611A	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1960319)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	# 3.7	B
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	# 3.7	B
Physical Tests (QCLot: 1960320)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Anions and Nutrients (QCLot: 1960322)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1960323)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1960324)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1960325)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1960326)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1960328)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1961578)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1961579)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1961580)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1962798)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Organic / Inorganic Carbon (QCLot: 1959124)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Dissolved Metals (QCLot: 1958891)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1958891) - continued						
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1958891) - continued						
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Aggregate Organics (QCLot: 1958982)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 1961581)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 1963836)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Volatile Organic Compounds (QCLot: 1961677)						
Benzene	71-43-2	E611A	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	<0.50	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611A	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611A	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	<0.30	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1960318)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1960319)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	107	85.0	115	----
Physical Tests (QCLot: 1960320)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Anions and Nutrients (QCLot: 1960322)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1960323)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	98.0	90.0	110	----
Anions and Nutrients (QCLot: 1960324)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 1960325)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 1960326)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 1960328)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	98.0	80.0	120	----
Anions and Nutrients (QCLot: 1961578)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	107	85.0	115	----
Anions and Nutrients (QCLot: 1961579)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1961580)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	100	80.0	120	----
Anions and Nutrients (QCLot: 1962798)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.4	85.0	115	----
Organic / Inorganic Carbon (QCLot: 1959124)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	110	80.0	120	----
Dissolved Metals (QCLot: 1958891)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	99.1	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1958891) - continued									
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	0.05 mg/L	105	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	104	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.005 mg/L	93.6	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	0.05 mg/L	99.8	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	0.05 mg/L	92.7	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	99.6	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.002 mg/L	110	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	99.4	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	98.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	98.3	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	97.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	103	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.012 mg/L	107	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	102	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.012 mg/L	102	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	97.7	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	0.5 mg/L	100	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	102	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.005 mg/L	105	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	104	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	0.5 mg/L	97.6	60.0	140	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	98.4	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	101	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.012 mg/L	105	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	2.5 mg/L	98.2	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.005 mg/L	102	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.005 mg/L	103	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.025 mg/L	106	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.012 mg/L	97.0	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.005 mg/L	102	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0 mg/L	103	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.025 mg/L	100	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike: Target Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Dissolved Metals (QCLot: 1958891) - continued									
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	94.8	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.005 mg/L	99.5	80.0	120	----
Aggregate Organics (QCLot: 1958982)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	101	85.0	115	----
Aggregate Organics (QCLot: 1961581)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	106	85.0	115	----
Aggregate Organics (QCLot: 1963836)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	101	85.0	115	----
Volatile Organic Compounds (QCLot: 1961677)									
Benzene	71-43-2	E611A	0.5	µg/L	100 µg/L	96.6	70.0	130	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	100 µg/L	98.2	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	100 µg/L	108	70.0	130	----
Styrene	100-42-5	E611A	0.5	µg/L	100 µg/L	92.4	70.0	130	----
Toluene	108-88-3	E611A	0.5	µg/L	100 µg/L	102	70.0	130	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	200 µg/L	93.2	70.0	130	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	100 µg/L	93.1	70.0	130	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1960322)										
WT2508737-001	Anonymous	Fluoride	16984-48-8	E235.F	1.01 mg/L	1 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1960323)										
WT2508737-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.61 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1960324)										
WT2508737-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.530 mg/L	0.5 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1960325)										
WT2508737-001	Anonymous	Chloride	16887-00-6	E235.Cl	105 mg/L	100 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 1960326)										
WT2508737-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1960328)										
WT2508699-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0183 mg/L	0.02 mg/L	93.4	70.0	130	----
Anions and Nutrients (QCLot: 1961578)										
HA2501097-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.108 mg/L	0.1 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 1961579)										
WT2508573-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	2.98 mg/L	2.5 mg/L	119	70.0	130	----
Anions and Nutrients (QCLot: 1961580)										
WT2506992-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0996 mg/L	0.1 mg/L	99.6	70.0	130	----
Anions and Nutrients (QCLot: 1962798)										
HA2500862-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0988 mg/L	0.1 mg/L	98.8	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1959124)										
TY2503508-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.45 mg/L	5 mg/L	109	70.0	130	----
Dissolved Metals (QCLot: 1958891)										
WT2508641-002	BH 1-III	Aluminum, dissolved	7429-90-5	E421	0.105 mg/L	0.1 mg/L	105	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0480 mg/L	0.05 mg/L	96.1	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0555 mg/L	0.05 mg/L	111	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.00549 mg/L	0.005 mg/L	110	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0411 mg/L	0.05 mg/L	82.3	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.050 mg/L	0.05 mg/L	99.9	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00449 mg/L	0.005 mg/L	89.7	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00245 mg/L	0.002 mg/L	98.0	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0121 mg/L	0.012 mg/L	97.1	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1958891) - continued										
WT2508641-002	BH 1-III	Cobalt, dissolved	7440-48-4	E421	0.0116 mg/L	0.012 mg/L	92.5	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0107 mg/L	0.012 mg/L	85.7	70.0	130	----
		Iron, dissolved	7439-89-6	E421	ND mg/L	----	ND	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0222 mg/L	0.025 mg/L	88.9	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.0145 mg/L	0.012 mg/L	116	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0125 mg/L	0.012 mg/L	100	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0218 mg/L	0.025 mg/L	87.2	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	0.617 mg/L	0.5 mg/L	123	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	2.68 mg/L	2.5 mg/L	107	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.00506 mg/L	0.005 mg/L	101	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0522 mg/L	0.05 mg/L	104	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	ND mg/L	----	ND	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00305 mg/L	0.005 mg/L	61.0	70.0	130	MES
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.00369 mg/L	0.005 mg/L	73.7	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.0447 mg/L	0.05 mg/L	89.5	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.00452 mg/L	0.005 mg/L	90.4	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0236 mg/L	0.025 mg/L	94.2	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0132 mg/L	0.012 mg/L	105	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.00486 mg/L	0.005 mg/L	97.3	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	0.000239 mg/L	0 mg/L	95.8	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0263 mg/L	0.025 mg/L	105	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0229 mg/L	0.025 mg/L	91.7	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.00514 mg/L	0.005 mg/L	103	70.0	130	----
Aggregate Organics (QCLot: 1961581)										
WT2506992-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0232 mg/L	0.02 mg/L	116	75.0	125	----
Aggregate Organics (QCLot: 1963836)										
WT2508641-001	BH 1-IR	Chemical oxygen demand [COD]	----	E559-L	108 mg/L	100 mg/L	108	75.0	125	----
Volatile Organic Compounds (QCLot: 1961677)										
TY2503698-001	Anonymous	Benzene	71-43-2	E611A	88.4 µg/L	100 µg/L	88.4	60.0	140	----
		Ethylbenzene	100-41-4	E611A	86.5 µg/L	100 µg/L	86.5	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	102 µg/L	100 µg/L	102	60.0	140	----
		Styrene	100-42-5	E611A	83.9 µg/L	100 µg/L	83.9	60.0	140	----
		Toluene	108-88-3	E611A	91.5 µg/L	100 µg/L	91.5	60.0	140	----
		Xylene, m+p-	179601-23-1	E611A	166 µg/L	200 µg/L	82.9	60.0	140	----
		Xylene, o-	95-47-6	E611A	83.5 µg/L	100 µg/L	83.5	60.0	140	----

Qualifiers

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

mm-792
N-720
GC-849
VW-78

Chain of Custody (COC) / Analytical Request Form

COC Number:

Canada Toll Free: 1 800 668 9878

Pag

Environmental Division
Waterloo
Work Order Reference
WT2508641

www.alsglobal.com

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	City Of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/Ontario
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☐ YES ☑ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: iacheson@orillia.ca
Email 2: zgorbell@orillia.ca
Email 3: hcurry@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: iacheson@orillia.ca
Email 2: zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge min
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge mir
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge mir
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge min
☐ Same day [E2] if received by 10am M-S - 200% rush surchar
fees may apply to rush resuests on weekends, statutory holida routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the TAT requested, you will be contacted.

Project Information

ALS Account # / Quote #:	
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Ian Acheson **Sampler:** Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Metals (F/P)	Major Ions	Trace Metals (P)	O-Phosphate	T.Phosphorus	BTEX (P)	VOC (P)	Ion Balances	Ammonium	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH 1-IR	16-04-2025	14:15	GW	3	R	R			R			R	R			
	BH 1-III	16-04-2025	14:10	GW	3	R	R			R			R	R			
	BH2-III	16-04-2025	11:35	GW	3	R	R			R			R	R			
	BH4-IIR	15-04-2025	13:25	GW	3	R	R			R			R	R			
	BH8R	15-04-2025	14:05	GW	3	R	R			R			R	R			
	BH10R	15-04-2025	14:35	GW	3	R	R			R			R	R			
	BH11R	16-04-2025	11:50	GW	5	R	R			R	R		R	R			
	BH14-IIIR	16-04-2025	10:30	GW	3	R	R			R			R	R			
	BH18R	16-04-2025	15:00	GW	3	R	R			R			R	R			
	BH29-I	14-04-2025	11:40	GW	3	R	R	R	R	R			R	R			
	BH29-II	14-04-2025	11:45	GW	3	R	R	R	R	R			R	R			
	~~BH 1-IIIRD~~	~~16-04-2025~~	~~14:10~~	~~GW~~	3	R	R			R			R	R			

AM AM

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO
Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
8.9				10.4			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
IAN ACHESON	17-04-2025	11:00

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AM	04/17/2025	14:00

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
NTB	04/17/25	6:40

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

MM-792 VW-78
N-720
QC-849

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	City Of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/Ontario
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☐ YES ☑ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax iacheson@orillia.ca
Email 2 zgorbell@orillia.ca
Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax iacheson@orillia.ca
Email 2 zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
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☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For tests that can not be performed according to the TAT requested, you will be contacted.

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	Waste Diversion Site	Major/Minor Code:	Routing Code:
PO / AFE:	86912	Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Ian Acheson	Sampler: Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Metals F/P	Major Ions	Trace Metals P	O-Phosphate	T.Phosphorus P	BTEX P	VOC	Ion Balances	Ammonium	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH 514 - IIIR	16-04-2025	14:20	GW	3	R	R			R			R	R			
	Travel Blank	14-04-2025	17-04-2025	DI	4						R	R	R	R			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO
Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
8.9				10.4			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
IAN ACHESON	17-04-2025	11:00

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AM	04/17/25	14:00

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
NRB	04/17/2025	6:40

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

CERTIFICATE OF ANALYSIS

Work Order	: **WT2509171**		
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Jacob Hood	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 24-Apr-2025 13:15
PO	: 86912	Date Analysis Commenced	: 25-Apr-2025
C-O-C number	: ----	Issue Date	: 02-May-2025 10:47
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Metals, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Centralized Prep, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLUI	Detection Limit Raised: Unknown interference generated an apparent false positive test result.
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-1	S-2	S-3	S-4	S-6
					Client sampling date / time	22-Apr-2025 14:05	22-Apr-2025 15:00	22-Apr-2025 14:30	22-Apr-2025 15:30	23-Apr-2025 11:10
						WT2509171-001	WT2509171-002	WT2509171-003	WT2509171-004	WT2509171-005
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		lab	lab	lab	lab	lab
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		227	260	222	200	208
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		227	260	222	200	208
Conductivity	----	E100/WT	2.0	µS/cm		1150	1440	1130	917	801
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		300	371	312	247	246
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		302	356	300	258	253
pH	----	E108/WT	0.10	pH units		8.13	8.07	8.12	8.19	8.21
Solids, total suspended [TSS]	----	E160/WT	3.0	mg/L		3.8	3.6	4.4	4.0	<3.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		4.93	9.99	4.17	0.0619	0.0382
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		208 DLDS	274 DLDS	208 DLDS	166 DLDS	126
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	0.071 DLDS	0.053
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		6.74	12.5	5.44	0.392	0.290
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		0.606 DLDS	1.15 DLDS	0.608 DLDS	0.220 DLDS	0.162
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		0.115 DLDS	0.239 DLDS	0.121 DLDS	<0.020 DLDS	<0.010
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		1.81	2.51	1.27	0.330	0.252
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		0.0048	0.0052	0.0055	0.0012	0.0012
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.0417	0.0731	0.0394	0.0154	0.0132

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	S-1	S-2	S-3	S-4	S-6
Client sample ID					S-1	S-2	S-3	S-4	S-6
Client sampling date / time					22-Apr-2025 14:05	22-Apr-2025 15:00	22-Apr-2025 14:30	22-Apr-2025 15:30	23-Apr-2025 11:10
					WT2509171-001	WT2509171-002	WT2509171-003	WT2509171-004	WT2509171-005
					Result	Result	Result	Result	Result
Anions and Nutrients									
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	32.9 DLDS	56.1 DLDS	30.8 DLDS	13.0 DLDS	10.3
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	6.43	6.13	6.90	7.81	7.62
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	11.1	14.2	11.0	8.97	7.94
Anion sum	----	EC101/WT	0.10	meq/L	11.1	14.2	11.0	8.97	7.94
Cation sum	----	EC101/WT	0.10	meq/L	11.5	14.8	11.9	8.71	8.13
Cation sum (total)	----	EC101A/WT	0.10	meq/L	11.5	14.4	11.4	9.30	8.15
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	104	101	104	104	103
Ion balance (APHA)	----	EC101A/WT	0.010	%	1.77	0.699	1.78	1.81	1.30
Ion balance (cations/anions)	----	EC101/WT	0.010	%	104	104	108	97.1	102
Ion balance (APHA)	----	EC101/WT	0.01	%	1.77	2.07	3.93	-1.47	1.18
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	0.152	0.302	0.142	0.0368	0.0266
Antimony, total	7440-36-0	E420/WT	0.00010	mg/L	0.00027	0.00045	0.00025	0.00012	<0.00010
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L	0.00090	0.00139	0.00081	0.00045	0.00038
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.0878	0.0798	0.0903	0.0955	0.0959
Beryllium, total	7440-41-7	E420/WT	0.000020	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WT	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WT	0.010	mg/L	0.041	0.057	0.038	0.022	0.011
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.0000062	<0.0000050	0.0000050	0.0000067	<0.0000050

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-1	S-2	S-3	S-4	S-6
					Client sampling date / time	22-Apr-2025 14:05	22-Apr-2025 15:00	22-Apr-2025 14:30	22-Apr-2025 15:30	23-Apr-2025 11:10
						WT2509171-001	WT2509171-002	WT2509171-003	WT2509171-004	WT2509171-005
						Result	Result	Result	Result	Result
Total Metals										
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		96.6	115	96.1	81.9	78.8
Cesium, total	7440-46-2	E420/WT	0.000010	mg/L		0.000012	0.000017	0.000010	<0.000010	<0.000010
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00124	0.00272	0.00110	<0.00010	<0.00010
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.00134	0.00182	0.00118	0.00075	<0.00050
Iron, total	7439-89-6	E420/WT	0.010	mg/L		0.134	0.026	0.141	0.228	0.182
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.000112	0.000096	0.000095	0.000099	<0.000050
Lithium, total	7439-93-2	E420/WT	0.0010	mg/L		0.0020	0.0032	0.0022	0.0013	0.0011
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		14.7	16.8	14.6	12.9	13.6
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.0589	0.0687	0.0604	0.0540	0.0499
Molybdenum, total	7439-98-7	E420/WT	0.000050	mg/L		0.000802	0.00103	0.000769	0.000571	0.000312
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.00076	0.00100	0.00065	<0.00050	<0.00050
Phosphorus, total	7723-14-0	E420/WT	0.050	mg/L		<0.050	0.061	<0.050	<0.050	<0.050
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		5.20	7.70	4.84	2.64	2.34
Rubidium, total	7440-17-7	E420/WT	0.00020	mg/L		0.00327	0.00488	0.00292	0.00139	0.00129
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		0.000251	0.000336	0.000220	0.000105	0.000091
Silicon, total	7440-21-3	E420/WT	0.10	mg/L		3.42	4.09	3.47	3.02	3.33
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		115	145	113	93.5	69.6
Strontium, total	7440-24-6	E420/WT	0.00020	mg/L		0.305	0.381	0.302	0.245	0.201
Sulfur, total	7704-34-9	E420/WT	0.50	mg/L		11.8	20.5	11.4	4.84	3.91

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	S-1	S-2	S-3	S-4	S-6
Client sample ID									
Client sampling date / time					22-Apr-2025 14:05	22-Apr-2025 15:00	22-Apr-2025 14:30	22-Apr-2025 15:30	23-Apr-2025 11:10
					WT2509171-001	WT2509171-002	WT2509171-003	WT2509171-004	WT2509171-005
					Result	Result	Result	Result	Result
Total Metals									
Tellurium, total	13494-80-9	E420/WT	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WT	0.00010	mg/L	<0.00010	0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WT	0.00030	mg/L	0.00097	<0.00030	0.00086	0.00160	0.00119
Tungsten, total	7440-33-7	E420/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WT	0.000010	mg/L	0.000347	0.000316	0.000352	0.000377	0.000342
Vanadium, total	7440-62-2	E420/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	0.0065	0.0084	0.0059	0.0030	<0.0030
Zirconium, total	7440-67-7	E420/WT	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	0.0506	0.0862	0.0492	0.0075	0.0037
Antimony, dissolved	7440-36-0	E421/WT	0.00010	mg/L	0.00026	0.00047	0.00028	0.00012	<0.00010
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L	0.00077	0.00137	0.00082	0.00040	0.00033
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	0.0908	0.0838	0.0921	0.0952	0.0996
Beryllium, dissolved	7440-41-7	E421/WT	0.000020	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WT	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WT	0.010	mg/L	0.041	0.059	0.041	0.020	0.011
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	0.0000144	0.0000059	0.0000056	0.0000069	<0.0000050
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	95.3	120	100	79.3	74.9
Cesium, dissolved	7440-46-2	E421/WT	0.000010	mg/L	0.000011	0.000019	0.000011	<0.000010	<0.000010

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	S-1	S-2	S-3	S-4	S-6
Client sample ID									
Client sampling date / time					22-Apr-2025 14:05	22-Apr-2025 15:00	22-Apr-2025 14:30	22-Apr-2025 15:30	23-Apr-2025 11:10
					WT2509171-001	WT2509171-002	WT2509171-003	WT2509171-004	WT2509171-005
					Result	Result	Result	Result	Result
Dissolved Metals									
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	0.00116	0.00262	0.00121	<0.00010	<0.00010
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	0.00124	0.00140	0.00100	0.00072	0.00038
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	0.040	0.015	0.044	0.100	0.082
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	0.000090	0.000149	0.000056	0.000109	0.000073
Lithium, dissolved	7439-93-2	E421/WT	0.0010	mg/L	0.0023	0.0036	0.0026	0.0012	0.0016
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	15.0	17.4	15.2	11.8	14.2
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.0585	0.0699	0.0606	0.0514	0.0480
Molybdenum, dissolved	7439-98-7	E421/WT	0.000050	mg/L	0.000786	0.00108	0.000789	0.000584	0.000341
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	0.00072	0.00096	0.00066	<0.00050	<0.00050
Phosphorus, dissolved	7723-14-0	E421/WT	0.050	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	5.36	8.10	5.36	2.56	2.34
Rubidium, dissolved	7440-17-7	E421/WT	0.00020	mg/L	0.00332	0.00519	0.00321	0.00149	0.00117
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	0.000208	0.000348	0.000227	0.000106	0.000085
Silicon, dissolved	7440-21-3	E421/WT	0.050	mg/L	3.27	4.20	3.55	2.84	3.32
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	116	149	119	85.3	72.6
Strontium, dissolved	7440-24-6	E421/WT	0.00020	mg/L	0.300	0.401	0.324	0.242	0.202
Sulfur, dissolved	7704-34-9	E421/WT	0.50	mg/L	10.9	20.8	12.1	4.80	3.95
Tellurium, dissolved	13494-80-9	E421/WT	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-1	S-2	S-3	S-4	S-6
					Client sampling date / time	22-Apr-2025 14:05	22-Apr-2025 15:00	22-Apr-2025 14:30	22-Apr-2025 15:30	23-Apr-2025 11:10
						WT2509171-001	WT2509171-002	WT2509171-003	WT2509171-004	WT2509171-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Thorium, dissolved	7440-29-1	E421/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WT	0.00010	mg/L		0.00106 DTC	0.00014	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/WT	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten, dissolved	7440-33-7	E421/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WT	0.000010	mg/L		0.000322	0.000302	0.000347	0.000366	0.000326
Vanadium, dissolved	7440-62-2	E421/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		0.0068	0.0101	0.0055	0.0047	0.0035
Zirconium, dissolved	7440-67-7	E421/WT	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		23	27	22	19	18
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0039	0.0037	0.0027	0.0013	0.0146

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-7	S-8	S-11	S-503	S-4D
					Client sampling date / time	24-Apr-2025 09:00	23-Apr-2025 10:20	23-Apr-2025 11:45	22-Apr-2025 14:30	22-Apr-2025 15:30
						WT2509171-006	WT2509171-007	WT2509171-008	WT2509171-009	WT2509171-010
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		lab	lab	lab	lab	lab

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	S-7	S-8	S-11	S-503	S-4D
Client sample ID					S-7	S-8	S-11	S-503	S-4D
Client sampling date / time					24-Apr-2025 09:00	23-Apr-2025 10:20	23-Apr-2025 11:45	22-Apr-2025 14:30	22-Apr-2025 15:30
					WT2509171-006	WT2509171-007	WT2509171-008	WT2509171-009	WT2509171-010
					Result	Result	Result	Result	Result
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L	213	234	131	227	203
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	213	234	131	227	203
Conductivity	----	E100/WT	2.0	µS/cm	820	1460	543	1150	916
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L	253	323	162	296	250
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L	262	335	167	297	255
pH	----	E108/WT	0.10	pH units	8.12	8.08	8.21	8.12	8.21
Solids, total suspended [TSS]	----	E160/WT	3.0	mg/L	<3.0	5.1	11.3	3.4	3.8
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	0.0189	0.0813	0.492	4.20	0.0624
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	129	318 DLDS	78.5	213 DLDS	166 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	0.053	0.146 DLDS	0.062	<0.100 DLDS	0.070 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	0.300	0.660	0.842	5.08	0.398
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	0.181	0.806 DLDS	0.137	0.654 DLDS	0.217 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.010	<0.050 DLDS	0.018	0.128 DLDS	<0.020 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L	0.281	0.579	0.350	<1.00	0.336
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L	0.0014	0.0028	0.0013	0.0058	0.0012
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	0.0140	0.0214	0.0180	0.0386	0.0154
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	10.6	23.0 DLDS	17.9	32.3 DLDS	12.9 DLDS

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	S-7	S-8	S-11	S-503	S-4D
Client sample ID					S-7	S-8	S-11	S-503	S-4D
Client sampling date / time					24-Apr-2025 09:00	23-Apr-2025 10:20	23-Apr-2025 11:45	22-Apr-2025 14:30	22-Apr-2025 15:30
					WT2509171-006	WT2509171-007	WT2509171-008	WT2509171-009	WT2509171-010
					Result	Result	Result	Result	Result
Organic / Inorganic Carbon									
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	6.56	8.38	8.61	7.73	7.34
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	8.13	14.2	5.22	11.3	9.03
Anion sum	----	EC101/WT	0.10	meq/L	8.13	14.2	5.22	11.3	9.03
Cation sum	----	EC101/WT	0.10	meq/L	7.92	13.5	5.06	11.0	8.86
Cation sum (total)	----	EC101A/WT	0.10	meq/L	8.38	14.4	5.33	11.3	9.23
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	103	101	102	100	102
Ion balance (APHA)	----	EC101A/WT	0.010	%	1.51	0.699	1.04	0.0	1.10
Ion balance (cations/anions)	----	EC101/WT	0.010	%	97.4	95.1	96.9	97.3	98.1
Ion balance (APHA)	----	EC101/WT	0.01	%	-1.31	-2.53	-1.56	-1.34	-0.95
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	0.0354	0.0620	0.0791	0.143	0.0383
Antimony, total	7440-36-0	E420/WT	0.00010	mg/L	<0.00010	0.00029	0.00013	0.00025	0.00012
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L	0.00045	0.00036	0.00044	0.00082	0.00044
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.106	0.118	0.0383	0.0882	0.0948
Beryllium, total	7440-41-7	E420/WT	0.000020	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, total	7440-69-9	E420/WT	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/WT	0.010	mg/L	0.011	0.048	0.024	0.038	0.022
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	<0.0000050	0.0000125	<0.0000050	0.0000060	<0.0000050
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	81.4	110	52.3	94.8	81.2
Cesium, total	7440-46-2	E420/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	0.000012	<0.000010

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	S-7	S-8	S-11	S-503	S-4D
Client sample ID					S-7	S-8	S-11	S-503	S-4D
Client sampling date / time					24-Apr-2025 09:00	23-Apr-2025 10:20	23-Apr-2025 11:45	22-Apr-2025 14:30	22-Apr-2025 15:30
					WT2509171-006	WT2509171-007	WT2509171-008	WT2509171-009	WT2509171-010
					Result	Result	Result	Result	Result
Total Metals									
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	<0.00010	0.00014	0.00047	0.00110	<0.00010
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	<0.00050	0.00157	0.00064	0.00125	0.00071
Iron, total	7439-89-6	E420/WT	0.010	mg/L	0.223	0.306	0.079	0.137	0.228
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.000057	0.000228	0.000147	0.000092	0.000092
Lithium, total	7439-93-2	E420/WT	0.0010	mg/L	0.0013	0.0020	0.0013	0.0021	0.0014
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	14.3	14.6	8.95	14.6	12.8
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	0.0729	0.0929	0.0100	0.0599	0.0544
Molybdenum, total	7439-98-7	E420/WT	0.000050	mg/L	0.000324	0.00109	0.000371	0.000750	0.000558
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	<0.00050	0.00078	<0.00050	0.00067	<0.00050
Phosphorus, total	7723-14-0	E420/WT	0.050	mg/L	<0.050	<0.050	<0.050	0.051	<0.050
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	2.27	2.82	2.96	4.86	2.61
Rubidium, total	7440-17-7	E420/WT	0.00020	mg/L	0.00132	0.00162	0.00147	0.00304	0.00143
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	0.000088	0.000248	0.000071	0.000219	0.000121
Silicon, total	7440-21-3	E420/WT	0.10	mg/L	3.40	1.85	2.09	3.50	3.03
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	70.5	175	42.9	113	92.9
Strontium, total	7440-24-6	E420/WT	0.00020	mg/L	0.211	0.412	0.176	0.297	0.242
Sulfur, total	7704-34-9	E420/WT	0.50	mg/L	3.89	8.68	6.30	11.2	4.88
Tellurium, total	13494-80-9	E420/WT	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-7	S-8	S-11	S-503	S-4D
					Client sampling date / time	24-Apr-2025 09:00	23-Apr-2025 10:20	23-Apr-2025 11:45	22-Apr-2025 14:30	22-Apr-2025 15:30
						WT2509171-006	WT2509171-007	WT2509171-008	WT2509171-009	WT2509171-010
						Result	Result	Result	Result	Result
Total Metals										
Thorium, total	7440-29-1	E420/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, total	7440-31-5	E420/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, total	7440-32-6	E420/WT	0.00030	mg/L		0.00178	0.00298	0.00252	<0.00200 DLUI	<0.00200 DLUI
Tungsten, total	7440-33-7	E420/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, total	7440-61-1	E420/WT	0.000010	mg/L		0.000338	0.000525	0.000358	0.000349	0.000382
Vanadium, total	7440-62-2	E420/WT	0.00050	mg/L		<0.00050	<0.00050	0.00050	<0.00050	<0.00050
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0030	0.0081	<0.0030	0.0054	<0.0030
Zirconium, total	7440-67-7	E420/WT	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		0.0036	0.0040	0.0142	0.0478	0.0079
Antimony, dissolved	7440-36-0	E421/WT	0.00010	mg/L		<0.00010	0.00028	0.00012	0.00026	0.00011
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L		0.00040	0.00031	0.00041	0.00080	0.00041
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.107	0.120	0.0383	0.0879	0.0966
Beryllium, dissolved	7440-41-7	E421/WT	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/WT	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/WT	0.010	mg/L		0.010	0.045	0.022	0.037	0.021
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000050	0.0000101	<0.0000050	0.0000072	<0.0000050
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		79.6	107	51.2	95.8	80.4
Cesium, dissolved	7440-46-2	E421/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000010	0.000014	<0.000010
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		<0.00010	0.00011	0.00036	0.00116	<0.00010

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-7	S-8	S-11	S-503	S-4D
					Client sampling date / time	24-Apr-2025 09:00	23-Apr-2025 10:20	23-Apr-2025 11:45	22-Apr-2025 14:30	22-Apr-2025 15:30
						WT2509171-006	WT2509171-007	WT2509171-008	WT2509171-009	WT2509171-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		0.00030	0.00129	0.00047	0.00100	0.00060
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		0.104	0.081	<0.010	0.041	0.100
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000050	0.000110	<0.000050	0.000053	<0.000050
Lithium, dissolved	7439-93-2	E421/WT	0.0010	mg/L		0.0014	0.0021	0.0013	0.0023	0.0015
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		13.2	13.6	8.26	13.9	12.1
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.0684	0.0873	0.00661	0.0584	0.0524
Molybdenum, dissolved	7439-98-7	E421/WT	0.000050	mg/L		0.000312	0.00109	0.000406	0.000791	0.000590
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		<0.00050	0.00069	<0.00050	0.00063	<0.00050
Phosphorus, dissolved	7723-14-0	E421/WT	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		2.25	2.78	2.90	5.12	2.62
Rubidium, dissolved	7440-17-7	E421/WT	0.00020	mg/L		0.00132	0.00154	0.00150	0.00333	0.00148
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		0.000074	0.000220	0.000082	0.000223	0.000136
Silicon, dissolved	7440-21-3	E421/WT	0.050	mg/L		3.24	1.67	1.86	3.42	2.88
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		64.4	160	39.4	107	86.9
Strontium, dissolved	7440-24-6	E421/WT	0.00020	mg/L		0.210	0.412	0.179	0.310	0.246
Sulfur, dissolved	7704-34-9	E421/WT	0.50	mg/L		3.75	8.39	6.06	11.8	4.52
Tellurium, dissolved	13494-80-9	E421/WT	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/WT	0.00010	mg/L		<0.00010	<0.00010	<0.00010	0.00015	<0.00010

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	S-7	S-8	S-11	S-503	S-4D
Client sample ID					S-7	S-8	S-11	S-503	S-4D
Client sampling date / time					24-Apr-2025 09:00	23-Apr-2025 10:20	23-Apr-2025 11:45	22-Apr-2025 14:30	22-Apr-2025 15:30
					WT2509171-006	WT2509171-007	WT2509171-008	WT2509171-009	WT2509171-010
					Result	Result	Result	Result	Result
Dissolved Metals									
Titanium, dissolved	7440-32-6	E421/WT	0.00030	mg/L	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten, dissolved	7440-33-7	E421/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium, dissolved	7440-61-1	E421/WT	0.000010	mg/L	0.000334	0.000510	0.000354	0.000341	0.000375
Vanadium, dissolved	7440-62-2	E421/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	0.0022	0.0084	0.0011	0.0057	0.0026
Zirconium, dissolved	7440-67-7	E421/WT	0.00030	mg/L	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	Field	Field
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	19	27	14	23	24
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0025	0.0022	0.0071	0.0040	0.0019

Please refer to the General Comments section for an explanation of any result qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2509171**	Page	: 1 of 31
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Jacob Hood	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 24-Apr-2025 13:15
PO	: 86912	Issue Date	: 02-May-2025 10:46
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Anions and Nutrients	QC-1968111-001	----	Phosphorus, total	7723-14-0	E372-U	0.0031 mg/L B	0.002 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-7	E550	24-Apr-2025	----	----	----		25-Apr-2025	4 days	1 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-1	E550	22-Apr-2025	----	----	----		25-Apr-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-11	E550	23-Apr-2025	----	----	----		25-Apr-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-2	E550	22-Apr-2025	----	----	----		25-Apr-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-3	E550	22-Apr-2025	----	----	----		25-Apr-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-4	E550	22-Apr-2025	----	----	----		25-Apr-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-6	E550	23-Apr-2025	----	----	----		25-Apr-2025	4 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-8	E550	23-Apr-2025	----	----	----		25-Apr-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-4D	E550	22-Apr-2025	----	----	----		26-Apr-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-503	E550	22-Apr-2025	----	----	----		26-Apr-2025	4 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-7	E559-L	24-Apr-2025	----	----	----		28-Apr-2025	28 days	4 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-11	E559-L	23-Apr-2025	----	----	----		28-Apr-2025	28 days	5 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-6	E559-L	23-Apr-2025	----	----	----		28-Apr-2025	28 days	5 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-8	E559-L	23-Apr-2025	----	----	----		28-Apr-2025	28 days	5 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-1	E559-L	22-Apr-2025	----	----	----		28-Apr-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-2	E559-L	22-Apr-2025	----	----	----		28-Apr-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-3	E559-L	22-Apr-2025	----	----	----		28-Apr-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-4	E559-L	22-Apr-2025	----	----	----		28-Apr-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-4D	E559-L	22-Apr-2025	----	----	----		28-Apr-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-503	E559-L	22-Apr-2025	----	----	----		28-Apr-2025	28 days	6 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-7	E562	24-Apr-2025	26-Apr-2025	28 days	2 days	✓	28-Apr-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-11	E562	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-6	E562	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-8	E562	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-1	E562	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-2	E562	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-3	E562	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-4	E562	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-4D	E562	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-503	E562	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-7	E298	24-Apr-2025	26-Apr-2025	28 days	2 days	✓	28-Apr-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-11	E298	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-6	E298	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-8	E298	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	28-Apr-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-1	E298	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-2	E298	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-3	E298	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-4	E298	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-4D	E298	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-503	E298	22-Apr-2025	26-Apr-2025	28 days	4 days	✓	28-Apr-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
S-1	E235.Cl	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
S-11	E235.Cl	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
S-2	E235.Cl	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-3	E235.Cl	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-4	E235.Cl	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-4D	E235.Cl	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-503	E235.Cl	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-6	E235.Cl	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-7	E235.Cl	24-Apr-2025	27-Apr-2025	28 days	3 days	✓	30-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-8	E235.Cl	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] S-1	E378-U	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] S-11	E378-U	23-Apr-2025	26-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-2	E378-U	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-3	E378-U	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-4	E378-U	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-4D	E378-U	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-503	E378-U	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-6	E378-U	23-Apr-2025	26-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-7	E378-U	24-Apr-2025	27-Apr-2025	7 days	3 days	✓	01-May-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-8	E378-U	23-Apr-2025	26-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-1	E235.F	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-11	E235.F	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-2	E235.F	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-3	E235.F	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-4	E235.F	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-4D	E235.F	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-503	E235.F	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-6	E235.F	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-7	E235.F	24-Apr-2025	27-Apr-2025	28 days	3 days	✓	30-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-8	E235.F	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S-1	E235.NO3	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S-11	E235.NO3	23-Apr-2025	26-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S-2	E235.NO3	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S-3	E235.NO3	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S-4	E235.NO3	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S-4D	E235.NO3	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S-503	E235.NO3	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S-6	E235.NO3	23-Apr-2025	26-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S-7	E235.NO3	24-Apr-2025	27-Apr-2025	7 days	3 days	✓	30-Apr-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
S-8	E235.NO3	23-Apr-2025	26-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-1	E235.NO2	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-11	E235.NO2	23-Apr-2025	26-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-2	E235.NO2	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-3	E235.NO2	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-4	E235.NO2	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-4D	E235.NO2	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-503	E235.NO2	22-Apr-2025	25-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-6	E235.NO2	23-Apr-2025	26-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] S-7	E235.NO2	24-Apr-2025	27-Apr-2025	7 days	3 days	✓	30-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] S-8	E235.NO2	23-Apr-2025	26-Apr-2025	7 days	3 days	✓	29-Apr-2025	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S-1	E235.SO4	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S-11	E235.SO4	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S-2	E235.SO4	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S-3	E235.SO4	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S-4	E235.SO4	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S-4D	E235.SO4	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S-503	E235.SO4	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S-6	E235.SO4	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S-7	E235.SO4	24-Apr-2025	27-Apr-2025	28 days	3 days	✓	30-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S-8	E235.SO4	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-7	E318	24-Apr-2025	29-Apr-2025	28 days	5 days	✓	29-Apr-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-11	E318	23-Apr-2025	29-Apr-2025	28 days	6 days	✓	29-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-6	E318	23-Apr-2025	29-Apr-2025	28 days	6 days	✓	29-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-8	E318	23-Apr-2025	29-Apr-2025	28 days	6 days	✓	29-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-1	E318	22-Apr-2025	29-Apr-2025	28 days	7 days	✓	29-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-2	E318	22-Apr-2025	29-Apr-2025	28 days	7 days	✓	29-Apr-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-3	E318	22-Apr-2025	29-Apr-2025	28 days	7 days	✓	29-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-4	E318	22-Apr-2025	29-Apr-2025	28 days	7 days	✓	29-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-4D	E318	22-Apr-2025	29-Apr-2025	28 days	7 days	✓	29-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-503	E318	22-Apr-2025	29-Apr-2025	28 days	7 days	✓	29-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-7	E372-U	24-Apr-2025	30-Apr-2025	28 days	6 days	✓	30-Apr-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-11	E372-U	23-Apr-2025	30-Apr-2025	28 days	7 days	✓	30-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-6	E372-U	23-Apr-2025	30-Apr-2025	28 days	7 days	✓	30-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-8	E372-U	23-Apr-2025	30-Apr-2025	28 days	7 days	✓	30-Apr-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-1	E372-U	22-Apr-2025	30-Apr-2025	28 days	8 days	✓	30-Apr-2025	28 days	8 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-2	E372-U	22-Apr-2025	30-Apr-2025	28 days	8 days	✓	30-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-3	E372-U	22-Apr-2025	30-Apr-2025	28 days	8 days	✓	30-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-4	E372-U	22-Apr-2025	30-Apr-2025	28 days	8 days	✓	30-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-4D	E372-U	22-Apr-2025	30-Apr-2025	28 days	8 days	✓	30-Apr-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-503	E372-U	22-Apr-2025	30-Apr-2025	28 days	8 days	✓	30-Apr-2025	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-7	E421	24-Apr-2025	25-Apr-2025	180 days	1 days	✓	25-Apr-2025	180 days	1 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-11	E421	23-Apr-2025	25-Apr-2025	180 days	2 days	✓	25-Apr-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-6	E421	23-Apr-2025	25-Apr-2025	180 days	2 days	✓	25-Apr-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-8	E421	23-Apr-2025	25-Apr-2025	180 days	2 days	✓	25-Apr-2025	180 days	2 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-1	E421	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-2	E421	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-3	E421	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-4	E421	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-4D	E421	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-503	E421	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
S-7	E358-L	24-Apr-2025	25-Apr-2025	3 days	1 days	✓	28-Apr-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
S-11	E358-L	23-Apr-2025	25-Apr-2025	3 days	2 days	✓	28-Apr-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
S-6	E358-L	23-Apr-2025	25-Apr-2025	3 days	2 days	✓	28-Apr-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] S-8	E358-L	23-Apr-2025	25-Apr-2025	3 days	2 days	✓	28-Apr-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] S-1	E358-L	22-Apr-2025	25-Apr-2025	3 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] S-2	E358-L	22-Apr-2025	25-Apr-2025	3 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] S-3	E358-L	22-Apr-2025	25-Apr-2025	3 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] S-4	E358-L	22-Apr-2025	25-Apr-2025	3 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] S-4D	E358-L	22-Apr-2025	25-Apr-2025	3 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP] S-503	E358-L	22-Apr-2025	25-Apr-2025	3 days	3 days	✓	28-Apr-2025	28 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-1	E290	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-11	E290	23-Apr-2025	26-Apr-2025	14 days	3 days	✓	26-Apr-2025	14 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-2	E290	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-3	E290	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-4	E290	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-4D	E290	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-503	E290	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-6	E290	23-Apr-2025	26-Apr-2025	14 days	3 days	✓	26-Apr-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-7	E290	24-Apr-2025	27-Apr-2025	14 days	3 days	✓	29-Apr-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-8	E290	23-Apr-2025	26-Apr-2025	14 days	3 days	✓	26-Apr-2025	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-1	E100	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	25-Apr-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-11	E100	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	26-Apr-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-2	E100	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	25-Apr-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-3	E100	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	25-Apr-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-4	E100	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	25-Apr-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-4D	E100	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	25-Apr-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-503	E100	22-Apr-2025	25-Apr-2025	28 days	3 days	✓	25-Apr-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-6	E100	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	26-Apr-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-7	E100	24-Apr-2025	27-Apr-2025	28 days	3 days	✓	29-Apr-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-8	E100	23-Apr-2025	26-Apr-2025	28 days	3 days	✓	26-Apr-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] S-1	E108	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-11	E108	23-Apr-2025	26-Apr-2025	14 days	3 days	✓	26-Apr-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-2	E108	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-3	E108	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-4	E108	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-4D	E108	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-503	E108	22-Apr-2025	25-Apr-2025	14 days	3 days	✓	25-Apr-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-6	E108	23-Apr-2025	26-Apr-2025	14 days	3 days	✓	26-Apr-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-7	E108	24-Apr-2025	27-Apr-2025	14 days	3 days	✓	29-Apr-2025	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] S-8	E108	23-Apr-2025	26-Apr-2025	14 days	3 days	✓	26-Apr-2025	14 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] S-7	E160	24-Apr-2025	----	----	----		30-Apr-2025	7 days	6 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] S-1	E160	22-Apr-2025	----	----	----		29-Apr-2025	7 days	7 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] S-11	E160	23-Apr-2025	----	----	----		30-Apr-2025	7 days	7 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] S-2	E160	22-Apr-2025	----	----	----		29-Apr-2025	7 days	7 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] S-3	E160	22-Apr-2025	----	----	----		29-Apr-2025	7 days	7 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] S-4	E160	22-Apr-2025	----	----	----		29-Apr-2025	7 days	7 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] S-4D	E160	22-Apr-2025	----	----	----		29-Apr-2025	7 days	7 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] S-503	E160	22-Apr-2025	----	----	----		29-Apr-2025	7 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] S-6	E160	23-Apr-2025	----	----	----		30-Apr-2025	7 days	7 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] S-8	E160	23-Apr-2025	----	----	----		30-Apr-2025	7 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S-7	E420	24-Apr-2025	25-Apr-2025	180 days	1 days	✓	25-Apr-2025	180 days	1 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S-11	E420	23-Apr-2025	25-Apr-2025	180 days	2 days	✓	25-Apr-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S-6	E420	23-Apr-2025	25-Apr-2025	180 days	2 days	✓	25-Apr-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S-8	E420	23-Apr-2025	25-Apr-2025	180 days	2 days	✓	25-Apr-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S-1	E420	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S-2	E420	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S-3	E420	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S-4	E420	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S-4D	E420	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S-503	E420	22-Apr-2025	25-Apr-2025	180 days	3 days	✓	25-Apr-2025	180 days	3 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	1966256	3	45	6.6	5.0	✓
pH by Meter	E108	1966255	3	55	5.4	5.0	✓
TSS by Gravimetry	E160	1970579	3	60	5.0	4.7	✓
Chloride in Water by IC	E235.Cl	1966252	3	49	6.1	5.0	✓
Fluoride in Water by IC	E235.F	1966253	3	46	6.5	5.0	✓
Nitrite in Water by IC	E235.NO2	1966250	3	47	6.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1966249	3	56	5.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1966251	3	46	6.5	5.0	✓
Alkalinity Species by Titration	E290	1966257	3	47	6.3	5.0	✓
Ammonia by Fluorescence	E298	1968112	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1968109	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1966001	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1968111	2	32	6.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1966258	3	60	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1965245	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1965798	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1966345	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1969217	1	17	5.8	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1968113	1	16	6.2	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	1966256	3	45	6.6	5.0	✓
pH by Meter	E108	1966255	3	55	5.4	5.0	✓
TSS by Gravimetry	E160	1970579	3	60	5.0	4.7	✓
Chloride in Water by IC	E235.Cl	1966252	3	49	6.1	5.0	✓
Fluoride in Water by IC	E235.F	1966253	3	46	6.5	5.0	✓
Nitrite in Water by IC	E235.NO2	1966250	3	47	6.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1966249	3	56	5.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1966251	3	46	6.5	5.0	✓
Alkalinity Species by Titration	E290	1966257	3	47	6.3	5.0	✓
Ammonia by Fluorescence	E298	1968112	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1968109	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1966001	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1968111	2	32	6.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1966258	3	60	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1965245	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1965798	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Biochemical Oxygen Demand - 5 day	E550	1966345	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1969217	1	17	5.8	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1968113	1	16	6.2	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	1966256	3	45	6.6	5.0	✓
TSS by Gravimetry	E160	1970579	3	60	5.0	4.7	✓
Chloride in Water by IC	E235.Cl	1966252	3	49	6.1	5.0	✓
Fluoride in Water by IC	E235.F	1966253	3	46	6.5	5.0	✓
Nitrite in Water by IC	E235.NO2	1966250	3	47	6.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1966249	3	56	5.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1966251	3	46	6.5	5.0	✓
Alkalinity Species by Titration	E290	1966257	3	47	6.3	5.0	✓
Ammonia by Fluorescence	E298	1968112	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1968109	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1966001	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1968111	2	32	6.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1966258	3	60	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1965245	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1965798	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1966345	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1969217	1	17	5.8	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1968113	1	16	6.2	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	1966252	3	49	6.1	5.0	✓
Fluoride in Water by IC	E235.F	1966253	3	46	6.5	5.0	✓
Nitrite in Water by IC	E235.NO2	1966250	3	47	6.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1966249	3	56	5.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1966251	3	46	6.5	5.0	✓
Ammonia by Fluorescence	E298	1968112	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1968109	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1966001	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1968111	2	32	6.2	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1966258	3	60	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1965245	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1965798	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1969217	1	17	5.8	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1968113	1	16	6.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry	E160 ALS Environmental - Waterloo	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.
Ion Balance using Dissolved Metals	EC101 ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.

QUALITY CONTROL REPORT

Work Order	: **WT2509171**	Page	: 1 of 21
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Jacob Hood	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 24-Apr-2025 13:15
PO	: 86912	Date Analysis Commenced	: 25-Apr-2025
C-O-C number	: ----	Issue Date	: 02-May-2025 10:46
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Centralized Prep, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1966255)											
WT2509167-003	Anonymous	pH	----	E108	0.10	pH units	7.89	7.91	0.253%	4%	----
Physical Tests (QC Lot: 1966256)											
WT2509167-003	Anonymous	Conductivity	----	E100	2.0	µS/cm	609 uS/cm	609	0.00%	10%	----
Physical Tests (QC Lot: 1966257)											
WT2509167-003	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	220	222	0.923%	20%	----
Physical Tests (QC Lot: 1967605)											
WT2509171-005	S-6	pH	----	E108	0.10	pH units	8.21	8.21	0.00%	4%	----
Physical Tests (QC Lot: 1967606)											
WT2509171-005	S-6	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	208	207	0.125%	20%	----
Physical Tests (QC Lot: 1967607)											
WT2509171-005	S-6	Conductivity	----	E100	2.0	µS/cm	801	808	0.870%	10%	----
Physical Tests (QC Lot: 1968523)											
WT2509171-006	S-7	pH	----	E108	0.10	pH units	8.12	8.07	0.618%	4%	----
Physical Tests (QC Lot: 1968524)											
WT2509171-006	S-7	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	213	209	1.81%	20%	----
Physical Tests (QC Lot: 1968525)											
WT2509171-006	S-7	Conductivity	----	E100	2.0	µS/cm	820	822	0.244%	10%	----
Physical Tests (QC Lot: 1970579)											
WT2508930-001	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	9.4	10.2	0.8	Diff <2x LOR	----
Physical Tests (QC Lot: 1972357)											
WT2509088-001	Anonymous	Solids, total suspended [TSS]	----	E160	3.0	mg/L	40.5	41.7	2.92%	20%	----
Physical Tests (QC Lot: 1972360)											
WT2509059-001	Anonymous	Solids, total suspended [TSS]	----	E160	150	mg/L	21000	20800	1.15%	20%	----
Anions and Nutrients (QC Lot: 1966249)											
WT2509227-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.414	0.414	0.211%	20%	----
Anions and Nutrients (QC Lot: 1966250)											
WT2509227-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	0.074	0.074	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1966251)											
WT2509227-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	26.1	26.1	0.0898%	20%	----
Anions and Nutrients (QC Lot: 1966252)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1966252) - continued											
WT2509227-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	28.2	28.1	0.257%	20%	----
Anions and Nutrients (QC Lot: 1966253)											
WT2509227-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.691	0.689	0.298%	20%	----
Anions and Nutrients (QC Lot: 1966258)											
WT2509167-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1967599)											
WT2509198-001	Anonymous	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.165	0.166	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1967600)											
WT2509198-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1967601)											
WT2509198-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	0.062	0.063	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1967602)											
WT2509198-001	Anonymous	Chloride	16887-00-6	E235.Cl	2.50	mg/L	75.6	75.7	0.153%	20%	----
Anions and Nutrients (QC Lot: 1967603)											
WT2509198-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	275	275	0.122%	20%	----
Anions and Nutrients (QC Lot: 1967608)											
WT2509171-007	S-8	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0028	0.0026	0.0003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1968109)											
WT2509157-002	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	0.356	0.342	0.014	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1968111)											
WT2509157-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0629	0.0630	0.191%	20%	----
Anions and Nutrients (QC Lot: 1968112)											
WT2509157-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0250	mg/L	1.33	1.14	15.5%	20%	----
Anions and Nutrients (QC Lot: 1968518)											
WT2509171-006	S-7	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.053	0.054	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1968519)											
WT2509171-006	S-7	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.181	0.181	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1968520)											
WT2509171-006	S-7	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1968521)											
WT2509171-006	S-7	Chloride	16887-00-6	E235.Cl	0.50	mg/L	129	129	0.329%	20%	----
Anions and Nutrients (QC Lot: 1968522)											
WT2509171-006	S-7	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	10.6	10.6	0.197%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1968526)											
WT2509171-006	S-7	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0014	0.0016	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1973611)											
HA2501150-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.613	0.601	1.95%	20%	----
Organic / Inorganic Carbon (QC Lot: 1966001)											
BF2500004-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	2.46	2.65	0.18	Diff <2x LOR	----
Total Metals (QC Lot: 1965245)											
HA2501136-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.195	0.196	0.407%	20%	----
		Antimony, total	7440-36-0	E420	0.00010	mg/L	0.00021	0.00021	0.000002	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00146	0.00146	0.103%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00256	0.00252	1.51%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.100	mg/L	3.11	3.08	0.876%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000021	0.000021	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00050	0.00058	0.00008	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00173	0.00169	0.00004	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.182	0.190	4.31%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000334	0.000327	0.000007	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	0.994	0.993	0.182%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0220	0.0218	0.799%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	<0.000050	0.000073	0.000023	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00094	0.00093	0.00001	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.549	0.543	1.00%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00065	0.00070	0.00006	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.22	1.25	2.46%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	6.37	6.36	0.163%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0203	0.0202	0.111%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1965245) - continued											
HA2501136-001	Anonymous	Sulfur, total	7704-34-9	E420	0.50	mg/L	0.82	0.92	0.10	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	0.00014	0.00014	0.000006	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00248	0.00214	0.00035	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000018	0.000019	0.000001	Diff <2x LOR	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.0126	0.0120	0.0006	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1965798)											
WT2509147-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.437	0.434	0.748%	20%	----
		Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.00024	0.00024	0.000005	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00942	0.00949	0.724%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0751	0.0751	0.0581%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	0.000024	0.000021	0.000003	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.013	0.013	0.0003	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000141	0.0000150	0.0000009	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	94.6	94.5	0.174%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	0.000046	0.000043	0.000003	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	0.00067	0.00066	0.000004	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00031	0.00032	0.00002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00116	0.00117	0.00002	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.473	0.464	1.83%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000799	0.000809	1.26%	20%	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0171	0.0169	1.01%	20%	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	36.5	36.9	0.975%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0331	0.0332	0.483%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00477	0.00472	0.935%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00091	0.00099	0.00007	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	2.52	2.59	2.86%	20%	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.79	1.79	0.413%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1965798) - continued											
WT2509147-001	Anonymous	Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00129	0.00134	0.00005	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000447	0.000436	0.000011	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	10.0	10.1	0.668%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	0.000022	0.000021	0.000001	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	7.38	7.48	1.28%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	16.8	17.0	1.31%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	0.00224	0.00236	5.37%	20%	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	0.000014	0.000013	0.0000008	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	0.00013	0.00013	0.000002	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	0.0184	0.0183	0.630%	20%	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	0.00022	0.00023	0.000002	Diff <2x LOR	----
		Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.00120	0.00118	1.89%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	0.00284	0.00284	0.000007	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0051	0.0048	0.0002	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	0.00041	0.00051	0.00010	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1966345)											
WT2509202-005	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 1967935)											
WT2509171-009	S-503	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 1968113)											
WP2505333-003	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1969217)											
WT2509171-001	S-1	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	23	23	0.2	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1966256)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1966257)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1967606)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1967607)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1968524)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	1.1	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.1	----
Physical Tests (QCLot: 1968525)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1970579)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 1972357)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Physical Tests (QCLot: 1972360)						
Solids, total suspended [TSS]	----	E160	3	mg/L	<3.0	----
Anions and Nutrients (QCLot: 1966249)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1966250)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1966251)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1966252)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1966253)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1966258)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1967599)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1967600)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1967601)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1967602)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1967603)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1967608)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1968109)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1968111)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	# 0.0031	B
Anions and Nutrients (QCLot: 1968112)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1968518)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1968519)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1968520)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1968521)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1968522)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1968526)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1973611)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Organic / Inorganic Carbon (QCLot: 1966001)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1965245)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1965245) - continued						
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1965798)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1965798) - continued						
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----
Aggregate Organics (QCLot: 1966345)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 1967935)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 1968113)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 1969217)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1966255)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1966256)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	98.6	90.0	110	----
Physical Tests (QCLot: 1966257)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1967605)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1967606)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1967607)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.9	90.0	110	----
Physical Tests (QCLot: 1968523)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1968524)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	101	85.0	115	----
Physical Tests (QCLot: 1968525)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	98.2	90.0	110	----
Physical Tests (QCLot: 1970579)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	95.7	85.0	115	----
Physical Tests (QCLot: 1972357)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	98.2	85.0	115	----
Physical Tests (QCLot: 1972360)									
Solids, total suspended [TSS]	----	E160	3	mg/L	150 mg/L	92.2	85.0	115	----
Anions and Nutrients (QCLot: 1966249)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1966250)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1966251)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1966252)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.6	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1966253)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1966258)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	97.9	80.0	120	----
Anions and Nutrients (QCLot: 1967599)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1967600)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1967601)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1967602)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 1967603)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1967608)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	98.6	80.0	120	----
Anions and Nutrients (QCLot: 1968109)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	94.1	75.0	125	----
Anions and Nutrients (QCLot: 1968111)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	101	80.0	120	----
Anions and Nutrients (QCLot: 1968112)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	92.4	85.0	115	----
Anions and Nutrients (QCLot: 1968518)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1968519)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	97.9	90.0	110	----
Anions and Nutrients (QCLot: 1968520)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	98.6	90.0	110	----
Anions and Nutrients (QCLot: 1968521)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	98.8	90.0	110	----
Anions and Nutrients (QCLot: 1968522)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1968526)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	98.8	80.0	120	----
Anions and Nutrients (QCLot: 1973611)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	106	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1966001)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	104	80.0	120	----
Total Metals (QCLot: 1965245)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	105	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	0.05 mg/L	104	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	0.05 mg/L	108	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.005 mg/L	102	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	0.05 mg/L	103	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	0.05 mg/L	98.2	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	95.8	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	100	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.002 mg/L	96.5	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	104	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	100	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	101	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.012 mg/L	103	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	111	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	105	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.012 mg/L	98.5	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	100	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	0.5 mg/L	107	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	106	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.005 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	100	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	0.5 mg/L	105	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	91.2	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	108	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.012 mg/L	106	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	2.5 mg/L	95.8	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.005 mg/L	94.8	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	0.05 mg/L	104	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.005 mg/L	94.4	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1965245) - continued									
Tin, total	7440-31-5	E420	0.0001	mg/L	0.025 mg/L	98.3	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.012 mg/L	101	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.005 mg/L	95.3	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0 mg/L	95.4	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.025 mg/L	105	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	97.6	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.005 mg/L	110	80.0	120	----
Dissolved Metals (QCLot: 1965798)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	99.3	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	0.05 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	106	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.005 mg/L	104	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	0.05 mg/L	102	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	0.05 mg/L	96.3	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	96.6	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	102	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.002 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	98.6	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	95.2	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	95.3	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	94.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	102	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.012 mg/L	110	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	101	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	99.9	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.012 mg/L	101	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	95.4	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	0.5 mg/L	113	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	103	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.005 mg/L	104	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	92.1	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	0.5 mg/L	101	60.0	140	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	93.5	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	99.1	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1965798) - continued									
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.012 mg/L	104	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	2.5 mg/L	91.9	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.005 mg/L	100	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	0.05 mg/L	102	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.005 mg/L	99.5	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.025 mg/L	100	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.012 mg/L	98.4	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.005 mg/L	97.6	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0 mg/L	102	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.025 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	97.4	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.005 mg/L	101	80.0	120	----
Aggregate Organics (QCLot: 1966345)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	98.3	85.0	115	----
Aggregate Organics (QCLot: 1967935)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	95.9	85.0	115	----
Aggregate Organics (QCLot: 1968113)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	103	85.0	115	----
Aggregate Organics (QCLot: 1969217)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	112	85.0	115	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1966249)										
WT2509227-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.51 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1966250)										
WT2509227-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.510 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1966251)										
WT2509227-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	99.6 mg/L	100 mg/L	99.6	75.0	125	----
Anions and Nutrients (QCLot: 1966252)										
WT2509227-001	Anonymous	Chloride	16887-00-6	E235.Cl	99.7 mg/L	100 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1966253)										
WT2509227-001	Anonymous	Fluoride	16984-48-8	E235.F	1.02 mg/L	1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1966258)										
WT2509167-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0172 mg/L	0.02 mg/L	87.9	70.0	130	----
Anions and Nutrients (QCLot: 1967599)										
WT2509198-001	Anonymous	Fluoride	16984-48-8	E235.F	5.18 mg/L	5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1967600)										
WT2509198-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	12.4 mg/L	12.5 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 1967601)										
WT2509198-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	2.56 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1967602)										
WT2509198-001	Anonymous	Chloride	16887-00-6	E235.Cl	502 mg/L	500 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1967603)										
WT2509198-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	499 mg/L	500 mg/L	99.8	75.0	125	----
Anions and Nutrients (QCLot: 1967608)										
WT2509171-007	S-8	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0180 mg/L	0.02 mg/L	91.9	70.0	130	----
Anions and Nutrients (QCLot: 1968109)										
WT2509157-002	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	2.52 mg/L	2.5 mg/L	101	70.0	130	----
Anions and Nutrients (QCLot: 1968111)										
WT2509157-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.100 mg/L	0.1 mg/L	100	70.0	130	----
Anions and Nutrients (QCLot: 1968112)										
WT2509157-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1968518)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1968518) - continued										
WT2509171-006	S-7	Fluoride	16984-48-8	E235.F	0.998 mg/L	1 mg/L	99.8	75.0	125	----
Anions and Nutrients (QCLot: 1968519)										
WT2509171-006	S-7	Nitrate (as N)	14797-55-8	E235.NO3	2.48 mg/L	2.5 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 1968520)										
WT2509171-006	S-7	Nitrite (as N)	14797-65-0	E235.NO2	0.502 mg/L	0.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1968521)										
WT2509171-006	S-7	Chloride	16887-00-6	E235.Cl	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1968522)										
WT2509171-006	S-7	Sulfate (as SO4)	14808-79-8	E235.SO4	99.7 mg/L	100 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 1968526)										
WT2509171-006	S-7	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0233 mg/L	0.02 mg/L	119	70.0	130	----
Anions and Nutrients (QCLot: 1973611)										
HA2501150-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1966001)										
BF2500004-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.37 mg/L	5 mg/L	107	70.0	130	----
Total Metals (QCLot: 1965245)										
HA2501136-002	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0514 mg/L	0.05 mg/L	103	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0536 mg/L	0.05 mg/L	107	70.0	130	----
		Barium, total	7440-39-3	E420	0.0128 mg/L	0.012 mg/L	102	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.00517 mg/L	0.005 mg/L	103	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0509 mg/L	0.05 mg/L	102	70.0	130	----
		Boron, total	7440-42-8	E420	0.050 mg/L	0.05 mg/L	101	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00506 mg/L	0.005 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	2.45 mg/L	2.5 mg/L	97.9	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00251 mg/L	0.002 mg/L	100	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0129 mg/L	0.012 mg/L	103	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0127 mg/L	0.012 mg/L	101	70.0	130	----
		Copper, total	7440-50-8	E420	0.0126 mg/L	0.012 mg/L	101	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0256 mg/L	0.025 mg/L	102	70.0	130	----
		Lithium, total	7439-93-2	E420	0.0130 mg/L	0.012 mg/L	104	70.0	130	----
		Magnesium, total	7439-95-4	E420	2.63 mg/L	2.5 mg/L	105	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0128 mg/L	0.012 mg/L	102	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0250 mg/L	0.025 mg/L	100	70.0	130	----
		Phosphorus, total	7723-14-0	E420	0.552 mg/L	0.5 mg/L	110	70.0	130	----
		Potassium, total	7440-09-7	E420	2.55 mg/L	2.5 mg/L	102	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.00546 mg/L	0.005 mg/L	109	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1965245) - continued										
HA2501136-002	Anonymous	Selenium, total	7782-49-2	E420	0.0510 mg/L	0.05 mg/L	102	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	----	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00472 mg/L	0.005 mg/L	94.5	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	0.0123 mg/L	0.012 mg/L	98.4	70.0	130	----
		Sulfur, total	7704-34-9	E420	2.50 mg/L	2.5 mg/L	100	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.00510 mg/L	0.005 mg/L	102	70.0	130	----
		Thallium, total	7440-28-0	E420	0.0514 mg/L	0.05 mg/L	103	70.0	130	----
		Thorium, total	7440-29-1	E420	0.00497 mg/L	0.005 mg/L	99.4	70.0	130	----
		Tin, total	7440-31-5	E420	0.0252 mg/L	0.025 mg/L	101	70.0	130	----
		Titanium, total	7440-32-6	E420	0.0129 mg/L	0.012 mg/L	103	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.00497 mg/L	0.005 mg/L	99.4	70.0	130	----
		Uranium, total	7440-61-1	E420	0.000254 mg/L	0 mg/L	102	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0257 mg/L	0.025 mg/L	103	70.0	130	----
		Zinc, total	7440-66-6	E420	0.0240 mg/L	0.025 mg/L	96.0	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.00490 mg/L	0.005 mg/L	98.0	70.0	130	----
Dissolved Metals (QCLot: 1965798)										
WT2509147-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Antimony, dissolved	7440-36-0	E421	0.0545 mg/L	0.05 mg/L	109	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0556 mg/L	0.05 mg/L	111	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.00550 mg/L	0.005 mg/L	110	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.0481 mg/L	0.05 mg/L	96.2	70.0	130	----
		Boron, dissolved	7440-42-8	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00493 mg/L	0.005 mg/L	98.5	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.00261 mg/L	0.002 mg/L	104	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0125 mg/L	0.012 mg/L	99.9	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0118 mg/L	0.012 mg/L	94.4	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0114 mg/L	0.012 mg/L	90.9	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.047 mg/L	0.05 mg/L	93.8	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0247 mg/L	0.025 mg/L	98.7	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	ND mg/L	----	ND	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0120 mg/L	0.012 mg/L	96.1	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.0132 mg/L	0.012 mg/L	106	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0231 mg/L	0.025 mg/L	92.3	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	0.574 mg/L	0.5 mg/L	115	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	2.42 mg/L	2.5 mg/L	96.8	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.00542 mg/L	0.005 mg/L	108	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0506 mg/L	0.05 mg/L	101	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	ND mg/L	----	ND	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00466 mg/L	0.005 mg/L	93.2	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1965798) - continued										
WT2509147-002	Anonymous	Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.00511 mg/L	0.005 mg/L	102	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.0500 mg/L	0.05 mg/L	100	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.00490 mg/L	0.005 mg/L	98.1	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.0260 mg/L	0.025 mg/L	104	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.0129 mg/L	0.012 mg/L	103	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.00501 mg/L	0.005 mg/L	100	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	----	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.0261 mg/L	0.025 mg/L	104	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0236 mg/L	0.025 mg/L	94.6	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.00534 mg/L	0.005 mg/L	107	70.0	130	----
Aggregate Organics (QCLot: 1968113)										
WP2505333-003	Anonymous	Phenols, total (4AAP)	----	E562	0.0218 mg/L	0.02 mg/L	109	75.0	125	----
Aggregate Organics (QCLot: 1969217)										
WT2509171-001	S-1	Chemical oxygen demand [COD]	----	E559-L	106 mg/L	100 mg/L	106	75.0	125	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

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Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	City Of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/Ontario
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Project Information	
ALS Account # / Quote #:	
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	
ALS Lab Work Order # (lab use only):	

Reports / Recipients	
Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA	☐ YES ☑ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	iacheson@orillia.ca
Email 2	zgorbell@orillia.ca
Email 3	hcurry@orillia.ca

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	iacheson@orillia.ca
Email 2	zgorbell@orillia.ca

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Contact:	Ian Acheson	Sampler:	Ian Acheson

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For tests that can not be performed according to the TAT requested, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Total Metals (P)	Major Ions (With BOD)	Trace Metals (P)	O-Phosphate	T.Phosphorus	Suspended Solids	Arsenic (F/P)	Dissolved Aluminum (F/P)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	S-1	22-Apr-25	14:05	SW	5	R	R	R	R	R	R		R			
	S-2	22-Apr-25	15:00	SW	5	R	R	R	R	R	R	R	R			
	S-3	22-Apr-25	14:30	SW	5	R	R	R	R	R	R		R			
	S-4	22-Apr-25	15:30	SW	5	R	R	R	R	R	R		R			
	S-6	23-Apr-25	11:10	SW	5	R	R	R	R	R	R		R			
	S-7	24-Apr-25	9:00	SW	5	R	R	R	R	R	R		R			
	S-8	23-Apr-25	10:20	SW	5	R	R	R	R	R	R		R			
	S-11	23-Apr-25	11:45	SW	5	R	R	R	R	R	R		R			
	S-503	22-Apr-25	14:30	SW	5	R	R	R	R	R	R		R			
	S-4D	22-Apr-25	15:30	SW	5	R	R	R	R	R	R		R			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)		
Released by: IAN ACHESON	Date: 24-Apr-25	Time:

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form.**

CERTIFICATE OF ANALYSIS

Work Order	: **WT2510017**		
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 01-May-2025 13:10
PO	: 86912	Date Analysis Commenced	: 05-May-2025
C-O-C number	: ----	Issue Date	: 08-May-2025 16:40
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Inorganics, Winnipeg, Manitoba

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-1	S-2	S-3	S-4	S-6
					Client sampling date / time	01-May-2025 09:15	01-May-2025 09:50	01-May-2025 09:40	01-May-2025 10:00	01-May-2025 09:30
						WT2510017-001	WT2510017-002	WT2510017-003	WT2510017-004	WT2510017-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		59.1	63.7	61.2	52.9	55.0

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-7	S-8	S-11	S-503	S-4D
					Client sampling date / time	01-May-2025 09:20	01-May-2025 09:20	01-May-2025 09:45	01-May-2025 09:40	01-May-2025 10:00
						WT2510017-006	WT2510017-007	WT2510017-008	WT2510017-009	WT2510017-010
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		54.0	58.2	44.9	60.0	52.5

Please refer to the General Comments section for an explanation of any result qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2510017**	Page	: 1 of 6
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 01-May-2025 13:10
PO	: 86912	Issue Date	: 08-May-2025 16:41
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S-1	E353-L	01-May-2025	----	----	----		05-May-2025	14 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S-11	E353-L	01-May-2025	----	----	----		05-May-2025	14 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S-2	E353-L	01-May-2025	----	----	----		05-May-2025	14 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S-3	E353-L	01-May-2025	----	----	----		05-May-2025	14 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S-4	E353-L	01-May-2025	----	----	----		05-May-2025	14 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S-4D	E353-L	01-May-2025	----	----	----		05-May-2025	14 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S-503	E353-L	01-May-2025	----	----	----		05-May-2025	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S-6	E353-L	01-May-2025	----	----	----		05-May-2025	14 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S-7	E353-L	01-May-2025	----	----	----		05-May-2025	14 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S-8	E353-L	01-May-2025	----	----	----		05-May-2025	14 days	4 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Dissolved Inorganic Carbon by Combustion	E353-L	1979715	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Dissolved Inorganic Carbon by Combustion	E353-L	1979715	1	20	5.0	5.0	✓
Method Blanks (MB)							
Dissolved Inorganic Carbon by Combustion	E353-L	1979715	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Dissolved Inorganic Carbon by Combustion	E353-L	1979715	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Inorganic Carbon by Combustion	E353-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Inorganic Carbon is determined on a sample which is filtered through a 0.45 micron filter prior to analysis by the high temperature combustion method with measurement by an infrared detector, where the sample is acidified in a reaction chamber to convert all inorganic carbons (carbonates) to carbon dioxide for analysis.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WT2510017**	Page	: 1 of 3
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 01-May-2025 13:10
PO	: 86912	Date Analysis Commenced	: 05-May-2025
C-O-C number	: ----	Issue Date	: 08-May-2025 16:40
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 10		
No. of samples analysed	: 10		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Organic / Inorganic Carbon (QC Lot: 1979715)											
WT2510017-001	S-1	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	59.1	59.5	0.747%	20%	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 1979715)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1979715)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	102	80.0	120	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1979715)										
WT2510017-002	S-2	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

COC Number: 2

Page

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Environmental Division
Waterloo
Work Order Reference
WT2510017

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	City Of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/Ontario
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☐ YES ☑ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax iacheson@orillia.ca
Email 2 zgorbell@orillia.ca
Email 3 hcurry@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax iacheson@orillia.ca
Email 2 zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minim
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minin
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minin
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minim
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge
fees may apply to rush resuests on weekends, statutory holidays
routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the TAT requested, you will be contacted.

Project Information

ALS Account # / Quote #:
Job #: Waste Diversion Site
PO / AFE: 86912
LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#
Major/Minor Code: Routing Code:
Requisitioner:
Location:

ALS Lab Work Order # (lab use only):

ALS Contact: Ian Acheson **Sampler:** Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	DIC	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	S-1	1-May-25	9:15	SW	1	R			
	S-2	1-May-25	9:50	SW	1	R			
	S-3	1-May-25	9:40	SW	1	R			
	S-4	1-May-25	10:00	SW	1	R			
	S-6	1-May-25	9:30	SW	1	R			
	S-7	1-May-25	9:20	SW	1	R			
	S-8	1-May-25	9:20	SW	1	R			
	S-11	1-May-25	9:45	SW	1	R			
	S-503	1-May-25	9:40	SW	1	R			
	S-4D	1-May-25	10:00	SW	1	R			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO
Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
5.8				7.6			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
IAN ACHESON	May 1, 2025	10:30

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AM	05/01/25	13:10

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
NTB	05/01/25	18:00

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST FORM

ALS Environmental
60 Northland Rd, Unit 1
Waterloo, Ontario N2V 2B8
Phone: 519-886-6910
Fax: 519-886-9047
CANADA TOLL FREE: 1-800-668-9878

Service Requested: [x] Regular (default)
Date Required: [ ] Priority (50% surcharge)
[ ] Emergency (100% surcharge)

25E0312

Company Name: Region of Waterloo EE&LS
ALS Account # 14256
Project Manager: Hannah Vanderloo, Rachael Stolys
Project # Industrial North
Phone: 519-650-8260
Fax: 519-650-8270
Quotation # WT20231000006
WO # 25E0312

Criteria Criteria on report (Y/N) N
Reg 153/04
Table 1 2 3
TCLP _____ MISA _____ PWQO _____
Other _____

Report Distribution
All results will be sent electronically
Email Yes Fax ____
EMAIL1 eels@regionofwaterloo.ca
EMAIL2 _____
Select pdf ____ digital ____ both __X__

LAB USE ONLY
SUBMISSION NO. WT2510039
ENTERED BY: MM
DATE/TIME
BIN #

Sample Information

Client: Thur Transport

Sample Date	EELS Record No.	Matrix: Water	Soil	Other	Sample Time	Sample Location	Sampled by	ALS LAB ID	O&G (SPEC)-ALS
2025-05-01	25E0312-01	X			11:05	Sanitary 1	Leigh Cogar		X

2

Environmental Division
Waterloo
Work Order Reference
WT2510039

Telephone : +1 519 886 6910

099-44

KWP

SPECIAL INSTRUCTIONS/COMMENTS

SAMPLED BY: Leigh Cogar	DATE&TIME: 2025-05-01 11:05	RECEIVED BY:	DATE&TIME
RELINQUISHED BY: KBP	DATE&TIME: May 1/25	RECEIVED AT THE LAB BY: MM	DATE&TIME: 5-7-25 16:20

Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.

SAMPLE CONDITION

Frozen / Cold / Ambient	Mean Temperature: 4.2	Initials
Sample Condition Acceptable upon receipt		

CERTIFICATE OF ANALYSIS

Work Order	: **WT2510034**		
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 01-May-2025 13:10
PO	: 86912	Date Analysis Commenced	: 02-May-2025
C-O-C number	: ----	Issue Date	: 08-May-2025 15:46
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett	VOC Section Supervisor	VOC, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Centralized Prep, Waterloo, Ontario
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Metals, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Centralized Prep, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
SFPR	Suspected False Positive Result, based on detection in Lab Blanks and/or Field Blanks, or other known issues.

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH1-IR	BH1-III	BH4-IIR	BH18R	BH11R
					Client sampling date / time	28-Apr-2025 11:50	28-Apr-2025 12:20	28-Apr-2025 15:30	28-Apr-2025 12:45	29-Apr-2025 15:10
						WT2510034-001	WT2510034-002	WT2510034-003	WT2510034-004	WT2510034-005
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		53.8	54.2	85.0	54.1	102
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		12.2	44.8	3.64	65.4	25.7
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		15.0 DLHC	22.7 DLHC	19.2 DLHC	5.73 DLHC	2.54 DLHC
Antimony, total	7440-36-0	E420/WT	0.00010	mg/L		<0.00100 DLHC	<0.00100 DLHC	<0.00100 DLHC	<0.00100 DLHC	<0.00100 DLHC
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L		0.00300 DLHC	0.00361 DLHC	0.00638 DLHC	0.00406 DLHC	0.00183 DLHC
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.330 DLHC	0.345 DLHC	0.719 DLHC	0.262 DLHC	0.196 DLHC
Beryllium, total	7440-41-7	E420/WT	0.000020	mg/L		0.000552 DLHC	0.000811 DLHC	0.000828 DLHC	0.00111 DLHC	<0.000200 DLHC
Bismuth, total	7440-69-9	E420/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC
Boron, total	7440-42-8	E420/WT	0.010	mg/L		<0.100 DLHC	<0.100 DLHC	<0.100 DLHC	<0.100 DLHC	0.363 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.000106 DLHC	0.000233 DLHC	0.000113 DLHC	0.000244 DLHC	0.0000990 DLHC
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		137 DLHC	161 DLHC	306 DLHC	250 DLHC	103 DLHC
Cesium, total	7440-46-2	E420/WT	0.000010	mg/L		0.00115 DLHC	0.00146 DLHC	0.00135 DLHC	0.000364 DLHC	0.000112 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		0.0217 DLHC	0.0317 DLHC	0.0261 DLHC	<0.00500 DLHC	<0.00500 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00957 DLHC	0.0119 DLHC	0.0138 DLHC	0.00271 DLHC	0.00211 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.0241 DLHC	0.0262 DLHC	0.0532 DLHC	<0.00500 DLHC	0.00963 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L		18.7 DLHC	24.6 DLHC	30.2 DLHC	9.81 DLHC	3.14 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.00531 DLHC	0.0112 DLHC	0.00830 DLHC	0.0197 DLHC	0.00240 DLHC
Lithium, total	7439-93-2	E420/WT	0.0010	mg/L		0.0128 DLHC	0.0156 DLHC	0.0128 DLHC	<0.0100 DLHC	<0.0100 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH1-IR	BH1-III	BH4-IIR	BH18R	BH11R
					Client sampling date / time	28-Apr-2025 11:50	28-Apr-2025 12:20	28-Apr-2025 15:30	28-Apr-2025 12:45	29-Apr-2025 15:10
						WT2510034-001	WT2510034-002	WT2510034-003	WT2510034-004	WT2510034-005
						Result	Result	Result	Result	Result
Total Metals										
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		30.4 DLHC	31.4 DLHC	65.8 DLHC	24.9 DLHC	31.8 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.658 DLHC	0.717 DLHC	0.908 DLHC	0.856 DLHC	0.178 DLHC
Molybdenum, total	7439-98-7	E420/WT	0.000050	mg/L		0.00183 DLHC	0.000921 DLHC	0.000624 DLHC	0.000780 DLHC	0.00158 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.0181 DLHC	0.0244 DLHC	0.0266 DLHC	<0.00500 DLHC	0.00867 DLHC
Phosphorus, total	7723-14-0	E420/WT	0.050	mg/L		0.610 DLHC	1.23 DLHC	1.48 DLHC	0.511 DLHC	<0.500 DLHC
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		6.61 DLHC	6.24 DLHC	6.52 DLHC	1.25 DLHC	22.8 DLHC
Rubidium, total	7440-17-7	E420/WT	0.00020	mg/L		0.0317 DLHC	0.0370 DLHC	0.0359 DLHC	0.00707 DLHC	0.00519 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC
Silicon, total	7440-21-3	E420/WT	0.10	mg/L		34.5 DLHC	42.0 DLHC	32.5 DLHC	17.3 DLHC	11.0 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	0.000125 DLHC	<0.000100 DLHC	<0.000100 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		87.4 DLHC	192 DLHC	140 DLHC	259 DLHC	114 DLHC
Strontium, total	7440-24-6	E420/WT	0.00020	mg/L		0.684 DLHC	0.307 DLHC	0.520 DLHC	0.518 DLHC	0.346 DLHC
Sulfur, total	7704-34-9	E420/WT	0.50	mg/L		<5.00 DLHC	<5.00 DLHC	5.94 DLHC	12.0 DLHC	6.01 DLHC
Tellurium, total	13494-80-9	E420/WT	0.00020	mg/L		<0.00200 DLHC	<0.00200 DLHC	<0.00200 DLHC	<0.00200 DLHC	<0.00200 DLHC
Thallium, total	7440-28-0	E420/WT	0.000010	mg/L		0.000194 DLHC	0.000235 DLHC	0.000226 DLHC	0.000108 DLHC	<0.000100 DLHC
Thorium, total	7440-29-1	E420/WT	0.00010	mg/L		0.00591 DLHC	0.00307 DLHC	0.0139 DLHC	0.0105 DLHC	<0.00100 DLHC
Tin, total	7440-31-5	E420/WT	0.00010	mg/L		<0.00100 DLHC	0.00148 DLHC	<0.00100 DLHC	<0.00100 DLHC	<0.00100 DLHC
Titanium, total	7440-32-6	E420/WT	0.00030	mg/L		0.910 DLHC	1.32 DLHC	1.14 DLHC	0.153 DLHC	0.104 DLHC
Tungsten, total	7440-33-7	E420/WT	0.00010	mg/L		<0.00100 DLHC	<0.00100 DLHC	<0.00100 DLHC	<0.00100 DLHC	<0.00100 DLHC
Uranium, total	7440-61-1	E420/WT	0.000010	mg/L		0.00143 DLHC	0.000792 DLHC	0.00487 DLHC	0.00614 DLHC	0.00134 DLHC
Vanadium, total	7440-62-2	E420/WT	0.00050	mg/L		0.0328 DLHC	0.0467 DLHC	0.0515 DLHC	0.00988 DLHC	<0.00500 DLHC

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH1-IR	BH1-III	BH4-IIR	BH18R	BH11R
Client sample ID									
Client sampling date / time					28-Apr-2025 11:50	28-Apr-2025 12:20	28-Apr-2025 15:30	28-Apr-2025 12:45	29-Apr-2025 15:10
					WT2510034-001	WT2510034-002	WT2510034-003	WT2510034-004	WT2510034-005
					Result	Result	Result	Result	Result
Total Metals									
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	0.0474 DLHC	0.105 DLHC	0.0676 DLHC	0.0391 DLHC	<0.0300 DLHC
Zirconium, total	7440-67-7	E420/WT	0.00020	mg/L	0.00221 DLHC	0.00302 DLHC	<0.00200 DLHC	0.00438 DLHC	<0.00200 DLHC

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH29-I	BH29-II	BH2-III	BH8R	BH10R
Client sample ID									
Client sampling date / time					29-Apr-2025 14:10	29-Apr-2025 14:20	29-Apr-2025 15:35	30-Apr-2025 10:45	30-Apr-2025 10:05
					WT2510034-006	WT2510034-007	WT2510034-008	WT2510034-009	WT2510034-010
					Result	Result	Result	Result	Result
Sample Preparation									
Dissolved carbon filtration location	----	EP358/WT	-	-	field	field	field	field	field
Organic / Inorganic Carbon									
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L	108	68.8	247	221	115
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	7.24	8.22	38.3	28.0	17.5
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	7.90 DLHC	0.366	1.97 DLHC	2.41 DLHC	13.9 DLHC
Antimony, total	7440-36-0	E420/WT	0.00010	mg/L	<0.00100 DLHC	0.00066	<0.00100 DLHC	<0.00100 DLHC	<0.00100 DLHC
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L	0.00663 DLHC	0.00103	0.00128 DLHC	0.00192 DLHC	0.00138 DLHC
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.420 DLHC	0.0683	0.819 DLHC	0.367 DLHC	0.469 DLHC
Beryllium, total	7440-41-7	E420/WT	0.000020	mg/L	0.000377 DLHC	<0.000020	<0.000200 DLHC	<0.000200 DLHC	0.000451 DLHC
Bismuth, total	7440-69-9	E420/WT	0.000050	mg/L	<0.000500 DLHC	<0.000050	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC
Boron, total	7440-42-8	E420/WT	0.010	mg/L	<0.100 DLHC	0.033	0.403 DLHC	2.68 DLHC	0.398 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.000186 DLHC	0.000104	0.0000680 DLHC	0.000175 DLHC	0.000152 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH29-I	BH29-II	BH2-III	BH8R	BH10R
					Client sampling date / time	29-Apr-2025 14:10	29-Apr-2025 14:20	29-Apr-2025 15:35	30-Apr-2025 10:45	30-Apr-2025 10:05
						WT2510034-006	WT2510034-007	WT2510034-008	WT2510034-009	WT2510034-010
						Result	Result	Result	Result	Result
Total Metals										
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		410 DLHC	118	306 DLHC	181 DLHC	137 DLHC
Cesium, total	7440-46-2	E420/WT	0.000010	mg/L		0.000525 DLHC	0.000024	0.000147 DLHC	<0.000100 DLHC	0.000715 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		0.0110 DLHC	0.00094	<0.00500 DLHC	0.00844 DLHC	0.0212 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00780 DLHC	0.00099	0.00431 DLHC	0.00227 DLHC	0.00591 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.0160 DLHC	0.0105	<0.00500 DLHC	0.0110 DLHC	0.00780 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L		46.3 DLHC	1.94	9.86 DLHC	6.74 DLHC	15.0 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.00485 DLHC	0.00201	0.00288 DLHC	0.00473 DLHC	0.00510 DLHC
Lithium, total	7439-93-2	E420/WT	0.0010	mg/L		<0.0100 DLHC	<0.0010	0.0101 DLHC	0.0196 DLHC	0.0190 DLHC
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		83.4 DLHC	6.12	98.0 DLHC	77.7 DLHC	48.5 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		2.48 DLHC	0.230	1.02 DLHC	0.515 DLHC	0.463 DLHC
Molybdenum, total	7439-98-7	E420/WT	0.000050	mg/L		<0.000500 DLHC	0.00131	0.0110 DLHC	0.000636 DLHC	<0.000500 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.0114 DLHC	0.00175	0.0286 DLHC	0.00745 DLHC	0.0157 DLHC
Phosphorus, total	7723-14-0	E420/WT	0.050	mg/L		2.08 DLHC	0.129	<0.500 DLHC	0.534 DLHC	<0.500 DLHC
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		3.24 DLHC	0.975	41.9 DLHC	56.1 DLHC	17.1 DLHC
Rubidium, total	7440-17-7	E420/WT	0.00020	mg/L		0.0138 DLHC	0.00237	0.0118 DLHC	0.0207 DLHC	0.0229 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	0.00109	<0.000500 DLHC	0.000620 DLHC	<0.000500 DLHC
Silicon, total	7440-21-3	E420/WT	0.10	mg/L		25.6 DLHC	4.12	14.7 DLHC	12.3 DLHC	30.0 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	0.000029	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		19.4 DLHC	2.23	241 DLHC	103 DLHC	74.7 DLHC
Strontium, total	7440-24-6	E420/WT	0.00020	mg/L		0.671 DLHC	0.294	2.16 DLHC	0.706 DLHC	0.736 DLHC
Sulfur, total	7704-34-9	E420/WT	0.50	mg/L		8.00 DLHC	<0.50	<5.00 DLHC	5.37 DLHC	<5.00 DLHC

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH29-I	BH29-II	BH2-III	BH8R	BH10R
					Client sampling date / time	29-Apr-2025 14:10	29-Apr-2025 14:20	29-Apr-2025 15:35	30-Apr-2025 10:45	30-Apr-2025 10:05
						WT2510034-006	WT2510034-007	WT2510034-008	WT2510034-009	WT2510034-010
						Result	Result	Result	Result	Result
Total Metals										
Tellurium, total	13494-80-9	E420/WT	0.00020	mg/L		<0.00200 DLHC	<0.00020	<0.00200 DLHC	<0.00200 DLHC	<0.00200 DLHC
Thallium, total	7440-28-0	E420/WT	0.000010	mg/L		<0.000100 DLHC	0.000024	<0.000100 DLHC	<0.000100 DLHC	0.000113 DLHC
Thorium, total	7440-29-1	E420/WT	0.00010	mg/L		0.00581 DLHC	0.00044	<0.00100 DLHC	<0.00100 DLHC	0.00112 DLHC
Tin, total	7440-31-5	E420/WT	0.00010	mg/L		0.00290 DLHC	0.00017	<0.00100 DLHC	<0.00100 DLHC	<0.00100 DLHC
Titanium, total	7440-32-6	E420/WT	0.00030	mg/L		0.480 DLHC	0.0209	0.129 DLHC	0.108 DLHC	0.586 DLHC
Tungsten, total	7440-33-7	E420/WT	0.00010	mg/L		<0.00100 DLHC	0.00022	<0.00100 DLHC	<0.00100 DLHC	<0.00100 DLHC
Uranium, total	7440-61-1	E420/WT	0.000010	mg/L		0.00113 DLHC	0.00104	0.000312 DLHC	0.000952 DLHC	0.000354 DLHC
Vanadium, total	7440-62-2	E420/WT	0.00050	mg/L		0.0199 DLHC	0.00227	0.00597 DLHC	0.00797 DLHC	0.0221 DLHC
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		0.0330 DLHC	0.0085	<0.0300 DLHC	<0.0300 DLHC	0.0550 DLHC
Zirconium, total	7440-67-7	E420/WT	0.00020	mg/L		<0.00200 DLHC	0.00021	<0.00200 DLHC	<0.00200 DLHC	<0.00200 DLHC

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH14-IIIR	BH514-IIIR	FIELD BLANK	----	----
					Client sampling date / time	30-Apr-2025 10:30	30-Apr-2025 10:30	29-Apr-2025 14:30	----	----
						WT2510034-011	WT2510034-012	WT2510034-013	----	----
						Result	Result	Result	----	----
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	lab	----	----
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		----	----	<2.0	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		----	----	<2.0	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH14-IIIR	BH514-IIIR	FIELD BLANK	----	----
					Client sampling date / time	30-Apr-2025 10:30	30-Apr-2025 10:30	29-Apr-2025 14:30	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510034-011	WT2510034-012	WT2510034-013	----	----
						Result	Result	Result	----	----
Physical Tests										
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		----	----	<2.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		----	----	<2.0	----	----
Conductivity	----	E100/WT	2.0	µS/cm		----	----	<2.0	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		----	----	<0.50	----	----
pH	----	E108/WT	0.10	pH units		----	----	6.51	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		----	----	<0.0050	----	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		----	----	<0.50	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		----	----	<0.020	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		----	----	<0.050	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		----	----	<0.020	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		----	----	<0.010	----	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		----	----	<0.050	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		----	----	<0.0020	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		----	----	<0.30	----	----
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		118	120	<0.50	----	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		33.2	35.2	<0.50	----	----
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		----	----	<0.10	----	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L		----	----	<0.10	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH14-IIIR	BH514-IIIR	FIELD BLANK	----	----
Client sample ID					BH14-IIIR	BH514-IIIR	FIELD BLANK	----	----
Client sampling date / time					30-Apr-2025 10:30	30-Apr-2025 10:30	29-Apr-2025 14:30	----	----
					WT2510034-011	WT2510034-012	WT2510034-013	----	----
					Result	Result	Result	----	----
Ion Balance									
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	----	----	100	----	----
Ion balance (APHA)	----	EC101A/WT	0.010	%	----	----	0.0	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	1.64 DLHC	1.64 DLHC	<0.0030	----	----
Antimony, total	7440-36-0	E420/WT	0.00010	mg/L	<0.00100 DLHC	<0.00100 DLHC	----	----	----
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L	<0.00100 DLHC	<0.00100 DLHC	----	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.179 DLHC	0.178 DLHC	<0.00010	----	----
Beryllium, total	7440-41-7	E420/WT	0.000020	mg/L	<0.000200 DLHC	<0.000200 DLHC	----	----	----
Bismuth, total	7440-69-9	E420/WT	0.000050	mg/L	<0.000500 DLHC	<0.000500 DLHC	----	----	----
Boron, total	7440-42-8	E420/WT	0.010	mg/L	0.306 DLHC	0.309 DLHC	----	----	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.0000590 DLHC	<0.0000500 DLHC	<0.0000050	----	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	135 DLHC	135 DLHC	<0.050	----	----
Cesium, total	7440-46-2	E420/WT	0.000010	mg/L	0.000104 DLHC	0.000104 DLHC	----	----	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	<0.00500 DLHC	<0.00500 DLHC	<0.00050	----	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	0.00125 DLHC	0.00120 DLHC	<0.00010	----	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	<0.00500 DLHC	<0.00500 DLHC	<0.00050	----	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L	3.24 DLHC	3.24 DLHC	<0.010	----	----
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.000953 DLHC	0.000941 DLHC	<0.000050	----	----
Lithium, total	7439-93-2	E420/WT	0.0010	mg/L	<0.0100 DLHC	<0.0100 DLHC	----	----	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	45.5 DLHC	45.4 DLHC	<0.0050	----	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	0.450 DLHC	0.449 DLHC	<0.00010	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH14-IIIR	BH514-IIIR	FIELD BLANK	----	----
					Client sampling date / time	30-Apr-2025 10:30	30-Apr-2025 10:30	29-Apr-2025 14:30	----	----
						WT2510034-011	WT2510034-012	WT2510034-013	----	----
						Result	Result	Result	----	----
Total Metals										
Molybdenum, total	7439-98-7	E420/WT	0.000050	mg/L		0.000554 DLHC	<0.000500 DLHC	----	----	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	<0.00050	----	----
Phosphorus, total	7723-14-0	E420/WT	0.050	mg/L		<0.500 DLHC	<0.500 DLHC	----	----	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		18.7 DLHC	18.6 DLHC	<0.050	----	----
Rubidium, total	7440-17-7	E420/WT	0.00020	mg/L		0.00573 DLHC	0.00619 DLHC	----	----	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	<0.000050	----	----
Silicon, total	7440-21-3	E420/WT	0.10	mg/L		6.20 DLHC	6.36 DLHC	----	----	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	<0.000010	----	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		68.4 DLHC	67.9 DLHC	<0.050	----	----
Strontium, total	7440-24-6	E420/WT	0.00020	mg/L		0.414 DLHC	0.413 DLHC	----	----	----
Sulfur, total	7704-34-9	E420/WT	0.50	mg/L		10.1 DLHC	10.8 DLHC	----	----	----
Tellurium, total	13494-80-9	E420/WT	0.00020	mg/L		<0.00200 DLHC	<0.00200 DLHC	----	----	----
Thallium, total	7440-28-0	E420/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	----	----	----
Thorium, total	7440-29-1	E420/WT	0.00010	mg/L		<0.00100 DLHC	<0.00100 DLHC	----	----	----
Tin, total	7440-31-5	E420/WT	0.00010	mg/L		<0.00100 DLHC	<0.00100 DLHC	----	----	----
Titanium, total	7440-32-6	E420/WT	0.00030	mg/L		0.0728 DLHC	0.0729 DLHC	----	----	----
Tungsten, total	7440-33-7	E420/WT	0.00010	mg/L		<0.00100 DLHC	<0.00100 DLHC	----	----	----
Uranium, total	7440-61-1	E420/WT	0.000010	mg/L		0.000827 DLHC	0.000808 DLHC	----	----	----
Vanadium, total	7440-62-2	E420/WT	0.00050	mg/L		0.00520 DLHC	0.00503 DLHC	----	----	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0300 DLHC	<0.0300 DLHC	<0.0030	----	----
Zirconium, total	7440-67-7	E420/WT	0.00020	mg/L		<0.00200 DLHC	<0.00200 DLHC	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH14-IIIR	BH514-IIIR	FIELD BLANK	----	----
					Client sampling date / time	30-Apr-2025 10:30	30-Apr-2025 10:30	29-Apr-2025 14:30	----	----
						WT2510034-011	WT2510034-012	WT2510034-013	----	----
						Result	Result	Result	----	----
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		----	----	<3.0 BODL	----	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		----	----	<10	----	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		----	----	<0.0010	----	----
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L		----	----	<20	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L		----	----	<1.0	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L		----	----	<0.20	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Chloromethane	74-87-3	E611D/WT	2.0	µg/L		----	----	<2.0	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L		----	----	<0.20	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L		----	----	<0.50	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH14-IIIR	BH514-IIIR	FIELD BLANK	----	----
					Client sampling date / time	30-Apr-2025 10:30	30-Apr-2025 10:30	29-Apr-2025 14:30	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510034-011	WT2510034-012	WT2510034-013	----	----
						Result	Result	Result	----	----
Volatile Organic Compounds										
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L		----	----	<0.71	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		----	----	<5.8 SFPR	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		----	----	<0.30	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		----	----	<0.30	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		----	----	<20	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		----	----	<20	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		----	----	<20	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Styrene	100-42-5	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		----	----	<0.50	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH14-IIIR	BH514-IIIR	FIELD BLANK	----	----
Client sample ID					BH14-IIIR	BH514-IIIR	FIELD BLANK	----	----
Client sampling date / time					30-Apr-2025 10:30	30-Apr-2025 10:30	29-Apr-2025 14:30	----	----
					WT2510034-011	WT2510034-012	WT2510034-013	----	----
					Result	Result	Result	----	----
Volatile Organic Compounds									
Toluene	108-88-3	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L	----	----	<0.20	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L	----	----	<0.40	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L	----	----	<0.30	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
BTEX, total	----	E611D/WT	1.0	µg/L	----	----	<1.0	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L	----	----	<1.0	----	----
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%	----	----	97.1	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%	----	----	102	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2510034**	Page	: 1 of 15
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 01-May-2025 13:10
PO	: 86912	Issue Date	: 08-May-2025 15:45
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Matrix Spike (MS) Recoveries								
Total Metals	WT2510034-002	BH1-III	Tungsten, total	7440-33-7	E420	65.0 % MES	70.0-130%	Recovery less than lower data quality objective
Total Metals	WT2510034-002	BH1-III	Zirconium, total	7440-67-7	E420	40.5 % K	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	*Description*
K	*Matrix Spike recovery outside ALS DQO due to sample matrix effects.*
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] FIELD BLANK	E550	29-Apr-2025	----	----	----		03-May-2025	4 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] FIELD BLANK	E559-L	29-Apr-2025	----	----	----		07-May-2025	28 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP] FIELD BLANK	E562	29-Apr-2025	06-May-2025	28 days	7 days	✓	06-May-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] FIELD BLANK	E298	29-Apr-2025	06-May-2025	28 days	7 days	✓	07-May-2025	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] FIELD BLANK	E235.Cl	29-Apr-2025	02-May-2025	28 days	3 days	✓	05-May-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] FIELD BLANK	E235.F	29-Apr-2025	02-May-2025	28 days	3 days	✓	05-May-2025	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] FIELD BLANK	E235.NO3	29-Apr-2025	02-May-2025	7 days	3 days	✓	05-May-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
FIELD BLANK	E235.NO2	29-Apr-2025	02-May-2025	7 days	3 days	✓	05-May-2025	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
FIELD BLANK	E235.SO4	29-Apr-2025	02-May-2025	28 days	3 days	✓	05-May-2025	28 days	3 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
FIELD BLANK	E318	29-Apr-2025	07-May-2025	28 days	8 days	✓	07-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
FIELD BLANK	E372-U	29-Apr-2025	07-May-2025	28 days	8 days	✓	07-May-2025	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH10R	E353-L	30-Apr-2025	----	----	----		05-May-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH14-IIIR	E353-L	30-Apr-2025	----	----	----		05-May-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH514-IIIR	E353-L	30-Apr-2025	----	----	----		05-May-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH8R	E353-L	30-Apr-2025	----	----	----		05-May-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH11R	E353-L	29-Apr-2025	----	----	----		05-May-2025	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH29-I	E353-L	29-Apr-2025	----	----	----		05-May-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH29-II	E353-L	29-Apr-2025	----	----	----		05-May-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH2-III	E353-L	29-Apr-2025	----	----	----		05-May-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE FIELD BLANK	E353-L	29-Apr-2025	----	----	----		05-May-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH18R	E353-L	28-Apr-2025	----	----	----		05-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH1-III	E353-L	28-Apr-2025	----	----	----		05-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH1-IR	E353-L	28-Apr-2025	----	----	----		05-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH4-IIR	E353-L	28-Apr-2025	----	----	----		05-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH10R	E358-L	30-Apr-2025	04-May-2025	28 days	4 days	✓	07-May-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH14-IIIR	E358-L	30-Apr-2025	04-May-2025	28 days	4 days	✓	05-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH514-IIIR	E358-L	30-Apr-2025	04-May-2025	28 days	4 days	✓	05-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH8R	E358-L	30-Apr-2025	04-May-2025	28 days	4 days	✓	07-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH11R	E358-L	29-Apr-2025	04-May-2025	28 days	5 days	✓	07-May-2025	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH29-I	E358-L	29-Apr-2025	04-May-2025	28 days	5 days	✓	07-May-2025	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH29-II	E358-L	29-Apr-2025	04-May-2025	28 days	5 days	✓	07-May-2025	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH2-III	E358-L	29-Apr-2025	04-May-2025	28 days	5 days	✓	07-May-2025	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH18R	E358-L	28-Apr-2025	04-May-2025	28 days	6 days	✓	07-May-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH1-III	E358-L	28-Apr-2025	04-May-2025	28 days	6 days	✓	07-May-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH1-IR	E358-L	28-Apr-2025	04-May-2025	28 days	6 days	✓	07-May-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH4-IIR	E358-L	28-Apr-2025	04-May-2025	28 days	6 days	✓	07-May-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
FIELD BLANK	E358-L	29-Apr-2025	03-May-2025	3 days	4 days	× EHT	07-May-2025	28 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
FIELD BLANK	E290	29-Apr-2025	02-May-2025	14 days	3 days	✓	03-May-2025	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
FIELD BLANK	E100	29-Apr-2025	02-May-2025	28 days	3 days	✓	03-May-2025	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
FIELD BLANK	E108	29-Apr-2025	02-May-2025	14 days	3 days	✓	03-May-2025	14 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH10R	E420	30-Apr-2025	05-May-2025	180 days	5 days	✓	05-May-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH14-IIIR	E420	30-Apr-2025	05-May-2025	180 days	5 days	✓	05-May-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH514-IIIR	E420	30-Apr-2025	05-May-2025	180 days	5 days	✓	05-May-2025	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH8R	E420	30-Apr-2025	05-May-2025	180 days	5 days	✓	05-May-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH11R	E420	29-Apr-2025	05-May-2025	180 days	6 days	✓	05-May-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH29-I	E420	29-Apr-2025	05-May-2025	180 days	6 days	✓	05-May-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH29-II	E420	29-Apr-2025	05-May-2025	180 days	6 days	✓	05-May-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH2-III	E420	29-Apr-2025	05-May-2025	180 days	6 days	✓	05-May-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) FIELD BLANK	E420	29-Apr-2025	05-May-2025	180 days	6 days	✓	05-May-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH18R	E420	28-Apr-2025	05-May-2025	180 days	7 days	✓	05-May-2025	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH1-III	E420	28-Apr-2025	05-May-2025	180 days	7 days	✓	05-May-2025	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH1-IR	E420	28-Apr-2025	05-May-2025	180 days	7 days	✓	05-May-2025	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH4-IIR	E420	28-Apr-2025	05-May-2025	180 days	7 days	✓	05-May-2025	180 days	7 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
FIELD BLANK	E611D	29-Apr-2025	05-May-2025	14 days	6 days	✓	05-May-2025	14 days	6 days	✓

Legend & Qualifier Definitions

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	1977455	1	10	10.0	5.0	✓
pH by Meter	E108	1977454	1	19	5.2	5.0	✓
Chloride in Water by IC	E235.Cl	1977452	1	10	10.0	5.0	✓
Fluoride in Water by IC	E235.F	1977453	1	2	50.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1977449	1	20	5.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1977450	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1977451	1	10	10.0	5.0	✓
Alkalinity Species by Titration	E290	1977456	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1981330	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1981328	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	1979715	2	23	8.7	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1978543	3	46	6.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1981329	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1979530	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1978907	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1983899	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1981331	1	20	5.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1979492	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	1977455	1	10	10.0	5.0	✓
pH by Meter	E108	1977454	1	19	5.2	5.0	✓
Chloride in Water by IC	E235.Cl	1977452	1	10	10.0	5.0	✓
Fluoride in Water by IC	E235.F	1977453	1	2	50.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1977449	1	20	5.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1977450	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1977451	1	10	10.0	5.0	✓
Alkalinity Species by Titration	E290	1977456	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1981330	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1981328	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	1979715	2	23	8.7	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1978543	3	46	6.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1981329	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1979530	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1978907	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1983899	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1981331	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1979492	1	20	5.0	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	1977455	1	10	10.0	5.0	✓
Chloride in Water by IC	E235.Cl	1977452	1	10	10.0	5.0	✓
Fluoride in Water by IC	E235.F	1977453	1	2	50.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1977449	1	20	5.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1977450	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1977451	1	10	10.0	5.0	✓
Alkalinity Species by Titration	E290	1977456	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1981330	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1981328	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	1979715	2	23	8.7	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1978543	3	46	6.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1981329	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1979530	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1978907	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1983899	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1981331	1	20	5.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1979492	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	1977452	1	10	10.0	5.0	✓
Fluoride in Water by IC	E235.F	1977453	1	2	50.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1977449	1	20	5.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1977450	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1977451	1	10	10.0	5.0	✓
Ammonia by Fluorescence	E298	1981330	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1981328	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	1979715	2	23	8.7	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1978543	3	46	6.5	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1981329	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1979530	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1983899	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1981331	1	20	5.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1979492	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Inorganic Carbon by Combustion	E353-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Inorganic Carbon is determined on a sample which is filtered through a 0.45 micron filter prior to analysis by the high temperature combustion method with measurement by an infrared detector, where the sample is acidified in a reaction chamber to convert all inorganic carbons (carbonates) to carbon dioxide for analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.

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QUALITY CONTROL REPORT

Work Order	: **WT2510034**	Page	: 1 of 18
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 01-May-2025 13:10
PO	: 86912	Date Analysis Commenced	: 02-May-2025
C-O-C number	: ----	Issue Date	: 08-May-2025 15:45
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett	VOC Section Supervisor	Waterloo VOC, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Centralized Prep, Waterloo, Ontario
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Centralized Prep, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Metals, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1977454)											
WT2509781-001	Anonymous	pH	----	E108	0.10	pH units	8.26	8.26	0.00%	4%	----
Physical Tests (QC Lot: 1977455)											
WT2509781-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	341	339	0.588%	10%	----
Physical Tests (QC Lot: 1977456)											
WT2509781-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	118	118	0.220%	20%	----
Anions and Nutrients (QC Lot: 1977449)											
WT2509781-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1977450)											
WT2509781-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.218	0.218	0.250%	20%	----
Anions and Nutrients (QC Lot: 1977451)											
WT2509781-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	21.1	21.1	0.0456%	20%	----
Anions and Nutrients (QC Lot: 1977452)											
WT2509781-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	22.8	22.8	0.225%	20%	----
Anions and Nutrients (QC Lot: 1977453)											
WT2509781-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.135	0.136	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1981328)											
WT2509877-003	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	0.379	0.351	0.028	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1981329)											
WT2509879-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0286	0.0289	1.01%	20%	----
Anions and Nutrients (QC Lot: 1981330)											
HA2501106-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0100	mg/L	0.599	0.590	1.51%	20%	----
Organic / Inorganic Carbon (QC Lot: 1978543)											
TY2504150-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.20	1.13	0.07	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1979388)											
WT2510000-008	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	8.48	8.44	0.479%	20%	----
Organic / Inorganic Carbon (QC Lot: 1979389)											
WT2510034-011	BH14-IIIR	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	33.2	34.5	4.00%	20%	----
Organic / Inorganic Carbon (QC Lot: 1979715)											
WT2510017-001	Anonymous	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	59.1	59.5	0.747%	20%	----
Organic / Inorganic Carbon (QC Lot: 1979716)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 1979716) - continued											
WT2510034-011	BH14-IIIR	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	118	119	0.980%	20%	----
Total Metals (QC Lot: 1979530)											
WT2510034-001	BH1-IR	Aluminum, total	7429-90-5	E420	0.0300	mg/L	15.0	15.0	0.0583%	20%	----
		Antimony, total	7440-36-0	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00100	mg/L	0.00300	0.00311	0.00011	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00100	mg/L	0.330	0.330	0.170%	20%	----
		Beryllium, total	7440-41-7	E420	0.000200	mg/L	0.000552	0.000647	0.000095	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000500	mg/L	0.000106	0.000114	0.0000080	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.500	mg/L	137	138	0.379%	20%	----
		Cesium, total	7440-46-2	E420	0.000100	mg/L	0.00115	0.00118	2.06%	20%	----
		Chromium, total	7440-47-3	E420	0.00500	mg/L	0.0217	0.0222	0.00054	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00100	mg/L	0.00957	0.00966	0.00008	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00500	mg/L	0.0241	0.0244	0.00033	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.100	mg/L	18.7	18.8	0.658%	20%	----
		Lead, total	7439-92-1	E420	0.000500	mg/L	0.00531	0.00535	0.657%	20%	----
		Lithium, total	7439-93-2	E420	0.0100	mg/L	0.0128	0.0115	0.0013	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0500	mg/L	30.4	30.7	0.997%	20%	----
		Manganese, total	7439-96-5	E420	0.00100	mg/L	0.658	0.674	2.31%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000500	mg/L	0.00183	0.00183	0.000001	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00500	mg/L	0.0181	0.0190	0.00092	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.500	mg/L	0.610	0.573	0.037	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.500	mg/L	6.61	6.70	1.48%	20%	----
		Rubidium, total	7440-17-7	E420	0.00200	mg/L	0.0317	0.0317	0.0221%	20%	----
		Selenium, total	7782-49-2	E420	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	1.00	mg/L	34.5	34.2	1.01%	20%	----
		Silver, total	7440-22-4	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.500	mg/L	87.4	88.4	1.08%	20%	----
		Strontium, total	7440-24-6	E420	0.00200	mg/L	0.684	0.690	0.990%	20%	----
		Sulfur, total	7704-34-9	E420	5.00	mg/L	<5.00	<5.00	0	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00200	mg/L	<0.00200	<0.00200	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000100	mg/L	0.000194	0.000189	0.000005	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00100	mg/L	0.00591	0.00610	0.00018	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1979530) - continued											
WT2510034-001	BH1-IR	Tin, total	7440-31-5	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00300	mg/L	0.910	0.931	2.32%	20%	----
		Tungsten, total	7440-33-7	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000100	mg/L	0.00143	0.00143	0.140%	20%	----
		Vanadium, total	7440-62-2	E420	0.00500	mg/L	0.0328	0.0325	0.00032	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0300	mg/L	0.0474	0.0494	0.0020	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00200	mg/L	0.00221	0.00232	0.00011	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1978907)											
WT2510116-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 1981331)											
WP2505770-001	Anonymous	Phenols, total (4AAP)	----	E562	0.100	mg/L	2.84	2.87	0.961%	20%	----
Aggregate Organics (QC Lot: 1983899)											
WT2510000-008	Anonymous	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	30	36	6	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1979492)											
WT2509651-001	Anonymous	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon disulfide	75-15-0	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611D	2.0	µg/L	<2.0	<2.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 1979492) - continued											
WT2509651-001	Anonymous	Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1977455)						
Conductivity	----	E100	1	µS/cm	1.0	----
Physical Tests (QCLot: 1977456)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 1977449)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1977450)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1977451)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1977452)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1977453)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1981328)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1981329)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1981330)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Organic / Inorganic Carbon (QCLot: 1978543)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1979388)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1979389)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1979715)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1979716)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1979530)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1979530) - continued						
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Aggregate Organics (QCLot: 1978907)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 1981331)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 1983899)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Volatile Organic Compounds (QCLot: 1979492)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1979492) - continued						
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1977454)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 1977455)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	98.6	90.0	110	----
Physical Tests (QCLot: 1977456)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Anions and Nutrients (QCLot: 1977449)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1977450)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	98.7	90.0	110	----
Anions and Nutrients (QCLot: 1977451)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1977452)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 1977453)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1981328)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	112	75.0	125	----
Anions and Nutrients (QCLot: 1981329)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	101	80.0	120	----
Anions and Nutrients (QCLot: 1981330)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	95.2	85.0	115	----
Organic / Inorganic Carbon (QCLot: 1978543)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.6	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1979388)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1979389)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	103	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1979715)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	102	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1979716)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1979716) - continued									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	99.3	80.0	120	----
Total Metals (QCLot: 1979530)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	101	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	0.05 mg/L	99.3	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	0.05 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	96.6	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.005 mg/L	98.8	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	0.05 mg/L	100	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	0.05 mg/L	96.1	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	97.5	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	97.0	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.002 mg/L	95.5	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	100	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	96.6	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	97.8	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	98.4	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	101	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.012 mg/L	102	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	109	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	99.7	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.012 mg/L	96.7	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	99.0	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	0.5 mg/L	108	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	98.5	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.005 mg/L	98.9	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	96.4	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	0.5 mg/L	97.9	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	91.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	104	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.012 mg/L	99.5	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	2.5 mg/L	96.8	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.005 mg/L	94.1	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	0.05 mg/L	100	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.005 mg/L	98.7	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.025 mg/L	99.7	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1979530) - continued									
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.012 mg/L	97.5	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.005 mg/L	97.1	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0 mg/L	98.4	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.025 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	97.2	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.005 mg/L	94.0	80.0	120	----
Aggregate Organics (QCLot: 1978907)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	94.1	85.0	115	----
Aggregate Organics (QCLot: 1981331)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	102	85.0	115	----
Aggregate Organics (QCLot: 1983899)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	108	85.0	115	----
Volatile Organic Compounds (QCLot: 1979492)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	113	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	98.8	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	96.3	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	81.5	60.0	140	----
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	95.4	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	105	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	98.6	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	95.4	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	101	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	100	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	119	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	96.9	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	97.5	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	97.6	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	98.6	70.0	130	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1979492) - continued									
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	99.2	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	98.7	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	99.7	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	102	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	100	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	96.0	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	90.0	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	107	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	96.0	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	97.5	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	99.2	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	101	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	99.9	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	102	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	102	70.0	130	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1977449)										
WT2509781-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.498 mg/L	0.5 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 1977450)										
WT2509781-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.44 mg/L	2.5 mg/L	97.7	75.0	125	----
Anions and Nutrients (QCLot: 1977451)										
WT2509781-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	95.3 mg/L	100 mg/L	95.3	75.0	125	----
Anions and Nutrients (QCLot: 1977452)										
WT2509781-001	Anonymous	Chloride	16887-00-6	E235.Cl	98.1 mg/L	100 mg/L	98.1	75.0	125	----
Anions and Nutrients (QCLot: 1977453)										
WT2509781-001	Anonymous	Fluoride	16984-48-8	E235.F	1.01 mg/L	1 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 1981328)										
WT2509877-003	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	2.74 mg/L	2.5 mg/L	110	70.0	130	----
Anions and Nutrients (QCLot: 1981329)										
WT2509879-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0942 mg/L	0.1 mg/L	94.2	70.0	130	----
Anions and Nutrients (QCLot: 1981330)										
HA2501106-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1978543)										
TY2504150-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.91 mg/L	5 mg/L	98.3	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1979388)										
WT2510000-008	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1979389)										
WT2510034-011	BH14-IIIR	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1979715)										
WT2510017-002	Anonymous	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1979716)										
WT2510034-012	BH514-IIIR	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1979530)										
WT2510034-002	BH1-III	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0354 mg/L	0.05 mg/L	70.8	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0476 mg/L	0.05 mg/L	95.2	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.00467 mg/L	0.005 mg/L	93.4	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 1979530) - continued										
WT2510034-002	BH1-III	Bismuth, total	7440-69-9	E420	0.0452 mg/L	0.05 mg/L	90.4	70.0	130	----
		Boron, total	7440-42-8	E420	0.045 mg/L	0.05 mg/L	89.7	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00467 mg/L	0.005 mg/L	93.3	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00217 mg/L	0.002 mg/L	87.0	70.0	130	----
		Chromium, total	7440-47-3	E420	ND mg/L	----	ND	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0106 mg/L	0.012 mg/L	84.4	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0255 mg/L	0.025 mg/L	102	70.0	130	----
		Lithium, total	7439-93-2	E420	ND mg/L	----	ND	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0107 mg/L	0.012 mg/L	85.6	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0215 mg/L	0.025 mg/L	86.1	70.0	130	----
		Phosphorus, total	7723-14-0	E420	ND mg/L	----	ND	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	ND mg/L	----	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0460 mg/L	0.05 mg/L	92.0	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	----	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00431 mg/L	0.005 mg/L	86.2	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	ND mg/L	----	ND	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.00431 mg/L	0.005 mg/L	86.2	70.0	130	----
		Thallium, total	7440-28-0	E420	0.0450 mg/L	0.05 mg/L	90.0	70.0	130	----
		Thorium, total	7440-29-1	E420	0.00390 mg/L	0.005 mg/L	78.0	70.0	130	----
		Tin, total	7440-31-5	E420	0.0202 mg/L	0.025 mg/L	80.7	70.0	130	----
		Titanium, total	7440-32-6	E420	ND mg/L	----	ND	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.00325 mg/L	0.005 mg/L	65.0	70.0	130	MES
		Uranium, total	7440-61-1	E420	ND mg/L	----	ND	70.0	130	----
		Vanadium, total	7440-62-2	E420	ND mg/L	----	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	ND mg/L	----	ND	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.00203 mg/L	0.005 mg/L	40.5	70.0	130	K
Aggregate Organics (QCLot: 1981331)										
WP2505770-001	Anonymous	Phenols, total (4AAP)	----	E562	ND mg/L	----	ND	75.0	125	----
Aggregate Organics (QCLot: 1983899)										
WT2510000-008	Anonymous	Chemical oxygen demand [COD]	----	E559-L	112 mg/L	100 mg/L	112	75.0	125	----
Volatile Organic Compounds (QCLot: 1979492)										
WT2509651-001	Anonymous	Acetone	67-64-1	E611D	121 µg/L	100 µg/L	121	60.0	140	----
		Benzene	71-43-2	E611D	99.6 µg/L	100 µg/L	99.6	60.0	140	----
		Bromodichloromethane	75-27-4	E611D	99.1 µg/L	100 µg/L	99.1	60.0	140	----
		Bromoform	75-25-2	E611D	101 µg/L	100 µg/L	101	60.0	140	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1979492) - continued										
WT2509651-001	Anonymous	Bromomethane	74-83-9	E611D	82.6 µg/L	100 µg/L	82.6	60.0	140	----
		Carbon disulfide	75-15-0	E611D	93.6 µg/L	100 µg/L	93.6	60.0	140	----
		Carbon tetrachloride	56-23-5	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Chlorobenzene	108-90-7	E611D	97.2 µg/L	100 µg/L	97.2	60.0	140	----
		Chloroethane	75-00-3	E611D	95.6 µg/L	100 µg/L	95.6	60.0	140	----
		Chloroform	67-66-3	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Chloromethane	74-87-3	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dibromochloromethane	124-48-1	E611D	108 µg/L	100 µg/L	108	60.0	140	----
		Dibromoethane, 1,2-	106-93-4	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	99.2 µg/L	100 µg/L	99.2	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	99.3 µg/L	100 µg/L	99.3	60.0	140	----
		Dichlorodifluoromethane	75-71-8	E611D	115 µg/L	100 µg/L	115	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611D	98.0 µg/L	100 µg/L	98.0	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611D	95.8 µg/L	100 µg/L	95.8	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	98.4 µg/L	100 µg/L	98.4	60.0	140	----
		Dichloromethane	75-09-2	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	108 µg/L	100 µg/L	108	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Ethylbenzene	100-41-4	E611D	97.4 µg/L	100 µg/L	97.4	60.0	140	----
		Hexane, n-	110-54-3	E611D	94.1 µg/L	100 µg/L	94.1	60.0	140	----
		Hexanone, 2-	591-78-6	E611D	98 µg/L	100 µg/L	98.4	60.0	140	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	114 µg/L	100 µg/L	114	60.0	140	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Styrene	100-42-5	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	99.1 µg/L	100 µg/L	99.1	60.0	140	----
		Tetrachloroethylene	127-18-4	E611D	96.9 µg/L	100 µg/L	96.9	60.0	140	----
		Toluene	108-88-3	E611D	97.2 µg/L	100 µg/L	97.2	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Trichloroethylene	79-01-6	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611D	97.4 µg/L	100 µg/L	97.4	60.0	140	----
		Vinyl chloride	75-01-4	E611D	98.5 µg/L	100 µg/L	98.5	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	196 µg/L	200 µg/L	98.0	60.0	140	----
		Xylene, o-	95-47-6	E611D	99.3 µg/L	100 µg/L	99.3	60.0	140	----

Qualifiers

Qualifier	Description
K	Matrix Spike recovery outside ALS DQO due to sample matrix effects.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

VW130, GC 922, MW8HD

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Canada Toll Free: 1 800 668 9878

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www.alsglobal.com

Environmental Division Waterloo

Work Order Reference WT2510034

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	City Of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/Ontario
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☑ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax iacheson@orillia.ca

Email 2 zgorbell@orillia.ca

Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax iacheson@orillia.ca

Email 2 zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minim

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minim

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minim

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minim

Same day [E2] if received by 10am M-S - 200% rush surcharg

☐ fees may apply to rush resuests on weekends, statutory holidays routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed according t

Analysis F

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	Waste Diversion Site	Major/Minor Code:	Routing Code:
PO / AFE:	86912	Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): | **ALS Contact:** Ian Acheson | **Sampler:** Ian Acheson

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Indicate Filtered (F), Preserved (P) or Filtered													SAMPLES ON HOLD	EXTENDED STORAGE REQ	SUSPECTED HAZARD (see
						P	F/P														
						Total Metals	Dissolved Nutrients	DIC													
	BH1-IR	28-Apr-25	11:50	GW		R	R	R													
	BH1-III	28-Apr-25	12:20	GW		R	R	R													
	BH4-IIR	28-Apr-25	15:30	GW		R	R	R													
	BH18R	28-Apr-25	12:45	GW		R	R	R													
	BH11R	29-Apr-25	15:10	GW		R	R	R													
	BH29-I	29-Apr-25	14:10	GW		R	R	R													
	BH29-II	29-Apr-25	14:20	GW		R	R	R													
	BH2-III	29-Apr-25	15:30	GW		R	R	R													
	BH8R	30-Apr-25	10:45	GW		R	R	R													
	BH10R	30-Apr-25	10:05	GW		R	R	R													
	BH14-IIIR	30-Apr-25	10:30	GW		R	R	R													
	BH514-IIIR	30-Apr-25	10:30	GW		R	R	R													

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
9.8	6.8			1.6	2.3		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: IAN ACHESON	Date: May 1/2025	Time: 10:30	Received by: AM	Date: 05/01/25	Time: 13:10	Received by:	Date: May 1 25	Time: 18:00

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: IAcheson@orillia.ca

Email 2: zgorbell@orillia.ca

Email 3: HCURRY@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: IAcheson@orillia.ca

Email 2: zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For tests that can not be performed according to the TAT requested, you will be contacted.

Project Information

ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals) F/P	Major Ions Package(Total Metals) P	Dissolved Metals: Trace List P	Total Metals: Trace List	Dissolved Orthophosphate P	Total Phosphorus P	BTEX P	VOCs P	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	Field Blank	29-Apr-25	14:30	GW			R		R		R	R	R			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
9.8	6.8			1.6	2.3		

SHIPMENT RELEASE (client use)

Released by: Ian Acheson Date: May 1/2025 Time: 10:30

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: AM Date: 05/01/25 Time: 13:10

FINAL SHIPMENT RECEPTION (lab use only)

Received by: MM Date: 5-1-25 Time: 18:00

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

CERTIFICATE OF ANALYSIS

Work Order	: **WT2510865**		
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	: ----	E-mail	: karanpartap.singh@alsglobal.com
Project	: WASTE DIVERSION SITE	Telephone	: 19055076910
PO	: 86912	Date Samples Received	: 08-May-2025 14:00
C-O-C number	: ----	Date Analysis Commenced	: 09-May-2025
Sampler	: IA	Issue Date	: 20-May-2025 09:28
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 21		
No. of samples analysed	: 21		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett	VOC Section Supervisor	VOC, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Metals, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Centralized Prep, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Sarah Birch	VOC Section Supervisor	VOC, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
LPMB	Lab-Preserved for Total Metals. Sample received with pH > 2 and preserved at the lab. Total Metals results may be biased low.
OWP	Organic water sample contained visible sediment (must be included as part of analysis). Measured concentrations of organic substances in water can be biased high due to presence of sediment.
SFPR	Suspected False Positive Result, based on detection in Lab Blanks and/or Field Blanks, or other known issues.
SP	Sample was preserved at the laboratory.
TKNI	TKN result may be biased low due to Nitrate interference. Nitrate -N is > 10x TKN.

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR	BH3-IIR	BH5-IR	BH5-IIIR	BH6R
					Client sampling date / time	05-May-2025 11:25	05-May-2025 11:35	08-May-2025 10:25	08-May-2025 10:35	05-May-2025 10:50
						WT2510865-001	WT2510865-002	WT2510865-003	WT2510865-004	WT2510865-005
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	----
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		955	2070	536	475	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		----	----	<2.0	<2.0	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2	mg/L		0.00 DLM	0.00 DLM	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		----	----	<2.0	<2.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2	mg/L		0.00 DLM	0.00 DLM	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		955	2070	536	475	----
Conductivity	----	E100/WT	2.0	µS/cm		1990	4920	1150	1190	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		912	768	479	380	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		1080	834	1300	656	----
pH	----	E108/WT	0.10	pH units		6.93	7.16	7.67	7.57	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.425	288	0.0631	0.935	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		236 DLDS	573 DLDS	130 DLDS	100 DLDS	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.210 DLDS	0.436 DLDS	<0.100 DLDS	<0.100 DLDS	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		1.48	334	0.466	18.8	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.200 DLDS	<0.100 DLDS	<0.100 DLDS	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.100 DLDS	<0.050 DLDS	0.061 DLDS	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		1.06	<66.8	0.403	17.9	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		----	<0.0010	<0.0010	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH3-IR	BH3-IIR	BH5-IR	BH5-IIIR	BH6R
					Client sampling date / time	05-May-2025 11:25	05-May-2025 11:35	08-May-2025 10:25	08-May-2025 10:35	05-May-2025 10:50
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-001	WT2510865-002	WT2510865-003	WT2510865-004	WT2510865-005
						Result	Result	Result	Result	Result
Anions and Nutrients										
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.290	0.560	3.43	2.40	0.490
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		2.08 DLDS	4.78 DLDS	17.8 DLDS	6.94 DLDS	----
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		179	438	99.5	101	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		21.1	130	3.85	30.6	----
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		25.8	57.6	14.7	12.5	----
Anion sum	----	EC101/WT	0.10	meq/L		25.8	57.6	14.7	12.5	----
Cation sum	----	EC101/WT	0.10	meq/L		24.6	58.5	12.9	12.0	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L		29.0	60.5	32.4	27.6	----
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		112	105	220	221	----
Ion balance (APHA)	----	EC101A/WT	0.010	%		5.84	2.46	37.6	37.6	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%		95.3	102	87.8	96.0	----
Ion balance (APHA)	----	EC101/WT	0.01	%		-2.38	0.78	-6.52	-2.04	----
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		0.695 DLHC	1.29 DLHC	16.2 DLHC	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.427 DLHC	0.642 DLHC	4.08 DLHC	----	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		<0.0000500 DLHC	0.000244 DLHC	0.000119 DLHC	----	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		294 DLHC	136 DLHC	376 DLHC	188 DLHC	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00500 DLHC	0.0140 DLHC	0.0220 DLHC	----	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00590 DLHC	0.0186 DLHC	0.0104 DLHC	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH3-IR	BH3-IIR	BH5-IR	BH5-IIIR	BH6R
Client sample ID									
Client sampling date / time					05-May-2025 11:25	05-May-2025 11:35	08-May-2025 10:25	08-May-2025 10:35	05-May-2025 10:50
					WT2510865-001	WT2510865-002	WT2510865-003	WT2510865-004	WT2510865-005
					Result	Result	Result	Result	Result
Total Metals									
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	<0.00500 DLHC	0.00992 DLHC	0.0230 DLHC	----	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L	23.6 DLHC	27.7 DLHC	23.9 DLHC	65.1 DLHC	----
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.000564 DLHC	0.00875 DLHC	0.00742 DLHC	----	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	85.4 DLHC	120 DLHC	87.5 DLHC	45.3 DLHC	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	1.80 DLHC	0.377 DLHC	1.34 DLHC	0.836 DLHC	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	0.0145 DLHC	0.0782 DLHC	0.0218 DLHC	----	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	2.52 DLHC	159 DLHC	6.78 DLHC	86.5 DLHC	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	<0.000500 DLHC	0.000746 DLHC	<0.000500 DLHC	----	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	----	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	142 DLHC	416 DLHC	82.8 DLHC	62.0 DLHC	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	<0.0300 DLHC	0.0414 DLHC	0.0610 DLHC	----	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	<0.0100 DLHC	0.0353 DLHC	<0.0100 DLHC	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	0.405 DLHC	0.578 DLHC	3.53 DLHC	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	<0.0000500 DLHC	<0.0000500 DLHC	<0.0000500 DLHC	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	242 DLHC	118 DLHC	132 DLHC	120 DLHC	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	<0.00500 DLHC	0.00978 DLHC	<0.00500 DLHC	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	0.00355 DLHC	0.0174 DLHC	<0.00100 DLHC	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	<0.00200 DLHC	<0.00200 DLHC	<0.00200 DLHC	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	20.3 DLHC	25.2 DLHC	2.37 DLHC	2.80 DLHC	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH3-IR	BH3-IIR	BH5-IR	BH5-IIIR	BH6R
					Client sampling date / time	05-May-2025 11:25	05-May-2025 11:35	08-May-2025 10:25	08-May-2025 10:35	05-May-2025 10:50
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-001	WT2510865-002	WT2510865-003	WT2510865-004	WT2510865-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		74.8 DLHC	115 DLHC	36.3 DLHC	19.5 DLHC	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		1.57 DLHC	0.286 DLHC	0.224 DLHC	0.226 DLHC	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		0.00963 DLHC	0.0740 DLHC	<0.00500 DLHC	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		2.20 DLHC	156 DLHC	2.05 DLHC	65.5 DLHC	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		<0.000500 DLHC	0.000666 DLHC	<0.000500 DLHC	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	----	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		127 DLHC	406 DLHC	72.8 DLHC	54.9 DLHC	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		<0.0100 DLHC	0.0264 DLHC	<0.0100 DLHC	----	----
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	----
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		9.2	29.3	<3.0 BODL	3.9	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		92	505	72	782	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0037	0.0038	<0.0010	0.0016	----
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L		0.80	4.45	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH3-IR	BH3-IIR	BH5-IR	BH5-IIIR	BH6R
Client sample ID					BH3-IR	BH3-IIR	BH5-IR	BH5-IIIR	BH6R
Client sampling date / time					05-May-2025 11:25	05-May-2025 11:35	08-May-2025 10:25	08-May-2025 10:35	05-May-2025 10:50
					WT2510865-001	WT2510865-002	WT2510865-003	WT2510865-004	WT2510865-005
					Result	Result	Result	Result	Result
Volatile Organic Compounds									
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L	<0.50	4.16	----	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Chloromethane	74-87-3	E611D/WT	2.0	µg/L	<2.0	<2.0	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L	<0.20	<0.20	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L	<0.50	0.97	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L	<0.71	<0.71	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L	<1.0	<1.0	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L	<0.30	<0.30	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L	<0.30	<0.30	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH3-IR	BH3-IIR	BH5-IR	BH5-IIIR	BH6R
					Client sampling date / time	05-May-2025 11:25	05-May-2025 11:35	08-May-2025 10:25	08-May-2025 10:35	05-May-2025 10:50
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-001	WT2510865-002	WT2510865-003	WT2510865-004	WT2510865-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		<0.50	1.12	----	----	----
Styrene	100-42-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		<0.40	2.34	----	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		<0.30	0.56	----	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		<0.50	2.90	----	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		<1.0	7.4	----	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH3-IR	BH3-IIR	BH5-IR	BH5-IIIR	BH6R
					Client sampling date / time	05-May-2025 11:25	05-May-2025 11:35	08-May-2025 10:25	08-May-2025 10:35	05-May-2025 10:50
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-001	WT2510865-002	WT2510865-003	WT2510865-004	WT2510865-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	0.94 OWP
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Styrene	100-42-5	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Toluene	108-88-3	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		----	----	<0.40	<0.40	<0.40
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		----	----	<0.30	<0.30	<0.30
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
BTEX, total	----	E611A/WT	1.0	µg/L		----	----	<1.0	<1.0	<1.0
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		----	----	93.5	94.9	94.4
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		96.9	97.9	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		----	----	102	101	102
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		103	107	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH16-I	BH16-IVR	BH17-III	BH17-IVR	BH20R
					Client sampling date / time	05-May-2025 10:30	05-May-2025 10:10	07-May-2025 11:55	07-May-2025 12:10	08-May-2025 09:55
						WT2510865-006	WT2510865-007	WT2510865-008	WT2510865-009	WT2510865-010
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		576	1110	410	9.7	2110
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2	mg/L		----	0.00 DLM	----	----	0.00 DLM
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	----	<2.0	<2.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2	mg/L		----	0.00 DLM	----	----	0.00 DLM
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	----	<2.0	<2.0	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		576	1110	410	9.7	2110
Conductivity	----	E100/WT	2.0	µS/cm		1370	2160	1350	2700	3780
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		542	673	448	177	1390
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		699	738	876	246	1480
pH	----	E108/WT	0.10	pH units		7.45	6.89	7.58	6.75	7.19
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.0419	57.0	0.148	0.0186	106
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		181 DLDS	159 DLDS	197 DLDS	48.4	232 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		<0.100 DLDS	0.178 DLDS	<0.100 DLDS	0.330	0.302 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		0.408	80.8	0.435	0.574 TKNI	123
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	0.212	<0.200 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	<0.010	<0.100 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		0.366	23.8	0.287	0.555	<24.5
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		----	----	<0.0010	0.0203	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH16-I	BH16-IVR	BH17-III	BH17-IVR	BH20R
					Client sampling date / time	05-May-2025 10:30	05-May-2025 10:10	07-May-2025 11:55	07-May-2025 12:10	08-May-2025 09:55
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-006	WT2510865-007	WT2510865-008	WT2510865-009	WT2510865-010
						Result	Result	Result	Result	Result
Anions and Nutrients										
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.0497	0.522	0.242	0.130	0.548
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		<1.50 DLDS	4.72 DLDS	26.6 DLDS	13.7	<3.00 DLDS
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		118	224	78.7	51.9	436
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		7.70	66.3	4.73	4.82	62.6
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		16.6	26.8	14.3	1.88	48.7
Anion sum	----	EC101/WT	0.10	meq/L		16.6	26.8	14.3	1.88	48.7
Cation sum	----	EC101/WT	0.10	meq/L		14.7	27.4	13.7	5.39	49.5
Cation sum (total)	----	EC101A/WT	0.10	meq/L		18.8	30.1	23.5	7.74	52.0
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		113	112	164	412	107
Ion balance (APHA)	----	EC101A/WT	0.010	%		6.21	5.80	24.3	60.9	3.28
Ion balance (cations/anions)	----	EC101/WT	0.010	%		88.6	102	95.8	287	102
Ion balance (APHA)	----	EC101/WT	0.01	%		-6.07	1.11	-2.14	48.3	0.81
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		----	----	3.85 DLHC	2.63 DLHC	----
Antimony, total	7440-36-0	E420/WT	0.00010	mg/L		----	----	----	<0.00100 DLHC	----
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L		----	----	----	<0.00100 DLHC	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		----	----	0.653 DLHC	0.0698 DLHC	----
Beryllium, total	7440-41-7	E420/WT	0.000020	mg/L		----	----	----	<0.000200 DLHC	----
Bismuth, total	7440-69-9	E420/WT	0.000050	mg/L		----	----	----	<0.000500 DLHC	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH16-I	BH16-IVR	BH17-III	BH17-IVR	BH20R
					Client sampling date / time	05-May-2025 10:30	05-May-2025 10:10	07-May-2025 11:55	07-May-2025 12:10	08-May-2025 09:55
						WT2510865-006	WT2510865-007	WT2510865-008	WT2510865-009	WT2510865-010
						Result	Result	Result	Result	Result
Total Metals										
Boron, total	7440-42-8	E420/WT	0.010	mg/L		----	----	----	<0.100 DLHC	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		----	----	0.0000690 DLHC	0.0000870 DLHC	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		185 DLHC	217 DLHC	244 DLHC	72.8 DLHC	338 DLHC
Cesium, total	7440-46-2	E420/WT	0.000010	mg/L		----	----	----	0.000351 DLHC	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		----	----	0.00606 DLHC	<0.00500 DLHC	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		----	----	0.00444 DLHC	0.00504 DLHC	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		----	----	0.0290 DLHC	0.00866 DLHC	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L		8.57 DLHC	86.5 DLHC	20.0 DLHC	2.76 DLHC	60.6 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		----	----	0.00392 DLHC	0.00115 DLHC	----
Lithium, total	7439-93-2	E420/WT	0.0010	mg/L		----	----	----	<0.0100 DLHC	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		57.6 DLHC	47.6 DLHC	64.9 DLHC	15.6 DLHC	154 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.0998 DLHC	1.08 DLHC	1.91 DLHC	1.24 DLHC	1.32 DLHC
Molybdenum, total	7439-98-7	E420/WT	0.000050	mg/L		----	----	----	<0.000500 DLHC	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		----	----	0.00733 DLHC	0.00584 DLHC	----
Phosphorus, total	7723-14-0	E420/WT	0.050	mg/L		----	----	----	<0.500 DLHC	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		3.01 DLHC	182 DLHC	2.40 DLHC	0.864 DLHC	99.4 DLHC
Rubidium, total	7440-17-7	E420/WT	0.00020	mg/L		----	----	----	0.00579 DLHC	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		----	----	<0.000500 DLHC	<0.000500 DLHC	----
Silicon, total	7440-21-3	E420/WT	0.10	mg/L		----	----	----	9.71 DLHC	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		----	----	<0.000100 DLHC	<0.000100 DLHC	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		101 DLHC	81.0 DLHC	109 DLHC	54.4 DLHC	232 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH16-I	BH16-IVR	BH17-III	BH17-IVR	BH20R
Client sample ID									
Client sampling date / time					05-May-2025 10:30	05-May-2025 10:10	07-May-2025 11:55	07-May-2025 12:10	08-May-2025 09:55
					WT2510865-006	WT2510865-007	WT2510865-008	WT2510865-009	WT2510865-010
					Result	Result	Result	Result	Result
Total Metals									
Strontium, total	7440-24-6	E420/WT	0.00020	mg/L	----	----	----	0.197 DLHC	----
Sulfur, total	7704-34-9	E420/WT	0.50	mg/L	----	----	----	<5.00 DLHC	----
Tellurium, total	13494-80-9	E420/WT	0.00020	mg/L	----	----	----	<0.00200 DLHC	----
Thallium, total	7440-28-0	E420/WT	0.000010	mg/L	----	----	----	0.000110 DLHC	----
Thorium, total	7440-29-1	E420/WT	0.00010	mg/L	----	----	----	<0.00100 DLHC	----
Tin, total	7440-31-5	E420/WT	0.00010	mg/L	----	----	----	<0.00100 DLHC	----
Titanium, total	7440-32-6	E420/WT	0.00030	mg/L	----	----	----	0.188 DLHC	----
Tungsten, total	7440-33-7	E420/WT	0.00010	mg/L	----	----	----	<0.00100 DLHC	----
Uranium, total	7440-61-1	E420/WT	0.000010	mg/L	----	----	----	0.000548 DLHC	----
Vanadium, total	7440-62-2	E420/WT	0.00050	mg/L	----	----	----	0.00600 DLHC	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	----	----	<0.0300 DLHC	<0.0300 DLHC	----
Zirconium, total	7440-67-7	E420/WT	0.00020	mg/L	----	----	----	<0.00200 DLHC	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	----	----	<0.0100 DLHC	<0.0100 DLHC	----
Antimony, dissolved	7440-36-0	E421/WT	0.00010	mg/L	----	----	----	<0.00100 DLHC	----
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L	----	----	----	<0.00100 DLHC	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	----	----	0.532 DLHC	0.0278 DLHC	----
Beryllium, dissolved	7440-41-7	E421/WT	0.000020	mg/L	----	----	----	<0.000200 DLHC	----
Bismuth, dissolved	7440-69-9	E421/WT	0.000050	mg/L	----	----	----	<0.000500 DLHC	----
Boron, dissolved	7440-42-8	E421/WT	0.010	mg/L	----	----	----	<0.100 DLHC	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	----	----	<0.0000500 DLHC	<0.0000500 DLHC	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH16-I	BH16-IVR	BH17-III	BH17-IVR	BH20R
Client sample ID									
Client sampling date / time					05-May-2025 10:30	05-May-2025 10:10	07-May-2025 11:55	07-May-2025 12:10	08-May-2025 09:55
					WT2510865-006	WT2510865-007	WT2510865-008	WT2510865-009	WT2510865-010
					Result	Result	Result	Result	Result
Dissolved Metals									
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	142 DLHC	198 DLHC	134 DLHC	53.9 DLHC	317 DLHC
Cesium, dissolved	7440-46-2	E421/WT	0.000010	mg/L	----	----	----	<0.000100 DLHC	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	----	----	<0.00500 DLHC	<0.00500 DLHC	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	----	----	0.00119 DLHC	<0.00100 DLHC	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	----	----	<0.00200 DLHC	<0.00200 DLHC	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	6.86 DLHC	59.9 DLHC	11.8 DLHC	<0.100 DLHC	59.0 DLHC
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	----	----	<0.000500 DLHC	<0.000500 DLHC	----
Lithium, dissolved	7439-93-2	E421/WT	0.0010	mg/L	----	----	----	<0.0100 DLHC	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	45.4 DLHC	43.4 DLHC	27.5 DLHC	10.4 DLHC	145 DLHC
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.0592 DLHC	0.962 DLHC	1.27 DLHC	0.0156 DLHC	1.29 DLHC
Molybdenum, dissolved	7439-98-7	E421/WT	0.000050	mg/L	----	----	----	<0.000500 DLHC	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	----	----	<0.00500 DLHC	<0.00500 DLHC	----
Phosphorus, dissolved	7723-14-0	E421/WT	0.050	mg/L	----	----	----	<0.500 DLHC	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	2.47 DLHC	171 DLHC	0.912 DLHC	<0.500 DLHC	96.6 DLHC
Rubidium, dissolved	7440-17-7	E421/WT	0.00020	mg/L	----	----	----	<0.00200 DLHC	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	----	----	<0.000500 DLHC	<0.000500 DLHC	----
Silicon, dissolved	7440-21-3	E421/WT	0.050	mg/L	----	----	----	4.80 DLHC	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	----	----	<0.000100 DLHC	<0.000100 DLHC	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	82.7 DLHC	75.3 DLHC	96.9 DLHC	42.4 DLHC	220 DLHC
Strontium, dissolved	7440-24-6	E421/WT	0.00020	mg/L	----	----	----	0.155 DLHC	----
Sulfur, dissolved	7704-34-9	E421/WT	0.50	mg/L	----	----	----	<5.00 DLHC	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH16-I	BH16-IVR	BH17-III	BH17-IVR	BH20R
					Client sampling date / time	05-May-2025 10:30	05-May-2025 10:10	07-May-2025 11:55	07-May-2025 12:10	08-May-2025 09:55
						WT2510865-006	WT2510865-007	WT2510865-008	WT2510865-009	WT2510865-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Tellurium, dissolved	13494-80-9	E421/WT	0.00020	mg/L		----	----	----	<0.00200 DLHC	----
Thallium, dissolved	7440-28-0	E421/WT	0.000010	mg/L		----	----	----	<0.000100 DLHC	----
Thorium, dissolved	7440-29-1	E421/WT	0.00010	mg/L		----	----	----	<0.00100 DLHC	----
Tin, dissolved	7440-31-5	E421/WT	0.00010	mg/L		----	----	----	<0.00100 DLHC	----
Titanium, dissolved	7440-32-6	E421/WT	0.00030	mg/L		----	----	----	<0.00300 DLHC	----
Tungsten, dissolved	7440-33-7	E421/WT	0.00010	mg/L		----	----	----	<0.00100 DLHC	----
Uranium, dissolved	7440-61-1	E421/WT	0.000010	mg/L		----	----	----	0.000359 DLHC	----
Vanadium, dissolved	7440-62-2	E421/WT	0.00050	mg/L		----	----	----	<0.00500 DLHC	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		----	----	<0.0100 DLHC	<0.0100 DLHC	----
Zirconium, dissolved	7440-67-7	E421/WT	0.00030	mg/L		----	----	----	<0.00300 DLHC	----
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		<3.0 BODL	12.8	<3.0 BODL	<3.0 BODL	9.4
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		24	240	23	22	241
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0012	0.0025	0.0017	<0.0010	0.0043 SP
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L		----	----	<0.50	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH16-I	BH16-IVR	BH17-III	BH17-IVR	BH20R
					Client sampling date / time	05-May-2025 10:30	05-May-2025 10:10	07-May-2025 11:55	07-May-2025 12:10	08-May-2025 09:55
						WT2510865-006	WT2510865-007	WT2510865-008	WT2510865-009	WT2510865-010
						Result	Result	Result	Result	Result
Volatile Organic Compounds [Fuels]										
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		----	----	<0.40	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		----	----	<0.30	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
BTEX, total	----	E611A/WT	1.0	µg/L		----	----	<1.0	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		----	----	93.6	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		----	----	102	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR	BH21-IIR	BH22-IR	BH22-II	BH26
					Client sampling date / time	07-May-2025 14:00	07-May-2025 14:10	07-May-2025 11:05	07-May-2025 10:40	07-May-2025 10:40
						WT2510865-011	WT2510865-012	WT2510865-013	WT2510865-014	WT2510865-015
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		550	460	327	242	201
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		550	460	327	242	201
Conductivity	----	E100/WT	2.0	µS/cm		1270	1220	1030	903	644
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		437	416	449	220	222

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR	BH21-IIR	BH22-IR	BH22-II	BH26
					Client sampling date / time	07-May-2025 14:00	07-May-2025 14:10	07-May-2025 11:05	07-May-2025 10:40	07-May-2025 10:40
						WT2510865-011	WT2510865-012	WT2510865-013	WT2510865-014	WT2510865-015
						Result	Result	Result	Result	Result
Physical Tests										
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		1300	470	575	267	251
pH	----	E108/WT	0.10	pH units		7.97	8.05	7.72	7.76	8.24
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		11.1	14.9	0.272	0.533	0.0329
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		113 DLDS	78.2 DLDS	144 DLDS	137 DLDS	54.8
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.161 DLDS	0.138 DLDS	0.247 DLDS	0.075 DLDS	0.083
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		13.9	21.8	0.549	1.65	1.07
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		0.427 DLDS	0.630 DLDS	<0.040 DLDS	0.229 DLDS	8.72
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		0.897 DLDS	0.327 DLDS	<0.020 DLDS	0.164 DLDS	0.038
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		2.80	6.90	0.277	1.12	1.04
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		----	----	0.105	<0.0010	0.0113
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.197	0.674	0.218	0.457	0.0371
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		9.63 DLDS	88.2 DLDS	9.68 DLDS	17.1 DLDS	18.4
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		120	93.3	60.7	50.3	40.4
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		19.7	33.8	6.62	10.4	12.8
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		14.5	13.3	10.8	9.09	6.58
Anion sum	----	EC101/WT	0.10	meq/L		14.5	13.3	10.8	9.09	6.58
Cation sum	----	EC101/WT	0.10	meq/L		12.6	13.8	10.5	7.60	6.37
Cation sum (total)	----	EC101A/WT	0.10	meq/L		32.0	15.9	13.6	9.32	7.07

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR	BH21-IIR	BH22-IR	BH22-II	BH26
					Client sampling date / time	07-May-2025 14:00	07-May-2025 14:10	07-May-2025 11:05	07-May-2025 10:40	07-May-2025 10:40
						WT2510865-011	WT2510865-012	WT2510865-013	WT2510865-014	WT2510865-015
						Result	Result	Result	Result	Result
Ion Balance										
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		221	120	126	102	107
Ion balance (APHA)	----	EC101A/WT	0.010	%		37.6	8.90	11.5	1.25	3.59
Ion balance (cations/anions)	----	EC101/WT	0.010	%		86.9	104	97.2	83.6	96.8
Ion balance (APHA)	----	EC101/WT	0.01	%		-7.01	1.84	-1.41	-8.93	-1.62
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		----	----	3.19 DLHC	0.657 DLHC	0.283 DLHC
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		----	----	0.146 DLHC	0.0999 DLHC	0.0684 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		----	----	<0.0000500 DLHC	0.0000570 DLHC	<0.0000500 DLHC
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		364 DLHC	150 DLHC	171 DLHC	85.5 DLHC	80.6 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		----	----	<0.00500 DLHC	<0.00500 DLHC	<0.00500 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		----	----	0.00248 DLHC	<0.00100 DLHC	<0.00100 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		----	----	0.00585 DLHC	<0.00500 DLHC	<0.00500 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L		38.6 DLHC	27.2 DLHC	9.54 DLHC	3.28 DLHC	0.378 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		----	----	0.00262 DLHC	0.00174 DLHC	<0.000500 DLHC
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		94.1 DLHC	23.3 DLHC	36.0 DLHC	12.9 DLHC	12.1 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		2.02 DLHC	0.807 DLHC	3.07 DLHC	0.282 DLHC	0.271 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		----	----	<0.00500 DLHC	<0.00500 DLHC	<0.00500 DLHC
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		46.3 DLHC	66.8 DLHC	1.57 DLHC	3.69 DLHC	4.88 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		----	----	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		----	----	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		40.5 DLHC	50.9 DLHC	28.9 DLHC	84.2 DLHC	43.1 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH21-IR	BH21-IIR	BH22-IR	BH22-II	BH26
Client sample ID									
Client sampling date / time					07-May-2025 14:00	07-May-2025 14:10	07-May-2025 11:05	07-May-2025 10:40	07-May-2025 10:40
					WT2510865-011	WT2510865-012	WT2510865-013	WT2510865-014	WT2510865-015
					Result	Result	Result	Result	Result
Total Metals									
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	----	----	<0.0300 DLHC	<0.0300 DLHC	<0.0300 DLHC
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	----	----	<0.0100 DLHC	0.0113 DLHC	0.0137
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	----	----	0.106 DLHC	0.0794 DLHC	0.0623
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	----	----	<0.0000500 DLHC	<0.0000500 DLHC	0.0000119
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	131 DLHC	133 DLHC	134 DLHC	70.6 DLHC	69.9
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	----	----	<0.00500 DLHC	<0.00500 DLHC	<0.00050
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	----	----	<0.00100 DLHC	<0.00100 DLHC	0.00020
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	----	----	<0.00200 DLHC	<0.00200 DLHC	0.00102
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	19.6 DLHC	14.0 DLHC	5.48 DLHC	1.46 DLHC	0.013
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	----	----	<0.000500 DLHC	<0.000500 DLHC	0.000060
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	26.7 DLHC	20.5 DLHC	27.8 DLHC	10.5 DLHC	11.6
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.867 DLHC	0.686 DLHC	2.67 DLHC	0.200 DLHC	0.00400
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	----	----	<0.00500 DLHC	<0.00500 DLHC	<0.00050
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	35.8 DLHC	66.5 DLHC	0.787 DLHC	3.20 DLHC	5.18
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	----	----	<0.000500 DLHC	<0.000500 DLHC	0.000180
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	----	----	<0.000100 DLHC	<0.000100 DLHC	<0.000010
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	32.2 DLHC	50.4 DLHC	27.0 DLHC	69.8 DLHC	41.2
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	----	----	<0.0100 DLHC	<0.0100 DLHC	0.0028
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	Field	Field

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH21-IR	BH21-IIR	BH22-IR	BH22-II	BH26
Client sample ID									
Client sampling date / time					07-May-2025 14:00	07-May-2025 14:10	07-May-2025 11:05	07-May-2025 10:40	07-May-2025 10:40
					WT2510865-011	WT2510865-012	WT2510865-013	WT2510865-014	WT2510865-015
					Result	Result	Result	Result	Result
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	4.2	6.1	<3.0 BODL	<3.0 BODL	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	72	254	28	54	37
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0032	0.0033	0.0011	<0.0010	0.0019
Volatile Organic Compounds									
Acetone	67-64-1	E611D/WT	20	µg/L	<20	<20	----	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L	<1.0	<1.0	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L	<0.20	<0.20	----	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L	2.40	3.33	----	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Chloromethane	74-87-3	E611D/WT	2.0	µg/L	<2.0	<2.0	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L	<0.20	<0.20	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L	0.82	1.08	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH21-IR	BH21-IIR	BH22-IR	BH22-II	BH26
					Client sampling date / time	07-May-2025 14:00	07-May-2025 14:10	07-May-2025 11:05	07-May-2025 10:40	07-May-2025 10:40
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-011	WT2510865-012	WT2510865-013	WT2510865-014	WT2510865-015
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L		<0.71	<0.71	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Styrene	100-42-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR	BH21-IIR	BH22-IR	BH22-II	BH26
					Client sampling date / time	07-May-2025 14:00	07-May-2025 14:10	07-May-2025 11:05	07-May-2025 10:40	07-May-2025 10:40
						WT2510865-011	WT2510865-012	WT2510865-013	WT2510865-014	WT2510865-015
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Toluene	108-88-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		<0.40	<0.40	----	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Styrene	100-42-5	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Toluene	108-88-3	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		----	----	<0.40	<0.40	<0.40
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		----	----	<0.30	<0.30	<0.30
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
BTEX, total	----	E611A/WT	1.0	µg/L		----	----	<1.0	<1.0	<1.0

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR	BH21-IIR	BH22-IR	BH22-II	BH26
					Client sampling date / time	07-May-2025 14:00	07-May-2025 14:10	07-May-2025 11:05	07-May-2025 10:40	07-May-2025 10:40
						WT2510865-011	WT2510865-012	WT2510865-013	WT2510865-014	WT2510865-015
						Result	Result	Result	Result	Result
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		----	----	86.0	86.1	83.9
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		96.3	99.5	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		----	----	96.2	96.6	97.1
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		104	103	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
					Client sampling date / time	07-May-2025 15:10	07-May-2025 15:15	05-May-2025 10:50	08-May-2025 09:50	05-May-2025 00:00
						WT2510865-016	WT2510865-017	WT2510865-018	WT2510865-019	WT2510865-020
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	----	----	lab
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		630	631	----	<2.0	<2.0
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	----	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	----	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		630	631	----	<2.0	<2.0
Conductivity	----	E100/WT	2.0	µS/cm		1600	1230	----	<2.0	<2.0
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		630	478	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		1310	576	----	----	<0.50
pH	----	E108/WT	0.10	pH units		7.45	7.49	----	5.77	6.10

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
					Client sampling date / time	07-May-2025 15:10	07-May-2025 15:15	05-May-2025 10:50	08-May-2025 09:50	05-May-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-016	WT2510865-017	WT2510865-018	WT2510865-019	WT2510865-020
						Result	Result	Result	Result	Result
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.371	3.73	----	----	<0.0050
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		222 DLDS	44.3 DLDS	----	<0.50	<0.50
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		<0.100 DLDS	0.246 DLDS	----	<0.020	<0.020
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		0.888	4.40	----	----	<0.050
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	----	<0.020	<0.020
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	----	<0.010	<0.010
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		0.517	<0.877	----	----	<0.050
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.972	0.0242	0.510	----	<0.0020
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		6.93 DLDS	17.6 DLDS	----	<0.30	<0.30
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		112	153	----	----	<0.50
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		8.83	8.32	----	----	<0.50
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		19.0	14.2	----	<0.10	<0.10
Anion sum	----	EC101/WT	0.10	meq/L		19.0	14.2	----	----	----
Cation sum	----	EC101/WT	0.10	meq/L		16.4	13.8	----	----	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L		32.7	16.6	----	<0.10	<0.10
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		172	117	----	100	100
Ion balance (APHA)	----	EC101A/WT	0.010	%		26.5	7.79	----	0.0	0.0
Ion balance (cations/anions)	----	EC101/WT	0.010	%		86.3	97.2	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
					Client sampling date / time	07-May-2025 15:10	07-May-2025 15:15	05-May-2025 10:50	08-May-2025 09:50	05-May-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-016	WT2510865-017	WT2510865-018	WT2510865-019	WT2510865-020
						Result	Result	Result	Result	Result
Ion Balance										
Ion balance (APHA)	----	EC101/WT	0.01	%		-7.34	-1.43	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		10.6 DLHC	0.0493 DLHC	----	<0.0030 LPMB	<0.0030
Antimony, total	7440-36-0	E420/WT	0.00010	mg/L		<0.00100 DLHC	<0.00100 DLHC	----	<0.00010 LPMB	----
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L		0.00218 DLHC	0.00184 DLHC	----	<0.00010 LPMB	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		2.11 DLHC	0.208 DLHC	----	<0.00010 LPMB	<0.00010
Beryllium, total	7440-41-7	E420/WT	0.000020	mg/L		0.000482 DLHC	<0.000200 DLHC	----	<0.000020 LPMB	----
Bismuth, total	7440-69-9	E420/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	----	<0.000050 LPMB	----
Boron, total	7440-42-8	E420/WT	0.010	mg/L		0.256 DLHC	0.184 DLHC	----	<0.010 LPMB	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.0000700 DLHC	<0.0000500 DLHC	----	<0.0000050 LPMB	<0.0000050
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		357 DLHC	138 DLHC	----	<0.050 LPMB	<0.050
Cesium, total	7440-46-2	E420/WT	0.000010	mg/L		0.000838 DLHC	<0.000100 DLHC	----	<0.000010 LPMB	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		0.0163 DLHC	<0.00500 DLHC	----	<0.00050 LPMB	<0.00050
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00789 DLHC	0.00123 DLHC	----	<0.00010 LPMB	<0.00010
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.0157 DLHC	<0.00500 DLHC	----	<0.00050 LPMB	<0.00050
Iron, total	7439-89-6	E420/WT	0.010	mg/L		27.6 DLHC	34.4 DLHC	----	<0.010 LPMB	<0.010
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.00580 DLHC	<0.000500 DLHC	----	<0.000050 LPMB	<0.000050
Lithium, total	7439-93-2	E420/WT	0.0010	mg/L		0.0168 DLHC	<0.0100 DLHC	----	<0.0010 LPMB	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		101 DLHC	56.1 DLHC	----	<0.0050 LPMB	<0.0050
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		1.03 DLHC	1.51 DLHC	----	<0.00010 LPMB	<0.00010
Molybdenum, total	7439-98-7	E420/WT	0.000050	mg/L		<0.000500 DLHC	0.000997 DLHC	----	<0.000050 LPMB	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
Client sample ID									
Client sampling date / time					07-May-2025 15:10	07-May-2025 15:15	05-May-2025 10:50	08-May-2025 09:50	05-May-2025 00:00
					WT2510865-016	WT2510865-017	WT2510865-018	WT2510865-019	WT2510865-020
					Result	Result	Result	Result	Result
Total Metals									
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	0.0164 DLHC	<0.00500 DLHC	----	<0.00050 LPMB	<0.00050
Phosphorus, total	7723-14-0	E420/WT	0.050	mg/L	1.06 DLHC	<0.500 DLHC	----	<0.050 LPMB	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	6.18 DLHC	4.93 DLHC	----	<0.050 LPMB	<0.050
Rubidium, total	7440-17-7	E420/WT	0.00020	mg/L	0.0208 DLHC	<0.00200 DLHC	----	<0.00020 LPMB	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	<0.000500 DLHC	<0.000500 DLHC	----	<0.000050 LPMB	<0.000050
Silicon, total	7440-21-3	E420/WT	0.10	mg/L	30.2 DLHC	8.94 DLHC	----	<0.10 LPMB	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000100 DLHC	<0.000100 DLHC	----	<0.000010 LPMB	<0.000010
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	96.2 DLHC	79.2 DLHC	----	<0.050 LPMB	<0.050
Strontium, total	7440-24-6	E420/WT	0.00020	mg/L	0.867 DLHC	0.522 DLHC	----	<0.00020 LPMB	----
Sulfur, total	7704-34-9	E420/WT	0.50	mg/L	<5.00 DLHC	5.16 DLHC	----	<0.50 LPMB	----
Tellurium, total	13494-80-9	E420/WT	0.00020	mg/L	<0.00200 DLHC	<0.00200 DLHC	----	<0.00020 LPMB	----
Thallium, total	7440-28-0	E420/WT	0.000010	mg/L	0.000114 DLHC	<0.000100 DLHC	----	<0.000010 LPMB	----
Thorium, total	7440-29-1	E420/WT	0.00010	mg/L	0.00573 DLHC	<0.00100 DLHC	----	<0.00010 LPMB	----
Tin, total	7440-31-5	E420/WT	0.00010	mg/L	<0.00100 DLHC	<0.00100 DLHC	----	<0.00010 LPMB	----
Titanium, total	7440-32-6	E420/WT	0.00030	mg/L	0.653 DLHC	<0.00300 DLHC	----	<0.00030 LPMB	----
Tungsten, total	7440-33-7	E420/WT	0.00010	mg/L	<0.00100 DLHC	<0.00100 DLHC	----	<0.00010 LPMB	----
Uranium, total	7440-61-1	E420/WT	0.000010	mg/L	0.000725 DLHC	0.000646 DLHC	----	<0.000010 LPMB	----
Vanadium, total	7440-62-2	E420/WT	0.00050	mg/L	0.0257 DLHC	<0.00500 DLHC	----	<0.00050 LPMB	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	0.0442 DLHC	<0.0300 DLHC	----	<0.0030 LPMB	<0.0030
Zirconium, total	7440-67-7	E420/WT	0.00020	mg/L	0.00235 DLHC	<0.00200 DLHC	----	<0.00020 LPMB	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
					Client sampling date / time	07-May-2025 15:10	07-May-2025 15:15	05-May-2025 10:50	08-May-2025 09:50	05-May-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-016	WT2510865-017	WT2510865-018	WT2510865-019	WT2510865-020
						Result	Result	Result	Result	Result
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		<0.0100 DLHC	<0.0100 DLHC	----	----	----
Antimony, dissolved	7440-36-0	E421/WT	0.00010	mg/L		<0.00100 DLHC	<0.00100 DLHC	----	----	----
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L		<0.00100 DLHC	<0.00100 DLHC	----	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		1.62 DLHC	0.163 DLHC	----	----	----
Beryllium, dissolved	7440-41-7	E421/WT	0.000020	mg/L		<0.000200 DLHC	<0.000200 DLHC	----	----	----
Bismuth, dissolved	7440-69-9	E421/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	----	----	----
Boron, dissolved	7440-42-8	E421/WT	0.010	mg/L		0.201 DLHC	0.151 DLHC	----	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000500 DLHC	<0.0000500 DLHC	----	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		176 DLHC	114 DLHC	----	----	----
Cesium, dissolved	7440-46-2	E421/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	----	----	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	----	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		<0.00100 DLHC	0.00121 DLHC	----	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00200 DLHC	<0.00200 DLHC	----	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		11.4 DLHC	24.6 DLHC	----	----	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	----	----	----
Lithium, dissolved	7439-93-2	E421/WT	0.0010	mg/L		<0.0100 DLHC	<0.0100 DLHC	----	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		46.2 DLHC	46.9 DLHC	----	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.221 DLHC	1.29 DLHC	----	----	----
Molybdenum, dissolved	7439-98-7	E421/WT	0.000050	mg/L		<0.000500 DLHC	0.000797 DLHC	----	----	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	----	----	----
Phosphorus, dissolved	7723-14-0	E421/WT	0.050	mg/L		<0.500 DLHC	<0.500 DLHC	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

	Client sample ID	BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
	Client sampling date / time	07-May-2025 15:10	07-May-2025 15:15	05-May-2025 10:50	08-May-2025 09:50	05-May-2025 00:00
Analyte	CAS Number / Method/Lab / LOR / Unit	WT2510865-016	WT2510865-017	WT2510865-018	WT2510865-019	WT2510865-020
		Result	Result	Result	Result	Result
Dissolved Metals						
Potassium, dissolved	7440-09-7 / E421/WT / 0.050 / mg/L	2.77 DLHC	4.28 DLHC	----	----	----
Rubidium, dissolved	7440-17-7 / E421/WT / 0.00020 / mg/L	0.00221 DLHC	<0.00200 DLHC	----	----	----
Selenium, dissolved	7782-49-2 / E421/WT / 0.000050 / mg/L	<0.000500 DLHC	<0.000500 DLHC	----	----	----
Silicon, dissolved	7440-21-3 / E421/WT / 0.050 / mg/L	11.4 DLHC	7.66 DLHC	----	----	----
Silver, dissolved	7440-22-4 / E421/WT / 0.000010 / mg/L	<0.000100 DLHC	<0.000100 DLHC	----	----	----
Sodium, dissolved	7440-23-5 / E421/WT / 0.050 / mg/L	76.1 DLHC	68.3 DLHC	----	----	----
Strontium, dissolved	7440-24-6 / E421/WT / 0.00020 / mg/L	0.600 DLHC	0.444 DLHC	----	----	----
Sulfur, dissolved	7704-34-9 / E421/WT / 0.50 / mg/L	<5.00 DLHC	6.01 DLHC	----	----	----
Tellurium, dissolved	13494-80-9 / E421/WT / 0.00020 / mg/L	<0.00200 DLHC	<0.00200 DLHC	----	----	----
Thallium, dissolved	7440-28-0 / E421/WT / 0.000010 / mg/L	<0.000100 DLHC	<0.000100 DLHC	----	----	----
Thorium, dissolved	7440-29-1 / E421/WT / 0.00010 / mg/L	<0.00100 DLHC	<0.00100 DLHC	----	----	----
Tin, dissolved	7440-31-5 / E421/WT / 0.00010 / mg/L	<0.00100 DLHC	<0.00100 DLHC	----	----	----
Titanium, dissolved	7440-32-6 / E421/WT / 0.00030 / mg/L	<0.00300 DLHC	<0.00300 DLHC	----	----	----
Tungsten, dissolved	7440-33-7 / E421/WT / 0.00010 / mg/L	<0.00100 DLHC	<0.00100 DLHC	----	----	----
Uranium, dissolved	7440-61-1 / E421/WT / 0.000010 / mg/L	<0.000100 DLHC	0.000581 DLHC	----	----	----
Vanadium, dissolved	7440-62-2 / E421/WT / 0.00050 / mg/L	<0.00500 DLHC	<0.00500 DLHC	----	----	----
Zinc, dissolved	7440-66-6 / E421/WT / 0.0010 / mg/L	<0.0100 DLHC	<0.0100 DLHC	----	----	----
Zirconium, dissolved	7440-67-7 / E421/WT / 0.00030 / mg/L	<0.00300 DLHC	<0.00300 DLHC	----	----	----
Dissolved metals filtration location	---- / EP421/WT / - / -	Field	Field	----	----	----
Aggregate Organics						
Biochemical oxygen demand [BOD]	---- / E550/WT / 2.0 / mg/L	<3.0 BODL	9.0	----	----	<2.0

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
Client sample ID					BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
Client sampling date / time					07-May-2025 15:10	07-May-2025 15:15	05-May-2025 10:50	08-May-2025 09:50	05-May-2025 00:00
					WT2510865-016	WT2510865-017	WT2510865-018	WT2510865-019	WT2510865-020
					Result	Result	Result	Result	Result
Aggregate Organics									
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	54	39	----	----	<10
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0019	0.0029	----	----	<0.0010
Volatile Organic Compounds									
Acetone	67-64-1	E611D/WT	20	µg/L	----	----	----	<20	<20
Benzene	71-43-2	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Bromoform	75-25-2	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Bromomethane	74-83-9	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L	----	----	----	<1.0	<1.0
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L	----	----	----	<0.20	<0.20
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Chloroethane	75-00-3	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Chloroform	67-66-3	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Chloromethane	74-87-3	E611D/WT	2.0	µg/L	----	----	----	<2.0	<2.0
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L	----	----	----	<0.20	<0.20
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L	----	----	----	<0.50	<0.50

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
					Client sampling date / time	07-May-2025 15:10	07-May-2025 15:15	05-May-2025 10:50	08-May-2025 09:50	05-May-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-016	WT2510865-017	WT2510865-018	WT2510865-019	WT2510865-020
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L		----	----	----	<0.71	<0.71
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		----	----	----	<8.9 SFPR	<1.0
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		----	----	----	<0.30	<0.30
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		----	----	----	<0.30	<0.30
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		----	----	----	<20	<20
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		----	----	----	<20	<20
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		----	----	----	<20	<20
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Styrene	100-42-5	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Toluene	108-88-3	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
					Client sampling date / time	07-May-2025 15:10	07-May-2025 15:15	05-May-2025 10:50	08-May-2025 09:50	05-May-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-016	WT2510865-017	WT2510865-018	WT2510865-019	WT2510865-020
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		----	----	----	<0.20	<0.20
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		----	----	----	<0.40	<0.40
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		----	----	----	<0.30	<0.30
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		----	----	----	<0.50	<0.50
BTEX, total	----	E611D/WT	1.0	µg/L		----	----	----	<1.0	<1.0
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		----	----	----	<1.0	<1.0
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		----	----	0.76 OWP	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		----	----	<0.40	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		----	----	<0.30	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
BTEX, total	----	E611A/WT	1.0	µg/L		----	----	<1.0	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH30-I	BH30-II	BH506R	FIELD BLANK	TRAVEL BLANK
Client sample ID									
Client sampling date / time					07-May-2025 15:10	07-May-2025 15:15	05-May-2025 10:50	08-May-2025 09:50	05-May-2025 00:00
					WT2510865-016	WT2510865-017	WT2510865-018	WT2510865-019	WT2510865-020
					Result	Result	Result	Result	Result
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%	----	----	----	95.8	95.2
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%	----	----	84.6	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%	----	----	----	104	104
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%	----	----	96.9	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	DUP	----	----	----	----
Client sample ID									
Client sampling date / time					07-May-2025 14:10	----	----	----	----
					WT2510865-021	----	----	----	----
					Result	----	----	----	----
Sample Preparation									
Dissolved carbon filtration location	----	EP358/WT	-	-	field	----	----	----	----
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L	457	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	457	----	----	----	----
Conductivity	----	E100/WT	2.0	µS/cm	1210	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L	381	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L	478	----	----	----	----
pH	----	E108/WT	0.10	pH units	7.59	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DUP	----	----	----	----
					Client sampling date / time: 07-May-2025 14:10	----	----	----	----
					WT2510865-021	----	----	----	----
					Result	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	16.2	----	----	----	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	74.7 DLDS	----	----	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	0.138 DLDS	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	32.7	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	1.30 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	0.405 DLDS	----	----	----	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L	16.5	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	1.08	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	89.6 DLDS	----	----	----	----
Organic / Inorganic Carbon									
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L	97.7	----	----	----	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	34.0	----	----	----	----
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	13.2	----	----	----	----
Anion sum	----	EC101/WT	0.10	meq/L	13.2	----	----	----	----
Cation sum	----	EC101/WT	0.10	meq/L	12.8	----	----	----	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L	16.4	----	----	----	----
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	124	----	----	----	----
Ion balance (APHA)	----	EC101A/WT	0.010	%	10.8	----	----	----	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%	97.0	----	----	----	----
Ion balance (APHA)	----	EC101/WT	0.01	%	-1.54	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DUP	----	----	----	----
					Client sampling date / time: 07-May-2025 14:10	----	----	----	----
					WT2510865-021	----	----	----	----
					Result	----	----	----	----
Total Metals									
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	151 DLHC	----	----	----	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L	28.6 DLHC	----	----	----	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	24.4 DLHC	----	----	----	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	0.804 DLHC	----	----	----	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	69.2 DLHC	----	----	----	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	52.7 DLHC	----	----	----	----
Dissolved Metals									
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	122 DLHC	----	----	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	12.8 DLHC	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	18.6 DLHC	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.626 DLHC	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	61.4 DLHC	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	46.0 DLHC	----	----	----	----
Dissolved metals filtration location	----	EP421/WT	-	-	Field	----	----	----	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	9.9	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	543	----	----	----	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	<0.0010	----	----	----	----
Volatile Organic Compounds									
Acetone	67-64-1	E611D/WT	20	µg/L	<20	----	----	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L	<0.50	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP	----	----	----	----
					Client sampling date / time	07-May-2025 14:10	----	----	----	----
					WT2510865-021	----	----	----	----	----
					Result	----	----	----	----	----
Volatile Organic Compounds										
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L	<1.0	----	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L	<0.20	----	----	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L	3.21	----	----	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Chloromethane	74-87-3	E611D/WT	2.0	µg/L	<2.0	----	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L	<0.20	----	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L	1.06	----	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L	<0.71	----	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP	----	----	----	----
					Client sampling date / time	07-May-2025 14:10	----	----	----	----
					WT2510865-021	----	----	----	----	
					Result	----	----	----	----	
Volatile Organic Compounds										
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L	<1.0	----	----	----	----	
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L	<0.30	----	----	----	----	
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L	<0.30	----	----	----	----	
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L	<20	----	----	----	----	
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L	<20	----	----	----	----	
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L	<20	----	----	----	----	
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Styrene	100-42-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Toluene	108-88-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----	
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L	<0.20	----	----	----	----	

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	DUP	----	----	----	----
					Client sampling date / time	07-May-2025 14:10	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2510865-021	----	----	----	----
						Result	----	----	----	----
Volatile Organic Compounds										
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		<0.40	----	----	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		<0.30	----	----	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		<1.0	----	----	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		<1.0	----	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		108	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		103	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2510865**	Page	: 1 of 51
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 08-May-2025 14:00
PO	: 86912	Issue Date	: 20-May-2025 09:26
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 21		
No. of samples analysed	: 21		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Duplicate outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Physical Tests	Anonymous	Anonymous	pH	----	E108	16.6 % DUP-PH	4%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

Qualifier	Description
DUP-PH	*Duplicate pH result meets ALS Data Quality Objective for low ionic strength samples (+/- 1 pH unit where EC < 200 uS).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH17-IVR	E550	07-May-2025	----	----	----		10-May-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH20R	E550	08-May-2025	----	----	----		10-May-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH21-IIR	E550	07-May-2025	----	----	----		10-May-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH21-IR	E550	07-May-2025	----	----	----		10-May-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH22-II	E550	07-May-2025	----	----	----		09-May-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH26	E550	07-May-2025	----	----	----		09-May-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH30-I	E550	07-May-2025	----	----	----		10-May-2025	4 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH30-II	E550	07-May-2025	----	----	----		10-May-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH5-IIIR	E550	08-May-2025	----	----	----		10-May-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH5-IR	E550	08-May-2025	----	----	----		10-May-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] DUP	E550	07-May-2025	----	----	----		10-May-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH17-III	E550	07-May-2025	----	----	----		10-May-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH22-IR	E550	07-May-2025	----	----	----		10-May-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH16-I	E550	05-May-2025	----	----	----		09-May-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH16-IVR	E550	05-May-2025	----	----	----		09-May-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH3-IIR	E550	05-May-2025	----	----	----		09-May-2025	4 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH3-IR	E550	05-May-2025	----	----	----		09-May-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] TRAVEL BLANK	E550	05-May-2025	----	----	----		09-May-2025	4 days	4 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH20R	E559-L	08-May-2025	----	----	----		13-May-2025	28 days	5 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH5-IIIR	E559-L	08-May-2025	----	----	----		13-May-2025	28 days	5 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH5-IR	E559-L	08-May-2025	----	----	----		13-May-2025	28 days	5 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH17-III	E559-L	07-May-2025	----	----	----		13-May-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH17-IVR	E559-L	07-May-2025	----	----	----		13-May-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH21-IIR	E559-L	07-May-2025	----	----	----		13-May-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH21-IR	E559-L	07-May-2025	----	----	----		13-May-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E559-L	07-May-2025	----	----	----		13-May-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E559-L	07-May-2025	----	----	----		13-May-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH26	E559-L	07-May-2025	----	----	----		13-May-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E559-L	07-May-2025	----	----	----		13-May-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E559-L	07-May-2025	----	----	----		13-May-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP	E559-L	07-May-2025	----	----	----		13-May-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-IVR	E559-L	05-May-2025	----	----	----		13-May-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E559-L	05-May-2025	----	----	----		13-May-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E559-L	05-May-2025	----	----	----		13-May-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
TRAVEL BLANK	E559-L	05-May-2025	----	----	----		13-May-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E559-L	05-May-2025	----	----	----		14-May-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E562	08-May-2025	11-May-2025	28 days	3 days	✓	12-May-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E562	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E562	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E562	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E562	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E562	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E562	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH26	E562	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E562	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E562	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IIIR	E562	08-May-2025	12-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E562	08-May-2025	12-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP	E562	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E562	05-May-2025	11-May-2025	28 days	6 days	✓	12-May-2025	28 days	6 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-IVR	E562	05-May-2025	11-May-2025	28 days	6 days	✓	12-May-2025	28 days	6 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E562	05-May-2025	12-May-2025	28 days	7 days	✓	12-May-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E562	05-May-2025	12-May-2025	28 days	7 days	✓	12-May-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
TRAVEL BLANK	E562	05-May-2025	11-May-2025	28 days	7 days	✓	12-May-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E298	08-May-2025	11-May-2025	28 days	3 days	✓	12-May-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E298	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E298	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E298	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E298	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E298	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E298	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH26	E298	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH30-I	E298	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH30-II	E298	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH5-IIIR	E298	08-May-2025	12-May-2025	28 days	4 days	✓	13-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH5-IR	E298	08-May-2025	12-May-2025	28 days	4 days	✓	13-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] DUP	E298	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH16-I	E298	05-May-2025	11-May-2025	28 days	6 days	✓	12-May-2025	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH16-IVR	E298	05-May-2025	11-May-2025	28 days	6 days	✓	12-May-2025	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH3-IIR	E298	05-May-2025	12-May-2025	28 days	7 days	✓	13-May-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E298	05-May-2025	12-May-2025	28 days	7 days	✓	13-May-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
TRAVEL BLANK	E298	05-May-2025	11-May-2025	28 days	7 days	✓	12-May-2025	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.Cl	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.Cl	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH21-IIR	E235.Cl	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH21-IR	E235.Cl	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.Cl	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.Cl	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH26	E235.Cl	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.Cl	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
DUP	E235.Cl	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.Cl	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH16-IVR	E235.Cl	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH3-IIR	E235.Cl	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.Cl	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.Cl	08-May-2025	12-May-2025	28 days	4 days	✓	14-May-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH5-IR	E235.Cl	08-May-2025	12-May-2025	28 days	4 days	✓	13-May-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH20R	E235.Cl	08-May-2025	12-May-2025	28 days	5 days	✓	14-May-2025	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.Cl	07-May-2025	12-May-2025	28 days	5 days	✓	13-May-2025	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
FIELD BLANK	E235.Cl	08-May-2025	12-May-2025	28 days	5 days	✓	14-May-2025	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
TRAVEL BLANK	E235.Cl	05-May-2025	09-May-2025	28 days	5 days	✓	12-May-2025	28 days	5 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH3-IIR	E378-U	05-May-2025	09-May-2025	7 days	4 days	✓	10-May-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH5-IR	E378-U	08-May-2025	12-May-2025	7 days	4 days	✓	13-May-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH17-III	E378-U	07-May-2025	12-May-2025	7 days	5 days	✓	13-May-2025	7 days	5 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH17-IVR	E378-U	07-May-2025	12-May-2025	7 days	5 days	✓	13-May-2025	7 days	5 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH22-II	E378-U	07-May-2025	12-May-2025	7 days	5 days	✓	13-May-2025	7 days	5 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH22-IR	E378-U	07-May-2025	12-May-2025	7 days	5 days	✓	13-May-2025	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH26	E378-U	07-May-2025	12-May-2025	7 days	5 days	✓	13-May-2025	7 days	5 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH30-I	E378-U	07-May-2025	12-May-2025	7 days	5 days	✓	13-May-2025	7 days	5 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH30-II	E378-U	07-May-2025	12-May-2025	7 days	5 days	✓	13-May-2025	7 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.F	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.F	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH21-IIR	E235.F	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH21-IR	E235.F	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.F	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.F	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH26	E235.F	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.F	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
DUP	E235.F	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.F	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH16-IVR	E235.F	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH3-IIR	E235.F	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.F	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.F	08-May-2025	12-May-2025	28 days	4 days	✓	14-May-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH5-IR	E235.F	08-May-2025	12-May-2025	28 days	4 days	✓	13-May-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH20R	E235.F	08-May-2025	12-May-2025	28 days	5 days	✓	14-May-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.F	07-May-2025	12-May-2025	28 days	5 days	✓	13-May-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
FIELD BLANK	E235.F	08-May-2025	12-May-2025	28 days	5 days	✓	14-May-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
TRAVEL BLANK	E235.F	05-May-2025	09-May-2025	28 days	5 days	✓	12-May-2025	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.NO3	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.NO3	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH21-IIR	E235.NO3	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH21-IR	E235.NO3	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.NO3	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.NO3	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH26	E235.NO3	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.NO3	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
DUP	E235.NO3	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.NO3	05-May-2025	09-May-2025	7 days	4 days	✓	12-May-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH16-IVR	E235.NO3	05-May-2025	09-May-2025	7 days	4 days	✓	12-May-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH3-IIR	E235.NO3	05-May-2025	09-May-2025	7 days	4 days	✓	12-May-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.NO3	05-May-2025	09-May-2025	7 days	4 days	✓	12-May-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.NO3	08-May-2025	12-May-2025	7 days	4 days	✓	14-May-2025	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH5-IR	E235.NO3	08-May-2025	12-May-2025	7 days	4 days	✓	13-May-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH20R	E235.NO3	08-May-2025	12-May-2025	7 days	5 days	✓	14-May-2025	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.NO3	07-May-2025	12-May-2025	7 days	5 days	✓	13-May-2025	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
FIELD BLANK	E235.NO3	08-May-2025	12-May-2025	7 days	5 days	✓	14-May-2025	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
TRAVEL BLANK	E235.NO3	05-May-2025	09-May-2025	7 days	5 days	✓	12-May-2025	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.NO2	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.NO2	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH21-IIR	E235.NO2	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH21-IR	E235.NO2	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.NO2	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.NO2	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH26	E235.NO2	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.NO2	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
DUP	E235.NO2	07-May-2025	10-May-2025	7 days	3 days	✓	14-May-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.NO2	05-May-2025	09-May-2025	7 days	4 days	✓	12-May-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH16-IVR	E235.NO2	05-May-2025	09-May-2025	7 days	4 days	✓	12-May-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH3-IIR	E235.NO2	05-May-2025	09-May-2025	7 days	4 days	✓	12-May-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.NO2	05-May-2025	09-May-2025	7 days	4 days	✓	12-May-2025	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.NO2	08-May-2025	12-May-2025	7 days	4 days	✓	14-May-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH5-IR	E235.NO2	08-May-2025	12-May-2025	7 days	4 days	✓	13-May-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH20R	E235.NO2	08-May-2025	12-May-2025	7 days	5 days	✓	14-May-2025	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.NO2	07-May-2025	12-May-2025	7 days	5 days	✓	13-May-2025	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
FIELD BLANK	E235.NO2	08-May-2025	12-May-2025	7 days	5 days	✓	14-May-2025	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
TRAVEL BLANK	E235.NO2	05-May-2025	09-May-2025	7 days	5 days	✓	12-May-2025	7 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.SO4	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.SO4	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH21-IIR	E235.SO4	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH21-IR	E235.SO4	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH22-II	E235.SO4	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH22-IR	E235.SO4	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH26	E235.SO4	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH30-I	E235.SO4	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP	E235.SO4	07-May-2025	10-May-2025	28 days	3 days	✓	14-May-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH16-I	E235.SO4	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH16-IVR	E235.SO4	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH3-IIR	E235.SO4	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.SO4	05-May-2025	09-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.SO4	08-May-2025	12-May-2025	28 days	4 days	✓	14-May-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH5-IR	E235.SO4	08-May-2025	12-May-2025	28 days	4 days	✓	13-May-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH20R	E235.SO4	08-May-2025	12-May-2025	28 days	5 days	✓	14-May-2025	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.SO4	07-May-2025	12-May-2025	28 days	5 days	✓	13-May-2025	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
FIELD BLANK	E235.SO4	08-May-2025	12-May-2025	28 days	5 days	✓	14-May-2025	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
TRAVEL BLANK	E235.SO4	05-May-2025	09-May-2025	28 days	5 days	✓	12-May-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E318	08-May-2025	13-May-2025	28 days	5 days	✓	13-May-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IIIR	E318	08-May-2025	13-May-2025	28 days	5 days	✓	13-May-2025	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E318	08-May-2025	13-May-2025	28 days	5 days	✓	13-May-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E318	07-May-2025	13-May-2025	28 days	6 days	✓	13-May-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E318	07-May-2025	13-May-2025	28 days	6 days	✓	13-May-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E318	07-May-2025	13-May-2025	28 days	6 days	✓	13-May-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E318	07-May-2025	13-May-2025	28 days	6 days	✓	13-May-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E318	07-May-2025	13-May-2025	28 days	6 days	✓	13-May-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E318	07-May-2025	13-May-2025	28 days	6 days	✓	13-May-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH26	E318	07-May-2025	13-May-2025	28 days	6 days	✓	13-May-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E318	07-May-2025	13-May-2025	28 days	6 days	✓	13-May-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E318	07-May-2025	13-May-2025	28 days	6 days	✓	13-May-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP	E318	07-May-2025	13-May-2025	28 days	6 days	✓	13-May-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E318	05-May-2025	13-May-2025	28 days	8 days	✓	13-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-IVR	E318	05-May-2025	13-May-2025	28 days	8 days	✓	13-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E318	05-May-2025	13-May-2025	28 days	8 days	✓	13-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E318	05-May-2025	13-May-2025	28 days	8 days	✓	13-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
TRAVEL BLANK	E318	05-May-2025	13-May-2025	28 days	8 days	✓	13-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E372-U	05-May-2025	15-May-2025	28 days	10 days	✓	15-May-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-IVR	E372-U	05-May-2025	15-May-2025	28 days	10 days	✓	15-May-2025	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E372-U	05-May-2025	15-May-2025	28 days	10 days	✓	15-May-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E372-U	05-May-2025	15-May-2025	28 days	10 days	✓	15-May-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
TRAVEL BLANK	E372-U	05-May-2025	15-May-2025	28 days	11 days	✓	15-May-2025	28 days	11 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E372-U	08-May-2025	15-May-2025	28 days	7 days	✓	15-May-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IIIR	E372-U	08-May-2025	15-May-2025	28 days	7 days	✓	15-May-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E372-U	08-May-2025	15-May-2025	28 days	7 days	✓	15-May-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E372-U	07-May-2025	15-May-2025	28 days	8 days	✓	15-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E372-U	07-May-2025	15-May-2025	28 days	8 days	✓	15-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E372-U	07-May-2025	15-May-2025	28 days	8 days	✓	15-May-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E372-U	07-May-2025	15-May-2025	28 days	8 days	✓	15-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E372-U	07-May-2025	15-May-2025	28 days	8 days	✓	15-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E372-U	07-May-2025	15-May-2025	28 days	8 days	✓	15-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH26	E372-U	07-May-2025	15-May-2025	28 days	8 days	✓	15-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E372-U	07-May-2025	15-May-2025	28 days	8 days	✓	15-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E372-U	07-May-2025	15-May-2025	28 days	8 days	✓	15-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP	E372-U	07-May-2025	15-May-2025	28 days	8 days	✓	15-May-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH506R	E372-U	05-May-2025	14-May-2025	28 days	9 days	✓	14-May-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E372-U	05-May-2025	14-May-2025	28 days	9 days	✓	14-May-2025	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH20R	E421	08-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH5-IIIR	E421	08-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH5-IR	E421	08-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH17-III	E421	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH17-IVR	E421	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH21-IIR	E421	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH21-IR	E421	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH22-II	E421	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH22-IR	E421	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH26	E421	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH30-I	E421	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH30-II	E421	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP	E421	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH16-I	E421	05-May-2025	12-May-2025	180 days	7 days	✓	12-May-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH16-IVR	E421	05-May-2025	12-May-2025	180 days	7 days	✓	12-May-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH3-IIR	E421	05-May-2025	12-May-2025	180 days	7 days	✓	12-May-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH3-IR	E421	05-May-2025	12-May-2025	180 days	7 days	✓	12-May-2025	180 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH20R	E353-L	08-May-2025	----	----	----		14-May-2025	14 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH5-IIIR	E353-L	08-May-2025	----	----	----		14-May-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH5-IR	E353-L	08-May-2025	----	----	----		14-May-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH17-III	E353-L	07-May-2025	----	----	----		14-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH17-IVR	E353-L	07-May-2025	----	----	----		14-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH21-IIR	E353-L	07-May-2025	----	----	----		14-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH21-IR	E353-L	07-May-2025	----	----	----		14-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH22-II	E353-L	07-May-2025	----	----	----		14-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH22-IR	E353-L	07-May-2025	----	----	----		14-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH26	E353-L	07-May-2025	----	----	----		14-May-2025	14 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH30-I	E353-L	07-May-2025	----	----	----		14-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH30-II	E353-L	07-May-2025	----	----	----		14-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE DUP	E353-L	07-May-2025	----	----	----		14-May-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH16-I	E353-L	05-May-2025	----	----	----		14-May-2025	14 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH16-IVR	E353-L	05-May-2025	----	----	----		14-May-2025	14 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH3-IIR	E353-L	05-May-2025	----	----	----		14-May-2025	14 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH3-IR	E353-L	05-May-2025	----	----	----		14-May-2025	14 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE TRAVEL BLANK	E353-L	05-May-2025	----	----	----		14-May-2025	14 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH20R	E358-L	08-May-2025	11-May-2025	28 days	3 days	✓	12-May-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH5-IIIR	E358-L	08-May-2025	11-May-2025	28 days	3 days	✓	12-May-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH5-IR	E358-L	08-May-2025	11-May-2025	28 days	3 days	✓	12-May-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH17-III	E358-L	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH17-IVR	E358-L	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH21-IIR	E358-L	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH21-IR	E358-L	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH22-II	E358-L	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH22-IR	E358-L	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH26	E358-L	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH30-I	E358-L	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH30-II	E358-L	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
DUP	E358-L	07-May-2025	11-May-2025	28 days	4 days	✓	12-May-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH16-I	E358-L	05-May-2025	11-May-2025	28 days	6 days	✓	12-May-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH16-IVR	E358-L	05-May-2025	11-May-2025	28 days	6 days	✓	12-May-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH3-IIR	E358-L	05-May-2025	11-May-2025	28 days	6 days	✓	12-May-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH3-IR	E358-L	05-May-2025	11-May-2025	28 days	6 days	✓	12-May-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
HDPE [ON MECP]										
TRAVEL BLANK	E358-L	05-May-2025	10-May-2025	3 days	6 days	× EHTL	12-May-2025	28 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH17-III	E290	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH17-IVR	E290	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH21-IIR	E290	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH21-IR	E290	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH22-II	E290	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH22-IR	E290	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH26	E290	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH30-I	E290	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP	E290	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH16-I	E290	05-May-2025	09-May-2025	14 days	4 days	✓	10-May-2025	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH16-IVR	E290	05-May-2025	09-May-2025	14 days	4 days	✓	10-May-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH3-IIR	E290	05-May-2025	09-May-2025	14 days	4 days	✓	10-May-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH3-IR	E290	05-May-2025	09-May-2025	14 days	4 days	✓	10-May-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH5-IIIR	E290	08-May-2025	12-May-2025	14 days	4 days	✓	13-May-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH5-IR	E290	08-May-2025	12-May-2025	14 days	4 days	✓	13-May-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH20R	E290	08-May-2025	12-May-2025	14 days	5 days	✓	13-May-2025	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH30-II	E290	07-May-2025	12-May-2025	14 days	5 days	✓	13-May-2025	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] FIELD BLANK	E290	08-May-2025	12-May-2025	14 days	5 days	✓	13-May-2025	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] TRAVEL BLANK	E290	05-May-2025	09-May-2025	14 days	5 days	✓	10-May-2025	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH17-III	E100	07-May-2025	10-May-2025	28 days	3 days	✓	13-May-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH17-IVR	E100	07-May-2025	10-May-2025	28 days	3 days	✓	13-May-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH21-IIR	E100	07-May-2025	10-May-2025	28 days	3 days	✓	13-May-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH21-IR	E100	07-May-2025	10-May-2025	28 days	3 days	✓	13-May-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH22-II	E100	07-May-2025	10-May-2025	28 days	3 days	✓	13-May-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH22-IR	E100	07-May-2025	10-May-2025	28 days	3 days	✓	13-May-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH26	E100	07-May-2025	10-May-2025	28 days	3 days	✓	13-May-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH30-I	E100	07-May-2025	10-May-2025	28 days	3 days	✓	13-May-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP	E100	07-May-2025	10-May-2025	28 days	3 days	✓	13-May-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH16-I	E100	05-May-2025	09-May-2025	28 days	4 days	✓	10-May-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH16-IVR	E100	05-May-2025	09-May-2025	28 days	4 days	✓	10-May-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH3-IIR	E100	05-May-2025	09-May-2025	28 days	4 days	✓	10-May-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH3-IR	E100	05-May-2025	09-May-2025	28 days	4 days	✓	10-May-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH5-IIIR	E100	08-May-2025	12-May-2025	28 days	4 days	✓	13-May-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH5-IR	E100	08-May-2025	12-May-2025	28 days	4 days	✓	13-May-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH20R	E100	08-May-2025	12-May-2025	28 days	5 days	✓	13-May-2025	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH30-II	E100	07-May-2025	12-May-2025	28 days	5 days	✓	13-May-2025	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
FIELD BLANK	E100	08-May-2025	12-May-2025	28 days	5 days	✓	13-May-2025	28 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] TRAVEL BLANK	E100	05-May-2025	09-May-2025	28 days	5 days	✓	10-May-2025	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH17-III	E108	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH17-IVR	E108	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH21-IIR	E108	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH21-IR	E108	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH22-II	E108	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH22-IR	E108	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH26	E108	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH30-I	E108	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP	E108	07-May-2025	10-May-2025	14 days	3 days	✓	13-May-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH16-I	E108	05-May-2025	09-May-2025	14 days	4 days	✓	10-May-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH16-IVR	E108	05-May-2025	09-May-2025	14 days	4 days	✓	10-May-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH3-IIR	E108	05-May-2025	09-May-2025	14 days	4 days	✓	10-May-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH3-IR	E108	05-May-2025	09-May-2025	14 days	4 days	✓	10-May-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH5-IIIR	E108	08-May-2025	12-May-2025	14 days	4 days	✓	13-May-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH5-IR	E108	08-May-2025	12-May-2025	14 days	4 days	✓	13-May-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH20R	E108	08-May-2025	12-May-2025	14 days	5 days	✓	13-May-2025	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH30-II	E108	07-May-2025	12-May-2025	14 days	5 days	✓	13-May-2025	14 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter										
HDPE [ON MECP]										
FIELD BLANK	E108	08-May-2025	12-May-2025	14 days	5 days	✓	13-May-2025	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
TRAVEL BLANK	E108	05-May-2025	09-May-2025	14 days	5 days	✓	10-May-2025	14 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE [ON MECP]										
FIELD BLANK	E420	08-May-2025	12-May-2025	0 hrs	88 hrs	× UCP	12-May-2025	0 hrs	88 hrs	× UCP
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH20R	E420	08-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH21-IIR	E420	07-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH21-IR	E420	07-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH30-I	E420	07-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH30-II	E420	07-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH5-IIIR	E420	08-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH5-IR	E420	08-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
DUP	E420	07-May-2025	12-May-2025	180 days	4 days	✓	12-May-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH17-III	E420	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH17-IVR	E420	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH22-II	E420	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH22-IR	E420	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH26	E420	07-May-2025	12-May-2025	180 days	5 days	✓	12-May-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH16-I	E420	05-May-2025	12-May-2025	180 days	7 days	✓	12-May-2025	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH16-IVR	E420	05-May-2025	12-May-2025	180 days	7 days	✓	12-May-2025	180 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH3-IIR	E420	05-May-2025	12-May-2025	180 days	7 days	✓	12-May-2025	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH3-IR	E420	05-May-2025	12-May-2025	180 days	7 days	✓	12-May-2025	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) TRAVEL BLANK	E420	05-May-2025	12-May-2025	180 days	7 days	✓	12-May-2025	180 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH22-II	E611A	07-May-2025	09-May-2025	14 days	2 days	✓	09-May-2025	14 days	2 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH22-IR	E611A	07-May-2025	09-May-2025	14 days	2 days	✓	09-May-2025	14 days	2 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH26	E611A	07-May-2025	09-May-2025	14 days	2 days	✓	09-May-2025	14 days	2 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH506R	E611A	05-May-2025	09-May-2025	14 days	4 days	✓	09-May-2025	14 days	4 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH5-IIIR	E611A	08-May-2025	12-May-2025	14 days	4 days	✓	12-May-2025	14 days	4 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH5-IR	E611A	08-May-2025	12-May-2025	14 days	4 days	✓	12-May-2025	14 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH17-III	E611A	07-May-2025	12-May-2025	14 days	5 days	✓	12-May-2025	14 days	5 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH6R	E611A	05-May-2025	12-May-2025	14 days	7 days	✓	12-May-2025	14 days	7 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) FIELD BLANK	E611D	08-May-2025	12-May-2025	14 days	4 days	✓	12-May-2025	14 days	4 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH21-IIR	E611D	07-May-2025	12-May-2025	14 days	5 days	✓	12-May-2025	14 days	5 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH21-IR	E611D	07-May-2025	12-May-2025	14 days	5 days	✓	12-May-2025	14 days	5 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) DUP	E611D	07-May-2025	12-May-2025	14 days	5 days	✓	12-May-2025	14 days	5 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH3-IIR	E611D	05-May-2025	12-May-2025	14 days	7 days	✓	12-May-2025	14 days	7 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH3-IR	E611D	05-May-2025	12-May-2025	14 days	7 days	✓	12-May-2025	14 days	7 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) TRAVEL BLANK	E611D	05-May-2025	12-May-2025	14 days	8 days	✓	12-May-2025	14 days	8 days	✓

Legend & Qualifier Definitions

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Maximum hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	1988618	4	51	7.8	5.0	✓
pH by Meter	E108	1988616	4	66	6.0	5.0	✓
Chloride in Water by IC	E235.Cl	1988621	4	61	6.5	5.0	✓
Fluoride in Water by IC	E235.F	1988623	4	43	9.3	5.0	✓
Nitrite in Water by IC	E235.NO2	1988620	4	64	6.2	5.0	✓
Nitrate in Water by IC	E235.NO3	1988619	4	69	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1988622	4	61	6.5	5.0	✓
Alkalinity Species by Titration	E290	1988617	4	59	6.7	5.0	✓
Ammonia by Fluorescence	E298	1990734	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1990732	2	40	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	1995441	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1990476	3	60	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1990733	3	60	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1988865	2	22	9.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1991101	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1992052	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1988926	3	47	6.3	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1993342	3	54	5.5	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1990735	2	40	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1988708	2	39	5.1	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1991665	1	19	5.2	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	1988618	4	51	7.8	5.0	✓
pH by Meter	E108	1988616	4	66	6.0	5.0	✓
Chloride in Water by IC	E235.Cl	1988621	4	61	6.5	5.0	✓
Fluoride in Water by IC	E235.F	1988623	4	43	9.3	5.0	✓
Nitrite in Water by IC	E235.NO2	1988620	4	64	6.2	5.0	✓
Nitrate in Water by IC	E235.NO3	1988619	4	69	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1988622	4	61	6.5	5.0	✓
Alkalinity Species by Titration	E290	1988617	4	59	6.7	5.0	✓
Ammonia by Fluorescence	E298	1990734	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1990732	2	40	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	1995441	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1990476	3	60	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1990733	3	60	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1988865	2	22	9.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Metals in Water by CRC ICPMS	E420	1991101	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1992052	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1988926	3	47	6.3	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1993342	3	54	5.5	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1990735	2	40	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1988708	2	39	5.1	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1991665	2	19	10.5	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	1988618	4	51	7.8	5.0	✓
Chloride in Water by IC	E235.Cl	1988621	4	61	6.5	5.0	✓
Fluoride in Water by IC	E235.F	1988623	4	43	9.3	5.0	✓
Nitrite in Water by IC	E235.NO2	1988620	4	64	6.2	5.0	✓
Nitrate in Water by IC	E235.NO3	1988619	4	69	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1988622	4	61	6.5	5.0	✓
Alkalinity Species by Titration	E290	1988617	4	59	6.7	5.0	✓
Ammonia by Fluorescence	E298	1990734	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1990732	2	40	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	1995441	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1990476	3	60	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1990733	3	60	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1988865	2	22	9.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1991101	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1992052	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	1988926	3	47	6.3	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1993342	3	54	5.5	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1990735	2	40	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1988708	2	39	5.1	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1991665	2	19	10.5	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	1988621	4	61	6.5	5.0	✓
Fluoride in Water by IC	E235.F	1988623	4	43	9.3	5.0	✓
Nitrite in Water by IC	E235.NO2	1988620	4	64	6.2	5.0	✓
Nitrate in Water by IC	E235.NO3	1988619	4	69	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1988622	4	61	6.5	5.0	✓
Ammonia by Fluorescence	E298	1990734	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1990732	2	40	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	1995441	1	18	5.5	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1990476	3	60	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	1990733	3	60	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	1988865	2	22	9.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1991101	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1992052	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	1993342	3	54	5.5	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	1990735	2	40	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1988708	2	39	5.1	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1991665	1	19	5.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Inorganic Carbon by Combustion	E353-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Inorganic Carbon is determined on a sample which is filtered through a 0.45 micron filter prior to analysis by the high temperature combustion method with measurement by an infrared detector, where the sample is acidified in a reaction chamber to convert all inorganic carbons (carbonates) to carbon dioxide for analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.
Ion Balance using Dissolved Metals	EC101 ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.

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QUALITY CONTROL REPORT

Work Order	: **WT2510865**	Page	: 1 of 34
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 08-May-2025 14:00
PO	: 86912	Date Analysis Commenced	: 09-May-2025
C-O-C number	: ----	Issue Date	: 20-May-2025 09:26
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 21		
No. of samples analysed	: 21		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett	VOC Section Supervisor	Waterloo VOC, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Centralized Prep, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Sarah Birch	VOC Section Supervisor	Waterloo VOC, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 1988616)											
WT2510741-001	Anonymous	pH	----	E108	0.10	pH units	7.37	7.31	0.817%	4%	----
Physical Tests (QC Lot: 1988617)											
WT2510741-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	25.9	25.3	2.42%	20%	----
Physical Tests (QC Lot: 1988618)											
WT2510741-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	69.4	69.8	0.575%	10%	----
Physical Tests (QC Lot: 1990452)											
WT2510865-008	BH17-III	pH	----	E108	0.10	pH units	7.58	7.61	0.395%	4%	----
Physical Tests (QC Lot: 1990453)											
WT2510865-008	BH17-III	Conductivity	----	E100	2.0	µS/cm	1350	1350	0.148%	10%	----
Physical Tests (QC Lot: 1990454)											
WT2510865-008	BH17-III	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	410	402	1.95%	20%	----
Physical Tests (QC Lot: 1991839)											
WT2510865-003	BH5-IR	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	536	526	1.99%	20%	----
Physical Tests (QC Lot: 1991840)											
WT2510865-003	BH5-IR	Conductivity	----	E100	2.0	µS/cm	1150	1130	2.28%	10%	----
Physical Tests (QC Lot: 1991841)											
WT2510865-003	BH5-IR	pH	----	E108	0.10	pH units	7.67	7.72	0.650%	4%	----
Physical Tests (QC Lot: 1992197)											
WT2510837-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 1992198)											
WT2510837-001	Anonymous	pH	----	E108	0.10	pH units	6.60	5.59	16.6%	4%	DUP-PH
Physical Tests (QC Lot: 1992199)											
WT2510837-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	<2.0	<2.0	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1988619)											
WT2510741-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.179	0.179	0.00008	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1988620)											
WT2510741-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1988621)											
WT2510741-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	4.42	4.42	0.006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1988622)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1988622) - continued											
WT2510741-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	4.08	4.07	0.179%	20%	----
Anions and Nutrients (QC Lot: 1988623)											
WT2510741-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.039	0.040	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1988865)											
HA2501350-007	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1990447)											
WT2510865-008	BH17-III	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1990448)											
WT2510865-008	BH17-III	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1990449)											
WT2510865-008	BH17-III	Chloride	16887-00-6	E235.Cl	2.50	mg/L	197	198	0.825%	20%	----
Anions and Nutrients (QC Lot: 1990450)											
WT2510865-008	BH17-III	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	26.6	27.0	1.62%	20%	----
Anions and Nutrients (QC Lot: 1990451)											
WT2510865-008	BH17-III	Fluoride	16984-48-8	E235.F	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1990732)											
WT2510865-007	BH16-IVR	Kjeldahl nitrogen, total [TKN]	----	E318	2.50	mg/L	80.8	72.7	10.5%	20%	----
Anions and Nutrients (QC Lot: 1990733)											
WT2510865-006	BH16-I	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0497	0.0493	0.768%	20%	----
Anions and Nutrients (QC Lot: 1990734)											
WT2510865-006	BH16-I	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0419	0.0426	0.0007	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1991227)											
WT2510706-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.500	mg/L	1.10	1.40	0.306	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1991228)											
WT2510760-006	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.108	0.108	0.249%	20%	----
Anions and Nutrients (QC Lot: 1991229)											
WT2510525-007	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0367	0.0362	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1991234)											
WT2510712-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.274	0.274	0.230%	20%	----
Anions and Nutrients (QC Lot: 1991844)											
HA2501349-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.340	0.339	0.495%	20%	----
Anions and Nutrients (QC Lot: 1991845)											
HA2501349-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 1991846)											
HA2501349-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1991847)											
HA2501349-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	24.3	24.3	0.294%	20%	----
Anions and Nutrients (QC Lot: 1991848)											
HA2501349-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	112	112	0.0347%	20%	----
Anions and Nutrients (QC Lot: 1991849)											
HA2501349-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0016	0.0013	0.0003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1992191)											
WT2510680-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	117	117	0.0459%	20%	----
Anions and Nutrients (QC Lot: 1992193)											
WT2510865-004	BH5-IIIR	Chloride	16887-00-6	E235.Cl	2.50	mg/L	100	100	0.134%	20%	----
Anions and Nutrients (QC Lot: 1992194)											
WT2510865-004	BH5-IIIR	Fluoride	16984-48-8	E235.F	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1992195)											
WT2510865-004	BH5-IIIR	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	0.061	0.061	0.0006	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 1992196)											
WT2510865-004	BH5-IIIR	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1990476)											
HA2501325-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	3.70	3.74	0.03	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1990691)											
WT2510669-014	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.11	1.14	0.03	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 1990698)											
WT2510865-012	BH21-IIR	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	33.8	33.9	0.236%	20%	----
Organic / Inorganic Carbon (QC Lot: 1995441)											
WT2510865-001	BH3-IR	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	179	180	0.480%	20%	----
Total Metals (QC Lot: 1991101)											
WT2510858-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0300	mg/L	<0.0300	<0.0300	0	Diff <2x LOR	----
		Antimony, total	7440-36-0	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00100	mg/L	0.00131	0.00134	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00100	mg/L	0.109	0.110	1.00%	20%	----
		Beryllium, total	7440-41-7	E420	0.000200	mg/L	<0.000200	<0.000200	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.100	mg/L	0.225	0.226	0.001	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 1991101) - continued											
WT2510858-001	Anonymous	Cadmium, total	7440-43-9	E420	0.0000500	mg/L	<0.0000500	<0.0000500	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.500	mg/L	194	195	0.564%	20%	----
		Cesium, total	7440-46-2	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.100	mg/L	6.39	6.35	0.593%	20%	----
		Lead, total	7439-92-1	E420	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0100	mg/L	0.0101	0.0103	0.0002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0500	mg/L	58.6	59.0	0.808%	20%	----
		Manganese, total	7439-96-5	E420	0.00100	mg/L	0.310	0.317	1.98%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000500	mg/L	0.00262	0.00250	0.000114	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.500	mg/L	<0.500	<0.500	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.500	mg/L	9.63	9.77	1.38%	20%	----
		Rubidium, total	7440-17-7	E420	0.00200	mg/L	0.00447	0.00449	0.00001	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	1.00	mg/L	10.1	10.2	0.479%	20%	----
		Silver, total	7440-22-4	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.500	mg/L	2490	2500	0.460%	20%	----
		Strontium, total	7440-24-6	E420	0.00200	mg/L	1.31	1.31	0.334%	20%	----
		Sulfur, total	7704-34-9	E420	5.00	mg/L	95.9	96.1	0.174%	20%	----
		Tellurium, total	13494-80-9	E420	0.00200	mg/L	<0.00200	<0.00200	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00300	mg/L	<0.00300	<0.00300	0	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Uranium, total	7440-61-1	E420	0.000100	mg/L	0.00795	0.00809	1.72%	20%	----
		Vanadium, total	7440-62-2	E420	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0300	mg/L	<0.0300	<0.0300	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00200	mg/L	<0.00200	<0.00200	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 1992052)											
WT2510769-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1992052) - continued											
WT2510769-001	Anonymous	Antimony, dissolved	7440-36-0	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00410	0.00402	2.14%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0880	0.0874	0.698%	20%	----
		Beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, dissolved	7440-69-9	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, dissolved	7440-42-8	E421	0.010	mg/L	0.021	0.021	0.0002	Diff <2x LOR	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000118	0.0000103	0.0000015	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	49.5	49.4	0.314%	20%	----
		Cesium, dissolved	7440-46-2	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00236	0.00236	0.135%	20%	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Lithium, dissolved	7439-93-2	E421	0.0010	mg/L	0.0038	0.0036	0.0002	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	21.9	21.6	1.42%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0127	0.0125	2.06%	20%	----
		Molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	0.00113	0.00113	0.0532%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00172	0.00171	0.000005	Diff <2x LOR	----
		Phosphorus, dissolved	7723-14-0	E421	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.12	1.11	1.03%	20%	----
		Rubidium, dissolved	7440-17-7	E421	0.00020	mg/L	0.00031	0.00033	0.00001	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silicon, dissolved	7440-21-3	E421	0.050	mg/L	7.96	7.92	0.518%	20%	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	7.95	7.82	1.61%	20%	----
		Strontium, dissolved	7440-24-6	E421	0.00020	mg/L	0.419	0.419	0.132%	20%	----
		Sulfur, dissolved	7704-34-9	E421	0.50	mg/L	10.3	10.2	1.01%	20%	----
		Tellurium, dissolved	13494-80-9	E421	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, dissolved	7440-29-1	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, dissolved	7440-31-5	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, dissolved	7440-32-6	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
		Tungsten, dissolved	7440-33-7	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 1992052) - continued											
WT2510769-001	Anonymous	Uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.000115	0.000117	1.72%	20%	----
		Vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0020	0.0021	0.00004	Diff <2x LOR	----
		Zirconium, dissolved	7440-67-7	E421	0.00030	mg/L	<0.00030	<0.00030	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1988926)											
WT2510865-020	TRAVEL BLANK	Biochemical oxygen demand [BOD]	----	E550	2.0	mg/L	<2.0	<2.0	0.0%	30%	----
Aggregate Organics (QC Lot: 1989918)											
WT2510422-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 1989919)											
WT2510800-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 1990735)											
WT2510865-006	BH16-I	Phenols, total (4AAP)	----	E562	0.0010	mg/L	0.0012	0.0011	0.00007	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1991230)											
WT2510865-001	BH3-IR	Phenols, total (4AAP)	----	E562	0.0010	mg/L	0.0037	0.0038	0.0001	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1993342)											
WT2510741-002	Anonymous	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	21	25	4	Diff <2x LOR	----
Aggregate Organics (QC Lot: 1993346)											
HA2501351-004	Anonymous	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	144	144	0.0695%	20%	----
Aggregate Organics (QC Lot: 1995845)											
HA2501351-001	Anonymous	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	<10	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1988708)											
WT2510865-013	BH22-IR	Benzene	71-43-2	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611A	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611A	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 1991411)											
WT2510845-015	Anonymous	Benzene	71-43-2	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611A	0.50	µg/L	10.4	9.91	4.54%	30%	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 1991411) - continued											
WT2510845-015	Anonymous	Xylene, m+p-	179601-23-1	E611A	0.40	µg/L	3.42	3.33	2.67%	30%	----
		Xylene, o-	95-47-6	E611A	0.30	µg/L	3.45	3.32	3.84%	30%	----
Volatile Organic Compounds (QC Lot: 1991665)											
HA2501351-001	Anonymous	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon disulfide	75-15-0	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611D	2.0	µg/L	<2.0	<2.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 1991665) - continued											
HA2501351-001	Anonymous	Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----

Qualifiers

Qualifier	*Description*
DUP-PH	*Duplicate pH result meets ALS Data Quality Objective for low ionic strength samples (+/- 1 pH unit where EC < 200 uS).*

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 1988617)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 1988618)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 1990453)						
Conductivity	----	E100	1	µS/cm	1.1	----
Physical Tests (QCLot: 1990454)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	1.1	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.1	----
Physical Tests (QCLot: 1991839)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	1.1	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.1	----
Physical Tests (QCLot: 1991840)						
Conductivity	----	E100	1	µS/cm	1.2	----
Physical Tests (QCLot: 1992197)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	1.1	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.1	----
Physical Tests (QCLot: 1992199)						
Conductivity	----	E100	1	µS/cm	1.1	----
Anions and Nutrients (QCLot: 1988619)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1988620)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1988621)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1988621) - continued						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1988622)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1988623)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1988865)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1990447)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1990448)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1990449)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1990450)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1990451)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1990732)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1990733)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1990734)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1991227)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 1991228)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1991229)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 1991234)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 1991844)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1991845)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 1991846)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1991847)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1991848)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1991849)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 1992191)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 1992193)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 1992194)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 1992195)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 1992196)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Organic / Inorganic Carbon (QCLot: 1990476)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1990691)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1990698)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 1995441)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 1991101)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	----
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 1991101) - continued						
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----
Dissolved Metals (QCLot: 1992052)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	<0.00010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 1992052) - continued						
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	<0.000020	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	<0.000050	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	<0.000010	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	<0.0010	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	<0.050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	<0.00020	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	<0.050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	<0.00020	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	<0.50	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	<0.00020	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	<0.00010	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	<0.00010	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	<0.00030	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	<0.00010	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	<0.000010	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	<0.00050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	<0.00020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Aggregate Organics (QCLot: 1988926)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 1989918)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 1989919)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 1990735)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 1991230)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 1993342)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Aggregate Organics (QCLot: 1993346)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Aggregate Organics (QCLot: 1995845)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Volatile Organic Compounds (QCLot: 1988708)						
Benzene	71-43-2	E611A	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	<0.50	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611A	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611A	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 1991411)						
Benzene	71-43-2	E611A	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	<0.50	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611A	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611A	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 1991665)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1991665) - continued						
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1991665) - continued						
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 1993141)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 1993141) - continued						
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 1988616)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1988617)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	99.8	85.0	115	----
Physical Tests (QCLot: 1988618)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	91.7	90.0	110	----
Physical Tests (QCLot: 1990452)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1990453)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.9	90.0	110	----
Physical Tests (QCLot: 1990454)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 1991839)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	103	85.0	115	----
Physical Tests (QCLot: 1991840)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 1991841)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1992197)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	103	85.0	115	----
Physical Tests (QCLot: 1992198)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 1992199)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Anions and Nutrients (QCLot: 1988619)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1988620)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1988621)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1988622)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.4	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1988623)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1988865)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	104	80.0	120	----
Anions and Nutrients (QCLot: 1990447)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1990448)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1990449)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1990450)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1990451)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1990732)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	109	75.0	125	----
Anions and Nutrients (QCLot: 1990733)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	105	80.0	120	----
Anions and Nutrients (QCLot: 1990734)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	98.6	85.0	115	----
Anions and Nutrients (QCLot: 1991227)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1991228)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	104	80.0	120	----
Anions and Nutrients (QCLot: 1991229)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	94.2	85.0	115	----
Anions and Nutrients (QCLot: 1991234)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	102	80.0	120	----
Anions and Nutrients (QCLot: 1991844)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 1991845)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 1991846)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	100.0	90.0	110	----
Anions and Nutrients (QCLot: 1991847)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.1	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1991848)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 1991849)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	100.0	80.0	120	----
Anions and Nutrients (QCLot: 1992191)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 1992193)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 1992194)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 1992195)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 1992196)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.4	90.0	110	----
Organic / Inorganic Carbon (QCLot: 1990476)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	96.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1990691)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	95.8	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1990698)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	96.7	80.0	120	----
Organic / Inorganic Carbon (QCLot: 1995441)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	93.5	80.0	120	----
Total Metals (QCLot: 1991101)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	106	80.0	120	----
Antimony, total	7440-36-0	E420	0.0001	mg/L	0.05 mg/L	103	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	0.05 mg/L	107	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	103	80.0	120	----
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.005 mg/L	101	80.0	120	----
Bismuth, total	7440-69-9	E420	0.00005	mg/L	0.05 mg/L	105	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	0.05 mg/L	100	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	104	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	102	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.002 mg/L	99.8	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	104	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 1991101) - continued									
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	103	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	101	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	105	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.012 mg/L	101	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	112	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	107	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.012 mg/L	101	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	104	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	0.5 mg/L	103	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	100	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.005 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	103	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	0.5 mg/L	97.6	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	94.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	105	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.012 mg/L	104	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	2.5 mg/L	96.8	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.005 mg/L	102	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	0.05 mg/L	103	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.005 mg/L	103	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.025 mg/L	104	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.012 mg/L	101	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.005 mg/L	99.8	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0 mg/L	102	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.025 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	103	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.005 mg/L	100	80.0	120	----
Dissolved Metals (QCLot: 1992052)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	97.5	80.0	120	----
Antimony, dissolved	7440-36-0	E421	0.0001	mg/L	0.05 mg/L	97.8	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	96.3	80.0	120	----
Beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.005 mg/L	96.8	80.0	120	----
Bismuth, dissolved	7440-69-9	E421	0.00005	mg/L	0.05 mg/L	97.3	80.0	120	----
Boron, dissolved	7440-42-8	E421	0.01	mg/L	0.05 mg/L	93.8	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 1992052) - continued									
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	99.1	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	95.4	80.0	120	----
Cesium, dissolved	7440-46-2	E421	0.00001	mg/L	0.002 mg/L	95.7	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	98.3	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	97.8	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	97.3	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	95.7	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	98.6	80.0	120	----
Lithium, dissolved	7439-93-2	E421	0.001	mg/L	0.012 mg/L	88.0	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	96.8	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	97.3	80.0	120	----
Molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.012 mg/L	94.9	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	97.8	80.0	120	----
Phosphorus, dissolved	7723-14-0	E421	0.05	mg/L	0.5 mg/L	106	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	93.9	80.0	120	----
Rubidium, dissolved	7440-17-7	E421	0.0002	mg/L	0.005 mg/L	103	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	97.7	80.0	120	----
Silicon, dissolved	7440-21-3	E421	0.05	mg/L	0.5 mg/L	94.8	60.0	140	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	89.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	98.9	80.0	120	----
Strontium, dissolved	7440-24-6	E421	0.0002	mg/L	0.012 mg/L	95.8	80.0	120	----
Sulfur, dissolved	7704-34-9	E421	0.5	mg/L	2.5 mg/L	99.2	80.0	120	----
Tellurium, dissolved	13494-80-9	E421	0.0002	mg/L	0.005 mg/L	96.9	80.0	120	----
Thallium, dissolved	7440-28-0	E421	0.00001	mg/L	0.05 mg/L	99.0	80.0	120	----
Thorium, dissolved	7440-29-1	E421	0.0001	mg/L	0.005 mg/L	95.8	80.0	120	----
Tin, dissolved	7440-31-5	E421	0.0001	mg/L	0.025 mg/L	96.7	80.0	120	----
Titanium, dissolved	7440-32-6	E421	0.0003	mg/L	0.012 mg/L	93.9	80.0	120	----
Tungsten, dissolved	7440-33-7	E421	0.0001	mg/L	0.005 mg/L	93.5	80.0	120	----
Uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0 mg/L	98.1	80.0	120	----
Vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.025 mg/L	97.7	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	99.1	80.0	120	----
Zirconium, dissolved	7440-67-7	E421	0.0002	mg/L	0.005 mg/L	90.7	80.0	120	----
Aggregate Organics (QCLot: 1988926)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	93.2	85.0	115	----
Aggregate Organics (QCLot: 1989918)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Aggregate Organics (QCLot: 1989918) - continued									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	98.3	85.0	115	----
Aggregate Organics (QCLot: 1989919)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	101	85.0	115	----
Aggregate Organics (QCLot: 1990735)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	98.6	85.0	115	----
Aggregate Organics (QCLot: 1991230)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	99.9	85.0	115	----
Aggregate Organics (QCLot: 1993342)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	102	85.0	115	----
Aggregate Organics (QCLot: 1993346)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	104	85.0	115	----
Aggregate Organics (QCLot: 1995845)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	101	85.0	115	----
Volatile Organic Compounds (QCLot: 1988708)									
Benzene	71-43-2	E611A	0.5	µg/L	100 µg/L	98.6	70.0	130	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	100 µg/L	84.4	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	100 µg/L	97.7	70.0	130	----
Styrene	100-42-5	E611A	0.5	µg/L	100 µg/L	83.4	70.0	130	----
Toluene	108-88-3	E611A	0.5	µg/L	100 µg/L	91.9	70.0	130	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	200 µg/L	91.8	70.0	130	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	100 µg/L	87.5	70.0	130	----
Volatile Organic Compounds (QCLot: 1991411)									
Benzene	71-43-2	E611A	0.5	µg/L	100 µg/L	113	70.0	130	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	100 µg/L	116	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	100 µg/L	111	70.0	130	----
Styrene	100-42-5	E611A	0.5	µg/L	100 µg/L	108	70.0	130	----
Toluene	108-88-3	E611A	0.5	µg/L	100 µg/L	120	70.0	130	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	200 µg/L	118	70.0	130	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	100 µg/L	115	70.0	130	----
Volatile Organic Compounds (QCLot: 1991665)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	119	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	97.6	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	88.4	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	79.6	60.0	140	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1991665) - continued									
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	92.3	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	107	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	98.9	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	88.9	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	93.7	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	102	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	113	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	98.8	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	110	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	95.5	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	104	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	95.6	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	89.8	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	99.8	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	92.5	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	93.3	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	81.6	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	112	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	80.6	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	97.8	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	93.4	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	94.4	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	104	60.0	140	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1991665) - continued									
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	91.2	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	96.4	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	95.7	70.0	130	----
Volatile Organic Compounds (QCLot: 1993141)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	114	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	97.3	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	98.9	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	99.6	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	81.4	60.0	140	----
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	93.0	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	106	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	98.0	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	87.8	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	89.4	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	111	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	105	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	98.6	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	96.1	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	93.4	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	98.8	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	105	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	97.8	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	104	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	109	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	96.4	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	90.5	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	93.9	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	113	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	93.9	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1993141) - continued									
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	99.0	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	93.2	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	102	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	89.6	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	96.0	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	95.0	70.0	130	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1988619)										
WT2510741-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.51 mg/L	2.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1988620)										
WT2510741-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.508 mg/L	0.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1988621)										
WT2510741-001	Anonymous	Chloride	16887-00-6	E235.Cl	99.8 mg/L	100 mg/L	99.8	75.0	125	----
Anions and Nutrients (QCLot: 1988622)										
WT2510741-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	99.5 mg/L	100 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 1988623)										
WT2510741-001	Anonymous	Fluoride	16984-48-8	E235.F	1.04 mg/L	1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 1988865)										
HA2501350-007	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0196 mg/L	0.02 mg/L	99.9	70.0	130	----
Anions and Nutrients (QCLot: 1990447)										
WT2510865-008	BH17-III	Nitrate (as N)	14797-55-8	E235.NO3	12.2 mg/L	12.5 mg/L	97.6	75.0	125	----
Anions and Nutrients (QCLot: 1990448)										
WT2510865-008	BH17-III	Nitrite (as N)	14797-65-0	E235.NO2	2.48 mg/L	2.5 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 1990449)										
WT2510865-008	BH17-III	Chloride	16887-00-6	E235.Cl	491 mg/L	500 mg/L	98.2	75.0	125	----
Anions and Nutrients (QCLot: 1990450)										
WT2510865-008	BH17-III	Sulfate (as SO4)	14808-79-8	E235.SO4	494 mg/L	500 mg/L	98.7	75.0	125	----
Anions and Nutrients (QCLot: 1990451)										
WT2510865-008	BH17-III	Fluoride	16984-48-8	E235.F	5.16 mg/L	5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1990732)										
WT2510865-007	BH16-IVR	Kjeldahl nitrogen, total [TKN]	----	E318	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1990733)										
WT2510865-006	BH16-I	Phosphorus, total	7723-14-0	E372-U	0.0976 mg/L	0.1 mg/L	97.6	70.0	130	----
Anions and Nutrients (QCLot: 1990734)										
WT2510865-006	BH16-I	Ammonia, total (as N)	7664-41-7	E298	0.106 mg/L	0.1 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 1991227)										
WT2510706-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	28.5 mg/L	25 mg/L	114	70.0	130	----
Anions and Nutrients (QCLot: 1991228)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 1991228) - continued										
WT2510760-006	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1991229)										
WT2510525-007	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0963 mg/L	0.1 mg/L	96.3	75.0	125	----
Anions and Nutrients (QCLot: 1991234)										
WT2510712-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 1991844)										
HA2501349-001	Anonymous	Fluoride	16984-48-8	E235.F	1.02 mg/L	1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 1991845)										
HA2501349-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.44 mg/L	2.5 mg/L	97.6	75.0	125	----
Anions and Nutrients (QCLot: 1991846)										
HA2501349-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.502 mg/L	0.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 1991847)										
HA2501349-001	Anonymous	Chloride	16887-00-6	E235.Cl	99.6 mg/L	100 mg/L	99.6	75.0	125	----
Anions and Nutrients (QCLot: 1991848)										
HA2501349-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1991849)										
HA2501349-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0184 mg/L	0.02 mg/L	93.7	70.0	130	----
Anions and Nutrients (QCLot: 1992191)										
WT2510680-006	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 1992193)										
WT2510865-004	BH5-IIIR	Chloride	16887-00-6	E235.Cl	491 mg/L	500 mg/L	98.2	75.0	125	----
Anions and Nutrients (QCLot: 1992194)										
WT2510865-004	BH5-IIIR	Fluoride	16984-48-8	E235.F	5.15 mg/L	5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 1992195)										
WT2510865-004	BH5-IIIR	Nitrite (as N)	14797-65-0	E235.NO2	2.47 mg/L	2.5 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 1992196)										
WT2510865-004	BH5-IIIR	Nitrate (as N)	14797-55-8	E235.NO3	12.1 mg/L	12.5 mg/L	97.1	75.0	125	----
Organic / Inorganic Carbon (QCLot: 1990476)										
HA2501325-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	5.06 mg/L	5 mg/L	101	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1990691)										
WT2510669-014	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.87 mg/L	5 mg/L	97.3	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1990698)										
WT2510865-012	BH21-IIR	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 1995441)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 1995441) - continued										
WT2510865-002	BH3-IIR	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 1991101)										
WT2510865-001	BH3-IR	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0481 mg/L	0.05 mg/L	96.3	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0523 mg/L	0.05 mg/L	105	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.00495 mg/L	0.005 mg/L	99.0	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0486 mg/L	0.05 mg/L	97.3	70.0	130	----
		Boron, total	7440-42-8	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00513 mg/L	0.005 mg/L	103	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00246 mg/L	0.002 mg/L	98.2	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0126 mg/L	0.012 mg/L	100	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0121 mg/L	0.012 mg/L	97.0	70.0	130	----
		Copper, total	7440-50-8	E420	0.0118 mg/L	0.012 mg/L	94.6	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0240 mg/L	0.025 mg/L	95.9	70.0	130	----
		Lithium, total	7439-93-2	E420	ND mg/L	----	ND	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Molybdenum, total	7439-98-7	E420	0.0124 mg/L	0.012 mg/L	99.2	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0239 mg/L	0.025 mg/L	95.5	70.0	130	----
		Phosphorus, total	7723-14-0	E420	ND mg/L	----	ND	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Rubidium, total	7440-17-7	E420	0.00530 mg/L	0.005 mg/L	106	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0430 mg/L	0.05 mg/L	85.9	70.0	130	----
		Silicon, total	7440-21-3	E420	ND mg/L	----	ND	70.0	130	----
		Silver, total	7440-22-4	E420	0.00459 mg/L	0.005 mg/L	91.8	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Strontium, total	7440-24-6	E420	ND mg/L	----	ND	70.0	130	----
		Sulfur, total	7704-34-9	E420	2.54 mg/L	2.5 mg/L	101	70.0	130	----
		Tellurium, total	13494-80-9	E420	0.00463 mg/L	0.005 mg/L	92.7	70.0	130	----
		Thallium, total	7440-28-0	E420	0.0476 mg/L	0.05 mg/L	95.1	70.0	130	----
		Thorium, total	7440-29-1	E420	0.00448 mg/L	0.005 mg/L	89.5	70.0	130	----
		Tin, total	7440-31-5	E420	0.0243 mg/L	0.025 mg/L	97.3	70.0	130	----
		Titanium, total	7440-32-6	E420	ND mg/L	----	ND	70.0	130	----
		Tungsten, total	7440-33-7	E420	0.00482 mg/L	0.005 mg/L	96.3	70.0	130	----
		Uranium, total	7440-61-1	E420	ND mg/L	----	ND	70.0	130	----
		Vanadium, total	7440-62-2	E420	0.0254 mg/L	0.025 mg/L	102	70.0	130	----
		Zinc, total	7440-66-6	E420	0.0220 mg/L	0.025 mg/L	88.1	70.0	130	----
		Zirconium, total	7440-67-7	E420	0.00449 mg/L	0.005 mg/L	89.7	70.0	130	----
Dissolved Metals (QCLot: 1992052)										
WT2510858-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.968 mg/L	1 mg/L	96.8	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 1992052) - continued										
WT2510858-001	Anonymous	Antimony, dissolved	7440-36-0	E421	0.481 mg/L	0.5 mg/L	96.2	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.491 mg/L	0.5 mg/L	98.2	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.109 mg/L	0.125 mg/L	87.3	70.0	130	----
		Beryllium, dissolved	7440-41-7	E421	0.0480 mg/L	0.05 mg/L	95.9	70.0	130	----
		Bismuth, dissolved	7440-69-9	E421	0.435 mg/L	0.5 mg/L	86.9	70.0	130	----
		Boron, dissolved	7440-42-8	E421	0.448 mg/L	0.5 mg/L	89.6	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.0458 mg/L	0.05 mg/L	91.5	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Cesium, dissolved	7440-46-2	E421	0.0228 mg/L	0.025 mg/L	91.2	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.116 mg/L	0.125 mg/L	93.2	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.114 mg/L	0.125 mg/L	91.5	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.110 mg/L	0.125 mg/L	87.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	ND mg/L	----	ND	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.221 mg/L	0.25 mg/L	88.6	70.0	130	----
		Lithium, dissolved	7439-93-2	E421	0.114 mg/L	0.125 mg/L	90.9	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Molybdenum, dissolved	7439-98-7	E421	0.119 mg/L	0.125 mg/L	95.2	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.224 mg/L	0.25 mg/L	89.6	70.0	130	----
		Phosphorus, dissolved	7723-14-0	E421	5.06 mg/L	5 mg/L	101	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	22.7 mg/L	25 mg/L	90.8	70.0	130	----
		Rubidium, dissolved	7440-17-7	E421	0.0465 mg/L	0.05 mg/L	93.0	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.454 mg/L	0.5 mg/L	90.8	70.0	130	----
		Silicon, dissolved	7440-21-3	E421	ND mg/L	----	ND	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.0407 mg/L	0.05 mg/L	81.4	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Strontium, dissolved	7440-24-6	E421	ND mg/L	----	ND	70.0	130	----
		Sulfur, dissolved	7704-34-9	E421	ND mg/L	----	ND	70.0	130	----
		Tellurium, dissolved	13494-80-9	E421	0.0429 mg/L	0.05 mg/L	85.8	70.0	130	----
		Thallium, dissolved	7440-28-0	E421	0.441 mg/L	0.5 mg/L	88.2	70.0	130	----
		Thorium, dissolved	7440-29-1	E421	0.0451 mg/L	0.05 mg/L	90.2	70.0	130	----
		Tin, dissolved	7440-31-5	E421	0.235 mg/L	0.25 mg/L	93.9	70.0	130	----
		Titanium, dissolved	7440-32-6	E421	0.118 mg/L	0.125 mg/L	94.1	70.0	130	----
		Tungsten, dissolved	7440-33-7	E421	0.0456 mg/L	0.05 mg/L	91.2	70.0	130	----
		Uranium, dissolved	7440-61-1	E421	ND mg/L	----	ND	70.0	130	----
		Vanadium, dissolved	7440-62-2	E421	0.241 mg/L	0.25 mg/L	96.4	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.219 mg/L	0.25 mg/L	87.6	70.0	130	----
		Zirconium, dissolved	7440-67-7	E421	0.0458 mg/L	0.05 mg/L	91.6	70.0	130	----
Aggregate Organics (QCLot: 1990735)										
WT2510865-006	BH16-I	Phenols, total (4AAP)	----	E562	0.0210 mg/L	0.02 mg/L	105	75.0	125	----
Aggregate Organics (QCLot: 1991230)										
WT2510865-001	BH3-IR	Phenols, total (4AAP)	----	E562	0.0207 mg/L	0.02 mg/L	104	75.0	125	----
Aggregate Organics (QCLot: 1993342)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Aggregate Organics (QCLot: 1993342) - continued										
WT2510741-002	Anonymous	Chemical oxygen demand [COD]	----	E559-L	117 mg/L	100 mg/L	117	75.0	125	----
Aggregate Organics (QCLot: 1993346)										
HA2501351-004	Anonymous	Chemical oxygen demand [COD]	----	E559-L	ND mg/L	----	ND	75.0	125	----
Aggregate Organics (QCLot: 1995845)										
HA2501351-001	Anonymous	Chemical oxygen demand [COD]	----	E559-L	106 mg/L	100 mg/L	106	75.0	125	----
Volatile Organic Compounds (QCLot: 1988708)										
WT2510865-013	BH22-IR	Benzene	71-43-2	E611A	97.6 µg/L	100 µg/L	97.6	60.0	140	----
		Ethylbenzene	100-41-4	E611A	85.2 µg/L	100 µg/L	85.2	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	96.2 µg/L	100 µg/L	96.2	60.0	140	----
		Styrene	100-42-5	E611A	82.7 µg/L	100 µg/L	82.7	60.0	140	----
		Toluene	108-88-3	E611A	92.0 µg/L	100 µg/L	92.0	60.0	140	----
		Xylene, m+p-	179601-23-1	E611A	186 µg/L	200 µg/L	92.8	60.0	140	----
		Xylene, o-	95-47-6	E611A	88.1 µg/L	100 µg/L	88.1	60.0	140	----
Volatile Organic Compounds (QCLot: 1991411)										
WT2510845-015	Anonymous	Benzene	71-43-2	E611A	101 µg/L	100 µg/L	101	60.0	140	----
		Ethylbenzene	100-41-4	E611A	100 µg/L	100 µg/L	100	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	105 µg/L	100 µg/L	105	60.0	140	----
		Styrene	100-42-5	E611A	97.4 µg/L	100 µg/L	97.4	60.0	140	----
		Toluene	108-88-3	E611A	107 µg/L	100 µg/L	107	60.0	140	----
		Xylene, m+p-	179601-23-1	E611A	203 µg/L	200 µg/L	102	60.0	140	----
		Xylene, o-	95-47-6	E611A	101 µg/L	100 µg/L	101	60.0	140	----
Volatile Organic Compounds (QCLot: 1991665)										
HA2501351-001	Anonymous	Acetone	67-64-1	E611D	128 µg/L	100 µg/L	128	60.0	140	----
		Benzene	71-43-2	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Bromodichloromethane	75-27-4	E611D	96.8 µg/L	100 µg/L	96.8	60.0	140	----
		Bromoform	75-25-2	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Bromomethane	74-83-9	E611D	90.9 µg/L	100 µg/L	90.9	60.0	140	----
		Carbon disulfide	75-15-0	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Carbon tetrachloride	56-23-5	E611D	115 µg/L	100 µg/L	115	60.0	140	----
		Chlorobenzene	108-90-7	E611D	97.3 µg/L	100 µg/L	97.3	60.0	140	----
		Chloroethane	75-00-3	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Chloroform	67-66-3	E611D	112 µg/L	100 µg/L	112	60.0	140	----
		Chloromethane	74-87-3	E611D	108 µg/L	100 µg/L	108	60.0	140	----
		Dibromochloromethane	124-48-1	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Dibromoethane, 1,2-	106-93-4	E611D	95.4 µg/L	100 µg/L	95.4	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	99.8 µg/L	100 µg/L	99.8	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	98.9 µg/L	100 µg/L	98.9	60.0	140	----
		Dichlorodifluoromethane	75-71-8	E611D	131 µg/L	100 µg/L	131	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611D	109 µg/L	100 µg/L	109	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611D	106 µg/L	100 µg/L	106	60.0	140	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 1991665) - continued										
HA2501351-001	Anonymous	Dichloroethylene, 1,1-	75-35-4	E611D	111 µg/L	100 µg/L	111	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	109 µg/L	100 µg/L	109	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	116 µg/L	100 µg/L	116	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611D	98.0 µg/L	100 µg/L	98.0	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	98.6 µg/L	100 µg/L	98.6	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	94.3 µg/L	100 µg/L	94.3	60.0	140	----
		Ethylbenzene	100-41-4	E611D	92.5 µg/L	100 µg/L	92.5	60.0	140	----
		Hexane, n-	110-54-3	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Hexanone, 2-	591-78-6	E611D	79 µg/L	100 µg/L	78.8	60.0	140	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	115 µg/L	100 µg/L	115	60.0	140	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	88 µg/L	100 µg/L	88.3	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Styrene	100-42-5	E611D	96.9 µg/L	100 µg/L	96.9	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	91.3 µg/L	100 µg/L	91.3	60.0	140	----
		Tetrachloroethylene	127-18-4	E611D	99.2 µg/L	100 µg/L	99.2	60.0	140	----
		Toluene	108-88-3	E611D	92.6 µg/L	100 µg/L	92.6	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	115 µg/L	100 µg/L	115	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	95.6 µg/L	100 µg/L	95.6	60.0	140	----
		Trichloroethylene	79-01-6	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611D	122 µg/L	100 µg/L	122	60.0	140	----
		Vinyl chloride	75-01-4	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	192 µg/L	200 µg/L	96.2	60.0	140	----
		Xylene, o-	95-47-6	E611D	95.8 µg/L	100 µg/L	95.8	60.0	140	----

GC - 965/966
VIR - 155
MM - 865
N - 780

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Environmental Division Waterloo

Work Order Reference

WT2510865

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: IAcheson@orillia.ca

Email 2: zgorbell@orillia.ca

Email 3: HCURRY@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: IAcheson@orillia.ca

Email 2: zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge min

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge mi

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge mi

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge mi

☐ Same day [E2] if received by 10am M-S - 200% rush surcha

☐ fees may apply to rush resuests on weekends, statutory holida

routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed according

Project Information

ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Analysis

Indicate Filtered (F), Preserved (P) or Filtere

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Meta	Major Ions Package(Total Metals)	Dissolved Metals: Trace List	Total Metals: Trace List	Dissolved Orthophosphate	Total Phosphorus	BTEX	VOCs	SAMPLES ON HOLD	EXTENDED STORAGE REQ	SUSPECTED HAZARD (see Notes)
							F/P	P			P	P	P			
	BH3-IR	05/May/2025	11:25	GW	8	R	R	R	R		R		R			
	BH3-IIR	05/May/2025	11:35	GW	8	R	R	R	R	R	R		R			
	BH5-IR	08/May/2025	10:25	GW	8	R	R	R	R	R	R	R				
	BH5-IIIR	08/May/2025	10:35	GW	8	R	R				R	R				
	BH6R	05/May/2025	10:50	GW	8						R	R				
	BH16-I	05/May/2025	10:30	GW	6	R	R				R					
	BH16-IVR	05/May/2025	10:10	GW	6	R	R				R					
	BH17-III	07/May/2025	11:55	GW	8	R	R	R	R	R	R	R				
	BH17-IVR	07/May/2025	12:10	GW	6	R	R	R	R	R	R					
	BH20R	06/May/2025	09:55	GW	6	R	R				R					
	BH21-IR	07/May/2025	14:00	GW	8	R	R				R		R			
	BH21-IIR	07/May/2025	14:10	GW	8	R	R				R		R			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

Sample may contain air bubble due to off gasing

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
7.8	9.5	6.9		8.4	10.8	9.9	10.1

SHIPMENT RELEASE (client use)

Released by: [signature] Date: May 8/25 Time: 11:30

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: AM Date: 05/08/25 Time: 14:00

FINAL SHIPMENT RECEPTION (lab use only)

Received by: NTB Date: 05/08/025 Time: 6 pm

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: IAcheson@orillia.ca

Email 2: zgorbell@orillia.ca

Email 3: HCURRY@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: IAcheson@orillia.ca

Email 2: zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For tests that can not be performed according to the TAT requested, you will be contacted.

Project Information

ALS Account # / Quote #: GMOI100 / Waste Diversion Site

Job #: Waste Diversion Site

PO / AFE: 86912

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Meta	Major Ions Package(Total Metals)	Dissolved Metals: Trace List	Total Metals: Trace List	Dissolved Orthophosphate	Total Phosphorus	BTEX	VOCs	Ion Balance	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	BH22-IR	07/May/2025	11:05	GW	8	R	R	R	R	R	R	R					
	BH22-II	07/May/2025	10:40	GW	8	R	R	R	R	R	R	R					
	BH26	07/May/2025	10:40	GW	8	R	R	R	R	R	R	R					
	BH30-I	07/May/2025	15:10	GW	6	R	R	R	R	R	R						
	BH30-II	07/May/2025	15:15	GW	6	R	R	R	R	R	R						
	~~BH3-IRD~~	OMIT		GW		R	R			OMIT	R		R				
	BH506R	05/May/2025	10:50	GW	8						R	R					
	Field Blank	08/May/2025	09:50	GW	3							R	R	R			
	Travel Blank	05/May/2025-08/May/25		GW	6		R		R		R	R	R	R			
	DUP	07/May/2025	14:10	GW	8	R	R				R		R				
				GW													
				GW													

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
7.8	9.5	6.9		8.4			

SHIPMENT RELEASE (client use)

Released by: [signature] Date: May 8/25 Time: 11:30

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: AM Date: 05/08/25 Time: 14:00

FINAL SHIPMENT RECEPTION (lab use only)

Received by: NTB Date: 05/08/25 Time: 6pm

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

CERTIFICATE OF ANALYSIS

Work Order	:	**WT2518392**		
Client	:	**City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	:	Ian Acheson	Account Manager	: Karanpartap Singh
Address	:	50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	:	----	E-mail	: karanpartap.singh@alsglobal.com
Project	:	WASTE DIVERSION SITE	Telephone	: 19055076910
PO	:	86912	Date Samples Received	: 10-Jul-2025 13:30
C-O-C number	:	----	Date Analysis Commenced	: 12-Jul-2025
Sampler	:	IA	Issue Date	: 17-Jul-2025 18:45
Site	:	----		
Quote number	:	Waste Diversion Site		
No. of samples received	:	21		
No. of samples analysed	:	21		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Angela Fleming		Inorganics, Waterloo, Ontario
David Tremblett		VOC, Waterloo, Ontario
Greg Pokocky		Metals, Waterloo, Ontario
Greg Pokocky		Centralized Prep, Waterloo, Ontario
Greg Pokocky		Inorganics, Waterloo, Ontario
Hannah Lewis		Inorganics, Waterloo, Ontario
Jon Fisher		Inorganics, Waterloo, Ontario
Kevin Baxter		Inorganics, Winnipeg, Manitoba
Nik Perkio		Metals, Waterloo, Ontario
Nik Perkio		Inorganics, Waterloo, Ontario
Nik Perkio		Centralized Prep, Waterloo, Ontario
Walt Kippenhuck		Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
DTSE	Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH29-I ----	BH29-II ----	BH1-IR ----	BH1-III ----	BH18R ----
					Client sampling date / time	08-Jul-2025 15:35	08-Jul-2025 15:15	08-Jul-2025 12:08	08-Jul-2025 12:10	08-Jul-2025 12:50
						WT2518392-001	WT2518392-002	WT2518392-003	WT2518392-004	WT2518392-005
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		477	565	228	309	288
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		477	565	228	309	288
Conductivity	----	E100/WT	2.0	µS/cm		1040	1000	699	2310	2410
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		596	527	197	459	578
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		758	550	403	630	678
pH	----	E108/WT	0.10	pH units		7.53	7.09	7.78	7.01	6.99
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.0351	1.59	0.152	0.0942	0.997
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		74.3 DLDS	3.73 DLDS	96.2	553 DLDS	587 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	0.391	<0.100 DLDS	<0.100 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		0.579	3.60	0.749	4.44	10.7
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.020	<0.100 DLDS	<0.100 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	<0.010	<0.050 DLDS	0.054 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		0.544	2.01	0.597	4.34	9.70
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0010	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.350	0.173	0.650	0.907	1.03
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		23.4 DLDS	<1.50 DLDS	14.0	3.33 DLDS	24.9 DLDS

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH29-I ----	BH29-II ----	BH1-IR ----	BH1-III ----	BH18R ----
					Client sampling date / time	08-Jul-2025 15:35	08-Jul-2025 15:15	08-Jul-2025 12:08	08-Jul-2025 12:10	08-Jul-2025 12:50
						WT2518392-001	WT2518392-002	WT2518392-003	WT2518392-004	WT2518392-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		107	123	44.4	68.9	62.9
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		7.58	10.8	10.9	67.0	74.2
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		12.1	11.4	7.58	21.8	22.8
Anion sum	----	EC101/WT	0.10	meq/L		12.1	11.4	7.58	21.8	22.8
Cation sum	----	EC101/WT	0.10	meq/L		12.8	11.5	7.00	21.4	21.6
Cation sum (total)	----	EC101A/WT	0.10	meq/L		16.9	12.0	12.8	28.4	25.8
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		140	105	169	130	113
Ion balance (APHA)	----	EC101A/WT	0.010	%		16.6	2.56	25.6	13.1	6.17
Ion balance (cations/anions)	----	EC101/WT	0.010	%		106	101	92.3	98.2	94.7
Ion balance (APHA)	----	EC101/WT	0.01	%		2.81	0.44	-3.98	-0.92	-2.70
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		3.45 DLHC	0.419 DLHC	9.31 DLHC	18.9 DLHC	8.17 DLHC
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.278 DLHC	0.212 DLHC	0.252 DLHC	0.362 DLHC	0.327 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.0000690 DLHC	0.000124 DLHC	0.0000780 DLHC	0.000194 DLHC	0.000306 DLHC
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		229 DLHC	201 DLHC	109 DLHC	200 DLHC	231 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	0.0140 DLHC	0.0270 DLHC	<0.00500 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00355 DLHC	0.00320 DLHC	0.00653 DLHC	0.0105 DLHC	0.00396 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.00596 DLHC	0.0103 DLHC	0.0146 DLHC	0.0226 DLHC	0.00541 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L		14.3 DLHC	15.9 DLHC	12.0 DLHC	22.1 DLHC	13.7 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.00201 DLHC	0.00197 DLHC	0.00368 DLHC	0.00934 DLHC	0.0327 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH29-I ----	BH29-II ----	BH1-IR ----	BH1-III ----	BH18R ----
					Client sampling date / time	08-Jul-2025 15:35	08-Jul-2025 15:15	08-Jul-2025 12:08	08-Jul-2025 12:10	08-Jul-2025 12:50
						WT2518392-001	WT2518392-002	WT2518392-003	WT2518392-004	WT2518392-005
						Result	Result	Result	Result	Result
Total Metals										
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		45.1 DLHC	11.6 DLHC	31.7 DLHC	31.6 DLHC	24.6 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		1.40 DLHC	0.965 DLHC	0.576 DLHC	0.773 DLHC	1.01 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.00712 DLHC	0.00562 DLHC	0.0130 DLHC	0.0229 DLHC	0.00684 DLHC
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		2.23 DLHC	3.65 DLHC	4.72 DLHC	5.40 DLHC	1.68 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	0.00102 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	0.000123 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		17.1 DLHC	4.82 DLHC	71.3 DLHC	294 DLHC	245 DLHC
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0300 DLHC	<0.0300 DLHC	0.0317 DLHC	0.0884 DLHC	0.0651 DLHC
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		0.189	0.0185 DLHC	0.0116	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.212	0.208 DLHC	0.118	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		0.0000217	<0.0000500 DLHC	<0.0000050	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		182	193 DLHC	53.9	161 DLM	200 DLM
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00050	<0.00500 DLHC	<0.00050	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00151	0.00267 DLHC	0.00044	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		0.00081	<0.00200 DLHC	<0.00020	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		2.02	15.2 DLHC	1.29	1.55 DLM	3.13 DLM
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		0.000264	<0.000500 DLHC	<0.000050	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		34.3	10.9 DLHC	15.1	13.9 DLM	19.0 DLM
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		1.20	0.876 DLHC	0.217	0.427 DLM	0.779 DLM
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		0.00165	<0.00500 DLHC	0.00064	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH29-I ----	BH29-II ----	BH1-IR ----	BH1-III ----	BH18R ----
					Client sampling date / time	08-Jul-2025 15:35	08-Jul-2025 15:15	08-Jul-2025 12:08	08-Jul-2025 12:10	08-Jul-2025 12:50
						WT2518392-001	WT2518392-002	WT2518392-003	WT2518392-004	WT2518392-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		1.33	3.61 DLHC	1.73	<0.500 DLM	<0.500 DLM
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		0.000073	0.000527 DLHC	0.000124	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000020 DLM	<0.000100 DLHC	<0.000020 DLM	----	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		16.2	4.62 DLHC	67.9	279 DLM	225 DLM
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		0.0040	<0.0100 DLHC	<0.0010	----	----
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		<3.0 BODL	4.9	<3.0 BODL	<3.0 BODL	3.0
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		55	52	50	278	282
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0024	0.0017	<0.0010	0.0013	0.0010

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH23 ----	BH24R ----	BH25 ----	BH4-IIR ----	BH15-IIIR ----
					Client sampling date / time	08-Jul-2025 13:20	08-Jul-2025 13:35	08-Jul-2025 14:00	08-Jul-2025 14:30	09-Jul-2025 12:15
						WT2518392-006	WT2518392-007	WT2518392-008	WT2518392-009	WT2518392-010
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		304	367	344	368	1060
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<10.0 DLM
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<10.0 DLM

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH23 ----	BH24R ----	BH25 ----	BH4-IIR ----	BH15-IIIR ----
Client sampling date / time					08-Jul-2025 13:20	08-Jul-2025 13:35	08-Jul-2025 14:00	08-Jul-2025 14:30	09-Jul-2025 12:15
					WT2518392-006	WT2518392-007	WT2518392-008	WT2518392-009	WT2518392-010
					Result	Result	Result	Result	Result
Physical Tests									
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	304	367	344	368	1060
Conductivity	----	E100/WT	2.0	µS/cm	1030	1240	1190	1470	1790
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L	302	354	453	458	790
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L	325	374	886	1440	835
pH	----	E108/WT	0.10	pH units	7.81	7.58	7.57	7.47	6.92
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	0.0785	0.458	0.114	0.0261	34.9
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	148 DLDS	180 DLDS	189 DLDS	261 DLDS	35.2 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	0.079 DLDS	0.066 DLDS	<0.100 DLDS	<0.100 DLDS	0.306 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	1.16	0.931	1.50	0.246	51.6
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	<0.040 DLDS	<0.040 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.020 DLDS	<0.020 DLDS	<0.050 DLDS	<0.050 DLDS	<0.050 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L	1.08	0.473	1.39	0.220	16.7
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L	----	----	0.0047	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	1.43	0.503	1.04	1.28	0.564
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	<0.60 DLDS	<0.60 DLDS	27.8 DLDS	21.9 DLDS	<1.50 DLDS
Organic / Inorganic Carbon									
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L	71.2	86.0	78.1	78.4	235
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	8.85	6.92	3.86	2.80	22.3
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	10.2	12.4	12.8	15.2	22.2

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH23 ----	BH24R ----	BH25 ----	BH4-IIR ----	BH15-IIIR ----
					Client sampling date / time	08-Jul-2025 13:20	08-Jul-2025 13:35	08-Jul-2025 14:00	08-Jul-2025 14:30	09-Jul-2025 12:15
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2518392-006	WT2518392-007	WT2518392-008	WT2518392-009	WT2518392-010
						Result	Result	Result	Result	Result
Ion Balance										
Anion sum	----	EC101/WT	0.10	meq/L		10.2	12.4	12.8	15.2	22.2
Cation sum	----	EC101/WT	0.10	meq/L		10.2	11.9	12.8	16.2	23.2
Cation sum (total)	----	EC101A/WT	0.10	meq/L		11.3	12.6	23.6	37.4	24.5
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		111	102	184	246	110
Ion balance (APHA)	----	EC101A/WT	0.010	%		5.12	0.800	29.7	42.2	4.92
Ion balance (cations/anions)	----	EC101/WT	0.010	%		100	96.0	100	106	104
Ion balance (APHA)	----	EC101/WT	0.01	%		0.0	-2.06	0.0	3.18	2.20
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		1.53 DLHC	0.108 DLHC	12.7 DLHC	11.0 DLHC	1.57 DLHC
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.247 DLHC	0.240 DLHC	0.624 DLHC	0.547 DLHC	0.490 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		<0.0000500 DLHC	<0.0000500 DLHC	0.000181 DLHC	0.0000830 DLHC	0.000580 DLHC
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		104 DLHC	120 DLHC	251 DLHC	398 DLHC	218 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	0.0184 DLHC	0.0154 DLHC	0.00752 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		<0.00100 DLHC	<0.00100 DLHC	0.00804 DLHC	0.0103 DLHC	0.00396 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	0.0180 DLHC	0.0272 DLHC	0.0178 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L		14.0 DLHC	7.81 DLHC	18.8 DLHC	18.0 DLHC	55.5 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.00246 DLHC	<0.000500 DLHC	0.00619 DLHC	0.00607 DLHC	0.0184 DLHC
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		15.9 DLHC	18.2 DLHC	62.9 DLHC	108 DLHC	70.6 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		1.10 DLHC	1.67 DLHC	0.937 DLHC	1.54 DLHC	1.39 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	0.0183 DLHC	0.0178 DLHC	0.0144 DLHC
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		1.84 DLHC	3.19 DLHC	7.48 DLHC	5.29 DLHC	35.2 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH23 ----	BH24R ----	BH25 ----	BH4-IIR ----	BH15-IIIR ----
					Client sampling date / time	08-Jul-2025 13:20	08-Jul-2025 13:35	08-Jul-2025 14:00	08-Jul-2025 14:30	09-Jul-2025 12:15
						WT2518392-006	WT2518392-007	WT2518392-008	WT2518392-009	WT2518392-010
						Result	Result	Result	Result	Result
Total Metals										
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		92.8 DLHC	108 DLHC	82.7 DLHC	152 DLHC	51.8 DLHC
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0300 DLHC	<0.0300 DLHC	0.0788 DLHC	0.0494 DLHC	0.150 DLHC
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		----	----	0.0058	0.0067	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		----	----	0.412	0.431	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		----	----	0.0000097	0.0000056	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		98.2 DLM	115 DLM	128	143	202 DLHC
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		----	----	<0.00050	<0.00050	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		----	----	0.00030	0.00035	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		----	----	0.00091	0.00112	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		7.74 DLM	6.51 DLM	0.746	0.638	45.7 DLHC
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		----	----	<0.000050	<0.000050	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		13.8 DLM	16.3 DLM	32.5	24.6	69.4 DLHC
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		1.01 DLM	1.17 DLM	0.454	0.0848	1.27 DLHC
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		----	----	0.00072	0.00057	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		1.47 DLM	3.10 DLM	3.61	2.39	35.3 DLHC
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		----	----	0.000076	0.000118	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		----	----	<0.000020 DLM	<0.000020 DLM	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		87.6 DLM	102 DLM	82.2	159	52.5 DLHC

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH23 ----	BH24R ----	BH25 ----	BH4-IIR ----	BH15-IIIR ----
					Client sampling date / time	08-Jul-2025 13:20	08-Jul-2025 13:35	08-Jul-2025 14:00	08-Jul-2025 14:30	09-Jul-2025 12:15
						WT2518392-006	WT2518392-007	WT2518392-008	WT2518392-009	WT2518392-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		----	----	0.0037	<0.0010	----
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		3.9	<3.0 BODL	3.2	<3.0 BODL	10.1
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		50	24	98	29	255
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		<0.0010	0.0011	0.0018	0.0024	0.0066

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH8R ----	BH14-I ----	BH14-IIR ----	BH10R ----	BH2-II ----
					Client sampling date / time	09-Jul-2025 12:30	09-Jul-2025 12:50	09-Jul-2025 13:00	09-Jul-2025 13:20	09-Jul-2025 14:30
						WT2518392-011	WT2518392-012	WT2518392-013	WT2518392-014	WT2518392-015
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		1100	200	477	534	575
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<10.0 DLHC	4.5	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<10.0 DLHC	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		1100	205	477	534	575
Conductivity	----	E100/WT	2.0	µS/cm		1970	396	1120	1220	1300
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		965	194	499	465	620
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		771	227	482	494	709

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH8R ----	BH14-I ----	BH14-IIR ----	BH10R ----	BH2-II ----
					Client sampling date / time	09-Jul-2025 12:30	09-Jul-2025 12:50	09-Jul-2025 13:00	09-Jul-2025 13:20	09-Jul-2025 14:30
						WT2518392-011	WT2518392-012	WT2518392-013	WT2518392-014	WT2518392-015
						Result	Result	Result	Result	Result
Physical Tests										
pH	----	E108/WT	0.10	pH units		7.21	8.35	8.06	8.26	7.67
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		39.1	0.162	1.82	1.18	0.472
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		50.5 DLDS	10.6	82.2 DLDS	102 DLDS	112
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.143 DLDS	0.292	0.128 DLDS	0.182 DLDS	0.140
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		59.2	0.227	4.76	3.05	1.02
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.020	<0.040 DLDS	<0.040 DLDS	<0.020
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		0.134 DLDS	<0.010	<0.020 DLDS	0.040 DLDS	<0.010
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		20.1	0.065	2.94	1.87	0.548
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		----	0.0046	----	----	<0.0010
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.382	0.0841	0.138	0.233	0.770
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		3.91 DLDS	4.17	23.7 DLDS	0.75 DLDS	9.97
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		258	48.9	115	123	129
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		36.5	1.38	32.9	20.9	9.64
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		23.5	4.50	12.4	13.6	14.9
Anion sum	----	EC101/WT	0.10	meq/L		23.5	4.50	12.4	13.6	14.9
Cation sum	----	EC101/WT	0.10	meq/L		30.5	4.54	13.8	13.4	15.2
Cation sum (total)	----	EC101A/WT	0.10	meq/L		24.5	5.35	13.4	14.4	18.4
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		104	119	108	106	123

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH8R ----	BH14-I ----	BH14-IIR ----	BH10R ----	BH2-II ----
					Client sampling date / time: 09-Jul-2025 12:30	09-Jul-2025 12:50	09-Jul-2025 13:00	09-Jul-2025 13:20	09-Jul-2025 14:30
					WT2518392-011	WT2518392-012	WT2518392-013	WT2518392-014	WT2518392-015
					Result	Result	Result	Result	Result
Ion Balance									
Ion balance (APHA)	----	EC101A/WT	0.010	%	2.08	8.63	3.88	2.86	10.5
Ion balance (cations/anions)	----	EC101/WT	0.010	%	130	101	111	98.5	102
Ion balance (APHA)	----	EC101/WT	0.01	%	13.0	0.44	5.34	-0.74	1.00
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	1.39 DLHC	0.854	0.393	2.02 DLHC	8.61 DLHC
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.406 DLHC	0.375	0.165	0.334 DLHC	1.62 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.000107 DLHC	0.0000075	0.0000241	<0.0000500 DLHC	0.0000690 DLHC
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	176 DLHC	35.3	124	125 DLHC	157 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	0.00575 DLHC	0.00127	0.00157	<0.00500 DLHC	0.0112 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	0.00243 DLHC	0.00048	0.00055	0.00134 DLHC	0.00544 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	0.00809 DLHC	0.00127	0.00100	<0.00500 DLHC	0.0116 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L	6.70 DLHC	1.19	1.23	3.19 DLHC	11.5 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.00305 DLHC	0.000487	0.000315	0.000750 DLHC	0.00314 DLHC
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	80.5 DLHC	33.8	42.0	44.2 DLHC	76.9 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	0.548 DLHC	0.0608	0.464	0.369 DLHC	0.366 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	0.00767 DLHC	0.00109	0.00233	0.00669 DLHC	0.0137 DLHC
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	61.7 DLHC	2.12	20.0	20.0 DLHC	6.50 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	0.000564 DLHC	<0.000050	0.000227	<0.000500 DLHC	<0.000500 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000100 DLHC	<0.000010	<0.000010	<0.000100 DLHC	<0.000100 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	99.8 DLHC	13.8	70.5	82.6 DLHC	61.0 DLHC
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	<0.0300 DLHC	0.0030	0.0034	<0.0300 DLHC	<0.0300 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH8R ----	BH14-I ----	BH14-IIR ----	BH10R ----	BH2-II ----
					Client sampling date / time	09-Jul-2025 12:30	09-Jul-2025 12:50	09-Jul-2025 13:00	09-Jul-2025 13:20	09-Jul-2025 14:30
						WT2518392-011	WT2518392-012	WT2518392-013	WT2518392-014	WT2518392-015
						Result	Result	Result	Result	Result
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	----	0.0018	----	----	0.0233 DLM	
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	----	0.360	----	----	1.37 DLM	
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	----	<0.0000050	----	----	<0.0000500 DLM	
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	230 DLHC	26.7	128 DLM	116 DLM	136 DLM	
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	----	<0.00050	----	----	<0.00500 DLM	
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	----	<0.00010	----	----	<0.00100 DLM	
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	----	<0.00020	----	----	<0.00200 DLM	
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	2.80 DLHC	0.193	0.747 DLM	1.45 DLM	3.01 DLM	
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	----	<0.000050	----	----	<0.000500 DLM	
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	94.8 DLHC	31.0	43.6 DLM	42.6 DLM	68.2 DLM	
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.595 DLHC	0.00900	0.437 DLM	0.372 DLM	0.194 DLM	
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	----	<0.00050	----	----	<0.00500 DLM	
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	65.2 DLHC	1.87	20.6 DLM	18.7 DLM	3.52 DLM	
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	----	0.000098	----	----	<0.000500 DLM	
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	----	<0.000020 DLM	----	----	<0.000100 DLM	
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	152 DLHC, DTC	13.6	71.4 DLM	79.8 DLM	58.0 DLM	
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	----	<0.0010	----	----	<0.0100 DLM	
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	Field	Field	
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	15.4	<3.0 BODL	3.8	<3.0 BODL	4.8	
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	250	<10	138	86	61	

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH8R ----	BH14-I ----	BH14-IIR ----	BH10R ----	BH2-II ----
Client sampling date / time					09-Jul-2025 12:30	09-Jul-2025 12:50	09-Jul-2025 13:00	09-Jul-2025 13:20	09-Jul-2025 14:30
					WT2518392-011	WT2518392-012	WT2518392-013	WT2518392-014	WT2518392-015
					Result	Result	Result	Result	Result
Aggregate Organics									
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0054	<0.0010	0.0018	0.0018	0.0017

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH2-III ----	BH11R ----	DUP1 ----	DUP2 ----	----
Client sampling date / time					09-Jul-2025 14:20	09-Jul-2025 14:45	08-Jul-2025 12:10	09-Jul-2025 13:20	----
					WT2518392-016	WT2518392-017	WT2518392-018	WT2518392-019	----
					Result	Result	Result	Result	----
Sample Preparation									
Dissolved carbon filtration location	----	EP358/WT	-	-	field	field	field	field	----
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L	1310	550	319	537	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L	<10.0 DLHC	<2.0	<2.0	<2.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L	<10.0 DLHC	<2.0	<2.0	<2.0	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	1310	550	319	537	----
Conductivity	----	E100/WT	2.0	µS/cm	2850	1440	2290	1240	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L	1120	467	465	473	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L	1220	467	627	500	----
pH	----	E108/WT	0.10	pH units	7.13	7.17	7.01	7.83	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	17.1	0.180	0.114	1.23	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	322 DLDS	151 DLDS	555 DLDS	102 DLDS	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	0.191 DLDS	0.180 DLDS	<0.100 DLDS	0.179 DLDS	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH2-III ----	BH11R ----	DUP1 ----	DUP2 ----	----
					Client sampling date / time: 09-Jul-2025 14:20	09-Jul-2025 14:45	08-Jul-2025 12:10	09-Jul-2025 13:20	----
					WT2518392-016	WT2518392-017	WT2518392-018	WT2518392-019	----
					Result	Result	Result	Result	----
Anions and Nutrients									
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	22.2	2.17	17.8	2.55	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	<0.100 DLDS	<0.040 DLDS	<0.100 DLDS	<0.040 DLDS	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.050 DLDS	<0.020 DLDS	<0.050 DLDS	<0.020 DLDS	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L	5.10	1.99	17.7	1.32	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L	----	----	0.0015	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	0.280	0.0951	0.899	0.210	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	1.83 DLDS	0.61 DLDS	2.82 DLDS	0.62 DLDS	----
Organic / Inorganic Carbon									
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L	305	123	70.9	120	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	42.5	28.6	66.8	20.6	----
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	35.3	15.3	22.1	13.6	----
Anion sum	----	EC101/WT	0.10	meq/L	35.3	15.3	22.1	13.6	----
Cation sum	----	EC101/WT	0.10	meq/L	34.9	16.2	21.9	13.5	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L	37.2	16.5	28.3	14.6	----
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	105	108	128	107	----
Ion balance (APHA)	----	EC101A/WT	0.010	%	2.62	3.77	12.3	3.55	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%	98.9	106	99.1	99.3	----
Ion balance (APHA)	----	EC101/WT	0.01	%	-0.57	2.86	-0.45	-0.37	----
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	1.69 DLHC	2.05 DLHC	18.8 DLHC	2.05 DLHC	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH2-III ----	BH11R ----	DUP1 ----	DUP2 ----	----
					Client sampling date / time: 09-Jul-2025 14:20	09-Jul-2025 14:45	08-Jul-2025 12:10	09-Jul-2025 13:20	----
					WT2518392-016	WT2518392-017	WT2518392-018	WT2518392-019	----
					Result	Result	Result	Result	----
Total Metals									
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	1.09 DLHC	0.258 DLHC	0.361 DLHC	0.343 DLHC	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	<0.0000500 DLHC	<0.0000500 DLHC	0.000185 DLHC	<0.0000500 DLHC	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	316 DLHC	121 DLHC	200 DLHC	126 DLHC	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	<0.00500 DLHC	<0.00500 DLHC	0.0265 DLHC	<0.00500 DLHC	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	0.00478 DLHC	0.00190 DLHC	0.0104 DLHC	0.00134 DLHC	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	<0.00500 DLHC	0.00587 DLHC	0.0217 DLHC	<0.00500 DLHC	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L	11.0 DLHC	3.77 DLHC	21.5 DLHC	3.23 DLHC	----
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.00189 DLHC	0.00166 DLHC	0.00910 DLHC	0.000782 DLHC	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	104 DLHC	40.0 DLHC	30.9 DLHC	45.1 DLHC	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	1.03 DLHC	0.264 DLHC	0.755 DLHC	0.379 DLHC	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	0.0263 DLHC	0.0108 DLHC	0.0221 DLHC	0.00666 DLHC	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	35.0 DLHC	32.2 DLHC	5.37 DLHC	20.3 DLHC	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	234 DLHC	137 DLHC	293 DLHC	84.4 DLHC	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	<0.0300 DLHC	<0.0300 DLHC	0.0877 DLHC	<0.0300 DLHC	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	----	----	0.0420 DLM	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	----	----	0.130 DLM	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	----	----	<0.0000500 DLM	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	289 DLM	122 DLM	162 DLM	120 DLM	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH2-III ----	BH11R ----	DUP1 ----	DUP2 ----	----
					Client sampling date / time: 09-Jul-2025 14:20	09-Jul-2025 14:45	08-Jul-2025 12:10	09-Jul-2025 13:20	----
					WT2518392-016	WT2518392-017	WT2518392-018	WT2518392-019	----
					Result	Result	Result	Result	----
Dissolved Metals									
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	----	----	<0.00500 DLM	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	----	----	<0.00100 DLM	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	----	----	<0.00200 DLM	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	8.37 DLM	2.02 DLM	1.45 DLM	1.19 DLM	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	----	----	<0.000500 DLM	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	97.6 DLM	39.5 DLM	14.7 DLM	42.2 DLM	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.981 DLM	0.255 DLM	0.416 DLM	0.358 DLM	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	----	----	<0.00500 DLM	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	36.1 DLM	31.5 DLM	<0.500 DLM	18.4 DLM	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	----	----	0.000927 DLM, DTSE	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	----	----	<0.000100 DLM	----	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	229 DLM	138 DLM	289 DLM	79.6 DLM	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	----	----	<0.0100 DLM	----	----
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	Field	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	19.4	<3.0 BODL	<3.0 BODL	<3.0 BODL	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	156	95	271	80	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0058	0.0015	0.0011	0.0017	----
Volatile Organic Compounds [Fuels]									
Benzene	71-43-2	E611A/WT	0.50	µg/L	----	<0.50	----	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L	----	<0.50	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH2-III ----	BH11R ----	DUP1 ----	DUP2 ----	----
					Client sampling date / time	09-Jul-2025 14:20	09-Jul-2025 14:45	08-Jul-2025 12:10	09-Jul-2025 13:20	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2518392-016	WT2518392-017	WT2518392-018	WT2518392-019	----
						Result	Result	Result	Result	----
Volatile Organic Compounds [Fuels]										
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		----	<0.50	----	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L		----	<0.50	----	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L		----	<0.50	----	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		----	<0.40	----	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		----	<0.30	----	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		----	<0.50	----	----	----
BTEX, total	----	E611A/WT	1.0	µg/L		----	<1.0	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		----	98.1	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		----	99.9	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

					Client sample ID	FIELD BLANK ----	TRIP BLANK ----	----	----	----
					Client sampling date / time	09-Jul-2025 14:45	09-Jul-2025 14:50	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2518392-020	WT2518392-021	----	----	----
						Result	Result	----	----	----
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		<0.40	<0.40	----	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
BTEX, total	----	E611A/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		101	98.0	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		104	104	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2518392**	Page	: 1 of 50
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 10-Jul-2025 13:30
PO	: 86912	Issue Date	: 17-Jul-2025 18:42
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 21		
No. of samples analysed	: 21		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Dissolved Metals	QC-2104872-002	----	Zinc, dissolved	7440-66-6	E421	125 % MES	80.0-120%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Matrix Spike (MS) Recoveries								
Dissolved Metals	WT2518392-002	BH29-II	Silver, dissolved	7440-22-4	E421	56.8 % MS-Ag	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	Description
MS-Ag	*Matrix Spike recovery for silver was marginally below DQO (40 to <60%) due to its instability in the sample matrix. Silver was not detected. Reported result (< LOR) is reliable*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH10R	E550	09-Jul-2025	----	----	----		12-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH11R	E550	09-Jul-2025	----	----	----		12-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH14-I	E550	09-Jul-2025	----	----	----		12-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH14-IIR	E550	09-Jul-2025	----	----	----		12-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH15-IIIR	E550	09-Jul-2025	----	----	----		12-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH2-II	E550	09-Jul-2025	----	----	----		12-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH2-III	E550	09-Jul-2025	----	----	----		12-Jul-2025	4 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH8R	E550	09-Jul-2025	----	----	----		12-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] DUP2	E550	09-Jul-2025	----	----	----		12-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH18R	E550	08-Jul-2025	----	----	----		12-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH1-III	E550	08-Jul-2025	----	----	----		12-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH1-IR	E550	08-Jul-2025	----	----	----		12-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH23	E550	08-Jul-2025	----	----	----		12-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH24R	E550	08-Jul-2025	----	----	----		12-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH25	E550	08-Jul-2025	----	----	----		12-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH29-I	E550	08-Jul-2025	----	----	----		12-Jul-2025	4 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH29-II	E550	08-Jul-2025	----	----	----		12-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH4-IIR	E550	08-Jul-2025	----	----	----		12-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
DUP1	E550	08-Jul-2025	----	----	----		12-Jul-2025	4 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E559-L	09-Jul-2025	----	----	----		16-Jul-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E559-L	09-Jul-2025	----	----	----		16-Jul-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-I	E559-L	09-Jul-2025	----	----	----		16-Jul-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIR	E559-L	09-Jul-2025	----	----	----		16-Jul-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH15-IIIR	E559-L	09-Jul-2025	----	----	----		16-Jul-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH2-II	E559-L	09-Jul-2025	----	----	----		16-Jul-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH2-III	E559-L	09-Jul-2025	----	----	----		16-Jul-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH8R	E559-L	09-Jul-2025	----	----	----		16-Jul-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP2	E559-L	09-Jul-2025	----	----	----		16-Jul-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E559-L	08-Jul-2025	----	----	----		16-Jul-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH1-III	E559-L	08-Jul-2025	----	----	----		16-Jul-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH1-IR	E559-L	08-Jul-2025	----	----	----		16-Jul-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH23	E559-L	08-Jul-2025	----	----	----		16-Jul-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH24R	E559-L	08-Jul-2025	----	----	----		16-Jul-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH25	E559-L	08-Jul-2025	----	----	----		16-Jul-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E559-L	08-Jul-2025	----	----	----		16-Jul-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-II	E559-L	08-Jul-2025	----	----	----		16-Jul-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH4-IIR	E559-L	08-Jul-2025	----	----	----		16-Jul-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP1	E559-L	08-Jul-2025	----	----	----		16-Jul-2025	28 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E562	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E562	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-I	E562	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIR	E562	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH15-IIIR	E562	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH2-II	E562	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH2-III	E562	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH8R	E562	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP2	E562	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E562	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH1-III	E562	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH1-IR	E562	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH23	E562	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH24R	E562	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH25	E562	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E562	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-II	E562	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH4-IIR	E562	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP1	E562	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E298	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E298	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-I	E298	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIR	E298	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH15-IIIR	E298	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH2-II	E298	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH2-III	E298	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH8R	E298	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] DUP2	E298	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH18R	E298	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH1-III	E298	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH1-IR	E298	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH23	E298	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH24R	E298	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH25	E298	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E298	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-II	E298	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH4-IIR	E298	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
DUP1	E298	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH10R	E235.Cl	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH14-I	E235.Cl	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH14-IIR	E235.Cl	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH15-IIIR	E235.Cl	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH2-II	E235.Cl	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH2-III	E235.Cl	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH8R	E235.Cl	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] DUP2	E235.Cl	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH18R	E235.Cl	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH1-III	E235.Cl	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH1-IR	E235.Cl	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH23	E235.Cl	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH24R	E235.Cl	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH25	E235.Cl	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.Cl	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH29-II	E235.Cl	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH4-IIR	E235.Cl	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
DUP1	E235.Cl	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH11R	E235.Cl	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	16-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH14-I	E378-U	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH2-II	E378-U	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH1-IR	E378-U	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH25	E378-U	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH29-I	E378-U	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH29-II	E378-U	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH4-IIR	E378-U	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] DUP1	E378-U	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH10R	E235.F	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH14-I	E235.F	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH14-IIR	E235.F	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH15-IIIR	E235.F	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH2-II	E235.F	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH2-III	E235.F	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH8R	E235.F	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] DUP2	E235.F	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH18R	E235.F	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH1-III	E235.F	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH1-IR	E235.F	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH23	E235.F	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH24R	E235.F	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH25	E235.F	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.F	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH29-II	E235.F	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH4-IIR	E235.F	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
DUP1	E235.F	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH11R	E235.F	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	16-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH10R	E235.NO3	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH14-I	E235.NO3	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	14-Jul-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH14-IIR	E235.NO3	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH15-IIIR	E235.NO3	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH2-II	E235.NO3	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	14-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH2-III	E235.NO3	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH8R	E235.NO3	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
DUP2	E235.NO3	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH18R	E235.NO3	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH1-III	E235.NO3	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH1-IR	E235.NO3	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH23	E235.NO3	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH24R	E235.NO3	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH25	E235.NO3	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.NO3	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH29-II	E235.NO3	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH4-IIR	E235.NO3	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
DUP1	E235.NO3	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH11R	E235.NO3	09-Jul-2025	14-Jul-2025	7 days	5 days	✓	16-Jul-2025	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH10R	E235.NO2	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH14-I	E235.NO2	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	14-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH14-IIR	E235.NO2	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH15-IIIR	E235.NO2	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH2-II	E235.NO2	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	14-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH2-III	E235.NO2	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH8R	E235.NO2	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
DUP2	E235.NO2	09-Jul-2025	12-Jul-2025	7 days	3 days	✓	15-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH18R	E235.NO2	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH1-III	E235.NO2	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH1-IR	E235.NO2	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH23	E235.NO2	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH24R	E235.NO2	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	15-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH25	E235.NO2	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.NO2	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH29-II	E235.NO2	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH4-IIR	E235.NO2	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
DUP1	E235.NO2	08-Jul-2025	12-Jul-2025	7 days	4 days	✓	14-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH11R	E235.NO2	09-Jul-2025	14-Jul-2025	7 days	5 days	✓	16-Jul-2025	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH10R	E235.SO4	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH14-I	E235.SO4	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH14-IIR	E235.SO4	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH15-IIIR	E235.SO4	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH2-II	E235.SO4	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH2-III	E235.SO4	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH8R	E235.SO4	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP2	E235.SO4	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH18R	E235.SO4	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH1-III	E235.SO4	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH1-IR	E235.SO4	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH23	E235.SO4	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH24R	E235.SO4	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH25	E235.SO4	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH29-I	E235.SO4	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH29-II	E235.SO4	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH4-IIR	E235.SO4	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP1	E235.SO4	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH11R	E235.SO4	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	16-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH10R	E318	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	14-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH11R	E318	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	14-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH14-I	E318	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	14-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH14-IIR	E318	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	14-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH15-IIIR	E318	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	14-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH2-II	E318	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	14-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH2-III	E318	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	14-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH8R	E318	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	14-Jul-2025	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP2	E318	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	14-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E318	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	14-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH1-III	E318	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	14-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH1-IR	E318	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	14-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH23	E318	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	14-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH24R	E318	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	14-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH25	E318	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	14-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E318	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	14-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-II	E318	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	14-Jul-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH4-IIR	E318	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	14-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP1	E318	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	14-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E372-U	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	15-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E372-U	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	15-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-I	E372-U	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	15-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIR	E372-U	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	15-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH15-IIIR	E372-U	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	15-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH2-II	E372-U	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	15-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH2-III	E372-U	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	15-Jul-2025	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] BH8R	E372-U	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	15-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] DUP2	E372-U	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	15-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] BH18R	E372-U	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	15-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] BH1-III	E372-U	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	15-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] BH1-IR	E372-U	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	15-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] BH23	E372-U	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	15-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] BH24R	E372-U	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	15-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] BH25	E372-U	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	15-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] BH29-I	E372-U	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	15-Jul-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-II	E372-U	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	15-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH4-IIR	E372-U	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	15-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP1	E372-U	08-Jul-2025	14-Jul-2025	28 days	6 days	✓	15-Jul-2025	28 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH10R	E421	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH11R	E421	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH14-I	E421	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH14-IIR	E421	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH15-IIIR	E421	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH2-II	E421	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH2-III	E421	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH8R	E421	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP2	E421	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH18R	E421	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH1-III	E421	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH1-IR	E421	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH23	E421	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH24R	E421	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH25	E421	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH29-I	E421	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH29-II	E421	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH4-IIR	E421	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP1	E421	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH10R	E353-L	09-Jul-2025	----	----	----		15-Jul-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH11R	E353-L	09-Jul-2025	----	----	----		15-Jul-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH14-I	E353-L	09-Jul-2025	----	----	----		15-Jul-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH14-IIR	E353-L	09-Jul-2025	----	----	----		15-Jul-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH15-IIIR	E353-L	09-Jul-2025	----	----	----		15-Jul-2025	14 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH2-II	E353-L	09-Jul-2025	----	----	----		15-Jul-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH2-III	E353-L	09-Jul-2025	----	----	----		15-Jul-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH8R	E353-L	09-Jul-2025	----	----	----		15-Jul-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE DUP2	E353-L	09-Jul-2025	----	----	----		15-Jul-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH18R	E353-L	08-Jul-2025	----	----	----		15-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH1-III	E353-L	08-Jul-2025	----	----	----		15-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH1-IR	E353-L	08-Jul-2025	----	----	----		15-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH23	E353-L	08-Jul-2025	----	----	----		15-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH24R	E353-L	08-Jul-2025	----	----	----		15-Jul-2025	14 days	7 days	✓

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH25	E353-L	08-Jul-2025	----	----	----		15-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH29-I	E353-L	08-Jul-2025	----	----	----		15-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH29-II	E353-L	08-Jul-2025	----	----	----		15-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH4-IIR	E353-L	08-Jul-2025	----	----	----		15-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE DUP1	E353-L	08-Jul-2025	----	----	----		15-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH10R	E358-L	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	16-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH11R	E358-L	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	16-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH14-I	E358-L	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	16-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH14-IIR	E358-L	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	16-Jul-2025	28 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH15-IIIR	E358-L	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	16-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH2-II	E358-L	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	16-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH2-III	E358-L	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	16-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH8R	E358-L	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	16-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
DUP2	E358-L	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	16-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH18R	E358-L	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	16-Jul-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH1-III	E358-L	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	16-Jul-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH1-IR	E358-L	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	16-Jul-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH23	E358-L	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	16-Jul-2025	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH24R	E358-L	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	16-Jul-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH25	E358-L	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	16-Jul-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH29-I	E358-L	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	16-Jul-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH29-II	E358-L	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	16-Jul-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH4-IIR	E358-L	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	16-Jul-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] DUP1	E358-L	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	16-Jul-2025	28 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH10R	E290	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH14-I	E290	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	14-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH14-IIR	E290	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH15-IIIR	E290	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH2-II	E290	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	14-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH2-III	E290	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH8R	E290	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP2	E290	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH18R	E290	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	15-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH1-III	E290	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	15-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH1-IR	E290	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH23	E290	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	15-Jul-2025	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH24R	E290	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	15-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH25	E290	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH29-I	E290	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH29-II	E290	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH4-IIR	E290	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP1	E290	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH11R	E290	09-Jul-2025	14-Jul-2025	14 days	5 days	✓	15-Jul-2025	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH10R	E100	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH14-I	E100	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH14-IIR	E100	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH15-IIIR	E100	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH2-II	E100	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	14-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH2-III	E100	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH8R	E100	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP2	E100	09-Jul-2025	12-Jul-2025	28 days	3 days	✓	15-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH18R	E100	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH1-III	E100	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH1-IR	E100	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH23	E100	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH24R	E100	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	15-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH25	E100	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH29-I	E100	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH29-II	E100	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH4-IIR	E100	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
DUP1	E100	08-Jul-2025	12-Jul-2025	28 days	4 days	✓	14-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH11R	E100	09-Jul-2025	14-Jul-2025	28 days	5 days	✓	15-Jul-2025	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH10R	E108	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] BH14-I	E108	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	14-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH14-IIR	E108	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH15-IIIR	E108	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH2-II	E108	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	14-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH2-III	E108	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH8R	E108	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP2	E108	09-Jul-2025	12-Jul-2025	14 days	3 days	✓	15-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH18R	E108	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	15-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH1-III	E108	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	15-Jul-2025	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] BH1-IR	E108	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH23	E108	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	15-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH24R	E108	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	15-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH25	E108	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH29-I	E108	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH29-II	E108	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH4-IIR	E108	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP1	E108	08-Jul-2025	12-Jul-2025	14 days	4 days	✓	14-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH11R	E108	09-Jul-2025	14-Jul-2025	14 days	5 days	✓	15-Jul-2025	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH10R	E420	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH11R	E420	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH14-I	E420	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH14-IIR	E420	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH15-IIIR	E420	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH2-II	E420	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH2-III	E420	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH8R	E420	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
DUP2	E420	09-Jul-2025	14-Jul-2025	180 days	5 days	✓	14-Jul-2025	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH18R	E420	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH1-III	E420	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH1-IR	E420	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH23	E420	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH24R	E420	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH25	E420	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH29-I	E420	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH29-II	E420	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH4-IIR	E420	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
DUP1	E420	08-Jul-2025	14-Jul-2025	180 days	6 days	✓	14-Jul-2025	180 days	6 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
FIELD BLANK	E611A	09-Jul-2025	13-Jul-2025	14 days	4 days	✓	13-Jul-2025	14 days	4 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
TRIP BLANK	E611A	09-Jul-2025	13-Jul-2025	14 days	4 days	✓	13-Jul-2025	14 days	4 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
BH11R	E611A	09-Jul-2025	16-Jul-2025	14 days	7 days	✓	16-Jul-2025	14 days	7 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2103424	4	49	8.1	5.0	✓
pH by Meter	E108	2103426	4	72	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	2103422	4	54	7.4	5.0	✓
Fluoride in Water by IC	E235.F	2103419	4	48	8.3	5.0	✓
Nitrite in Water by IC	E235.NO2	2103421	4	74	5.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2103420	4	74	5.4	5.0	✓
Sulfate in Water by IC	E235.SO4	2103423	4	58	6.9	5.0	✓
Alkalinity Species by Titration	E290	2103425	4	59	6.7	5.0	✓
Ammonia by Fluorescence	E298	2103602	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2103600	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2106610	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2103371	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2103601	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2103427	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2104513	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2104775	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2103723	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2108563	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2103603	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2104362	2	11	18.1	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2103424	4	49	8.1	5.0	✓
pH by Meter	E108	2103426	4	72	5.5	5.0	✓
Chloride in Water by IC	E235.Cl	2103422	4	54	7.4	5.0	✓
Fluoride in Water by IC	E235.F	2103419	4	48	8.3	5.0	✓
Nitrite in Water by IC	E235.NO2	2103421	4	74	5.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2103420	4	74	5.4	5.0	✓
Sulfate in Water by IC	E235.SO4	2103423	4	58	6.9	5.0	✓
Alkalinity Species by Titration	E290	2103425	4	59	6.7	5.0	✓
Ammonia by Fluorescence	E298	2103602	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2103600	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2106610	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2103371	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2103601	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2103427	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2104513	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Dissolved Metals in Water by CRC ICPMS	E421	2104775	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2103723	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2108563	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2103603	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2104362	2	11	18.1	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	2103424	4	49	8.1	5.0	✓
Chloride in Water by IC	E235.Cl	2103422	4	54	7.4	5.0	✓
Fluoride in Water by IC	E235.F	2103419	4	48	8.3	5.0	✓
Nitrite in Water by IC	E235.NO2	2103421	4	74	5.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2103420	4	74	5.4	5.0	✓
Sulfate in Water by IC	E235.SO4	2103423	4	58	6.9	5.0	✓
Alkalinity Species by Titration	E290	2103425	4	59	6.7	5.0	✓
Ammonia by Fluorescence	E298	2103602	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2103600	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2106610	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2103371	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2103601	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2103427	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2104513	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2104775	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2103723	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2108563	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2103603	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2104362	2	11	18.1	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	2103422	4	54	7.4	5.0	✓
Fluoride in Water by IC	E235.F	2103419	4	48	8.3	5.0	✓
Nitrite in Water by IC	E235.NO2	2103421	4	74	5.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2103420	4	74	5.4	5.0	✓
Sulfate in Water by IC	E235.SO4	2103423	4	58	6.9	5.0	✓
Ammonia by Fluorescence	E298	2103602	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2103600	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2106610	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2103371	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2103601	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2103427	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2104513	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2104775	2	39	5.1	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2108563	1	20	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2103603	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2104362	2	11	18.1	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Inorganic Carbon by Combustion	E353-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Inorganic Carbon is determined on a sample which is filtered through a 0.45 micron filter prior to analysis by the high temperature combustion method with measurement by an infrared detector, where the sample is acidified in a reaction chamber to convert all inorganic carbons (carbonates) to carbon dioxide for analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.
Ion Balance using Dissolved Metals	EC101 ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WT2518392**	Page	: 1 of 21
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 10-Jul-2025 13:30
PO	: 86912	Date Analysis Commenced	: 12-Jul-2025
C-O-C number	: ----	Issue Date	: 17-Jul-2025 18:42
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 21		
No. of samples analysed	: 21		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Angela Fleming	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario
David Tremblett	VOC Section Supervisor	Waterloo VOC, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Centralized Prep, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Waterloo Inorganics, Waterloo, Ontario
Kevin Baxter	Supervisor - Inorganic	Winnipeg Inorganics, Winnipeg, Manitoba
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Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Waterloo Metals, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2103424)											
HA2502348-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	314	314	0.00%	10%	----
Physical Tests (QC Lot: 2103425)											
HA2502348-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	127	126	0.711%	20%	----
Physical Tests (QC Lot: 2103426)											
HA2502348-001	Anonymous	pH	----	E108	0.10	pH units	8.26	8.30	0.483%	4%	----
Physical Tests (QC Lot: 2103511)											
WT2518392-004	BH1-III	pH	----	E108	0.10	pH units	7.01	7.11	1.42%	4%	----
Physical Tests (QC Lot: 2103512)											
WT2518392-004	BH1-III	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	309	311	0.651%	20%	----
Physical Tests (QC Lot: 2103513)											
WT2518392-004	BH1-III	Conductivity	----	E100	2.0	µS/cm	2310	2300	0.434%	10%	----
Physical Tests (QC Lot: 2103922)											
WT2518392-011	BH8R	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	1100	1090	1.19%	20%	----
Physical Tests (QC Lot: 2103923)											
WT2518392-011	BH8R	pH	----	E108	0.10	pH units	7.21	7.25	0.553%	4%	----
Physical Tests (QC Lot: 2103924)											
WT2518392-011	BH8R	Conductivity	----	E100	2.0	µS/cm	1970	1940	1.84%	10%	----
Physical Tests (QC Lot: 2104586)											
WT2518392-017	BH11R	Conductivity	----	E100	2.0	µS/cm	1440	1440	0.556%	10%	----
Physical Tests (QC Lot: 2104587)											
WT2518392-017	BH11R	pH	----	E108	0.10	pH units	7.17	7.14	0.419%	4%	----
Physical Tests (QC Lot: 2104588)											
WT2518392-017	BH11R	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	550	546	0.660%	20%	----
Anions and Nutrients (QC Lot: 2103419)											
HA2502326-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.116	0.113	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103420)											
HA2502326-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103421)											
HA2502326-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103422)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2103422) - continued											
HA2502326-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	13.6	13.7	0.489%	20%	----
Anions and Nutrients (QC Lot: 2103423)											
HA2502326-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	6.85	6.85	0.0713%	20%	----
Anions and Nutrients (QC Lot: 2103427)											
HA2502326-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0195	0.0197	0.867%	20%	----
Anions and Nutrients (QC Lot: 2103506)											
WT2518392-004	BH1-III	Chloride	16887-00-6	E235.Cl	2.50	mg/L	553	552	0.0845%	20%	----
Anions and Nutrients (QC Lot: 2103507)											
WT2518392-004	BH1-III	Fluoride	16984-48-8	E235.F	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103508)											
WT2518392-004	BH1-III	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	3.33	3.28	0.04	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103509)											
WT2518392-004	BH1-III	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103510)											
WT2518392-004	BH1-III	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103600)											
WT2518392-002	BH29-II	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	3.60	3.24	10.5%	20%	----
Anions and Nutrients (QC Lot: 2103601)											
WT2518392-001	BH29-I	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.350	0.352	0.495%	20%	----
Anions and Nutrients (QC Lot: 2103602)											
WT2518365-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.500	mg/L	17.0	17.5	3.03%	20%	----
Anions and Nutrients (QC Lot: 2103917)											
WT2518392-011	BH8R	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	0.134	0.134	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103918)											
WT2518392-011	BH8R	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103919)											
WT2518392-011	BH8R	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	3.91	3.83	0.08	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103920)											
WT2518392-011	BH8R	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.143	0.139	0.004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2103921)											
WT2518392-011	BH8R	Chloride	16887-00-6	E235.Cl	2.50	mg/L	50.5	50.5	0.0965%	20%	----
Anions and Nutrients (QC Lot: 2104581)											
WT2518392-017	BH11R	Sulfate (as SO4)	14808-79-8	E235.SO4	0.60	mg/L	0.61	<0.60	0.01	Diff <2x LOR	----

Sub-Matrix: **Water**

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Laboratory Duplicate (DUP) Report						
					LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Anions and Nutrients (QC Lot: 2104582)											
WT2518392-017	BH11R	Nitrate (as N)	14797-55-8	E235.NO3	0.040	mg/L	<0.040	<0.040	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2104583)											
WT2518392-017	BH11R	Nitrite (as N)	14797-65-0	E235.NO2	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2104584)											
WT2518392-017	BH11R	Fluoride	16984-48-8	E235.F	0.040	mg/L	0.180	0.174	0.005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2104585)											
WT2518392-017	BH11R	Chloride	16887-00-6	E235.Cl	1.00	mg/L	151	151	0.161%	20%	----
Organic / Inorganic Carbon (QC Lot: 2103371)											
WT2518392-001	BH29-I	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	7.58	7.66	1.05%	20%	----
Organic / Inorganic Carbon (QC Lot: 2103373)											
WT2518392-009	BH4-IIR	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	2.80	2.84	0.04	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 2106610)											
WT2518392-001	BH29-I	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	107	105	1.76%	20%	----
Total Metals (QC Lot: 2104513)											
WT2518392-001	BH29-I	Aluminum, total	7429-90-5	E420	0.0300	mg/L	3.45	3.41	1.09%	20%	----
		Barium, total	7440-39-3	E420	0.00100	mg/L	0.278	0.279	0.365%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000500	mg/L	0.0000690	0.0000800	0.0000110	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.500	mg/L	229	226	1.08%	20%	----
		Chromium, total	7440-47-3	E420	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00100	mg/L	0.00355	0.00353	0.00002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00500	mg/L	0.00596	0.00598	0.00003	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.100	mg/L	14.3	14.3	0.304%	20%	----
		Lead, total	7439-92-1	E420	0.000500	mg/L	0.00201	0.00203	0.000020	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0500	mg/L	45.1	44.8	0.710%	20%	----
		Manganese, total	7439-96-5	E420	0.00100	mg/L	1.40	1.39	0.823%	20%	----
		Nickel, total	7440-02-0	E420	0.00500	mg/L	0.00712	0.00717	0.00006	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.500	mg/L	2.23	2.20	0.026	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.500	mg/L	17.1	17.1	0.0685%	20%	----
		Zinc, total	7440-66-6	E420	0.0300	mg/L	<0.0300	<0.0300	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2104775)											
WT2518392-001	BH29-I	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.189	0.199	5.03%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.212	0.207	2.50%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 2104775) - continued											
WT2518392-001	BH29-I	Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000217	0.0000217	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	182	182	0.152%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00151	0.00149	1.30%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00081	0.00078	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	2.02	1.99	1.78%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000264	0.000266	0.000003	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	34.3	33.6	2.34%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	1.20	1.18	1.38%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00165	0.00164	0.00001	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.33	1.35	1.18%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000073	0.000080	0.000007	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000020	<0.000010	0.000010	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	16.2	15.8	2.25%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0040	0.0039	0.0001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2104872)											
BF2500145-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0042	0.0044	0.0002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0107	0.0108	1.18%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000134	0.0000147	0.0000013	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	19.7	19.8	0.518%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00015	0.00016	0.000002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00146	0.00143	0.00003	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	16.5	16.5	0.172%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.00052	0.00057	0.00005	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00059	0.00059	0.000004	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	4.82	4.84	0.446%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000293	0.000281	0.000012	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.46	2.47	0.194%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2103603)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Aggregate Organics (QC Lot: 2103603) - continued											
WT2518392-003	BH1-IR	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2103723)											
WT2518392-006	BH23	Biochemical oxygen demand [BOD]	----	E550	2.0	mg/L	3.9	4.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2103724)											
WT2518420-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2108563)											
WT2518392-001	BH29-I	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	55	56	2	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2104362)											
HA2502304-001	Anonymous	Benzene	71-43-2	E611A	0.50	µg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.50	µg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611A	0.50	µg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611A	0.40	µg/L	<0.00040 mg/L	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611A	0.30	µg/L	<0.00030 mg/L	<0.30	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2110397)											
WT2519091-001	Anonymous	Benzene	71-43-2	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611A	0.50	µg/L	1.89	1.91	0.02	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611A	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611A	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2103424)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2103425)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2103512)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2103513)						
Conductivity	----	E100	1	µS/cm	1.0	----
Physical Tests (QCLot: 2103922)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2103924)						
Conductivity	----	E100	1	µS/cm	1.2	----
Physical Tests (QCLot: 2104586)						
Conductivity	----	E100	1	µS/cm	1.1	----
Physical Tests (QCLot: 2104588)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 2103419)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2103420)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2103421)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2103421) - continued						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2103422)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2103423)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2103427)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2103506)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2103507)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2103508)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2103509)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2103510)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2103600)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2103601)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2103602)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2103917)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2103918)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2103919)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2103920)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2103921)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2104581)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2104582)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2104583)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2104584)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2104585)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2103371)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2103373)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2106610)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 2104513)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Dissolved Metals (QCLot: 2104775)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2104775) - continued						
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Dissolved Metals (QCLot: 2104872)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2103603)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2103723)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Aggregate Organics (QCLot: 2103723) - continued						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2103724)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2108563)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Volatile Organic Compounds (QCLot: 2104362)						
Benzene	71-43-2	E611A	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	<0.50	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611A	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611A	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 2110397)						
Benzene	71-43-2	E611A	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	<0.50	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611A	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611A	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	<0.30	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2103424)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	98.9	90.0	110	----
Physical Tests (QCLot: 2103425)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2103426)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 2103511)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2103512)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	99.5	85.0	115	----
Physical Tests (QCLot: 2103513)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	97.4	90.0	110	----
Physical Tests (QCLot: 2103922)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	101	85.0	115	----
Physical Tests (QCLot: 2103923)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2103924)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	97.4	90.0	110	----
Physical Tests (QCLot: 2104586)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	98.4	90.0	110	----
Physical Tests (QCLot: 2104587)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 2104588)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 2103419)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2103420)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 2103421)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2103422)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.7	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2103423)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2103427)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	96.1	80.0	120	----
Anions and Nutrients (QCLot: 2103506)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 2103507)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2103508)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 2103509)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 2103510)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 2103600)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 2103601)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	97.2	80.0	120	----
Anions and Nutrients (QCLot: 2103602)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	104	85.0	115	----
Anions and Nutrients (QCLot: 2103917)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 2103918)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 2103919)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 2103920)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2103921)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.4	90.0	110	----
Anions and Nutrients (QCLot: 2104581)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 2104582)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 2104583)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	100	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2104584)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2104585)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110	----
Organic / Inorganic Carbon (QCLot: 2103371)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	94.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2103373)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	95.9	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2106610)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	93.5	80.0	120	----
Total Metals (QCLot: 2104513)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	105	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	108	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	107	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	104	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	109	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	108	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	109	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	107	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	108	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	113	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	108	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	108	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	110	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	109	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	112	80.0	120	----
Dissolved Metals (QCLot: 2104775)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	106	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	105	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	102	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	104	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 2104775) - continued									
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	105	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	104	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	102	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	105	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	108	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	107	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	107	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	104	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	105	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	106	80.0	120	----
Dissolved Metals (QCLot: 2104872)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	105	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	106	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	101	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	106	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	105	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	104	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	106	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	108	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	105	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	109	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	107	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	105	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	105	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	106	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	98.6	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	108	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	# 125	80.0	120	MES
Aggregate Organics (QCLot: 2103603)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	97.4	85.0	115	----
Aggregate Organics (QCLot: 2103723)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	94.4	85.0	115	----
Aggregate Organics (QCLot: 2103724)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Aggregate Organics (QCLot: 2103724) - continued									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	92.7	85.0	115	----
Aggregate Organics (QCLot: 2108563)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	101	85.0	115	----
Volatile Organic Compounds (QCLot: 2104362)									
Benzene	71-43-2	E611A	0.5	µg/L	100 µg/L	100	70.0	130	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	100 µg/L	88.3	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	100 µg/L	103	70.0	130	----
Styrene	100-42-5	E611A	0.5	µg/L	100 µg/L	94.6	70.0	130	----
Toluene	108-88-3	E611A	0.5	µg/L	100 µg/L	98.2	70.0	130	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	200 µg/L	88.5	70.0	130	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	100 µg/L	88.2	70.0	130	----
Volatile Organic Compounds (QCLot: 2110397)									
Benzene	71-43-2	E611A	0.5	µg/L	100 µg/L	101	70.0	130	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	100 µg/L	99.3	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	100 µg/L	98.9	70.0	130	----
Styrene	100-42-5	E611A	0.5	µg/L	100 µg/L	96.3	70.0	130	----
Toluene	108-88-3	E611A	0.5	µg/L	100 µg/L	99.4	70.0	130	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	200 µg/L	96.0	70.0	130	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	100 µg/L	99.1	70.0	130	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2103419)										
HA2502326-001	Anonymous	Fluoride	16984-48-8	E235.F	1.04 mg/L	1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2103420)										
HA2502326-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.46 mg/L	2.5 mg/L	98.4	75.0	125	----
Anions and Nutrients (QCLot: 2103421)										
HA2502326-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.507 mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2103422)										
HA2502326-001	Anonymous	Chloride	16887-00-6	E235.Cl	99.5 mg/L	100 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 2103423)										
HA2502326-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	99.4 mg/L	100 mg/L	99.4	75.0	125	----
Anions and Nutrients (QCLot: 2103427)										
HA2502326-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0213 mg/L	0.02 mg/L	109	70.0	130	----
Anions and Nutrients (QCLot: 2103506)										
WT2518392-004	BH1-III	Chloride	16887-00-6	E235.Cl	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2103507)										
WT2518392-004	BH1-III	Fluoride	16984-48-8	E235.F	5.17 mg/L	5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2103508)										
WT2518392-004	BH1-III	Sulfate (as SO4)	14808-79-8	E235.SO4	499 mg/L	500 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 2103509)										
WT2518392-004	BH1-III	Nitrate (as N)	14797-55-8	E235.NO3	12.4 mg/L	12.5 mg/L	99.0	75.0	125	----
Anions and Nutrients (QCLot: 2103510)										
WT2518392-004	BH1-III	Nitrite (as N)	14797-65-0	E235.NO2	2.49 mg/L	2.5 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 2103600)										
WT2518392-002	BH29-II	Kjeldahl nitrogen, total [TKN]	----	E318	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 2103601)										
WT2518392-001	BH29-I	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 2103602)										
WT2518365-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2103917)										
WT2518392-011	BH8R	Nitrite (as N)	14797-65-0	E235.NO2	2.56 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2103918)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2103918) - continued										
WT2518392-011	BH8R	Nitrate (as N)	14797-55-8	E235.NO3	12.5 mg/L	12.5 mg/L	99.9	75.0	125	----
Anions and Nutrients (QCLot: 2103919)										
WT2518392-011	BH8R	Sulfate (as SO4)	14808-79-8	E235.SO4	505 mg/L	500 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2103920)										
WT2518392-011	BH8R	Fluoride	16984-48-8	E235.F	5.30 mg/L	5 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 2103921)										
WT2518392-011	BH8R	Chloride	16887-00-6	E235.Cl	504 mg/L	500 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2104581)										
WT2518392-017	BH11R	Sulfate (as SO4)	14808-79-8	E235.SO4	202 mg/L	200 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2104582)										
WT2518392-017	BH11R	Nitrate (as N)	14797-55-8	E235.NO3	4.98 mg/L	5 mg/L	99.6	75.0	125	----
Anions and Nutrients (QCLot: 2104583)										
WT2518392-017	BH11R	Nitrite (as N)	14797-65-0	E235.NO2	1.02 mg/L	1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2104584)										
WT2518392-017	BH11R	Fluoride	16984-48-8	E235.F	2.10 mg/L	2 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 2104585)										
WT2518392-017	BH11R	Chloride	16887-00-6	E235.Cl	201 mg/L	200 mg/L	101	75.0	125	----
Organic / Inorganic Carbon (QCLot: 2103371)										
WT2518392-001	BH29-I	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2103373)										
WT2518392-009	BH4-IIR	Carbon, dissolved organic [DOC]	----	E358-L	4.70 mg/L	5 mg/L	94.0	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2106610)										
WT2518392-002	BH29-II	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 2104513)										
WT2518392-002	BH29-II	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00494 mg/L	0.005 mg/L	98.8	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0132 mg/L	0.012 mg/L	106	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0126 mg/L	0.012 mg/L	100	70.0	130	----
		Copper, total	7440-50-8	E420	0.0106 mg/L	0.012 mg/L	84.5	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0248 mg/L	0.025 mg/L	99.2	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0253 mg/L	0.025 mg/L	101	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 2104513) - continued										
WT2518392-002	BH29-II	Selenium, total	7782-49-2	E420	0.0531 mg/L	0.05 mg/L	106	70.0	130	----
		Silver, total	7440-22-4	E420	0.00486 mg/L	0.005 mg/L	97.2	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	0.0261 mg/L	0.025 mg/L	104	70.0	130	----
Dissolved Metals (QCLot: 2104775)										
WT2518392-002	BH29-II	Aluminum, dissolved	7429-90-5	E421	0.0964 mg/L	0.1 mg/L	96.4	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00489 mg/L	0.005 mg/L	97.8	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0130 mg/L	0.012 mg/L	104	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0123 mg/L	0.012 mg/L	98.7	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0116 mg/L	0.012 mg/L	92.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	ND mg/L	----	ND	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0236 mg/L	0.025 mg/L	94.5	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0233 mg/L	0.025 mg/L	93.3	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0637 mg/L	0.05 mg/L	127	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00284 mg/L	0.005 mg/L	56.8	70.0	130	MS-Ag
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0235 mg/L	0.025 mg/L	94.1	70.0	130	----
Dissolved Metals (QCLot: 2104872)										
BF2500145-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0996 mg/L	0.1 mg/L	99.6	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0126 mg/L	0.012 mg/L	101	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00531 mg/L	0.005 mg/L	106	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0126 mg/L	0.012 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0125 mg/L	0.012 mg/L	100	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0123 mg/L	0.012 mg/L	98.5	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.049 mg/L	0.05 mg/L	98.4	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0245 mg/L	0.025 mg/L	97.9	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0122 mg/L	0.012 mg/L	97.8	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0247 mg/L	0.025 mg/L	98.8	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	2.59 mg/L	2.5 mg/L	104	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0639 mg/L	0.05 mg/L	128	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00474 mg/L	0.005 mg/L	94.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.48 mg/L	2.5 mg/L	99.1	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0283 mg/L	0.025 mg/L	113	70.0	130	----
Aggregate Organics (QCLot: 2103603)										
WT2518392-003	BH1-IR	Phenols, total (4AAP)	----	E562	0.0222 mg/L	0.02 mg/L	111	75.0	125	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Aggregate Organics (QCLot: 2108563)										
WT2518392-001	BH29-I	Chemical oxygen demand [COD]	----	E559-L	99 mg/L	100 mg/L	99.0	75.0	125	----
Volatile Organic Compounds (QCLot: 2104362)										
HA2502304-001	Anonymous	Benzene	71-43-2	E611A	100 µg/L	100 µg/L	100	60.0	140	----
		Ethylbenzene	100-41-4	E611A	86.0 µg/L	100 µg/L	86.0	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	104 µg/L	100 µg/L	104	60.0	140	----
		Styrene	100-42-5	E611A	92.5 µg/L	100 µg/L	92.5	60.0	140	----
		Toluene	108-88-3	E611A	97.2 µg/L	100 µg/L	97.2	60.0	140	----
		Xylene, m+p-	179601-23-1	E611A	173 µg/L	200 µg/L	86.7	60.0	140	----
		Xylene, o-	95-47-6	E611A	86.5 µg/L	100 µg/L	86.5	60.0	140	----
Volatile Organic Compounds (QCLot: 2110397)										
WT2519091-001	Anonymous	Benzene	71-43-2	E611A	102 µg/L	100 µg/L	102	60.0	140	----
		Ethylbenzene	100-41-4	E611A	98.2 µg/L	100 µg/L	98.2	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	98.2 µg/L	100 µg/L	98.2	60.0	140	----
		Styrene	100-42-5	E611A	96.0 µg/L	100 µg/L	96.0	60.0	140	----
		Toluene	108-88-3	E611A	99.1 µg/L	100 µg/L	99.1	60.0	140	----
		Xylene, m+p-	179601-23-1	E611A	190 µg/L	200 µg/L	94.8	60.0	140	----
		Xylene, o-	95-47-6	E611A	98.7 µg/L	100 µg/L	98.7	60.0	140	----

MS-Ag *Matrix Spike recovery for silver was marginally below DQO (40 to <60%) due to its instability in the sample matrix. Silver was not detected. Reported result (< LOR) is reliable*

415/416 N0081009
M197 VW104

Chain of Custody (COC) / Analytical Request Form

COC Number: 20

Page AG

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Environmental Division Waterloo

Work Order Reference WT2518392

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax IAcheson@orillia.ca

Email 2 zgorbell@orillia.ca

Email 3 HCURRY@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax IAcheson@orillia.ca

Email 2 zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minim

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minin

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minin

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minim
Same day [E2] if received by 10am M-S - 200% rush surcharge

☐ fees may apply to rush resuests on weekends, statutory holidays

routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the TAT requested, you will be contacted.

Project Information

ALS Account # / Quote #: GMOI100 / Waste Diversion Site

Job #: Waste Diversion Site

PO / AFE: 86912

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Contact: KSINGH Sampler: Ian Acheson

ALS Lab Work Order # (lab use only):

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Meta	Major Ions Package(Total Metals)	Dissolved Metals: Trace List (F/P)	Total Metals: Trace List (P)	Dissolved Orthophosphate (F/P)	Total Phosphorus (P)	BTEX (P)	VOCs (P)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	BH29-I	8-Jul-25	15:35	GW	7	R	R	R	R	R	R					
	BH29-II	8-Jul-25	15:15	GW	7	R	R	R	R	R	R					
	BH1-IR	8-Jul-25	12:08	GW	7	R	R	R	R	R	R					
	BH1-III	8-Jul-25	12:10	GW	7	R	R		R		R					
	BH18R	8-Jul-25	12:50	GW	7	R	R		R		R					
	BH23	8-Jul-25	13:20	GW	7	R	R		R		R					
	BH24R	8-Jul-25	13:35	GW	7	R	R		R		R					
	BH25	8-Jul-25	14:00	GW	7	R	R	R	R	R	R					
	BH4-IIR	8-Jul-25	14:30	GW	7	R	R	R	R	R	R					
	BH15-IIIR	9-Jul-25	12:15	GW	7	R	R		R		R					
	BH8R	9-Jul-25	12:30	GW	7	R	R		R		R					
	BH14-I	9-Jul-25	12:50	GW	7	R	R	R	R	R	R					

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C			
8-3	9-8	9-1	9-5	7-3	6.4			

SHIPMENT RELEASE (client use)

Released by: Ian Acheson Date: July 10/25 Time: 11:20

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: AM Date: 07/10/25 Time: 13:30

FINAL SHIPMENT RECEPTION (lab use only)

Received by: CP Date: 07/10 Time: 18:00

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

To complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

[1] Water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 2 of 2

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Project Information

ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca
Email 3	HCURRY@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Contact: KSINGH **Sampler:** Ian Acheson

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For tests that can not be performed according to the TAT requested, you will be contacted.

Analysis Request

ALS Lab Work Order # (lab use only):

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals) F/P	Major Ions Package(Total Metals) P	Dissolved Metals: Trace List F/P	Total Metals: Trace List P	Dissolved Orthophosphate F/P	Total Phosphorus P	BTEX P	VOCs P	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH14-IIIR	9-Jul-25	13:00	GW	7	R	R		R		R					
	BH10R	9-Jul-25	13:20	GW	7	R	R		R		R					
	BH2-II	9-Jul-25	14:30	GW	7	R	R	R	R	R	R					
	BH2-III	9-Jul-25	14:20	GW	7	R	R		R		R					
	BH11R	9-Jul-25	14:45	GW	9	R	R		R		R	R				
	DUP1	8-Jul-25	12:10	GW	7	R	R	R	R	R	R					
	DUP2	9-Jul-25	13:20	GW	7	R	R		R		R					
	Field Blank	9-Jul-25	14:45	Water (Lab)	2							R				
	Trip Blank	9-Jul-25	14:50	Water (Lab)	2							R				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
8.3	9.8	9.1	9.5, 7.3	6.4			

SHIPMENT RELEASE (client use)

Released by: Ian Acheson Date: July 10/25 Time: 11:20

INITIAL SHIPMENT RECEPTION (lab use only)

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FINAL SHIPMENT RECEPTION (lab use only)

Received by: CS Date: 07/10 Time: 18:00

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

[1] If drinking water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

CERTIFICATE OF ANALYSIS

Work Order	:	**WT2519237**		
Client	:	**City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	:	Ian Acheson	Account Manager	: Karanpartap Singh
Address	:	50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	:	----	E-mail	: karanpartap.singh@alsglobal.com
Project	:	WASTE DIVERSION SITE	Telephone	: 19055076910
PO	:	86912	Date Samples Received	: 17-Jul-2025 13:30
C-O-C number	:	----	Date Analysis Commenced	: 17-Jul-2025
Sampler	:	IA	Issue Date	: 28-Jul-2025 14:19
Site	:	----		
Quote number	:	Waste Diversion Site		
No. of samples received	:	8		
No. of samples analysed	:	8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett		VOC, Waterloo, Ontario
Greg Pokocky		Inorganics, Waterloo, Ontario
Greg Pokocky		Metals, Waterloo, Ontario
Greg Pokocky		Centralized Prep, Waterloo, Ontario
Hannah Lewis		Inorganics, Waterloo, Ontario
Jon Fisher		Metals, Waterloo, Ontario
Jon Fisher		Inorganics, Waterloo, Ontario
Jon Fisher		Centralized Prep, Waterloo, Ontario
Kevin Baxter		Inorganics, Winnipeg, Manitoba
Nik Perkio		Inorganics, Waterloo, Ontario
Walt Kippenhuck		Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Sample DUP 5: Containers received at laboratory, but not requested on Chain of Custody / analytical request form. Test will be on hold.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
OWP	Organic water sample contained visible sediment (must be included as part of analysis). Measured concentrations of organic substances in water can be biased high due to presence of sediment.

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH21-IR ----	BH21-IIR ----	BH22-IR ----
					Client sampling date / time	15-Jul-2025 10:55	15-Jul-2025 11:00	16-Jul-2025 14:12	16-Jul-2025 11:55	15-Jul-2025 11:40
						WT2519237-001	WT2519237-002	WT2519237-003	WT2519237-004	WT2519237-005
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		405	300	523	749	336
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		405	300	523	749	336
Conductivity	----	E100/WT	2.0	µS/cm		1450	769	1320	1670	1100
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		498	280	555	612	473
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		569	290	732	580	541
pH	----	E108/WT	0.10	pH units		7.17	7.51	7.62	6.89	7.33
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.172	0.0329	11.0	22.9	0.273
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		219 DLDS	57.0	113 DLDS	87.0 DLDS	150 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		<0.100 DLDS	0.314	0.176 DLDS	0.150 DLDS	0.153 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		0.474	0.650	14.6	34.4	0.615
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	0.269	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.010	<0.050 DLDS	<0.050 DLDS	<0.050 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		0.302	0.617	3.60	11.5	0.342
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		<0.0100 DLM	0.0127	<0.0050 DLM	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.113	0.111	0.776	0.715	0.347
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		24.9 DLDS	12.4	9.88 DLDS	13.9 DLDS	9.76 DLDS

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH21-IR ----	BH21-IIR ----	BH22-IR ----
					Client sampling date / time	15-Jul-2025 10:55	15-Jul-2025 11:00	16-Jul-2025 14:12	16-Jul-2025 11:55	15-Jul-2025 11:40
						WT2519237-001	WT2519237-002	WT2519237-003	WT2519237-004	WT2519237-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		85.5	64.5	107	148	66.7
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		5.14	5.46	19.5	42.0	7.31
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		14.8	7.90	13.8	17.7	11.2
Anion sum	----	EC101/WT	0.10	meq/L		14.8	7.90	13.8	17.7	11.2
Cation sum	----	EC101/WT	0.10	meq/L		15.0	8.46	15.6	19.7	11.1
Cation sum (total)	----	EC101A/WT	0.10	meq/L		16.5	9.19	19.8	20.1	13.2
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		111	116	143	114	118
Ion balance (APHA)	----	EC101A/WT	0.010	%		5.43	7.55	17.8	6.35	8.20
Ion balance (cations/anions)	----	EC101/WT	0.010	%		101	107	113	111	99.1
Ion balance (APHA)	----	EC101/WT	0.01	%		0.67	3.42	6.12	5.35	-0.45
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		1.47 DLHC	2.08	3.61 DLHC	----	4.05 DLHC
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.543 DLHC	0.0841	0.239 DLHC	----	0.151 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		<0.0000500 DLHC	0.0000753	<0.0000500 DLHC	----	<0.0000500 DLHC
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		163 DLHC	86.0	207 DLHC	181 DLHC	160 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00500 DLHC	0.00251	0.00630 DLHC	----	<0.00500 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00243 DLHC	0.00753	0.00368 DLHC	----	0.00325 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.0104 DLHC	0.00669	0.0256 DLHC	----	0.0104 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L		15.1 DLHC	2.23	32.3 DLHC	32.9 DLHC	11.3 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.00147 DLHC	0.000928	0.00284 DLHC	----	0.00272 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH21-IR ----	BH21-IIR ----	BH22-IR ----
					Client sampling date / time	15-Jul-2025 10:55	15-Jul-2025 11:00	16-Jul-2025 14:12	16-Jul-2025 11:55	15-Jul-2025 11:40
						WT2519237-001	WT2519237-002	WT2519237-003	WT2519237-004	WT2519237-005
						Result	Result	Result	Result	Result
Total Metals										
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		39.3 DLHC	18.3	52.3 DLHC	31.0 DLHC	34.3 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		1.50 DLHC	1.82	1.38 DLHC	0.951 DLHC	3.53 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		<0.00500 DLHC	0.00478	0.00692 DLHC	----	0.00506 DLHC
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		1.60 DLHC	1.16	44.0 DLHC	87.3 DLHC	1.83 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	0.000147	<0.000500 DLHC	----	<0.000500 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	0.000025	<0.000100 DLHC	----	<0.000100 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		100 DLHC	68.7	38.6 DLHC	58.7 DLHC	31.4 DLHC
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0300 DLHC	0.0124	<0.0300 DLHC	----	<0.0300 DLHC
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		<0.0100 DLM	0.0051	<0.0100 DLM	----	<0.0100 DLM
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.551 DLM	0.0481	0.223 DLM	----	0.104 DLM
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000500 DLM	0.0000111	<0.0000500 DLM	----	<0.0000500 DLM
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		149 DLM	84.0	164 DLM	192 DLM	146 DLM
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00500 DLM	<0.00050	<0.00500 DLM	----	<0.00500 DLM
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00128 DLM	0.00024	<0.00100 DLM	----	<0.00100 DLM
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00200 DLM	0.00118	<0.00200 DLM	----	<0.00200 DLM
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		11.9 DLM	<0.010	24.4 DLM	21.9 DLM	5.28 DLM
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000500 DLM	<0.000050	<0.000500 DLM	----	<0.000500 DLM
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		30.7 DLM	17.0	35.4 DLM	32.1 DLM	26.4 DLM
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		1.30 DLM	0.139	1.07 DLM	0.855 DLM	3.04 DLM
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		<0.00500 DLM	0.00062	<0.00500 DLM	----	<0.00500 DLM

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH21-IR ----	BH21-IIR ----	BH22-IR ----
					Client sampling date / time	15-Jul-2025 10:55	15-Jul-2025 11:00	16-Jul-2025 14:12	16-Jul-2025 11:55	15-Jul-2025 11:40
						WT2519237-001	WT2519237-002	WT2519237-003	WT2519237-004	WT2519237-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		0.975 DLM	0.698	42.1 DLM	90.4 DLM	0.845 DLM
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		<0.000500 DLM	0.000099	<0.000500 DLM	----	<0.000500 DLM
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000100 DLM	<0.000010	<0.000100 DLM	----	<0.000100 DLM
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		103 DLM	65.4	40.0 DLM	62.7 DLM	30.6 DLM
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		<0.0100 DLM	<0.0010	<0.0100 DLM	----	<0.0100 DLM
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		<3.0 BODL	<3.0 BODL	3.6	6.5	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		22	23	69	193	32
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0049	0.0028	0.0066	0.0077	0.0042
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L		----	----	<20	<20	----
Benzene	71-43-2	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L		----	----	<1.0	<1.0	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L		----	----	<0.20	<0.20	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L		----	----	2.28 OWP	5.59 OWP	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH21-IR ----	BH21-IIR ----	BH22-IR ----
					Client sampling date / time	15-Jul-2025 10:55	15-Jul-2025 11:00	16-Jul-2025 14:12	16-Jul-2025 11:55	15-Jul-2025 11:40
						WT2519237-001	WT2519237-002	WT2519237-003	WT2519237-004	WT2519237-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Chloromethane	74-87-3	E611D/WT	2.0	µg/L		----	----	<2.0	<2.0	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L		----	----	<0.20	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L		----	----	0.88 OWP	1.65 OWP	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L		----	----	<0.71	<0.71	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		----	----	<1.0	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		----	----	<0.30	<0.30	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		----	----	<0.30	<0.30	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		----	----	<20	<20	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH21-IR ----	BH21-IIR ----	BH22-IR ----
					Client sampling date / time	15-Jul-2025 10:55	15-Jul-2025 11:00	16-Jul-2025 14:12	16-Jul-2025 11:55	15-Jul-2025 11:40
						WT2519237-001	WT2519237-002	WT2519237-003	WT2519237-004	WT2519237-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		----	----	<20	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		----	----	<20	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Styrene	100-42-5	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		----	----	<0.20	<0.20	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		----	----	<0.40	<0.40	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		----	----	<0.30	<0.30	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		----	----	<0.50	<0.50	----
BTEX, total	----	E611D/WT	1.0	µg/L		----	----	<1.0	<1.0	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		----	----	<1.0	<1.0	----
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		<0.50	----	----	----	<0.50
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		<0.50	----	----	----	<0.50

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH21-IR ----	BH21-IIR ----	BH22-IR ----
					Client sampling date / time	15-Jul-2025 10:55	15-Jul-2025 11:00	16-Jul-2025 14:12	16-Jul-2025 11:55	15-Jul-2025 11:40
						WT2519237-001	WT2519237-002	WT2519237-003	WT2519237-004	WT2519237-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds [Fuels]										
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		<0.50	----	----	----	<0.50
Styrene	100-42-5	E611A/WT	0.50	µg/L		<0.50	----	----	----	<0.50
Toluene	108-88-3	E611A/WT	0.50	µg/L		<0.50	----	----	----	<0.50
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		<0.40	----	----	----	<0.40
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		<0.30	----	----	----	<0.30
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		<0.50	----	----	----	<0.50
BTEX, total	----	E611A/WT	1.0	µg/L		<1.0	----	----	----	<1.0
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		----	----	95.0	93.7	----
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		86.8	----	----	----	86.6
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		----	----	98.5	98.5	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		97.0	----	----	----	97.6

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH22-II ----	BH26 ----	DUP 5 ----	----	----
					Client sampling date / time	15-Jul-2025 11:55	15-Jul-2025 11:35	16-Jul-2025 14:12	----	----
						WT2519237-006	WT2519237-007	WT2519237-008	----	----
						Result	Result	Result	----	----
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	----	----
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		351	264	532	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH22-II ----	BH26 ----	DUP 5 ----	----	----
					Client sampling date / time	15-Jul-2025 11:55	15-Jul-2025 11:35	16-Jul-2025 14:12	----	----
						WT2519237-006	WT2519237-007	WT2519237-008	----	----
						Result	Result	Result	----	----
Physical Tests										
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		351	264	532	----	----
Conductivity	----	E100/WT	2.0	µS/cm		1080	867	1330	----	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		366	317	477	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		391	328	793	----	----
pH	----	E108/WT	0.10	pH units		7.38	7.79	7.25	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.144	0.0264	10.9	----	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		133 DLDS	98.4	116 DLDS	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.086 DLDS	0.064	0.175 DLDS	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		1.37	0.580	13.9	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.040 DLDS	0.441	<0.100 DLDS	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.020 DLDS	0.022	<0.050 DLDS	----	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		1.23	0.554	3.00	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		----	----	<0.0020 DLM	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.467	0.0179	0.794	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		<0.60 DLDS	16.1	9.53 DLDS	----	----
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		74.2	58.0	108	----	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		17.0	9.66	20.9	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH22-II ----	BH26 ----	DUP 5 ----	----	----
					Client sampling date / time	15-Jul-2025 11:55	15-Jul-2025 11:35	16-Jul-2025 14:12	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2519237-006	WT2519237-007	WT2519237-008	----	----
						Result	Result	Result	----	----
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		10.8	8.42	14.1	----	----
Anion sum	----	EC101/WT	0.10	meq/L		10.8	8.42	14.1	----	----
Cation sum	----	EC101/WT	0.10	meq/L		11.4	8.79	13.9	----	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L		12.5	9.26	21.1	----	----
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		116	110	150	----	----
Ion balance (APHA)	----	EC101A/WT	0.010	%		7.30	4.75	19.9	----	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%		106	104	98.6	----	----
Ion balance (APHA)	----	EC101/WT	0.01	%		2.70	2.15	-0.71	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		1.09	0.0474	4.00 DLHC	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.146	0.0752	0.243 DLHC	----	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.0000260	0.0000190	<0.0000500 DLHC	----	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		125	106	221 DLHC	----	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		0.00165	<0.00050	0.00693 DLHC	----	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00093	0.00024	0.00432 DLHC	----	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.00139	0.00114	0.0262 DLHC	----	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L		5.21	0.079	32.3 DLHC	----	----
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.000882	0.000059	0.00299 DLHC	----	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		19.2	15.3	58.5 DLHC	----	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.413	0.113	1.42 DLHC	----	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.00149	0.00054	0.00885 DLHC	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH22-II ----	BH26 ----	DUP 5 ----	----	----
					Client sampling date / time: 15-Jul-2025 11:55	15-Jul-2025 11:35	16-Jul-2025 14:12	----	----
					WT2519237-006	WT2519237-007	WT2519237-008	----	----
					Result	Result	Result	----	----
Total Metals									
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	2.29	4.24	45.2 DLHC	----	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	0.000202	0.000128	<0.000500 DLHC	----	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000100 DLHC	----	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	97.8	59.6	39.2 DLHC	----	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	0.0071	<0.0030	<0.0300 DLHC	----	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	0.0333 DLM	0.0060	<0.0100 DLHC	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	0.116 DLM	0.0672	0.208 DLHC	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	<0.0000500 DLM	0.0000098	<0.0000500 DLHC	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	119 DLM	102	141 DLHC	----	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	<0.00500 DLM	<0.00050	<0.00500 DLHC	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	<0.00100 DLM	<0.00010	<0.00100 DLHC	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	<0.00200 DLM	0.00105	<0.00200 DLHC	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	2.99 DLM	<0.010	24.2 DLHC	----	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	<0.000500 DLM	<0.000050	<0.000500 DLHC	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	16.8 DLM	15.1	30.3 DLHC	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.346 DLM	0.0144	1.03 DLHC	----	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	<0.00500 DLM	<0.00050	<0.00500 DLHC	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	2.01 DLM	4.21	42.4 DLHC	----	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	<0.000500 DLM	0.000136	<0.000500 DLHC	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000100 DLM	<0.000010	<0.000100 DLHC	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH22-II ----	BH26 ----	DUP 5 ----	----	----
					Client sampling date / time: 15-Jul-2025 11:55	15-Jul-2025 11:35	16-Jul-2025 14:12	----	----
					WT2519237-006	WT2519237-007	WT2519237-008	----	----
					Result	Result	Result	----	----
Dissolved Metals									
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	89.4 DLM	53.9	36.4 DLHC	----	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	<0.0100 DLM	<0.0010	<0.0100 DLHC	----	----
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	----	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	<3.0 BODL	<3.0 BODL	3.3	----	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	65	24	70	----	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0038	0.0027	0.0060	----	----
Volatile Organic Compounds									
Acetone	67-64-1	E611D/WT	20	µg/L	----	----	<20	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L	----	----	<1.0	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L	----	----	<0.20	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L	----	----	2.37 OWP	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Chloromethane	74-87-3	E611D/WT	2.0	µg/L	----	----	<2.0	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L	----	----	<0.50	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L	----	----	<0.20	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH22-II ----	BH26 ----	DUP 5 ----	----	----
					Client sampling date / time	15-Jul-2025 11:55	15-Jul-2025 11:35	16-Jul-2025 14:12	----	----
						WT2519237-006	WT2519237-007	WT2519237-008	----	----
						Result	Result	Result	----	----
Volatile Organic Compounds										
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L		----	----	0.91 OWP	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L		----	----	<0.71	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		----	----	<1.0	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		----	----	<0.30	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		----	----	<0.30	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		----	----	<20	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		----	----	<20	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		----	----	<20	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		----	----	<0.50	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH22-II ----	BH26 ----	DUP 5 ----	----	----
					Client sampling date / time	15-Jul-2025 11:55	15-Jul-2025 11:35	16-Jul-2025 14:12	----	----
						WT2519237-006	WT2519237-007	WT2519237-008	----	----
						Result	Result	Result	----	----
Volatile Organic Compounds										
Styrene	100-42-5	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		----	----	<0.20	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		----	----	<0.40	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		----	----	<0.30	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		----	----	<0.50	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		----	----	<1.0	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		----	----	<1.0	----	----
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH22-II ----	BH26 ----	DUP 5 ----	----	----
					Client sampling date / time	15-Jul-2025 11:55	15-Jul-2025 11:35	16-Jul-2025 14:12	----	----
						WT2519237-006	WT2519237-007	WT2519237-008	----	----
						Result	Result	Result	----	----
Volatile Organic Compounds [Fuels]										
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		<0.40	<0.40	----	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
BTEX, total	----	E611A/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		----	----	94.5	----	----
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		89.5	89.4	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		----	----	98.6	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		97.4	97.2	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2519237**	Page	: 1 of 28
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 17-Jul-2025 13:30
PO	: 86912	Issue Date	: 28-Jul-2025 14:18
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Duplicate outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Anions and Nutrients	Anonymous	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	25.8 % DUP-H	20%	Duplicate RPD does not meet the DQO for this test.
Matrix Spike (MS) Recoveries								
Dissolved Metals	WT2519237-002	BH17-IVR	Silver, dissolved	7440-22-4	E421	63.7 % MES	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	Description
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH21-IR	E550	16-Jul-2025	----	----	----		19-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
DUP 5	E550	16-Jul-2025	----	----	----		19-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH17-III	E550	15-Jul-2025	----	----	----		18-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH17-IVR	E550	15-Jul-2025	----	----	----		18-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH21-IIR	E550	16-Jul-2025	----	----	----		19-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH22-II	E550	15-Jul-2025	----	----	----		18-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH22-IR	E550	15-Jul-2025	----	----	----		18-Jul-2025	4 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP]										
BH26	E550	15-Jul-2025	----	----	----		18-Jul-2025	4 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E559-L	16-Jul-2025	----	----	----		18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E559-L	16-Jul-2025	----	----	----		18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E559-L	15-Jul-2025	----	----	----		18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E559-L	15-Jul-2025	----	----	----		18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E559-L	15-Jul-2025	----	----	----		18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E559-L	15-Jul-2025	----	----	----		18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH26	E559-L	15-Jul-2025	----	----	----		18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 5	E559-L	16-Jul-2025	----	----	----		23-Jul-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E562	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E562	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 5	E562	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E562	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E562	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E562	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E562	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH26	E562	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E298	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E298	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 5	E298	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E298	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E298	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E298	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E298	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH26	E298	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
DUP 5	E235.Cl	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.Cl	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH17-IVR	E235.Cl	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH21-IIR	E235.Cl	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH21-IR	E235.Cl	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH22-II	E235.Cl	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH22-IR	E235.Cl	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH26	E235.Cl	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] DUP 5	E378-U	16-Jul-2025	18-Jul-2025	7 days	2 days	✓	22-Jul-2025	7 days	2 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH17-III	E378-U	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	18-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH17-IVR	E378-U	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	18-Jul-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH21-IR	E378-U	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
DUP 5	E235.F	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.F	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.F	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH21-IIR	E235.F	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH21-IR	E235.F	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.F	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.F	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH26	E235.F	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
DUP 5	E235.NO3	16-Jul-2025	18-Jul-2025	7 days	2 days	✓	21-Jul-2025	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.NO3	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	21-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.NO3	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	21-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH21-IIR	E235.NO3	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH21-IR	E235.NO3	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.NO3	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.NO3	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH26	E235.NO3	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
DUP 5	E235.NO2	16-Jul-2025	18-Jul-2025	7 days	2 days	✓	21-Jul-2025	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.NO2	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	21-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.NO2	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	21-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH21-IIR	E235.NO2	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH21-IR	E235.NO2	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.NO2	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.NO2	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH26	E235.NO2	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DUP 5	E235.SO4	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.SO4	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH17-IVR	E235.SO4	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH21-IIR	E235.SO4	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH21-IR	E235.SO4	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH22-II	E235.SO4	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH22-IR	E235.SO4	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH26	E235.SO4	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] DUP 5	E318	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	21-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH21-IIR	E318	16-Jul-2025	22-Jul-2025	28 days	6 days	✓	22-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH21-IR	E318	16-Jul-2025	22-Jul-2025	28 days	6 days	✓	22-Jul-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E318	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	21-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E318	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	21-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH26	E318	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	21-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E318	15-Jul-2025	22-Jul-2025	28 days	7 days	✓	22-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E318	15-Jul-2025	22-Jul-2025	28 days	7 days	✓	22-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E372-U	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	22-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E372-U	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	22-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 5	E372-U	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	23-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E372-U	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	22-Jul-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E372-U	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	22-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E372-U	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	23-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E372-U	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	23-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH26	E372-U	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	23-Jul-2025	28 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH21-IIR	E421	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH21-IR	E421	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH17-III	E421	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH17-IVR	E421	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH22-II	E421	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH22-IR	E421	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH26	E421	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP 5	E421	16-Jul-2025	21-Jul-2025	180 days	5 days	✓	21-Jul-2025	180 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH21-IIR	E353-L	16-Jul-2025	----	----	----		23-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH21-IR	E353-L	16-Jul-2025	----	----	----		23-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH17-III	E353-L	15-Jul-2025	----	----	----		23-Jul-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH17-IVR	E353-L	15-Jul-2025	----	----	----		23-Jul-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH22-II	E353-L	15-Jul-2025	----	----	----		23-Jul-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH22-IR	E353-L	15-Jul-2025	----	----	----		23-Jul-2025	14 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH26	E353-L	15-Jul-2025	----	----	----		23-Jul-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
DUP 5	E353-L	16-Jul-2025	----	----	----		25-Jul-2025	14 days	9 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH21-IIR	E358-L	16-Jul-2025	17-Jul-2025	28 days	1 days	✓	18-Jul-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH21-IR	E358-L	16-Jul-2025	17-Jul-2025	28 days	1 days	✓	18-Jul-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH22-II	E358-L	15-Jul-2025	17-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH22-IR	E358-L	15-Jul-2025	17-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH26	E358-L	15-Jul-2025	17-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH17-III	E358-L	15-Jul-2025	17-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH17-IVR	E358-L	15-Jul-2025	17-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
DUP 5	E358-L	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
DUP 5	E290	16-Jul-2025	18-Jul-2025	14 days	2 days	✓	19-Jul-2025	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH17-III	E290	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH17-IVR	E290	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH21-IIR	E290	16-Jul-2025	19-Jul-2025	14 days	3 days	✓	19-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH21-IR	E290	16-Jul-2025	19-Jul-2025	14 days	3 days	✓	22-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH22-II	E290	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH22-IR	E290	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH26	E290	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP 5	E100	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	19-Jul-2025	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH17-III	E100	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH17-IVR	E100	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH21-IIR	E100	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	19-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH21-IR	E100	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH22-II	E100	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH22-IR	E100	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH26	E100	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP 5	E108	16-Jul-2025	18-Jul-2025	14 days	2 days	✓	19-Jul-2025	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH17-III	E108	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH17-IVR	E108	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH21-IIR	E108	16-Jul-2025	19-Jul-2025	14 days	3 days	✓	19-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH21-IR	E108	16-Jul-2025	19-Jul-2025	14 days	3 days	✓	22-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH22-II	E108	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH22-IR	E108	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH26	E108	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH21-IIR	E420	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH21-IR	E420	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH17-III	E420	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH17-IVR	E420	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH22-II	E420	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH22-IR	E420	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH26	E420	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP 5	E420	16-Jul-2025	21-Jul-2025	180 days	5 days	✓	21-Jul-2025	180 days	5 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH17-III	E611A	15-Jul-2025	20-Jul-2025	14 days	5 days	✓	20-Jul-2025	14 days	5 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH22-II	E611A	15-Jul-2025	20-Jul-2025	14 days	5 days	✓	20-Jul-2025	14 days	5 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH22-IR	E611A	15-Jul-2025	20-Jul-2025	14 days	5 days	✓	20-Jul-2025	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH26	E611A	15-Jul-2025	20-Jul-2025	14 days	5 days	✓	20-Jul-2025	14 days	5 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH21-IIR	E611D	16-Jul-2025	21-Jul-2025	14 days	5 days	✓	21-Jul-2025	14 days	5 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH21-IR	E611D	16-Jul-2025	21-Jul-2025	14 days	5 days	✓	21-Jul-2025	14 days	5 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) DUP 5	E611D	16-Jul-2025	21-Jul-2025	14 days	5 days	✓	21-Jul-2025	14 days	5 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2113309	5	48	10.4	5.0	✓
pH by Meter	E108	2113310	5	65	7.6	5.0	✓
Chloride in Water by IC	E235.Cl	2113306	5	70	7.1	5.0	✓
Fluoride in Water by IC	E235.F	2113305	5	54	9.2	5.0	✓
Nitrite in Water by IC	E235.NO2	2113302	5	92	5.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2113304	5	96	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	2113303	5	79	6.3	5.0	✓
Alkalinity Species by Titration	E290	2113308	5	70	7.1	5.0	✓
Ammonia by Fluorescence	E298	2114465	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2114467	2	38	5.2	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2122447	2	15	13.3	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2113075	3	60	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2114464	2	40	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2113307	3	47	6.3	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2113085	2	38	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2114442	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2113741	3	60	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2113390	2	40	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2114466	2	40	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2116925	1	15	6.6	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2118585	2	20	10.0	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2113309	5	48	10.4	5.0	✓
pH by Meter	E108	2113310	5	65	7.6	5.0	✓
Chloride in Water by IC	E235.Cl	2113306	5	70	7.1	5.0	✓
Fluoride in Water by IC	E235.F	2113305	5	54	9.2	5.0	✓
Nitrite in Water by IC	E235.NO2	2113302	5	92	5.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2113304	5	96	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	2113303	5	79	6.3	5.0	✓
Alkalinity Species by Titration	E290	2113308	5	70	7.1	5.0	✓
Ammonia by Fluorescence	E298	2114465	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2114467	2	38	5.2	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2122447	2	15	13.3	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2113075	3	60	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2114464	2	40	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2113307	3	47	6.3	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Metals in Water by CRC ICPMS	E420	2113085	2	38	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2114442	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2113741	3	60	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2113390	2	40	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2114466	2	40	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2116925	1	15	6.6	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2118585	1	20	5.0	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	2113309	5	48	10.4	5.0	✓
Chloride in Water by IC	E235.Cl	2113306	5	70	7.1	5.0	✓
Fluoride in Water by IC	E235.F	2113305	5	54	9.2	5.0	✓
Nitrite in Water by IC	E235.NO2	2113302	5	92	5.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2113304	5	96	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	2113303	5	79	6.3	5.0	✓
Alkalinity Species by Titration	E290	2113308	5	70	7.1	5.0	✓
Ammonia by Fluorescence	E298	2114465	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2114467	2	38	5.2	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2122447	2	15	13.3	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2113075	3	60	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2114464	2	40	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2113307	3	47	6.3	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2113085	2	38	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2114442	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2113741	3	60	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2113390	2	40	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2114466	2	40	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2116925	1	15	6.6	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2118585	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	2113306	5	70	7.1	5.0	✓
Fluoride in Water by IC	E235.F	2113305	5	54	9.2	5.0	✓
Nitrite in Water by IC	E235.NO2	2113302	5	92	5.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2113304	5	96	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	2113303	5	79	6.3	5.0	✓
Ammonia by Fluorescence	E298	2114465	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2114467	2	38	5.2	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2122447	2	15	13.3	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2113075	3	60	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2114464	2	40	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2113307	3	47	6.3	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2113085	2	38	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2114442	2	39	5.1	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2113390	2	40	5.0	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2114466	2	40	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2116925	1	15	6.6	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2118585	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Inorganic Carbon by Combustion	E353-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Inorganic Carbon is determined on a sample which is filtered through a 0.45 micron filter prior to analysis by the high temperature combustion method with measurement by an infrared detector, where the sample is acidified in a reaction chamber to convert all inorganic carbons (carbonates) to carbon dioxide for analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.
Ion Balance using Dissolved Metals	EC101 ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.

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QUALITY CONTROL REPORT

Work Order	: **WT2519237**	Page	: 1 of 32
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 17-Jul-2025 13:30
PO	: 86912	Date Analysis Commenced	: 17-Jul-2025
C-O-C number	: ----	Issue Date	: 28-Jul-2025 14:18
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 8		
No. of samples analysed	: 8		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett	VOC Section Supervisor	Waterloo VOC, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Centralized Prep, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Waterloo Centralized Prep, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Waterloo Inorganics, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Waterloo Metals, Waterloo, Ontario
Kevin Baxter	Supervisor - Inorganic	Winnipeg Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2113308)											
WT2519237-001	BH17-III	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	405	407	0.522%	20%	----
Physical Tests (QC Lot: 2113309)											
WT2519237-001	BH17-III	Conductivity	----	E100	2.0	µS/cm	1450	1450	0.00%	10%	----
Physical Tests (QC Lot: 2113310)											
WT2519237-001	BH17-III	pH	----	E108	0.10	pH units	7.17	7.21	0.556%	4%	----
Physical Tests (QC Lot: 2113311)											
WT2519237-005	BH22-IR	Conductivity	----	E100	2.0	µS/cm	1100	1100	0.182%	10%	----
Physical Tests (QC Lot: 2113312)											
WT2519237-005	BH22-IR	pH	----	E108	0.10	pH units	7.33	7.39	0.815%	4%	----
Physical Tests (QC Lot: 2113313)											
WT2519237-005	BH22-IR	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	336	338	0.510%	20%	----
Physical Tests (QC Lot: 2115216)											
WT2519237-008	DUP 5	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	532	524	1.36%	20%	----
Physical Tests (QC Lot: 2115217)											
WT2519237-008	DUP 5	Conductivity	----	E100	2.0	µS/cm	1330	1330	0.451%	10%	----
Physical Tests (QC Lot: 2115218)											
WT2519237-008	DUP 5	pH	----	E108	0.10	pH units	7.25	7.42	2.32%	4%	----
Physical Tests (QC Lot: 2115983)											
WT2519237-004	BH21-IIR	pH	----	E108	0.10	pH units	6.89	6.92	0.434%	4%	----
Physical Tests (QC Lot: 2115984)											
WT2519237-004	BH21-IIR	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	749	752	0.301%	20%	----
Physical Tests (QC Lot: 2115985)											
WT2519237-004	BH21-IIR	Conductivity	----	E100	2.0	µS/cm	1670	1670	0.299%	10%	----
Physical Tests (QC Lot: 2116069)											
WT2519237-003	BH21-IR	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	523	526	0.579%	20%	----
Physical Tests (QC Lot: 2116070)											
WT2519237-003	BH21-IR	pH	----	E108	0.10	pH units	7.62	7.56	0.790%	4%	----
Physical Tests (QC Lot: 2116071)											
WT2519237-003	BH21-IR	Conductivity	----	E100	2.0	µS/cm	1320	1310	1.14%	10%	----
Anions and Nutrients (QC Lot: 2113302)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2113302) - continued											
HA2502451-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113303)											
HA2502451-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	11.6	11.6	0.365%	20%	----
Anions and Nutrients (QC Lot: 2113304)											
HA2502451-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.072	0.072	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113305)											
HA2502451-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.456	0.459	0.543%	20%	----
Anions and Nutrients (QC Lot: 2113306)											
HA2502451-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	34.1	34.2	0.154%	20%	----
Anions and Nutrients (QC Lot: 2113307)											
HA2502440-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113314)											
WT2519237-005	BH22-IR	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.153	0.156	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113315)											
WT2519237-005	BH22-IR	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113316)											
WT2519237-005	BH22-IR	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113317)											
WT2519237-005	BH22-IR	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	9.76	9.68	0.08	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113318)											
WT2519237-005	BH22-IR	Chloride	16887-00-6	E235.Cl	2.50	mg/L	150	150	0.172%	20%	----
Anions and Nutrients (QC Lot: 2114464)											
WT2518907-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0200	mg/L	6.53	6.50	0.558%	20%	----
Anions and Nutrients (QC Lot: 2114465)											
WT2518920-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0500	mg/L	2.46	2.53	3.04%	20%	----
Anions and Nutrients (QC Lot: 2114467)											
WT2519068-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	0.708	0.918	25.8%	20%	DUP-H
Anions and Nutrients (QC Lot: 2114927)											
WT2519237-006	BH22-II	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	1.37	1.37	0.0658%	20%	----
Anions and Nutrients (QC Lot: 2114928)											
WT2519237-005	BH22-IR	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.347	0.346	0.283%	20%	----
Anions and Nutrients (QC Lot: 2114929)											
BF2500157-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0250	mg/L	0.678	0.682	0.559%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2115210)											
HA2502481-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	3.41	3.43	0.374%	20%	----
Anions and Nutrients (QC Lot: 2115211)											
HA2502481-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2115212)											
HA2502481-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2115213)											
HA2502481-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.077	0.074	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2115214)											
HA2502481-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	36.9	37.0	0.355%	20%	----
Anions and Nutrients (QC Lot: 2115219)											
HA2502474-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2115978)											
WT2519237-004	BH21-IIR	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2115979)											
WT2519237-004	BH21-IIR	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2115980)											
WT2519237-004	BH21-IIR	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.150	0.149	0.0010	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2115981)											
WT2519237-004	BH21-IIR	Chloride	16887-00-6	E235.Cl	2.50	mg/L	87.0	86.8	0.173%	20%	----
Anions and Nutrients (QC Lot: 2115982)											
WT2519237-004	BH21-IIR	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	13.9	13.9	0.007	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2116063)											
HA2502532-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.034	0.035	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2116064)											
HA2502532-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2116065)											
HA2502532-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	5.52	5.40	2.09%	20%	----
Anions and Nutrients (QC Lot: 2116066)											
HA2502532-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	78.4	78.5	0.108%	20%	----
Anions and Nutrients (QC Lot: 2116067)											
HA2502532-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.145	0.145	0.00003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2116191)											
HA2502532-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0536	0.0504	6.19%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 2113075)											
WT2519146-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	2.73	2.70	0.03	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 2113076)											
BF2500158-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.95	1.94	0.01	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 2115924)											
WT2519237-008	DUP 5	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	20.9	21.6	3.64%	20%	----
Organic / Inorganic Carbon (QC Lot: 2122447)											
WT2519237-001	BH17-III	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	85.5	85.9	0.446%	20%	----
Organic / Inorganic Carbon (QC Lot: 2126502)											
WP2511708-001	Anonymous	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	8.84	8.37	5.49%	20%	----
Total Metals (QC Lot: 2113085)											
WT2519131-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0502	0.0600	17.7%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0120	0.0118	1.24%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	46.7	47.1	0.952%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00148	0.00148	0.000003	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.074	0.079	0.005	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	17.1	17.1	0.142%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0116	0.0122	4.58%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00070	0.00112	0.00042	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.31	1.30	0.525%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000128	0.000112	0.000016	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	5.51	5.47	0.819%	20%	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
Total Metals (QC Lot: 2117130)											
WT2519311-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.105	0.111	5.59%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.121	0.118	3.18%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000086	0.0000080	0.0000006	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	108	106	1.84%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 2117130) - continued											
WT2519311-001	Anonymous	Copper, total	7440-50-8	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.454	0.443	2.52%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000198	0.000195	0.000003	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	21.4	20.7	3.33%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0466	0.0448	3.84%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.97	1.93	1.79%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000081	0.000080	0.0000007	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	28.3	27.8	1.68%	20%	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2114442)											
WT2519204-005	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0027	0.0028	0.00008	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0590	0.0576	2.43%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000060	0.0000066	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	50.6	50.2	0.800%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00043	0.00041	0.00002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00028	0.00029	0.00001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.012	0.012	0.0002	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	10.3	10.0	2.77%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.805	0.785	2.53%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00140	0.00136	0.00004	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.927	0.902	2.77%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	13.5	13.2	2.42%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0020	0.0021	0.0001	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2117480)											
HA2502529-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0669	0.0662	1.05%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00943	0.00933	1.11%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	2.50	2.52	0.752%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 2117480) - continued											
HA2502529-001	Anonymous	Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	0.00151	0.00152	0.000007	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00041	0.00041	0.000002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00033	0.00032	0.00001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	5.50	5.49	0.182%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000095	0.000094	0.000001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	1.66	1.63	1.94%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0948	0.0932	1.69%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00116	0.00119	0.00003	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.45	1.43	1.03%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.50	2.47	1.42%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0020	0.0020	0.000010	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2113390)											
WT2519032-001	Anonymous	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	41	42	2	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2113741)											
WT2518970-005	Anonymous	Biochemical oxygen demand [BOD]	----	E550	2.0	mg/L	<2.0	<2.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2114466)											
WP2511231-001	Anonymous	Phenols, total (4AAP)	----	E562	0.500	mg/L	<0.500	<0.500	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2114930)											
WP2511269-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0500	mg/L	<0.0500	<0.0500	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2116289)											
HA2502524-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2116305)											
WT2519205-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2121327)											
HA2502481-001	Anonymous	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	47	45	2	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2116925)											
TY2507830-001	Anonymous	Benzene	71-43-2	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611A	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 2116925) - continued											
TY2507830-001	Anonymous	Xylene, o-	95-47-6	E611A	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2118585)											
WT2519229-004	Anonymous	Trichloroethylene	79-01-6	E611D	0.50	µg/L	4.49	4.38	2.48%	30%	----
WT2519229-004	Anonymous	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon disulfide	75-15-0	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611D	0.50	µg/L	<0.50	0.58	0.08	Diff <2x LOR	----
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611D	2.0	µg/L	<2.0	<2.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	0.74	0.76	0.02	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 2118585) - continued											
WT2519229-004	Anonymous	Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	3.78	3.71	1.87%	30%	----
		Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	4.10	4.04	1.47%	30%	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----

Qualifiers

Qualifier	*Description*
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2113308)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2113309)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2113311)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2113313)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2115216)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2115217)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2115984)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2115985)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2116069)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2116071)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Anions and Nutrients (QCLot: 2113302)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2113303)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2113304)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2113305)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2113306)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2113307)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2113314)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2113315)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2113316)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2113317)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2113318)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2114464)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2114465)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2114467)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2114927)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2114928)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2114929)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2115210)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2115211)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2115212)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2115213)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2115214)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2115219)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2115978)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2115979)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2115980)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2115981)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2115982)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2116063)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2116064)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2116065)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2116066)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2116067)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2116191)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 2113075)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 2113076)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2115924)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2122447)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2126502)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 2113085)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Total Metals (QCLot: 2117130)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 2117130) - continued						
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Dissolved Metals (QCLot: 2114442)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Dissolved Metals (QCLot: 2117480)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2117480) - continued						
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2113390)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Aggregate Organics (QCLot: 2113741)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2114466)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2114930)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2116289)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2116305)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2121327)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Volatile Organic Compounds (QCLot: 2116925)						
Benzene	71-43-2	E611A	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	<0.50	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611A	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611A	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 2118585)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2118585) - continued						
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2118585) - continued						
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2113308)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2113309)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	98.9	90.0	110	----
Physical Tests (QCLot: 2113310)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2113311)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.4	90.0	110	----
Physical Tests (QCLot: 2113312)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2113313)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2115216)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	100	85.0	115	----
Physical Tests (QCLot: 2115217)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2115218)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2115983)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 2115984)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2115985)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2116069)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	100.0	85.0	115	----
Physical Tests (QCLot: 2116070)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2116071)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	102	90.0	110	----
Anions and Nutrients (QCLot: 2113302)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	100	90.0	110	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2113303)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 2113304)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 2113305)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 2113306)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 2113307)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	96.8	80.0	120	----
Anions and Nutrients (QCLot: 2113314)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	97.9	90.0	110	----
Anions and Nutrients (QCLot: 2113315)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 2113316)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 2113317)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 2113318)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 2114464)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	95.9	80.0	120	----
Anions and Nutrients (QCLot: 2114465)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 2114467)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	112	75.0	125	----
Anions and Nutrients (QCLot: 2114927)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	110	75.0	125	----
Anions and Nutrients (QCLot: 2114928)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	98.2	80.0	120	----
Anions and Nutrients (QCLot: 2114929)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.6	85.0	115	----
Anions and Nutrients (QCLot: 2115210)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2115211)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	100	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2115212)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2115213)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2115214)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 2115219)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	95.4	80.0	120	----
Anions and Nutrients (QCLot: 2115978)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 2115979)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2115980)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2115981)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 2115982)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2116063)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 2116064)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2116065)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2116066)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 2116067)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2116191)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	96.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2113075)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.3	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2113076)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	98.1	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2115924)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 2115924) - continued									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	101	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2122447)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	93.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2126502)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	90.3	80.0	120	----
Total Metals (QCLot: 2113085)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	104	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	98.7	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	102	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	95.5	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	102	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	103	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	104	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	104	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	106	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	105	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	103	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	104	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	105	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	96.8	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	105	80.0	120	----
Total Metals (QCLot: 2117130)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	109	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	110	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	108	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	105	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	111	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	110	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	110	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	109	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	108	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	116	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	109	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 2117130) - continued									
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	110	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	114	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	108	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	108	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	112	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	110	80.0	120	----
Dissolved Metals (QCLot: 2114442)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	108	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	106	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	106	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	103	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	104	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	104	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	106	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	94.3	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	107	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	107	80.0	120	----
Dissolved Metals (QCLot: 2117480)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	108	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	109	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	108	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	104	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	109	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	109	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	109	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	109	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	106	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	113	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 2117480) - continued									
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	110	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	112	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	110	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	108	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	110	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	113	80.0	120	----
Aggregate Organics (QCLot: 2113390)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	105	85.0	115	----
Aggregate Organics (QCLot: 2113741)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	96.1	85.0	115	----
Aggregate Organics (QCLot: 2114466)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	106	85.0	115	----
Aggregate Organics (QCLot: 2114930)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	104	85.0	115	----
Aggregate Organics (QCLot: 2116289)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	91.5	85.0	115	----
Aggregate Organics (QCLot: 2116305)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	94.7	85.0	115	----
Aggregate Organics (QCLot: 2121327)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	103	85.0	115	----
Volatile Organic Compounds (QCLot: 2116925)									
Benzene	71-43-2	E611A	0.5	µg/L	100 µg/L	106	70.0	130	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	100 µg/L	97.2	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	100 µg/L	111	70.0	130	----
Styrene	100-42-5	E611A	0.5	µg/L	100 µg/L	98.0	70.0	130	----
Toluene	108-88-3	E611A	0.5	µg/L	100 µg/L	106	70.0	130	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	200 µg/L	93.7	70.0	130	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	100 µg/L	94.7	70.0	130	----
Volatile Organic Compounds (QCLot: 2118585)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	107	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2118585) - continued									
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	80.9	60.0	140	----
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	98.2	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	105	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	101	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	107	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	99.4	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	113	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	98.0	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	101	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	95.2	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	95.5	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	97.6	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	99.8	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	96.3	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	99.4	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	97.3	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	99.3	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	97.4	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	97.0	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	99.1	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2118585) - continued									
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	105	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	102	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	101	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	96.7	70.0	130	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2113302)										
HA2502451-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.424 mg/L	0.5 mg/L	84.9	75.0	125	----
Anions and Nutrients (QCLot: 2113303)										
HA2502451-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	96.6 mg/L	100 mg/L	96.6	75.0	125	----
Anions and Nutrients (QCLot: 2113304)										
HA2502451-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.47 mg/L	2.5 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 2113305)										
HA2502451-001	Anonymous	Fluoride	16984-48-8	E235.F	1.00 mg/L	1 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 2113306)										
HA2502451-001	Anonymous	Chloride	16887-00-6	E235.Cl	96.3 mg/L	100 mg/L	96.3	75.0	125	----
Anions and Nutrients (QCLot: 2113307)										
HA2502440-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0189 mg/L	0.02 mg/L	96.6	70.0	130	----
Anions and Nutrients (QCLot: 2113314)										
WT2519237-005	BH22-IR	Fluoride	16984-48-8	E235.F	4.99 mg/L	5 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 2113315)										
WT2519237-005	BH22-IR	Nitrate (as N)	14797-55-8	E235.NO3	12.3 mg/L	12.5 mg/L	98.3	75.0	125	----
Anions and Nutrients (QCLot: 2113316)										
WT2519237-005	BH22-IR	Nitrite (as N)	14797-65-0	E235.NO2	2.47 mg/L	2.5 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 2113317)										
WT2519237-005	BH22-IR	Sulfate (as SO4)	14808-79-8	E235.SO4	496 mg/L	500 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 2113318)										
WT2519237-005	BH22-IR	Chloride	16887-00-6	E235.Cl	499 mg/L	500 mg/L	99.8	75.0	125	----
Anions and Nutrients (QCLot: 2114464)										
WT2518907-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 2114465)										
WT2518920-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2114467)										
WT2519068-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	2.30 mg/L	2.5 mg/L	N/A	70.0	130	----
Anions and Nutrients (QCLot: 2114927)										
WT2519237-006	BH22-II	Kjeldahl nitrogen, total [TKN]	----	E318	3.07 mg/L	2.5 mg/L	123	70.0	130	----
Anions and Nutrients (QCLot: 2114928)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2114928) - continued										
WT2519237-005	BH22-IR	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 2114929)										
BF2500157-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2115210)										
HA2502481-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2115211)										
HA2502481-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.52 mg/L	2.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2115212)										
HA2502481-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.521 mg/L	0.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2115213)										
HA2502481-001	Anonymous	Fluoride	16984-48-8	E235.F	1.08 mg/L	1 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 2115214)										
HA2502481-001	Anonymous	Chloride	16887-00-6	E235.Cl	102 mg/L	100 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2115219)										
HA2502474-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0186 mg/L	0.02 mg/L	95.0	70.0	130	----
Anions and Nutrients (QCLot: 2115978)										
WT2519237-004	BH21-IIR	Nitrate (as N)	14797-55-8	E235.NO3	12.5 mg/L	12.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 2115979)										
WT2519237-004	BH21-IIR	Nitrite (as N)	14797-65-0	E235.NO2	2.61 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2115980)										
WT2519237-004	BH21-IIR	Fluoride	16984-48-8	E235.F	5.12 mg/L	5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2115981)										
WT2519237-004	BH21-IIR	Chloride	16887-00-6	E235.Cl	514 mg/L	500 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2115982)										
WT2519237-004	BH21-IIR	Sulfate (as SO4)	14808-79-8	E235.SO4	518 mg/L	500 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2116063)										
HA2502532-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.39 mg/L	2.5 mg/L	95.8	75.0	125	----
Anions and Nutrients (QCLot: 2116064)										
HA2502532-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.491 mg/L	0.5 mg/L	98.1	75.0	125	----
Anions and Nutrients (QCLot: 2116065)										
HA2502532-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	97.6 mg/L	100 mg/L	97.6	75.0	125	----
Anions and Nutrients (QCLot: 2116066)										
HA2502532-001	Anonymous	Chloride	16887-00-6	E235.Cl	95.6 mg/L	100 mg/L	95.6	75.0	125	----
Anions and Nutrients (QCLot: 2116067)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2116067) - continued										
HA2502532-001	Anonymous	Fluoride	16984-48-8	E235.F	1.02 mg/L	1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2116191)										
HA2502532-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2113075)										
WT2519146-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.60 mg/L	5 mg/L	91.9	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2113076)										
BF2500158-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.50 mg/L	5 mg/L	90.0	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2115924)										
WT2519237-008	DUP 5	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2122447)										
WT2519237-002	BH17-IVR	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2126502)										
WP2511708-002	Anonymous	Carbon, dissolved inorganic [DIC]	----	E353-L	8.83 mg/L	10 mg/L	88.3	70.0	130	----
Total Metals (QCLot: 2113085)										
WT2519131-002	Anonymous	Aluminum, total	7429-90-5	E420	0.103 mg/L	0.1 mg/L	103	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00504 mg/L	0.005 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0129 mg/L	0.012 mg/L	103	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0127 mg/L	0.012 mg/L	102	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	0.052 mg/L	0.05 mg/L	104	70.0	130	----
		Lead, total	7439-92-1	E420	0.0250 mg/L	0.025 mg/L	99.8	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0128 mg/L	0.012 mg/L	103	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0252 mg/L	0.025 mg/L	101	70.0	130	----
		Potassium, total	7440-09-7	E420	2.60 mg/L	2.5 mg/L	104	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0521 mg/L	0.05 mg/L	104	70.0	130	----
		Silver, total	7440-22-4	E420	0.00475 mg/L	0.005 mg/L	95.0	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	0.0244 mg/L	0.025 mg/L	97.8	70.0	130	----
Total Metals (QCLot: 2117130)										
WT2519311-002	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00497 mg/L	0.005 mg/L	99.4	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0138 mg/L	0.012 mg/L	110	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0135 mg/L	0.012 mg/L	108	70.0	130	----
		Copper, total	7440-50-8	E420	0.0129 mg/L	0.012 mg/L	103	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 2117130) - continued										
WT2519311-002	Anonymous	Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0250 mg/L	0.025 mg/L	99.9	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0261 mg/L	0.025 mg/L	104	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0524 mg/L	0.05 mg/L	105	70.0	130	----
		Silver, total	7440-22-4	E420	0.00488 mg/L	0.005 mg/L	97.6	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	0.0242 mg/L	0.025 mg/L	96.8	70.0	130	----
Dissolved Metals (QCLot: 2114442)										
WT2519237-002	BH17-IVR	Aluminum, dissolved	7429-90-5	E421	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00508 mg/L	0.005 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0128 mg/L	0.012 mg/L	103	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0123 mg/L	0.012 mg/L	98.7	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0120 mg/L	0.012 mg/L	95.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.049 mg/L	0.05 mg/L	98.9	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0238 mg/L	0.025 mg/L	95.0	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0242 mg/L	0.025 mg/L	96.6	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	2.55 mg/L	2.5 mg/L	102	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0570 mg/L	0.05 mg/L	114	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00318 mg/L	0.005 mg/L	63.7	70.0	130	MES
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0256 mg/L	0.025 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 2117480)										
WT2519040-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.114 mg/L	0.1 mg/L	114	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0143 mg/L	0.012 mg/L	114	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00589 mg/L	0.005 mg/L	118	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	2.64 mg/L	2.5 mg/L	106	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0141 mg/L	0.012 mg/L	113	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0140 mg/L	0.012 mg/L	112	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0141 mg/L	0.012 mg/L	112	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.055 mg/L	0.05 mg/L	110	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0278 mg/L	0.025 mg/L	111	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	2.97 mg/L	2.5 mg/L	119	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0142 mg/L	0.012 mg/L	113	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0280 mg/L	0.025 mg/L	112	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	2.90 mg/L	2.5 mg/L	116	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0640 mg/L	0.05 mg/L	128	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 2117480) - continued										
WT2519040-003	Anonymous	Silver, dissolved	7440-22-4	E421	0.00540 mg/L	0.005 mg/L	108	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.91 mg/L	2.5 mg/L	116	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0310 mg/L	0.025 mg/L	124	70.0	130	----
Aggregate Organics (QCLot: 2113390)										
WT2519032-001	Anonymous	Chemical oxygen demand [COD]	----	E559-L	96 mg/L	100 mg/L	95.8	75.0	125	----
Aggregate Organics (QCLot: 2114466)										
WP2511231-001	Anonymous	Phenols, total (4AAP)	----	E562	10.6 mg/L	10 mg/L	106	75.0	125	----
Aggregate Organics (QCLot: 2114930)										
WP2511269-001	Anonymous	Phenols, total (4AAP)	----	E562	1.10 mg/L	1 mg/L	110	75.0	125	----
Aggregate Organics (QCLot: 2121327)										
HA2502481-001	Anonymous	Chemical oxygen demand [COD]	----	E559-L	91 mg/L	100 mg/L	90.7	75.0	125	----
Volatile Organic Compounds (QCLot: 2116925)										
TY2507830-001	Anonymous	Benzene	71-43-2	E611A	104 µg/L	100 µg/L	104	60.0	140	----
		Ethylbenzene	100-41-4	E611A	93.5 µg/L	100 µg/L	93.5	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	110 µg/L	100 µg/L	110	60.0	140	----
		Styrene	100-42-5	E611A	97.2 µg/L	100 µg/L	97.2	60.0	140	----
		Toluene	108-88-3	E611A	102 µg/L	100 µg/L	102	60.0	140	----
		Xylene, m+p-	179601-23-1	E611A	181 µg/L	200 µg/L	90.6	60.0	140	----
		Xylene, o-	95-47-6	E611A	92.0 µg/L	100 µg/L	92.0	60.0	140	----
Volatile Organic Compounds (QCLot: 2118585)										
WT2519229-004	Anonymous	Acetone	67-64-1	E611D	109 µg/L	100 µg/L	109	60.0	140	----
		Benzene	71-43-2	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Bromodichloromethane	75-27-4	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Bromoform	75-25-2	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Bromomethane	74-83-9	E611D	78.3 µg/L	100 µg/L	78.3	60.0	140	----
		Carbon disulfide	75-15-0	E611D	92.2 µg/L	100 µg/L	92.2	60.0	140	----
		Carbon tetrachloride	56-23-5	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Chlorobenzene	108-90-7	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Chloroethane	75-00-3	E611D	95.2 µg/L	100 µg/L	95.2	60.0	140	----
		Chloroform	67-66-3	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Chloromethane	74-87-3	E611D	99.9 µg/L	100 µg/L	99.9	60.0	140	----
		Dibromochloromethane	124-48-1	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dibromoethane, 1,2-	106-93-4	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	97.5 µg/L	100 µg/L	97.5	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	98.7 µg/L	100 µg/L	98.7	60.0	140	----
		Dichlorodifluoromethane	75-71-8	E611D	96.5 µg/L	100 µg/L	96.5	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611D	96.5 µg/L	100 µg/L	96.5	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611D	108 µg/L	100 µg/L	108	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	104 µg/L	100 µg/L	104	60.0	140	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2118585) - continued										
WT2519229-004	Anonymous	Dichloroethylene, trans-1,2-	156-60-5	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Dichloromethane	75-09-2	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	97.1 µg/L	100 µg/L	97.1	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Ethylbenzene	100-41-4	E611D	94.2 µg/L	100 µg/L	94.2	60.0	140	----
		Hexane, n-	110-54-3	E611D	90.9 µg/L	100 µg/L	90.9	60.0	140	----
		Hexanone, 2-	591-78-6	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	98.7 µg/L	100 µg/L	98.7	60.0	140	----
		Styrene	100-42-5	E611D	95.7 µg/L	100 µg/L	95.7	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	96.9 µg/L	100 µg/L	96.9	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Tetrachloroethylene	127-18-4	E611D	96.0 µg/L	100 µg/L	96.0	60.0	140	----
		Toluene	108-88-3	E611D	97.0 µg/L	100 µg/L	97.0	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611D	96.8 µg/L	100 µg/L	96.8	60.0	140	----
		Vinyl chloride	75-01-4	E611D	93.3 µg/L	100 µg/L	93.3	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	196 µg/L	200 µg/L	97.9	60.0	140	----
		Xylene, o-	95-47-6	E611D	94.7 µg/L	100 µg/L	94.7	60.0	140	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients	
Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA	☐ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca
Email 3	HCURRY@orillia.ca
Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca

Turnaround Time (TAT) Requested
☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests
Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm
For tests that can not be performed according to the TAT requested, you will be contacted.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	GMOI100 / Waste Diversion Site	AFE/Cost Center:	PO#
Job #:	Waste Diversion Site	Major/Minor Code:	Routing Code:
PO / AFE:	86912	Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: KSINGH	Sampler: Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals)	Major Ions Package(Total Metals)	Dissolved Metals: Trace List (F/P)	Total Metals: Trace List (P)	Dissolved Orthophosphate (F/P)	Total Phosphorus (P)	BTEX (P)	VOCs (P)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
	BH17-III	15-Jul-25	10:55	GW	9	R	R	R	R	R	R	R				
	BH17-IVR	15-Jul-25	11:00	GW	7	R	R	R	R	R	R					
	BH21-IR	16-Jul-25	14:12	GW	9	R	R	R	R	R	R		R			
	BH21-IIR	16-Jul-25	11:55	GW	9	R	R				R		R			
	BH22-IR	15-Jul-25	11:40	GW	9	R	R	R	R		R	R				
	BH22-II	15-Jul-25	11:55	GW	9	R	R	R	R		R	R				
	BH26	15-Jul-25	11:35	GW	9	R	R	R	R		R	R				
	DUP 5	16-Jul-25	14:12	GW	9	R	R	R	R	R	R		R			

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
[signature]	July 17/25	9:00						

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and egrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Canada Toll Free: 1 800 668 9878

Page 1 of 1

www.alsglobal.com

Environmental Division Waterloo
Work Order Reference
WT2519237

Telephone: +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax IAcheson@orillia.ca
Email 2 zgorbell@orillia.ca
Email 3 HCURRY@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax IAcheson@orillia.ca
Email 2 zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
Same day [E2] if received by 10am M-S - 200% rush surcharge. Addition fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

Date and Time Required for all E&P TATs: dd

For tests that can not be performed according to the TAT req

Project Information

ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserve

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Meta	Major Ions Package(Total Metals)	Dissolved Metals: Trace List	Total Metals: Trace List	Dissolved Orthophosphate	Total Phosphorus	BTEX	VOCs							SAMPLES ON HOLD	EXTENDED STORAGE REQ	SUSPECTED HAZARD (see
						F/P	P	F/P	P	P	P											
	BH17-III	15-Jul-25	10:55	GW	9	R	R	R	R	R	R	R										
	BH17-IVR	15-Jul-25	11:00	GW	7	R	R	R	R	R	R											
	BH21-IR	16-Jul-25	14:12	GW	9	R	R	R	R	R	R		R									
	BH21-IIR	16-Jul-25	11:55	GW	9	R	R				R		R									
	BH22-IR	15-Jul-25	11:40	GW	9	R	R	R	R		R	R										
	BH22-II	15-Jul-25	11:55	GW	9	R	R	R	R		R	R										
	BH26	15-Jul-25	11:35	GW	9	R	R	R	R		R	R										

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
11.4	12.1			8.1	11.1		

SHIPMENT RELEASE (client use)

Released by: [signature] Date: July 17/25 Time: 9:00

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: AM Date: 07/17/25 Time: 13:30

FINAL SHIPMENT RECEPTION (lab use only)

Received by: GL Date: 07/17 Time: 17:45

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

GC-457 GC-456 MM-227 VN-126 N-30

CERTIFICATE OF ANALYSIS

Work Order	:	**WT2519242**		
Client	:	**City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	:	Ian Acheson	Account Manager	: Karanpartap Singh
Address	:	50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	:	----	E-mail	: karanpartap.singh@alsglobal.com
Project	:	WASTE DIVERSION SITE	Telephone	: 19055076910
PO	:	86912	Date Samples Received	: 17-Jul-2025 13:40
C-O-C number	:	----	Date Analysis Commenced	: 17-Jul-2025
Sampler	:	IA	Issue Date	: 24-Jul-2025 21:42
Site	:	----		
Quote number	:	Waste Diversion Site		
No. of samples received	:	13		
No. of samples analysed	:	13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky		Inorganics, Waterloo, Ontario
Hannah Lewis		Inorganics, Waterloo, Ontario
Jon Fisher		Metals, Waterloo, Ontario
Jon Fisher		Inorganics, Waterloo, Ontario
Jon Fisher		Centralized Prep, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio		Inorganics, Waterloo, Ontario
Walt Kippenhuck		Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
TKNI	TKN result may be biased low due to Nitrate interference. Nitrate -N is > 10x TKN.

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S1 ----	S2 ----	S3 ----	S4 ----	S8 ----
					Client sampling date / time	16-Jul-2025 11:00	16-Jul-2025 11:50	16-Jul-2025 12:10	16-Jul-2025 12:00	14-Jul-2025 10:30
						WT2519242-001	WT2519242-002	WT2519242-003	WT2519242-004	WT2519242-005
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		162	110	161	260	243
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		162	110	161	260	243
Conductivity	----	E100/WT	2.0	µS/cm		1400	1490	1360	1160	1560
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		336	328	337	347	326
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		323	314	314	337	311
pH	----	E108/WT	0.10	pH units		7.89	8.28	8.22	8.19	7.85
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.116	0.114	0.0990	0.0358	0.0725
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		262 DLDS	273 DLDS	250 DLDS	206 DLDS	336 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	0.112 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		1.21 TKNI	1.43 TKNI	1.01 TKNI	0.588	0.685
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		13.6 DLDS	19.5 DLDS	12.4 DLDS	0.105 DLDS	<0.100 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		0.093 DLDS	0.113 DLDS	0.085 DLDS	<0.050 DLDS	<0.050 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		1.09	1.32	0.911	0.552	0.612
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		0.0164	0.0377	0.0256	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.0685	0.121	0.0854	0.0309	0.0581
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		72.3 DLDS	106 DLDS	71.0 DLDS	9.00 DLDS	4.37 DLDS

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S1 ----	S2 ----	S3 ----	S4 ----	S8 ----
					Client sampling date / time	16-Jul-2025 11:00	16-Jul-2025 11:50	16-Jul-2025 12:10	16-Jul-2025 12:00	14-Jul-2025 10:30
						WT2519242-001	WT2519242-002	WT2519242-003	WT2519242-004	WT2519242-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		33.0	22.1	32.9	54.5	52.2
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		7.53	8.20	7.01	6.23	8.74
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		13.1	13.5	12.6	11.2	14.4
Anion sum	----	EC101/WT	0.10	meq/L		13.1	13.5	12.6	11.2	14.4
Cation sum	----	EC101/WT	0.10	meq/L		13.6	14.5	13.6	12.1	15.3
Cation sum (total)	----	EC101A/WT	0.10	meq/L		12.9	13.5	12.4	11.4	14.4
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		98.5	100	98.4	102	100
Ion balance (APHA)	----	EC101A/WT	0.010	%		-0.769	0.0	-0.800	0.885	0.0
Ion balance (cations/anions)	----	EC101/WT	0.010	%		104	107	108	108	106
Ion balance (APHA)	----	EC101/WT	0.01	%		1.87	3.57	3.82	3.86	3.03
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		0.120	0.232	0.140	0.184	0.0078
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L		----	0.00069	----	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.111	0.0826	0.110	0.173	0.143
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.0000075	0.0000074	0.0000058	0.0000108	<0.0000050
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		95.5	93.1	93.1	98.8	93.5
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.0275	0.0466	0.0292	0.00019	0.00019
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.00138	0.00190	0.00128	0.00094	<0.00050
Iron, total	7439-89-6	E420/WT	0.010	mg/L		0.136	0.040	0.142	0.569	0.436

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	S1 ----	S2 ----	S3 ----	S4 ----	S8 ----
Client sampling date / time					16-Jul-2025 11:00	16-Jul-2025 11:50	16-Jul-2025 12:10	16-Jul-2025 12:00	14-Jul-2025 10:30
					WT2519242-001	WT2519242-002	WT2519242-003	WT2519242-004	WT2519242-005
					Result	Result	Result	Result	Result
Total Metals									
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.000356	0.000397	0.000284	0.000757	0.000061
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	20.5	19.8	19.7	21.9	18.8
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	0.0900	0.0153	0.117	0.354	1.05
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	0.00133	0.00152	0.00108	<0.00050	0.00082
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	9.94	13.7	9.47	2.23	2.07
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	0.000124	0.000168	0.000137	0.000098	0.000114
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	141	157	135	106	185
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	0.0117	0.0173	0.0111	0.0098	0.0054
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	0.0547	0.0668	0.0445	----	----
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L	----	0.00066	----	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	0.113	0.0874	0.122	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	0.0000067	0.0000103	0.0000061	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	97.7	94.8	97.0	98.7	96.5
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00050	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	0.0271	0.0466	0.0273	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	0.00109	0.00149	0.00090	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	0.032	0.028	0.047	0.072	0.093
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	0.000250	0.000429	0.000218	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	22.3	22.1	23.0	24.5	20.6

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: S1 ----	S2 ----	S3 ----	S4 ----	S8 ----
					Client sampling date / time: 16-Jul-2025 11:00	16-Jul-2025 11:50	16-Jul-2025 12:10	16-Jul-2025 12:00	14-Jul-2025 10:30
					WT2519242-001	WT2519242-002	WT2519242-003	WT2519242-004	WT2519242-005
					Result	Result	Result	Result	Result
Dissolved Metals									
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.0816	0.0118	0.131	0.268	0.875
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	0.00109	0.00157	0.00102	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	10.7	15.1	10.2	2.36	2.14
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	0.000109	0.000136	0.000123	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	152	173	151	118	199
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	0.0116	0.0192	0.0099	----	----
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	Field	Field
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	25	32	28	22	33
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0016	0.0012	0.0012	0.0019	0.0024

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: S6 ----	S7 ----	S9 ----	S11 ----	S14 ----
					Client sampling date / time: 14-Jul-2025 10:45	15-Jul-2025 14:25	14-Jul-2025 13:20	14-Jul-2025 13:35	14-Jul-2025 12:45
					WT2519242-006	WT2519242-007	WT2519242-008	WT2519242-009	WT2519242-010
					Result	Result	Result	Result	Result
Sample Preparation									
Dissolved carbon filtration location	----	EP358/WT	-	-	field	field	field	field	field
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L	250	254	101	119	107

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S6 ----	S7 ----	S9 ----	S11 ----	S14 ----
					Client sampling date / time	14-Jul-2025 10:45	15-Jul-2025 14:25	14-Jul-2025 13:20	14-Jul-2025 13:35	14-Jul-2025 12:45
						WT2519242-006	WT2519242-007	WT2519242-008	WT2519242-009	WT2519242-010
						Result	Result	Result	Result	Result
Physical Tests										
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		5.4	3.1	8.0	8.0	4.8
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		255	258	109	127	112
Conductivity	----	E100/WT	2.0	µS/cm		1010	1040	465	726	470
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		334	342	145	196	150
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		318	325	138	191	141
pH	----	E108/WT	0.10	pH units		8.34	8.30	8.57	8.54	8.41
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.0551	0.0531	0.0140	0.0241	0.0162
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		159 DLDS	166	64.6	117	62.4
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.061 DLDS	0.064	0.062	0.064	0.060
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		0.432	0.515	0.505	1.16	0.467
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		0.203 DLDS	0.454	0.074	2.97	0.024
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.020 DLDS	<0.010	<0.010	0.044	<0.010
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		0.377	0.462	0.491	1.14	0.451
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		----	----	0.0012	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.0309	0.0255	0.0074	0.0478	0.0050
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		8.52 DLDS	10.6	16.1	29.8	16.0
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		55.3	54.6	20.9	24.5	22.0
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		5.66	4.93	5.33	6.01	4.82

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S6 ----	S7 ----	S9 ----	S11 ----	S14 ----
					Client sampling date / time	14-Jul-2025 10:45	15-Jul-2025 14:25	14-Jul-2025 13:20	14-Jul-2025 13:35	14-Jul-2025 12:45
						WT2519242-006	WT2519242-007	WT2519242-008	WT2519242-009	WT2519242-010
						Result	Result	Result	Result	Result
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		9.78	10.1	4.34	6.68	4.34
Anion sum	----	EC101/WT	0.10	meq/L		9.78	10.1	4.34	6.68	4.34
Cation sum	----	EC101/WT	0.10	meq/L		10.6	10.8	4.63	7.07	4.68
Cation sum (total)	----	EC101A/WT	0.10	meq/L		9.91	10.1	4.33	6.76	4.32
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		101	100	99.8	101	99.5
Ion balance (APHA)	----	EC101A/WT	0.010	%		0.660	0.0	-0.115	0.595	-0.231
Ion balance (cations/anions)	----	EC101/WT	0.010	%		108	107	107	106	108
Ion balance (APHA)	----	EC101/WT	0.01	%		4.02	3.35	3.23	2.84	3.77
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		<0.0030	0.130	0.0071	0.0718	<0.0030
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L		----	----	----	----	0.00040
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.155	0.166	0.0306	0.0529	0.0293
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		<0.0000050	0.0000054	<0.0000050	0.0000063	<0.0000050
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		92.6	94.4	41.3	56.9	43.0
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		<0.00010	0.00011	0.00023	0.00386	<0.00010
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		<0.00050	0.00057	<0.00050	0.00090	<0.00050
Iron, total	7439-89-6	E420/WT	0.010	mg/L		0.127	0.518	<0.010	0.095	<0.010
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		<0.000050	0.000232	<0.000050	0.000220	<0.000050
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		21.0	21.7	8.46	11.9	8.09
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.0992	0.135	0.00522	0.0268	0.00271

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S6 ----	S7 ----	S9 ----	S11 ----	S14 ----
					Client sampling date / time	14-Jul-2025 10:45	15-Jul-2025 14:25	14-Jul-2025 13:20	14-Jul-2025 13:35	14-Jul-2025 12:45
						WT2519242-006	WT2519242-007	WT2519242-008	WT2519242-009	WT2519242-010
						Result	Result	Result	Result	Result
Total Metals										
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00057	<0.00050
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		1.97	2.11	2.23	4.51	2.20
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		0.000070	0.000110	0.000077	0.000086	0.000063
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		80.4	81.7	34.9	64.6	33.5
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0030	0.0058	<0.0030	0.0045	<0.0030
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		----	----	0.0029	0.0281	----
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L		----	----	----	----	0.00041
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		----	----	0.0302	0.0505	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		----	----	<0.0000050	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		95.4	97.0	42.5	57.4	45.0
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		----	----	<0.00050	<0.00050	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		----	----	0.00021	0.00324	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		----	----	0.00031	0.00057	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		0.489 DTC	0.087	<0.010	0.012	<0.010
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		----	----	<0.000050	0.000089	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		23.3	24.3	9.39	12.9	9.15
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.105	0.114	0.00170	0.00332	0.00051
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		----	----	<0.00050	<0.00050	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		2.06	2.17	2.30	4.48	2.34

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: S6 ----	S7 ----	S9 ----	S11 ----	S14 ----
					Client sampling date / time: 14-Jul-2025 10:45	15-Jul-2025 14:25	14-Jul-2025 13:20	14-Jul-2025 13:35	14-Jul-2025 12:45
					WT2519242-006	WT2519242-007	WT2519242-008	WT2519242-009	WT2519242-010
					Result	Result	Result	Result	Result
Dissolved Metals									
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	----	----	0.000072	0.000065	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	----	----	<0.000010	<0.000010	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	87.7	90.5	38.6	69.5	37.2
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	----	----	<0.0010	0.0044	----
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	Field	Field
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	21	19	19	30	18
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0012	0.0013	<0.0010	<0.0010	<0.0010

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: S18 ----	DUP3 ----	DUP4 ----	----	----
					Client sampling date / time: 15-Jul-2025 14:10	14-Jul-2025 12:45	15-Jul-2025 14:25	----	----
					WT2519242-011	WT2519242-012	WT2519242-013	----	----
					Result	Result	Result	----	----
Sample Preparation									
Dissolved carbon filtration location	----	EP358/WT	-	-	field	field	field	----	----
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L	338	108	249	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	5.3	6.6	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	<2.0	<2.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	338	114	255	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	S18 ----	DUP3 ----	DUP4 ----	----	----
Client sampling date / time					15-Jul-2025 14:10	14-Jul-2025 12:45	15-Jul-2025 14:25	----	----
					WT2519242-011	WT2519242-012	WT2519242-013	----	----
					Result	Result	Result	----	----
Physical Tests									
Conductivity	----	E100/WT	2.0	µS/cm	1460	468	1040	----	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L	423	136	311	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L	399	142	325	----	----
pH	----	E108/WT	0.10	pH units	7.74	8.44	8.36	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	0.0938	0.0172	0.0354	----	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	239 DLDS	63.1	165	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	<0.100 DLDS	0.060	0.064	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	0.380	0.440	0.523	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	0.413 DLDS	0.031	0.451	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.050 DLDS	<0.010	<0.010	----	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L	0.286	0.423	0.488	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L	----	<0.0010	0.0059	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	0.0470	0.0049	0.0255	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	27.4 DLDS	16.1	10.7	----	----
Organic / Inorganic Carbon									
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L	76.6	22.5	54.5	----	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	3.60	4.89	4.91	----	----
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	14.1	4.40	10.0	----	----
Anion sum	----	EC101/WT	0.10	meq/L	14.1	4.40	10.0	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S18 ----	DUP3 ----	DUP4 ----	----	----
					Client sampling date / time	15-Jul-2025 14:10	14-Jul-2025 12:45	15-Jul-2025 14:25	----	----
						WT2519242-011	WT2519242-012	WT2519242-013	----	----
						Result	Result	Result	----	----
Ion Balance										
Cation sum	----	EC101/WT	0.10	meq/L		15.5	4.33	10.1	----	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L		14.4	4.36	10.2	----	----
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		102	99.1	102	----	----
Ion balance (APHA)	----	EC101A/WT	0.010	%		1.05	-0.457	0.990	----	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%		110	98.4	101	----	----
Ion balance (APHA)	----	EC101/WT	0.01	%		4.73	-0.80	0.50	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		0.0126	<0.0030	0.134	----	----
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L		----	0.00041	----	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.200	0.0354	0.170	----	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.0000546	<0.0000050	0.0000058	----	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		126	43.3	94.2	----	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00050	----	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00018	<0.00010	0.00013	----	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.00064	<0.00050	0.00074	----	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L		0.465	<0.010	0.528	----	----
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.000073	<0.000050	0.000251	----	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		20.6	8.16	21.9	----	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.192	0.00288	0.138	----	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.00065	<0.00050	<0.00050	----	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		2.85	2.24	2.13	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	S18 ----	DUP3 ----	DUP4 ----	----	----
Client sampling date / time					15-Jul-2025 14:10	14-Jul-2025 12:45	15-Jul-2025 14:25	----	----
					WT2519242-011	WT2519242-012	WT2519242-013	----	----
					Result	Result	Result	----	----
Total Metals									
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	0.000407	0.000064	0.000090	----	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	----	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	144	33.8	82.3	----	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	0.0375	<0.0030	0.0040	----	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	----	<0.0010	0.0070	----	----
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L	----	0.00043	----	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	----	0.0299	0.164	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	----	<0.0000050	<0.0000050	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	131	40.8	87.6	----	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	----	<0.00050	<0.00050	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	----	<0.00010	<0.00010	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	----	0.00034	0.00039	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	0.344	<0.010	0.097	----	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	----	<0.000050	<0.000050	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	23.2	8.31	22.4	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.194	0.00048	0.119	----	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	----	<0.00050	<0.00050	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	3.02	2.32	2.21	----	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	----	0.000070	0.000132	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	----	<0.000010	<0.000010	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: S18 ----	DUP3 ----	DUP4 ----	----	----
					Client sampling date / time: 15-Jul-2025 14:10	14-Jul-2025 12:45	15-Jul-2025 14:25	----	----
					WT2519242-011	WT2519242-012	WT2519242-013	----	----
					Result	Result	Result	----	----
Dissolved Metals									
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	159	35.6	88.4	----	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	----	<0.0010	0.0015	----	----
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	----	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	<3.0 BODL	<3.0 BODL	<3.0 BODL	----	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	<10	18	17	----	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0021	<0.0010	0.0012	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2519242**	Page	: 1 of 37
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 17-Jul-2025 13:40
PO	: 86912	Issue Date	: 24-Jul-2025 21:40
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Matrix Spike (MS) Recoveries								
Dissolved Metals	Anonymous	Anonymous	Silver, dissolved	7440-22-4	E421	63.7 % MES	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] DUP4	E550	15-Jul-2025	----	----	----		18-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S18	E550	15-Jul-2025	----	----	----		18-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S3	E550	16-Jul-2025	----	----	----		19-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] DUP3	E550	14-Jul-2025	----	----	----		18-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S1	E550	16-Jul-2025	----	----	----		19-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S11	E550	14-Jul-2025	----	----	----		18-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S14	E550	14-Jul-2025	----	----	----		18-Jul-2025	4 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S2	E550	16-Jul-2025	----	----	----		19-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S4	E550	16-Jul-2025	----	----	----		19-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S7	E550	15-Jul-2025	----	----	----		19-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S9	E550	14-Jul-2025	----	----	----		18-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S6	E550	14-Jul-2025	----	----	----		18-Jul-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] S8	E550	14-Jul-2025	----	----	----		18-Jul-2025	4 days	4 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] S1	E559-L	16-Jul-2025	----	----	----		18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] S2	E559-L	16-Jul-2025	----	----	----		18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] S3	E559-L	16-Jul-2025	----	----	----		18-Jul-2025	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S4	E559-L	16-Jul-2025	----	----	----		18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP4	E559-L	15-Jul-2025	----	----	----		18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S18	E559-L	15-Jul-2025	----	----	----		18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S7	E559-L	15-Jul-2025	----	----	----		18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP3	E559-L	14-Jul-2025	----	----	----		18-Jul-2025	28 days	4 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S11	E559-L	14-Jul-2025	----	----	----		18-Jul-2025	28 days	4 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S14	E559-L	14-Jul-2025	----	----	----		18-Jul-2025	28 days	4 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S6	E559-L	14-Jul-2025	----	----	----		18-Jul-2025	28 days	4 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S8	E559-L	14-Jul-2025	----	----	----		18-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S9	E559-L	14-Jul-2025	----	----	----		18-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S1	E562	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S2	E562	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S3	E562	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S4	E562	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP4	E562	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S18	E562	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S7	E562	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP3	E562	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S11	E562	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S14	E562	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S6	E562	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S8	E562	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S9	E562	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S1	E298	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S2	E298	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S3	E298	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S4	E298	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] DUP4	E298	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S18	E298	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S7	E298	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] DUP3	E298	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S11	E298	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S14	E298	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S6	E298	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S8	E298	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S9	E298	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S1	E235.Cl	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] DUP4	E235.Cl	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S18	E235.Cl	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S2	E235.Cl	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S3	E235.Cl	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S4	E235.Cl	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] DUP3	E235.Cl	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S11	E235.Cl	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S14	E235.Cl	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	22-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
S6	E235.Cl	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	22-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
S7	E235.Cl	15-Jul-2025	19-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
S8	E235.Cl	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	22-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
S9	E235.Cl	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S1	E378-U	16-Jul-2025	18-Jul-2025	7 days	2 days	✓	18-Jul-2025	7 days	2 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
DUP4	E378-U	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	18-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S2	E378-U	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S3	E378-U	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
DUP3	E378-U	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	18-Jul-2025	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S11	E378-U	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	18-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S9	E378-U	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	18-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S1	E235.F	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
DUP4	E235.F	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S18	E235.F	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S2	E235.F	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S3	E235.F	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S4	E235.F	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
DUP3	E235.F	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S11	E235.F	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S14	E235.F	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	22-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S6	E235.F	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	22-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S7	E235.F	15-Jul-2025	19-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S8	E235.F	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	22-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S9	E235.F	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S1	E235.NO3	16-Jul-2025	18-Jul-2025	7 days	2 days	✓	21-Jul-2025	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] DUP4	E235.NO3	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	21-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S18	E235.NO3	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S2	E235.NO3	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S3	E235.NO3	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S4	E235.NO3	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S14	E235.NO3	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	22-Jul-2025	7 days	4 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S6	E235.NO3	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	22-Jul-2025	7 days	4 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S8	E235.NO3	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	22-Jul-2025	7 days	4 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] DUP3	E235.NO3	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	21-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S11	E235.NO3	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	21-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S7	E235.NO3	15-Jul-2025	19-Jul-2025	7 days	4 days	✓	21-Jul-2025	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] S9	E235.NO3	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	21-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] S1	E235.NO2	16-Jul-2025	18-Jul-2025	7 days	2 days	✓	21-Jul-2025	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] DUP4	E235.NO2	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	21-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] S18	E235.NO2	15-Jul-2025	18-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] S2	E235.NO2	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] S3	E235.NO2	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] S4	E235.NO2	16-Jul-2025	19-Jul-2025	7 days	3 days	✓	22-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] S14	E235.NO2	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	22-Jul-2025	7 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] S6	E235.NO2	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	22-Jul-2025	7 days	4 days	× EHT

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S8	E235.NO2	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	22-Jul-2025	7 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
DUP3	E235.NO2	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	21-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S11	E235.NO2	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	21-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S7	E235.NO2	15-Jul-2025	19-Jul-2025	7 days	4 days	✓	21-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S9	E235.NO2	14-Jul-2025	18-Jul-2025	7 days	4 days	✓	21-Jul-2025	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S1	E235.SO4	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	21-Jul-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DUP4	E235.SO4	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	21-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S18	E235.SO4	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S2	E235.SO4	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S3	E235.SO4	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S4	E235.SO4	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP3	E235.SO4	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S11	E235.SO4	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S14	E235.SO4	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	22-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S6	E235.SO4	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	22-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S7	E235.SO4	15-Jul-2025	19-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S8	E235.SO4	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	22-Jul-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S9	E235.SO4	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	21-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S1	E318	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	21-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S2	E318	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	21-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S3	E318	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	21-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S4	E318	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	21-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP4	E318	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	21-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S18	E318	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	21-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S7	E318	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	21-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP3	E318	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	21-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S11	E318	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	21-Jul-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S14	E318	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	21-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S6	E318	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	21-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S8	E318	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	21-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S9	E318	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	21-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S1	E372-U	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	23-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S2	E372-U	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	23-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S3	E372-U	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	23-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S4	E372-U	16-Jul-2025	21-Jul-2025	28 days	5 days	✓	23-Jul-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP4	E372-U	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	23-Jul-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] S18	E372-U	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	23-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] S7	E372-U	15-Jul-2025	21-Jul-2025	28 days	6 days	✓	23-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] DUP3	E372-U	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	23-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] S11	E372-U	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	23-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] S14	E372-U	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	23-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] S6	E372-U	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	23-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] S8	E372-U	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	23-Jul-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] S9	E372-U	14-Jul-2025	21-Jul-2025	28 days	7 days	✓	23-Jul-2025	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S1	E421	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S2	E421	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S3	E421	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S4	E421	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S18	E421	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S7	E421	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S11	E421	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S14	E421	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S6	E421	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S8	E421	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S9	E421	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP4	E421	15-Jul-2025	21-Jul-2025	180 days	6 days	✓	21-Jul-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP3	E421	14-Jul-2025	21-Jul-2025	180 days	7 days	✓	21-Jul-2025	180 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S1	E353-L	16-Jul-2025	----	----	----		21-Jul-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S2	E353-L	16-Jul-2025	----	----	----		21-Jul-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S3	E353-L	16-Jul-2025	----	----	----		21-Jul-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S4	E353-L	16-Jul-2025	----	----	----		21-Jul-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE DUP4	E353-L	15-Jul-2025	----	----	----		21-Jul-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S18	E353-L	15-Jul-2025	----	----	----		21-Jul-2025	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S7	E353-L	15-Jul-2025	----	----	----		21-Jul-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE DUP3	E353-L	14-Jul-2025	----	----	----		21-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S11	E353-L	14-Jul-2025	----	----	----		21-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S14	E353-L	14-Jul-2025	----	----	----		21-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S6	E353-L	14-Jul-2025	----	----	----		21-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S8	E353-L	14-Jul-2025	----	----	----		21-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE S9	E353-L	14-Jul-2025	----	----	----		21-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] S2	E358-L	16-Jul-2025	17-Jul-2025	28 days	1 days	✓	18-Jul-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] S3	E358-L	16-Jul-2025	17-Jul-2025	28 days	1 days	✓	18-Jul-2025	28 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S4	E358-L	16-Jul-2025	17-Jul-2025	28 days	1 days	✓	18-Jul-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
DUP4	E358-L	15-Jul-2025	17-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S1	E358-L	16-Jul-2025	17-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S18	E358-L	15-Jul-2025	17-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S7	E358-L	15-Jul-2025	17-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
DUP3	E358-L	14-Jul-2025	17-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S11	E358-L	14-Jul-2025	17-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S14	E358-L	14-Jul-2025	17-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S9	E358-L	14-Jul-2025	17-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] S6	E358-L	14-Jul-2025	17-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] S8	E358-L	14-Jul-2025	17-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S1	E290	16-Jul-2025	18-Jul-2025	14 days	2 days	✓	18-Jul-2025	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP4	E290	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S18	E290	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S2	E290	16-Jul-2025	19-Jul-2025	14 days	3 days	✓	22-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S3	E290	16-Jul-2025	19-Jul-2025	14 days	3 days	✓	22-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S4	E290	16-Jul-2025	19-Jul-2025	14 days	3 days	✓	19-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP3	E290	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S11	E290	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S14	E290	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S6	E290	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S7	E290	15-Jul-2025	19-Jul-2025	14 days	4 days	✓	19-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S8	E290	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S9	E290	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S1	E100	16-Jul-2025	18-Jul-2025	28 days	2 days	✓	18-Jul-2025	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP4	E100	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S18	E100	15-Jul-2025	18-Jul-2025	28 days	3 days	✓	18-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S2	E100	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S3	E100	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	22-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S4	E100	16-Jul-2025	19-Jul-2025	28 days	3 days	✓	19-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP3	E100	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S11	E100	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S14	E100	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S6	E100	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S7	E100	15-Jul-2025	19-Jul-2025	28 days	4 days	✓	19-Jul-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S8	E100	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S9	E100	14-Jul-2025	18-Jul-2025	28 days	4 days	✓	18-Jul-2025	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S1	E108	16-Jul-2025	18-Jul-2025	14 days	2 days	✓	18-Jul-2025	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP4	E108	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S18	E108	15-Jul-2025	18-Jul-2025	14 days	3 days	✓	18-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S2	E108	16-Jul-2025	19-Jul-2025	14 days	3 days	✓	22-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S3	E108	16-Jul-2025	19-Jul-2025	14 days	3 days	✓	22-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S4	E108	16-Jul-2025	19-Jul-2025	14 days	3 days	✓	19-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP3	E108	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S11	E108	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter										
HDPE [ON MECP]										
S14	E108	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
S6	E108	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
S7	E108	15-Jul-2025	19-Jul-2025	14 days	4 days	✓	19-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
S8	E108	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
S9	E108	14-Jul-2025	18-Jul-2025	14 days	4 days	✓	18-Jul-2025	14 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S1	E420	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S2	E420	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S3	E420	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S4	E420	16-Jul-2025	18-Jul-2025	180 days	2 days	✓	18-Jul-2025	180 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP4	E420	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S18	E420	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S7	E420	15-Jul-2025	18-Jul-2025	180 days	3 days	✓	18-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP3	E420	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S11	E420	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S14	E420	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S6	E420	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S8	E420	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S9	E420	14-Jul-2025	18-Jul-2025	180 days	4 days	✓	18-Jul-2025	180 days	4 days	✓

Legend & Qualifier Definitions

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2113309	5	50	10.0	5.0	✓
pH by Meter	E108	2113310	5	74	6.7	5.0	✓
Chloride in Water by IC	E235.Cl	2113306	5	71	7.0	5.0	✓
Fluoride in Water by IC	E235.F	2113305	5	53	9.4	5.0	✓
Nitrite in Water by IC	E235.NO2	2113302	5	75	6.6	5.0	✓
Nitrate in Water by IC	E235.NO3	2113304	5	79	6.3	5.0	✓
Sulfate in Water by IC	E235.SO4	2113303	5	81	6.1	5.0	✓
Alkalinity Species by Titration	E290	2113308	5	66	7.5	5.0	✓
Ammonia by Fluorescence	E298	2114929	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2114927	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2118005	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2113076	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2114928	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2113307	2	33	6.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2113077	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2114442	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2113736	3	52	5.7	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2113391	1	15	6.6	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2114930	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2113309	5	50	10.0	5.0	✓
pH by Meter	E108	2113310	5	74	6.7	5.0	✓
Chloride in Water by IC	E235.Cl	2113306	5	71	7.0	5.0	✓
Fluoride in Water by IC	E235.F	2113305	5	53	9.4	5.0	✓
Nitrite in Water by IC	E235.NO2	2113302	5	75	6.6	5.0	✓
Nitrate in Water by IC	E235.NO3	2113304	5	79	6.3	5.0	✓
Sulfate in Water by IC	E235.SO4	2113303	5	81	6.1	5.0	✓
Alkalinity Species by Titration	E290	2113308	5	66	7.5	5.0	✓
Ammonia by Fluorescence	E298	2114929	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2114927	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2118005	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2113076	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2114928	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2113307	2	33	6.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2113077	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2114442	2	39	5.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Biochemical Oxygen Demand - 5 day	E550	2113736	3	52	5.7	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2113391	1	15	6.6	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2114930	1	20	5.0	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	2113309	5	50	10.0	5.0	✓
Chloride in Water by IC	E235.Cl	2113306	5	71	7.0	5.0	✓
Fluoride in Water by IC	E235.F	2113305	5	53	9.4	5.0	✓
Nitrite in Water by IC	E235.NO2	2113302	5	75	6.6	5.0	✓
Nitrate in Water by IC	E235.NO3	2113304	5	79	6.3	5.0	✓
Sulfate in Water by IC	E235.SO4	2113303	5	81	6.1	5.0	✓
Alkalinity Species by Titration	E290	2113308	5	66	7.5	5.0	✓
Ammonia by Fluorescence	E298	2114929	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2114927	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2118005	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2113076	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2114928	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2113307	2	33	6.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2113077	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2114442	2	39	5.1	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2113736	3	52	5.7	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2113391	1	15	6.6	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2114930	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	2113306	5	71	7.0	5.0	✓
Fluoride in Water by IC	E235.F	2113305	5	53	9.4	5.0	✓
Nitrite in Water by IC	E235.NO2	2113302	5	75	6.6	5.0	✓
Nitrate in Water by IC	E235.NO3	2113304	5	79	6.3	5.0	✓
Sulfate in Water by IC	E235.SO4	2113303	5	81	6.1	5.0	✓
Ammonia by Fluorescence	E298	2114929	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2114927	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2118005	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2113076	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2114928	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2113307	2	33	6.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2113077	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2114442	2	39	5.1	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2113391	1	15	6.6	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2114930	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Inorganic Carbon by Combustion	E353-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Inorganic Carbon is determined on a sample which is filtered through a 0.45 micron filter prior to analysis by the high temperature combustion method with measurement by an infrared detector, where the sample is acidified in a reaction chamber to convert all inorganic carbons (carbonates) to carbon dioxide for analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.
Ion Balance using Dissolved Metals	EC101 ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WT2519242**	Page	: 1 of 21
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 17-Jul-2025 13:40
PO	: 86912	Date Analysis Commenced	: 17-Jul-2025
C-O-C number	: ----	Issue Date	: 24-Jul-2025 21:40
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Waterloo Centralized Prep, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Waterloo Inorganics, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Waterloo Metals, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2113308)											
WT2519237-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	405	407	0.522%	20%	----
Physical Tests (QC Lot: 2113309)											
WT2519237-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	1450	1450	0.00%	10%	----
Physical Tests (QC Lot: 2113310)											
WT2519237-001	Anonymous	pH	----	E108	0.10	pH units	7.17	7.21	0.556%	4%	----
Physical Tests (QC Lot: 2113311)											
WT2519237-005	Anonymous	Conductivity	----	E100	2.0	µS/cm	1100	1100	0.182%	10%	----
Physical Tests (QC Lot: 2113312)											
WT2519237-005	Anonymous	pH	----	E108	0.10	pH units	7.33	7.39	0.815%	4%	----
Physical Tests (QC Lot: 2113313)											
WT2519237-005	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	336	338	0.510%	20%	----
Physical Tests (QC Lot: 2115983)											
WT2519237-004	Anonymous	pH	----	E108	0.10	pH units	6.89	6.92	0.434%	4%	----
Physical Tests (QC Lot: 2115984)											
WT2519237-004	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	749	752	0.301%	20%	----
Physical Tests (QC Lot: 2115985)											
WT2519237-004	Anonymous	Conductivity	----	E100	2.0	µS/cm	1670	1670	0.299%	10%	----
Physical Tests (QC Lot: 2116069)											
WT2519237-003	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	523	526	0.579%	20%	----
Physical Tests (QC Lot: 2116070)											
WT2519237-003	Anonymous	pH	----	E108	0.10	pH units	7.62	7.56	0.790%	4%	----
Physical Tests (QC Lot: 2116071)											
WT2519237-003	Anonymous	Conductivity	----	E100	2.0	µS/cm	1320	1310	1.14%	10%	----
Physical Tests (QC Lot: 2116122)											
WT2519204-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	27.8	27.7	0.576%	20%	----
Physical Tests (QC Lot: 2116123)											
WT2519204-001	Anonymous	pH	----	E108	0.10	pH units	6.38	6.31	1.10%	4%	----
Physical Tests (QC Lot: 2116124)											
WT2519204-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	71.2	71.0	0.281%	10%	----
Anions and Nutrients (QC Lot: 2113302)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2113302) - continued											
HA2502451-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113303)											
HA2502451-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	11.6	11.6	0.365%	20%	----
Anions and Nutrients (QC Lot: 2113304)											
HA2502451-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.072	0.072	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113305)											
HA2502451-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.456	0.459	0.543%	20%	----
Anions and Nutrients (QC Lot: 2113306)											
HA2502451-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	34.1	34.2	0.154%	20%	----
Anions and Nutrients (QC Lot: 2113307)											
HA2502440-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113314)											
WT2519237-005	Anonymous	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.153	0.156	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113315)											
WT2519237-005	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113316)											
WT2519237-005	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113317)											
WT2519237-005	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	9.76	9.68	0.08	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2113318)											
WT2519237-005	Anonymous	Chloride	16887-00-6	E235.Cl	2.50	mg/L	150	150	0.172%	20%	----
Anions and Nutrients (QC Lot: 2114927)											
WT2519237-006	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	1.37	1.37	0.0658%	20%	----
Anions and Nutrients (QC Lot: 2114928)											
WT2519237-005	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.347	0.346	0.283%	20%	----
Anions and Nutrients (QC Lot: 2114929)											
BF2500157-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0250	mg/L	0.678	0.682	0.559%	20%	----
Anions and Nutrients (QC Lot: 2115978)											
WT2519237-004	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2115979)											
WT2519237-004	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2115980)											
WT2519237-004	Anonymous	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.150	0.149	0.0010	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2115981)											
WT2519237-004	Anonymous	Chloride	16887-00-6	E235.Cl	2.50	mg/L	87.0	86.8	0.173%	20%	----
Anions and Nutrients (QC Lot: 2115982)											
WT2519237-004	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	13.9	13.9	0.007	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2116063)											
HA2502532-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.034	0.035	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2116064)											
HA2502532-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2116065)											
HA2502532-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	5.52	5.40	2.09%	20%	----
Anions and Nutrients (QC Lot: 2116066)											
HA2502532-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	78.4	78.5	0.108%	20%	----
Anions and Nutrients (QC Lot: 2116067)											
HA2502532-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.145	0.145	0.00003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2116116)											
WT2519242-007	S7	Chloride	16887-00-6	E235.Cl	0.50	mg/L	166	166	0.171%	20%	----
Anions and Nutrients (QC Lot: 2116117)											
WT2519242-007	S7	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	10.6	10.7	0.375%	20%	----
Anions and Nutrients (QC Lot: 2116118)											
WT2519242-007	S7	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.064	0.062	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2116119)											
WT2519242-007	S7	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.454	0.455	0.295%	20%	----
Anions and Nutrients (QC Lot: 2116120)											
WT2519242-007	S7	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2116191)											
HA2502532-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0536	0.0504	6.19%	20%	----
Organic / Inorganic Carbon (QC Lot: 2113076)											
BF2500158-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	1.95	1.94	0.01	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 2118005)											
WT2519242-001	S1	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	33.0	32.5	1.56%	20%	----
Total Metals (QC Lot: 2113077)											
HA2502450-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0050	0.0047	0.0003	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00018	0.00020	0.00001	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00712	0.00716	0.619%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 2113077) - continued											
HA2502450-001	Anonymous	Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	0.0000056	0.0000006	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	16.6	16.6	0.351%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0454	0.0462	1.88%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.078	0.079	0.0009	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000797	0.000799	0.313%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	1.92	1.94	0.951%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00215	0.00204	4.90%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.510	0.516	0.994%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	22.6	22.9	1.32%	20%	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.182	0.183	0.296%	20%	----
Dissolved Metals (QC Lot: 2114442)											
WT2519204-005	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0027	0.0028	0.00008	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00040	0.00038	0.00003	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.0590	0.0576	2.43%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000060	0.0000066	0.0000006	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	50.6	50.2	0.800%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00043	0.00041	0.00002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00028	0.00029	0.00001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.012	0.012	0.0002	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	10.3	10.0	2.77%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.805	0.785	2.53%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00140	0.00136	0.00004	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.927	0.902	2.77%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	13.5	13.2	2.42%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0020	0.0021	0.0001	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 2117480)											
HA2502529-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0669	0.0662	1.05%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00943	0.00933	1.11%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	2.50	2.52	0.752%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	0.00151	0.00152	0.000007	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00041	0.00041	0.000002	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00033	0.00032	0.00001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	5.50	5.49	0.182%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000095	0.000094	0.000001	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	1.66	1.63	1.94%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0948	0.0932	1.69%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00116	0.00119	0.00003	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	1.45	1.43	1.03%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	2.50	2.47	1.42%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0020	0.0020	0.000010	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2113391)											
WT2519242-001	S1	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	25	29	4	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2113736)											
WT2519080-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2113741)											
WT2518970-005	Anonymous	Biochemical oxygen demand [BOD]	----	E550	2.0	mg/L	<2.0	<2.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2114930)											
WP2511269-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0500	mg/L	<0.0500	<0.0500	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2116310)											
WT2519242-001	S1	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2113308)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2113309)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2113311)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2113313)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2115984)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2115985)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2116069)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2116071)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2116122)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2116124)						
Conductivity	----	E100	1	µS/cm	1.1	----
Anions and Nutrients (QCLot: 2113302)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2113303)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2113304)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2113305)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2113306)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2113307)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2113314)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2113315)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2113316)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2113317)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2113318)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2114927)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2114928)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2114929)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2115978)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2115979)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2115980)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2115981)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2115982)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2116063)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2116064)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2116065)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2116066)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2116067)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2116116)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2116117)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2116118)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2116119)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2116120)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2116191)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Organic / Inorganic Carbon (QCLot: 2113076)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2118005)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 2113077)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 2113077) - continued						
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Dissolved Metals (QCLot: 2114442)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Dissolved Metals (QCLot: 2117480)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2117480) - continued						
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2113391)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Aggregate Organics (QCLot: 2113736)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2113741)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2114930)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2116310)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2113308)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2113309)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	98.9	90.0	110	----
Physical Tests (QCLot: 2113310)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2113311)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.4	90.0	110	----
Physical Tests (QCLot: 2113312)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2113313)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2115983)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 2115984)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2115985)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2116069)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	100.0	85.0	115	----
Physical Tests (QCLot: 2116070)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2116071)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 2116122)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	100	85.0	115	----
Physical Tests (QCLot: 2116123)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2116124)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Anions and Nutrients (QCLot: 2113302)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	100	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2113303)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 2113304)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 2113305)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 2113306)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 2113307)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	96.8	80.0	120	----
Anions and Nutrients (QCLot: 2113314)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	97.9	90.0	110	----
Anions and Nutrients (QCLot: 2113315)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 2113316)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 2113317)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 2113318)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 2114927)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	110	75.0	125	----
Anions and Nutrients (QCLot: 2114928)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	98.2	80.0	120	----
Anions and Nutrients (QCLot: 2114929)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.6	85.0	115	----
Anions and Nutrients (QCLot: 2115978)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 2115979)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2115980)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2115981)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 2115982)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2116063)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 2116064)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2116065)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2116066)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 2116067)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2116116)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 2116117)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	97.9	90.0	110	----
Anions and Nutrients (QCLot: 2116118)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 2116119)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	98.1	90.0	110	----
Anions and Nutrients (QCLot: 2116120)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	99.7	90.0	110	----
Anions and Nutrients (QCLot: 2116191)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	96.0	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2113076)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	98.1	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2118005)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	90.8	80.0	120	----
Total Metals (QCLot: 2113077)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	103	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	0.05 mg/L	105	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	101	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	100	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	97.0	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 2113077) - continued									
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	99.4	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	102	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	106	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	108	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	99.8	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	98.9	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	101	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	98.5	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	102	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	99.9	80.0	120	----
Dissolved Metals (QCLot: 2114442)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	108	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	108	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	106	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	104	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	106	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	103	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	104	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	104	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	106	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	107	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	101	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	100	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	94.3	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	107	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	107	80.0	120	----
Dissolved Metals (QCLot: 2117480)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	108	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	113	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	109	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	108	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 2117480) - continued									
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	104	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	109	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	109	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	109	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	109	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	106	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	113	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	110	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	112	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	110	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	108	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	103	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	110	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	113	80.0	120	----
Aggregate Organics (QCLot: 2113391)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	104	85.0	115	----
Aggregate Organics (QCLot: 2113736)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	99.0	85.0	115	----
Aggregate Organics (QCLot: 2113741)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	96.1	85.0	115	----
Aggregate Organics (QCLot: 2114930)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	104	85.0	115	----
Aggregate Organics (QCLot: 2116310)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	87.2	85.0	115	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2113302)										
HA2502451-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.424 mg/L	0.5 mg/L	84.9	75.0	125	----
Anions and Nutrients (QCLot: 2113303)										
HA2502451-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	96.6 mg/L	100 mg/L	96.6	75.0	125	----
Anions and Nutrients (QCLot: 2113304)										
HA2502451-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.47 mg/L	2.5 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 2113305)										
HA2502451-001	Anonymous	Fluoride	16984-48-8	E235.F	1.00 mg/L	1 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 2113306)										
HA2502451-001	Anonymous	Chloride	16887-00-6	E235.Cl	96.3 mg/L	100 mg/L	96.3	75.0	125	----
Anions and Nutrients (QCLot: 2113307)										
HA2502440-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0189 mg/L	0.02 mg/L	96.6	70.0	130	----
Anions and Nutrients (QCLot: 2113314)										
WT2519237-005	Anonymous	Fluoride	16984-48-8	E235.F	4.99 mg/L	5 mg/L	99.7	75.0	125	----
Anions and Nutrients (QCLot: 2113315)										
WT2519237-005	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	12.3 mg/L	12.5 mg/L	98.3	75.0	125	----
Anions and Nutrients (QCLot: 2113316)										
WT2519237-005	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	2.47 mg/L	2.5 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 2113317)										
WT2519237-005	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	496 mg/L	500 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 2113318)										
WT2519237-005	Anonymous	Chloride	16887-00-6	E235.Cl	499 mg/L	500 mg/L	99.8	75.0	125	----
Anions and Nutrients (QCLot: 2114927)										
WT2519237-006	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	3.07 mg/L	2.5 mg/L	123	70.0	130	----
Anions and Nutrients (QCLot: 2114928)										
WT2519237-005	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 2114929)										
BF2500157-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2115978)										
WT2519237-004	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	12.5 mg/L	12.5 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 2115979)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2115979) - continued										
WT2519237-004	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	2.61 mg/L	2.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2115980)										
WT2519237-004	Anonymous	Fluoride	16984-48-8	E235.F	5.12 mg/L	5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2115981)										
WT2519237-004	Anonymous	Chloride	16887-00-6	E235.Cl	514 mg/L	500 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2115982)										
WT2519237-004	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	518 mg/L	500 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2116063)										
HA2502532-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.39 mg/L	2.5 mg/L	95.8	75.0	125	----
Anions and Nutrients (QCLot: 2116064)										
HA2502532-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.491 mg/L	0.5 mg/L	98.1	75.0	125	----
Anions and Nutrients (QCLot: 2116065)										
HA2502532-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	97.6 mg/L	100 mg/L	97.6	75.0	125	----
Anions and Nutrients (QCLot: 2116066)										
HA2502532-001	Anonymous	Chloride	16887-00-6	E235.Cl	95.6 mg/L	100 mg/L	95.6	75.0	125	----
Anions and Nutrients (QCLot: 2116067)										
HA2502532-001	Anonymous	Fluoride	16984-48-8	E235.F	1.02 mg/L	1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2116116)										
WT2519242-007	S7	Chloride	16887-00-6	E235.Cl	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2116117)										
WT2519242-007	S7	Sulfate (as SO4)	14808-79-8	E235.SO4	99.0 mg/L	100 mg/L	99.0	75.0	125	----
Anions and Nutrients (QCLot: 2116118)										
WT2519242-007	S7	Fluoride	16984-48-8	E235.F	0.986 mg/L	1 mg/L	98.6	75.0	125	----
Anions and Nutrients (QCLot: 2116119)										
WT2519242-007	S7	Nitrate (as N)	14797-55-8	E235.NO3	2.47 mg/L	2.5 mg/L	98.7	75.0	125	----
Anions and Nutrients (QCLot: 2116120)										
WT2519242-007	S7	Nitrite (as N)	14797-65-0	E235.NO2	0.486 mg/L	0.5 mg/L	97.2	75.0	125	----
Anions and Nutrients (QCLot: 2116191)										
HA2502532-002	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2113076)										
BF2500158-003	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	4.50 mg/L	5 mg/L	90.0	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2118005)										
WT2519242-002	S2	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 2113077)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 2113077) - continued										
HA2502450-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0989 mg/L	0.1 mg/L	98.9	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0535 mg/L	0.05 mg/L	107	70.0	130	----
		Barium, total	7440-39-3	E420	0.0124 mg/L	0.012 mg/L	99.7	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00527 mg/L	0.005 mg/L	105	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0124 mg/L	0.012 mg/L	99.2	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0121 mg/L	0.012 mg/L	97.1	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0259 mg/L	0.025 mg/L	104	70.0	130	----
		Magnesium, total	7439-95-4	E420	2.56 mg/L	2.5 mg/L	102	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0126 mg/L	0.012 mg/L	100	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0246 mg/L	0.025 mg/L	98.4	70.0	130	----
		Potassium, total	7440-09-7	E420	2.38 mg/L	2.5 mg/L	95.3	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0517 mg/L	0.05 mg/L	103	70.0	130	----
		Silver, total	7440-22-4	E420	0.00492 mg/L	0.005 mg/L	98.4	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	ND mg/L	----	ND	70.0	130	----
Dissolved Metals (QCLot: 2114442)										
WT2519237-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.109 mg/L	0.1 mg/L	109	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0577 mg/L	0.05 mg/L	115	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00508 mg/L	0.005 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0128 mg/L	0.012 mg/L	103	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0123 mg/L	0.012 mg/L	98.7	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0120 mg/L	0.012 mg/L	95.8	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.049 mg/L	0.05 mg/L	98.9	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0238 mg/L	0.025 mg/L	95.0	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0242 mg/L	0.025 mg/L	96.6	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	2.55 mg/L	2.5 mg/L	102	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0570 mg/L	0.05 mg/L	114	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00318 mg/L	0.005 mg/L	63.7	70.0	130	MES
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0256 mg/L	0.025 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 2117480)										
WT2519040-003	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.114 mg/L	0.1 mg/L	114	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0630 mg/L	0.05 mg/L	126	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0143 mg/L	0.012 mg/L	114	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00589 mg/L	0.005 mg/L	118	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	2.64 mg/L	2.5 mg/L	106	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 2117480) - continued										
WT2519040-003	Anonymous	Chromium, dissolved	7440-47-3	E421	0.0141 mg/L	0.012 mg/L	113	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0140 mg/L	0.012 mg/L	112	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0141 mg/L	0.012 mg/L	112	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.055 mg/L	0.05 mg/L	110	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0278 mg/L	0.025 mg/L	111	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	2.97 mg/L	2.5 mg/L	119	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	0.0142 mg/L	0.012 mg/L	113	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0280 mg/L	0.025 mg/L	112	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	2.90 mg/L	2.5 mg/L	116	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0640 mg/L	0.05 mg/L	128	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00540 mg/L	0.005 mg/L	108	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	2.91 mg/L	2.5 mg/L	116	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0310 mg/L	0.025 mg/L	124	70.0	130	----
Aggregate Organics (QCLot: 2113391)										
WT2519242-001	S1	Chemical oxygen demand [COD]	----	E559-L	103 mg/L	100 mg/L	103	75.0	125	----
Aggregate Organics (QCLot: 2114930)										
WP2511269-001	Anonymous	Phenols, total (4AAP)	----	E562	1.10 mg/L	1 mg/L	110	75.0	125	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

GC-455, 456
N-030
MM-226

Chain of Custody (COC) / Analytical Request Form

COC Number: 2(

Page

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Environmental Division
Waterloo
Work Order Reference
WT2519242

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report	Reports / Recipients	Turnaround Time (TAT) Requested
Company:	City of Orillia	Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Ian Acheson and Zach Gorbell	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimu
Phone:	705-325-2227/249-881-0113	☐ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minim
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minim
Street:	40 Kitchener St	Email 1 or Fax IAcheson@orillia.ca	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimu
City/Province:	Orillia/ON	Email 2 zgorbell@orillia.ca	Same day [E2] if received by 10am M-S - 200% rush surcharge.
Postal Code:	L3V 6Z9	Email 3 HCURRY@orillia.ca	☐ fees may apply to rush resuests on weekends, statutory holidays a routine tests
Invoice To	Same as Report To ☑ YES ☐ NO	**Invoice Recipients**	Date and Time Required for all E&P TATs:
	Copy of Invoice with Report ☑ YES ☐ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	For tests that can not be performed according to the TAT requested, you will be contacted.
Company:		Email 1 or Fax IAcheson@orillia.ca	
Contact:		Email 2 zgorbell@orillia.ca	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	GMOI100 / Waste Diversion Site	AFE/Cost Center:	PO#
Job #:	Waste Diversion Site	Major/Minor Code:	Routing Code:
PO / AFE:	86912	Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (lab use only):	ALS Contact: KSINGH	Sampler: Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Meta	Major Ions Package(Total Metals)	Dissolved Metals: Trace List	Total Metals: Trace List	Dissolved Orthophosphate	Total Phosphorus	BTEX	VOCs	Arsenic						SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes
						F/P	P	F/P	P	P	P											
	S1	16-Jul-25	11:00	SW	7	R	R	R	R	R	R											
	S2	16-Jul-25	11:50	SW	7	R	R	R	R	R	R			R								
	S3	16-Jul-25	12:10	SW	7	R	R	R	R	R	R											
	S4	16-Jul-25	12:00	SW	7	R	R		R		R											
	S8	14-Jul-25	10:30	SW	7	R	R		R		R											
	S6	14-Jul-25	10:45	SW	7	R	R		R		R											
	S7	15-Jul-25	14:25	SW	7	R	R		R		R											
	S9	14-Jul-25	13:20	SW	7	R	R	R	R	R	R											
	S11	14-Jul-25	13:35	SW	7	R	R	R	R	R	R											
	S14	14-Jul-25	12:45	SW	7	R	R		R		R			R								
	S18	15-Jul-25	14:10	SW	7	R	R		R		R											
	DUP3	14-Jul-25	12:45	SW	7	R	R	R	R	R	R			R								

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
9.8	8.3	7.9	9.2	10.1			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
[signature]	July 17/25	9:00	AM	07/17/25	13:40	AG	7/17/25	17:45

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

COC Number: 20 -

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: IAcheson@orillia.ca

Email 2: zgorbell@orillia.ca

Email 3: HCURRY@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: IAcheson@orillia.ca

Email 2: zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For tests that can not be performed according to the TAT requested, you will be contacted.

Project Information

ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals)	Major Ions Package(Total Metals)	Dissolved Metals: Trace List	Total Metals: Trace List	Dissolved Orthophosphate	Total Phosphorus	BTEX	VOCs	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
						F/P	P	F/P	P	P	P					
	DUP4	15-Jul-25	14:25	SW	7	R	R	R	R	R	R					

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
9.8	8.3	7.9	9.2	10.1			

SHIPMENT RELEASE (client use)

Released by: [signature] Date: July 17/25 Time: 9:00

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: AM Date: 07/17/25 Time: 13:40

FINAL SHIPMENT RECEPTION (lab use only)

Received by: AG Date: 7/17/25 Time: 17:45

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

CERTIFICATE OF ANALYSIS

Work Order	:	**WT2520031**			
Amendment	:	**1**			
Client	:	**City of Orillia**	Laboratory	:	ALS Environmental - Waterloo
Contact	:	Ian Acheson	Account Manager	:	Karanpartap Singh
Address	:	50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	:	60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	:	----	E-mail	:	karanpartap.singh@alsglobal.com
Project	:	WASTE DIVERSION SITE	Telephone	:	19055076910
PO	:	86912	Date Samples Received	:	24-Jul-2025 13:30
C-O-C number	:	----	Date Analysis Commenced	:	25-Jul-2025
Sampler	:	IA	Issue Date	:	08-Aug-2025 14:13
Site	:	----			
Quote number	:	Waste Diversion Site			
No. of samples received	:	15			
No. of samples analysed	:	15			

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett		VOC, Waterloo, Ontario
Greg Pokocky		Inorganics, Waterloo, Ontario
Hannah Lewis		Inorganics, Waterloo, Ontario
Jon Fisher		Inorganics, Waterloo, Ontario
Jon Fisher		Metals, Waterloo, Ontario
Jon Fisher		Centralized Prep, Waterloo, Ontario
Kevin Baxter		Inorganics, Winnipeg, Manitoba
Nik Perkio		Inorganics, Waterloo, Ontario
Walt Kippenhuck		Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Workorder Comments

Sample(s) BH3-IR, BH3-IIR: Container for nutrients not received at laboratory, but requested on Chain of Custody / analytical request form; subsample cannot be obtained from other containers to meet request. The requested nutrient analysis cannot be performed.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTSE	Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.
OWP	Organic water sample contained visible sediment (must be included as part of analysis). Measured concentrations of organic substances in water can be biased high due to presence of sediment.

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	BH20R ----	BH30-I ----	BH30-II ----
					Client sampling date / time	22-Jul-2025 14:05	22-Jul-2025 14:15	22-Jul-2025 15:10	22-Jul-2025 15:30	22-Jul-2025 15:15
						WT2520031-001	WT2520031-002	WT2520031-005	WT2520031-006	WT2520031-007
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		820	820	2030	727	701
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<10.0 DLM	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<10.0 DLM	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		820	820	2030	727	701
Conductivity	----	E100/WT	2.0	µS/cm		2300	5660	3920	2040	1460
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		1090	765	1370	881	589
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		1210	883	1510	1190	586
pH	----	E108/WT	0.10	pH units		6.94	7.05	7.00	7.00	7.19
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		----	----	97.3	0.318	6.75
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		239 DLDS	586 DLDS	248 DLDS	264 DLDS	62.8 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.187 DLDS	0.501 DLDS	0.236 DLDS	<0.100 DLDS	0.267 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		----	----	117	1.13	8.77
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.200 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.100 DLDS	<0.050 DLDS	<0.050 DLDS	<0.050 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		----	----	<23.2	0.812	2.02
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		<0.0500 DLM	<0.0020 DLM	----	<0.0050 DLM	<0.0050 DLM
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		----	----	0.564	0.586	0.0231
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		5.01 DLDS	<3.00 DLDS	<1.50 DLDS	2.24 DLDS	<1.50 DLDS

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH3-IR ----	BH3-IIR ----	BH20R ----	BH30-I ----	BH30-II ----
					Client sampling date / time: 22-Jul-2025 14:05	22-Jul-2025 14:15	22-Jul-2025 15:10	22-Jul-2025 15:30	22-Jul-2025 15:15
					WT2520031-001	WT2520031-002	WT2520031-005	WT2520031-006	WT2520031-007
					Result	Result	Result	Result	Result
Organic / Inorganic Carbon									
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L	187	423	377	133	143
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	28.9	139	63.5	12.2	9.82
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	23.2	32.9	47.6	22.0	15.8
Anion sum	----	EC101/WT	0.10	meq/L	23.2	32.9	47.6	22.0	15.8
Cation sum	----	EC101/WT	0.10	meq/L	29.9	37.1	48.7	22.7	18.3
Cation sum (total)	----	EC101A/WT	0.10	meq/L	32.6	43.6	53.3	30.6	18.6
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	140	132	112	139	118
Ion balance (APHA)	----	EC101A/WT	0.010	%	16.8	14.0	5.65	16.3	8.14
Ion balance (cations/anions)	----	EC101/WT	0.010	%	129	113	102	103	116
Ion balance (APHA)	----	EC101/WT	0.01	%	12.6	6.00	1.14	1.56	7.33
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	1.82 DLHC	1.15 DLHC	----	8.14 DLHC	<0.0300 DLHC
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L	----	0.00326 DLHC	----	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.434 DLHC	0.650 DLHC	----	2.40 DLHC	0.246 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.0000550 DLHC	0.000145 DLHC	----	0.0000560 DLHC	<0.0000500 DLHC
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	320 DLHC	141 DLHC	341 DLHC	328 DLHC	140 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	<0.00500 DLHC	0.0136 DLHC	----	0.0137 DLHC	<0.00500 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	0.00925 DLHC	0.0178 DLHC	----	0.00614 DLHC	0.00285 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	<0.00500 DLHC	0.00600 DLHC	----	0.0121 DLHC	<0.00500 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L	27.8 DLHC	31.5 DLHC	66.2 DLHC	27.6 DLHC	34.8 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	BH20R ----	BH30-I ----	BH30-II ----
					Client sampling date / time	22-Jul-2025 14:05	22-Jul-2025 14:15	22-Jul-2025 15:10	22-Jul-2025 15:30	22-Jul-2025 15:15
						WT2520031-001	WT2520031-002	WT2520031-005	WT2520031-006	WT2520031-007
						Result	Result	Result	Result	Result
Total Metals										
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.00133 DLHC	0.00744 DLHC	----	0.00457 DLHC	<0.000500 DLHC
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		99.3 DLHC	129 DLHC	159 DLHC	91.0 DLHC	57.4 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		2.31 DLHC	0.370 DLHC	1.46 DLHC	0.797 DLHC	1.76 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.0222 DLHC	0.0743 DLHC	----	0.0148 DLHC	<0.00500 DLHC
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		3.43 DLHC	183 DLHC	102 DLHC	6.36 DLHC	7.00 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC, DTSE	0.000721 DLHC	----	<0.000500 DLHC	<0.000500 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	----	<0.000100 DLHC	<0.000100 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		162 DLHC	461 DLHC	258 DLHC	108 DLHC	114 DLHC
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0300 DLHC	0.0306 DLHC	----	0.0377 DLHC	<0.0300 DLHC
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		<0.0100 DLHC	0.0289 DLHC	----	<0.0100 DLHC	0.0108 DLHC
Arsenic, dissolved	7440-38-2	E421/WT	0.00010	mg/L		----	0.00222 DLHC	----	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.382 DLHC	0.578 DLHC	----	2.18 DLHC	0.225 DLHC
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000500 DLHC	<0.0000500 DLHC	----	<0.0000500 DLHC	<0.0000500 DLHC
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		289 DLHC	125 DLHC	313 DLHC	241 DLHC	142 DLHC
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00500 DLHC	0.00905 DLHC	----	<0.00500 DLHC	<0.00500 DLHC
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00461 DLHC	0.0155 DLHC	----	<0.00100 DLHC	0.00227 DLHC
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00200 DLHC	<0.00200 DLHC	----	<0.00200 DLHC	<0.00200 DLHC
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		20.0 DLHC	25.8 DLHC	57.3 DLHC	15.4 DLHC	30.5 DLHC
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	----	<0.000500 DLHC	<0.000500 DLHC
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		89.3 DLHC	110 DLHC	142 DLHC	67.8 DLHC	57.0 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	BH20R ----	BH30-I ----	BH30-II ----
					Client sampling date / time	22-Jul-2025 14:05	22-Jul-2025 14:15	22-Jul-2025 15:10	22-Jul-2025 15:30	22-Jul-2025 15:15
						WT2520031-001	WT2520031-002	WT2520031-005	WT2520031-006	WT2520031-007
						Result	Result	Result	Result	Result
Dissolved Metals										
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		1.91 DLHC	0.296 DLHC	1.30 DLHC	0.300 DLHC	1.58 DLHC
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		0.0130 DLHC	0.0636 DLHC	----	<0.00500 DLHC	<0.00500 DLHC
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		2.86 DLHC	152 DLHC	93.3 DLHC	3.60 DLHC	6.53 DLHC
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		0.00436 DLHC	0.000513 DLHC	----	0.000521 DLHC	<0.000500 DLHC
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	----	<0.000100 DLHC	<0.000100 DLHC
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		168 DLHC	391 DLHC	229 DLHC	102 DLHC	109 DLHC
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		<0.0100 DLHC	<0.0100 DLHC	----	<0.0100 DLHC	<0.0100 DLHC
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		13.4	46.2	18.8	7.3	13.4
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		----	----	218	57	32
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		----	----	0.0049	0.0017	0.0011
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L		0.85 OWP	4.07 OWP	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L		<0.50	4.16 OWP	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH3-IR ----	BH3-IIR ----	BH20R ----	BH30-I ----	BH30-II ----
					Client sampling date / time: 22-Jul-2025 14:05	22-Jul-2025 14:15	22-Jul-2025 15:10	22-Jul-2025 15:30	22-Jul-2025 15:15
					WT2520031-001	WT2520031-002	WT2520031-005	WT2520031-006	WT2520031-007
					Result	Result	Result	Result	Result
Volatile Organic Compounds									
Chloroethane	75-00-3	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Chloromethane	74-87-3	E611D/WT	2.0	µg/L	<2.0	<2.0	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L	<0.20	<0.20	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L	<0.50	1.09 OWP	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L	<0.71	<0.71	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L	<1.0	<1.0	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L	<0.30	<0.30	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L	<0.30	<0.30	----	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L	<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	BH20R ----	BH30-I ----	BH30-II ----
					Client sampling date / time	22-Jul-2025 14:05	22-Jul-2025 14:15	22-Jul-2025 15:10	22-Jul-2025 15:30	22-Jul-2025 15:15
						WT2520031-001	WT2520031-002	WT2520031-005	WT2520031-006	WT2520031-007
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		<0.50	0.99 OWP	----	----	----
Styrene	100-42-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		<0.40	1.46 OWP	----	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		<0.30	0.33 OWP	----	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		<0.50	1.79	----	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		<1.0	5.9	----	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH3-IR ----	BH3-IIR ----	BH20R ----	BH30-I ----	BH30-II ----
Client sampling date / time					22-Jul-2025 14:05	22-Jul-2025 14:15	22-Jul-2025 15:10	22-Jul-2025 15:30	22-Jul-2025 15:15
					WT2520031-001	WT2520031-002	WT2520031-005	WT2520031-006	WT2520031-007
					Result	Result	Result	Result	Result
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%	94.9	96.8	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%	99.2	98.4	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	BH16-I ----	BH16-IV ----	BH6R ----	BH5-IR ----	BH5-IIIR ----
Client sampling date / time					22-Jul-2025 11:15	22-Jul-2025 11:00	22-Jul-2025 10:45	22-Jul-2025 16:00	22-Jul-2025 15:55
					WT2520031-008	WT2520031-009	WT2520031-010	WT2520031-011	WT2520031-012
					Result	Result	Result	Result	Result
Sample Preparation									
Dissolved carbon filtration location	----	EP358/WT	-	-	field	field	----	field	field
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L	820	580	----	602	505
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	<2.0	----	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	<2.0	----	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	820	580	----	602	505
Conductivity	----	E100/WT	2.0	µS/cm	2140	1570	----	1210	1220
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L	624	647	----	500	418
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L	644	724	----	1410	594
pH	----	E108/WT	0.10	pH units	7.15	7.41	----	7.49	7.50
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	45.8	0.0601	----	0.0716	0.999
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	145 DLDS	183 DLDS	----	128 DLDS	100 DLDS

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH16-I ----	BH16-IV ----	BH6R ----	BH5-IR ----	BH5-IIIR ----
					Client sampling date / time	22-Jul-2025 11:15	22-Jul-2025 11:00	22-Jul-2025 10:45	22-Jul-2025 16:00	22-Jul-2025 15:55
						WT2520031-008	WT2520031-009	WT2520031-010	WT2520031-011	WT2520031-012
						Result	Result	Result	Result	Result
Anions and Nutrients										
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.201 DLDS	<0.100 DLDS	----	<0.100 DLDS	<0.100 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		67.8	0.876	----	0.284	14.5
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	----	<0.100 DLDS	<0.100 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	----	<0.050 DLDS	<0.050 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		22.0	0.816	----	0.212	13.5
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		<0.0010	----	----	<0.0010	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.614	0.0530	0.597	0.0167	1.12
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		2.95 DLDS	<1.50 DLDS	----	19.3 DLDS	3.32 DLDS
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		175	112	----	88.4	98.3
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		65.6	8.13	----	3.94	36.2
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		20.5	16.8	----	16.0	13.0
Anion sum	----	EC101/WT	0.10	meq/L		20.5	16.8	----	16.0	13.0
Cation sum	----	EC101/WT	0.10	meq/L		25.0	17.5	----	13.5	13.6
Cation sum (total)	----	EC101A/WT	0.10	meq/L		26.2	19.9	----	36.4	22.0
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		128	118	----	228	169
Ion balance (APHA)	----	EC101A/WT	0.010	%		12.2	8.45	----	38.9	25.7
Ion balance (cations/anions)	----	EC101/WT	0.010	%		122	104	----	84.4	105
Ion balance (APHA)	----	EC101/WT	0.01	%		9.89	2.04	----	-8.47	2.26

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH16-I ----	BH16-IV ----	BH6R ----	BH5-IR ----	BH5-IIIR ----
					Client sampling date / time	22-Jul-2025 11:15	22-Jul-2025 11:00	22-Jul-2025 10:45	22-Jul-2025 16:00	22-Jul-2025 15:55
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2520031-008	WT2520031-009	WT2520031-010	WT2520031-011	WT2520031-012
						Result	Result	Result	Result	Result
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		0.144 DLHC	----	----	25.6 DLHC	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.441 DLHC	----	----	4.52 DLHC	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.000130 DLHC	----	----	0.000145 DLHC	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		190 DLHC	188	----	405 DLHC	181 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00500 DLHC	----	----	0.0352 DLHC	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00243 DLHC	----	----	0.0170 DLHC	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		<0.00500 DLHC	----	----	0.0386 DLHC	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L		60.6 DLHC	9.70	----	36.9 DLHC	31.8 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.00332 DLHC	----	----	0.0110 DLHC	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		41.3 DLHC	61.7	----	96.0 DLHC	34.4 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.999 DLHC	0.106	----	1.60 DLHC	0.612 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		<0.00500 DLHC	----	----	0.0348 DLHC	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		182 DLHC	3.61	----	10.3 DLHC	92.3 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	----	----	<0.000500 DLHC	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	----	----	<0.000100 DLHC	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		73.6 DLHC	115	----	86.4 DLHC	66.2 DLHC
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0300 DLHC	----	----	0.0898 DLHC	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		0.0253 DLHC	----	----	0.0136 DLHC	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.372 DLHC	----	----	3.59 DLHC	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000500 DLHC	----	----	<0.0000500 DLHC	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH16-I ----	BH16-IV ----	BH6R ----	BH5-IR ----	BH5-IIIR ----
					Client sampling date / time	22-Jul-2025 11:15	22-Jul-2025 11:00	22-Jul-2025 10:45	22-Jul-2025 16:00	22-Jul-2025 15:55
						WT2520031-008	WT2520031-009	WT2520031-010	WT2520031-011	WT2520031-012
						Result	Result	Result	Result	Result
Dissolved Metals										
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		184 DLHC	168 DLHC	----	139 DLHC	133 DLHC
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00500 DLHC	----	----	<0.00500 DLHC	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00181 DLHC	----	----	<0.00100 DLHC	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00200 DLHC	----	----	<0.00200 DLHC	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		48.6 DLHC	7.99 DLHC	----	2.86 DLHC	1.84 DLHC
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000500 DLHC	----	----	<0.000500 DLHC	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		40.1 DLHC	55.2 DLHC	----	37.1 DLHC	20.9 DLHC
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.890 DLHC	0.0645 DLHC	----	0.246 DLHC	0.206 DLHC
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		<0.00500 DLHC	----	----	<0.00500 DLHC	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		178 DLHC	2.99 DLHC	----	2.14 DLHC	87.1 DLHC
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		<0.000500 DLHC	----	----	<0.000500 DLHC	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000100 DLHC	----	----	<0.000100 DLHC	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		67.9 DLHC	97.2 DLHC	----	77.7 DLHC	61.4 DLHC
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		<0.0100 DLHC	----	----	<0.0100 DLHC	----
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	----	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		27.0	3.5	----	<3.0 BODL	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		241	22	----	39	636
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0028	0.0013	----	0.0013	0.0050
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH16-I ----	BH16-IV ----	BH6R ----	BH5-IR ----	BH5-IIIR ----
					Client sampling date / time	22-Jul-2025 11:15	22-Jul-2025 11:00	22-Jul-2025 10:45	22-Jul-2025 16:00	22-Jul-2025 15:55
						WT2520031-008	WT2520031-009	WT2520031-010	WT2520031-011	WT2520031-012
						Result	Result	Result	Result	Result
Volatile Organic Compounds [Fuels]										
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Styrene	100-42-5	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Toluene	108-88-3	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		----	----	<0.40	<0.40	<0.40
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		----	----	<0.30	<0.30	<0.30
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	<0.50
BTEX, total	----	E611A/WT	1.0	µg/L		----	----	<1.0	<1.0	<1.0
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		----	----	102	103	102
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		----	----	101	102	101

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP6 ----	----	----	----	----
					Client sampling date / time	22-Jul-2025 14:05	----	----	----	----
						WT2520031-013	----	----	----	----
						Result	----	----	----	----
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	----	----	----	----
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		820	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DUP6 ----	----	----	----	----
					Client sampling date / time: 22-Jul-2025 14:05	----	----	----	----
					WT2520031-013	----	----	----	----
					Result	----	----	----	----
Physical Tests									
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	820	----	----	----	----
Conductivity	----	E100/WT	2.0	µS/cm	2270	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L	1080	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L	1160	----	----	----	----
pH	----	E108/WT	0.10	pH units	6.90	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	0.715	----	----	----	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	237 DLDS	----	----	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	0.201 DLDS	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	2.10	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	<0.100 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.050 DLDS	----	----	----	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L	1.38	----	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L	<0.0100 DLM	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	23.7	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	5.02 DLDS	----	----	----	----
Organic / Inorganic Carbon									
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L	174	----	----	----	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	27.2	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DUP6 ----	----	----	----	----
					Client sampling date / time: 22-Jul-2025 14:05	----	----	----	----
					WT2520031-013	----	----	----	----
					Result	----	----	----	----
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	23.2	----	----	----	----
Anion sum	----	EC101/WT	0.10	meq/L	23.2	----	----	----	----
Cation sum	----	EC101/WT	0.10	meq/L	29.7	----	----	----	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L	31.5	----	----	----	----
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	136	----	----	----	----
Ion balance (APHA)	----	EC101A/WT	0.010	%	15.2	----	----	----	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%	128	----	----	----	----
Ion balance (APHA)	----	EC101/WT	0.01	%	12.3	----	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	1.13 DLHC	----	----	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.431 DLHC	----	----	----	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.0000500 DLHC	----	----	----	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	307 DLHC	----	----	----	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	<0.00500 DLHC	----	----	----	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	0.00886 DLHC	----	----	----	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	<0.00500 DLHC	----	----	----	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L	27.3 DLHC	----	----	----	----
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.00105 DLHC	----	----	----	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	95.3 DLHC	----	----	----	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	2.27 DLHC	----	----	----	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	0.0197 DLHC	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DUP6 ----	----	----	----	----
					Client sampling date / time: 22-Jul-2025 14:05	----	----	----	----
					WT2520031-013	----	----	----	----
					Result	----	----	----	----
Total Metals									
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	3.30 DLHC	----	----	----	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	<0.000500 DLHC, DTSE	----	----	----	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000100 DLHC	----	----	----	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	162 DLHC	----	----	----	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	<0.0300 DLHC	----	----	----	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	<0.0100 DLHC	----	----	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	0.387 DLHC	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	<0.0000500 DLHC	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	286 DLHC	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	<0.00500 DLHC	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	0.00456 DLHC	----	----	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	<0.00200 DLHC	----	----	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	20.3 DLHC	----	----	----	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	<0.000500 DLHC	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	88.4 DLHC	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	1.91 DLHC	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	0.0128 DLHC	----	----	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	2.90 DLHC	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	0.00321 DLHC	----	----	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000100 DLHC	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	DUP6 ----	----	----	----	----
Client sampling date / time					22-Jul-2025 14:05	----	----	----	----
					WT2520031-013	----	----	----	----
					Result	----	----	----	----
Dissolved Metals									
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	166 DLHC	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	<0.0100 DLHC	----	----	----	----
Dissolved metals filtration location	----	EP421/WT	-	-	Field	----	----	----	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	11.3	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	105	----	----	----	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0098	----	----	----	----
Volatile Organic Compounds									
Acetone	67-64-1	E611D/WT	20	µg/L	<20	----	----	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L	0.94 OWP	----	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L	<1.0	----	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L	<0.20	----	----	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Chloromethane	74-87-3	E611D/WT	2.0	µg/L	<2.0	----	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L	<0.20	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DUP6 ----	----	----	----	----
					Client sampling date / time: 22-Jul-2025 14:05	----	----	----	----
					WT2520031-013	----	----	----	----
					Result	----	----	----	----
Volatile Organic Compounds									
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L	<0.71	----	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L	<1.0	----	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L	<0.30	----	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L	<0.30	----	----	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L	<0.50	----	----	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L	<20	----	----	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L	<20	----	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L	<20	----	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L	<0.50	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	DUP6 ----	----	----	----	----
					Client sampling date / time	22-Jul-2025 14:05	----	----	----	----
						WT2520031-013	----	----	----	----
						Result	----	----	----	----
Volatile Organic Compounds										
Styrene	100-42-5	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		<0.20	----	----	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		<0.40	----	----	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		<0.30	----	----	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		<1.0	----	----	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		<1.0	----	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		94.0	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		99.3	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	FIELD BLANK ----	TRIP BLANK ----	BH3-IR ----	BH3-IIR ----	----
					Client sampling date / time	22-Jul-2025 15:30	22-Jul-2025 15:15	29-Jul-2025 12:15	29-Jul-2025 12:30	----
						WT2520031-014	WT2520031-015	WT2520031-016	WT2520031-017	----
						Result	Result	Result	Result	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		----	----	0.477	270	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		----	----	1.45	438	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		----	----	0.973	168	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		----	----	0.0642	0.530	----
Aggregate Organics										
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		----	----	68	488	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		----	----	0.0011	0.0064	----
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Chloromethane	74-87-3	E611D/WT	2.0	µg/L		<2.0	<2.0	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	FIELD BLANK ----	TRIP BLANK ----	BH3-IR ----	BH3-IIR ----	----
					Client sampling date / time	22-Jul-2025 15:30	22-Jul-2025 15:15	29-Jul-2025 12:15	29-Jul-2025 12:30	----
						WT2520031-014	WT2520031-015	WT2520031-016	WT2520031-017	----
						Result	Result	Result	Result	----
Volatile Organic Compounds										
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L		<0.71	<0.71	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	FIELD BLANK ----	TRIP BLANK ----	BH3-IR ----	BH3-IIR ----	----
					Client sampling date / time	22-Jul-2025 15:30	22-Jul-2025 15:15	29-Jul-2025 12:15	29-Jul-2025 12:30	----
						WT2520031-014	WT2520031-015	WT2520031-016	WT2520031-017	----
						Result	Result	Result	Result	----
Volatile Organic Compounds										
Styrene	100-42-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		<0.40	<0.40	----	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		93.9	95.0	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		99.0	98.9	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2520031**	Page	: 1 of 32
Amendment	: **1**		
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 24-Jul-2025 13:30
PO	: 86912	Issue Date	: 08-Aug-2025 14:13
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 15		
No. of samples analysed	: 15		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH20R	E550	22-Jul-2025	----	----	----		25-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH30-I	E550	22-Jul-2025	----	----	----		25-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH30-II	E550	22-Jul-2025	----	----	----		25-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH3-IIR	E550	22-Jul-2025	----	----	----		25-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH3-IR	E550	22-Jul-2025	----	----	----		25-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH5-IIIR	E550	22-Jul-2025	----	----	----		25-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH5-IR	E550	22-Jul-2025	----	----	----		25-Jul-2025	4 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] DUP6	E550	22-Jul-2025	----	----	----		25-Jul-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH16-I	E550	22-Jul-2025	----	----	----		25-Jul-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [ON MECP] BH16-IV	E550	22-Jul-2025	----	----	----		25-Jul-2025	4 days	3 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH16-I	E559-L	22-Jul-2025	----	----	----		28-Jul-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH16-IV	E559-L	22-Jul-2025	----	----	----		28-Jul-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH20R	E559-L	22-Jul-2025	----	----	----		28-Jul-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH30-I	E559-L	22-Jul-2025	----	----	----		28-Jul-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH30-II	E559-L	22-Jul-2025	----	----	----		28-Jul-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH5-IIIR	E559-L	22-Jul-2025	----	----	----		28-Jul-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E559-L	22-Jul-2025	----	----	----		28-Jul-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP6	E559-L	22-Jul-2025	----	----	----		28-Jul-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E559-L	29-Jul-2025	----	----	----		07-Aug-2025	28 days	9 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E559-L	29-Jul-2025	----	----	----		07-Aug-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E562	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	25-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-IV	E562	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	25-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E562	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	25-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E562	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	25-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E562	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	25-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IIIR	E562	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	25-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E562	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	25-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP6	E562	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	25-Jul-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E562	29-Jul-2025	01-Aug-2025	33 days	8 days	✓	05-Aug-2025	33 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E562	29-Jul-2025	01-Aug-2025	33 days	8 days	✓	05-Aug-2025	33 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E298	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-IV	E298	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E298	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E298	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E298	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IIIR	E298	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E298	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
DUP6	E298	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E298	29-Jul-2025	01-Aug-2025	33 days	8 days	✓	05-Aug-2025	33 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E298	29-Jul-2025	01-Aug-2025	33 days	8 days	✓	05-Aug-2025	33 days	8 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.Cl	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.Cl	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.Cl	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH3-IIR	E235.Cl	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH3-IR	E235.Cl	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH5-IR	E235.Cl	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] DUP6	E235.Cl	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH16-IV	E235.Cl	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	29-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH20R	E235.Cl	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	30-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH5-IIIR	E235.Cl	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	30-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH16-I	E378-U	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	28-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH30-I	E378-U	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	28-Jul-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH30-II	E378-U	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	28-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH3-IIR	E378-U	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	28-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH3-IR	E378-U	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	28-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH5-IR	E378-U	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	28-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
DUP6	E378-U	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	28-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.F	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.F	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.F	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH3-IIR	E235.F	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.F	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH5-IR	E235.F	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
DUP6	E235.F	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH16-IV	E235.F	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	29-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH20R	E235.F	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	30-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.F	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	30-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.NO3	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.NO3	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.NO3	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH3-IIR	E235.NO3	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.NO3	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH5-IR	E235.NO3	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
DUP6	E235.NO3	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH16-IV	E235.NO3	22-Jul-2025	28-Jul-2025	7 days	6 days	✓	29-Jul-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH20R	E235.NO3	22-Jul-2025	28-Jul-2025	7 days	6 days	✓	30-Jul-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.NO3	22-Jul-2025	28-Jul-2025	7 days	6 days	✓	30-Jul-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.NO2	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.NO2	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH30-II	E235.NO2	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH3-IIR	E235.NO2	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH3-IR	E235.NO2	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH5-IR	E235.NO2	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] DUP6	E235.NO2	22-Jul-2025	25-Jul-2025	7 days	3 days	✓	29-Jul-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH16-IV	E235.NO2	22-Jul-2025	28-Jul-2025	7 days	6 days	✓	29-Jul-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH20R	E235.NO2	22-Jul-2025	28-Jul-2025	7 days	6 days	✓	30-Jul-2025	7 days	6 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] BH5-IIIR	E235.NO2	22-Jul-2025	28-Jul-2025	7 days	6 days	✓	30-Jul-2025	7 days	6 days	× EHT
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH16-I	E235.SO4	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH30-I	E235.SO4	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH30-II	E235.SO4	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH3-IIR	E235.SO4	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH3-IR	E235.SO4	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH5-IR	E235.SO4	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP6	E235.SO4	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH16-IV	E235.SO4	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	29-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH20R	E235.SO4	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	30-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH5-IIIR	E235.SO4	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	30-Jul-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E318	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	28-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-IV	E318	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	28-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E318	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	28-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E318	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	28-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E318	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	28-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IIIR	E318	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	28-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E318	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	28-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP6	E318	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	28-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E318	29-Jul-2025	05-Aug-2025	33 days	12 days	✓	05-Aug-2025	33 days	12 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E318	29-Jul-2025	05-Aug-2025	33 days	12 days	✓	05-Aug-2025	33 days	12 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E372-U	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-IV	E372-U	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E372-U	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E372-U	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E372-U	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IIIR	E372-U	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E372-U	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP6	E372-U	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E372-U	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	29-Jul-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E372-U	29-Jul-2025	01-Aug-2025	33 days	8 days	✓	01-Aug-2025	33 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E372-U	29-Jul-2025	01-Aug-2025	33 days	8 days	✓	01-Aug-2025	33 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH16-I	E421	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH16-IV	E421	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH30-I	E421	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH30-II	E421	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH3-IR	E421	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH5-IIIR	E421	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH5-IR	E421	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP6	E421	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH20R	E421	22-Jul-2025	29-Jul-2025	180 days	7 days	✓	29-Jul-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH3-IIR	E421	22-Jul-2025	29-Jul-2025	180 days	7 days	✓	29-Jul-2025	180 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH16-I	E353-L	22-Jul-2025	----	----	----		29-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH16-IV	E353-L	22-Jul-2025	----	----	----		29-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH20R	E353-L	22-Jul-2025	----	----	----		29-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH30-I	E353-L	22-Jul-2025	----	----	----		29-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH30-II	E353-L	22-Jul-2025	----	----	----		29-Jul-2025	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH3-IIR	E353-L	22-Jul-2025	----	----	----		29-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH3-IR	E353-L	22-Jul-2025	----	----	----		29-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH5-IIIR	E353-L	22-Jul-2025	----	----	----		29-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH5-IR	E353-L	22-Jul-2025	----	----	----		29-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE DUP6	E353-L	22-Jul-2025	----	----	----		29-Jul-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH16-I	E358-L	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH16-IV	E358-L	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH20R	E358-L	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH30-I	E358-L	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH30-II	E358-L	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH3-IIR	E358-L	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH3-IR	E358-L	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH5-IIIR	E358-L	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH5-IR	E358-L	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
DUP6	E358-L	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	29-Jul-2025	28 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH16-I	E290	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH30-I	E290	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH30-II	E290	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH3-IIR	E290	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH3-IR	E290	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH5-IR	E290	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP6	E290	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH16-IV	E290	22-Jul-2025	28-Jul-2025	14 days	6 days	✓	29-Jul-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH20R	E290	22-Jul-2025	28-Jul-2025	14 days	6 days	✓	29-Jul-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH5-IIIR	E290	22-Jul-2025	28-Jul-2025	14 days	6 days	✓	29-Jul-2025	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH16-I	E100	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH30-I	E100	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH30-II	E100	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH3-IIR	E100	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH3-IR	E100	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH5-IR	E100	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP6	E100	22-Jul-2025	25-Jul-2025	28 days	3 days	✓	28-Jul-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH16-IV	E100	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	29-Jul-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH20R	E100	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	29-Jul-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH5-IIIR	E100	22-Jul-2025	28-Jul-2025	28 days	6 days	✓	29-Jul-2025	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH16-I	E108	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] BH30-I	E108	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH30-II	E108	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH3-IIR	E108	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH3-IR	E108	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH5-IR	E108	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP6	E108	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	28-Jul-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH16-IV	E108	22-Jul-2025	28-Jul-2025	14 days	6 days	✓	29-Jul-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH20R	E108	22-Jul-2025	28-Jul-2025	14 days	6 days	✓	29-Jul-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH5-IIIR	E108	22-Jul-2025	28-Jul-2025	14 days	6 days	✓	29-Jul-2025	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH16-I	E420	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH16-IV	E420	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH20R	E420	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH30-I	E420	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH30-II	E420	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH3-IIR	E420	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH3-IR	E420	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH5-IIIR	E420	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH5-IR	E420	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP6	E420	22-Jul-2025	25-Jul-2025	180 days	3 days	✓	25-Jul-2025	180 days	3 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH5-IIIR	E611A	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	25-Jul-2025	14 days	3 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH5-IR	E611A	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	25-Jul-2025	14 days	3 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH6R	E611A	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	25-Jul-2025	14 days	3 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH3-IIR	E611D	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	25-Jul-2025	14 days	3 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH3-IR	E611D	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	25-Jul-2025	14 days	3 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) DUP6	E611D	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	25-Jul-2025	14 days	3 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) FIELD BLANK	E611D	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	25-Jul-2025	14 days	3 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) TRIP BLANK	E611D	22-Jul-2025	25-Jul-2025	14 days	3 days	✓	25-Jul-2025	14 days	3 days	✓

Legend & Qualifier Definitions

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2127588	3	29	10.3	5.0	✓
pH by Meter	E108	2127590	3	26	11.5	5.0	✓
Chloride in Water by IC	E235.Cl	2127586	3	47	6.3	5.0	✓
Fluoride in Water by IC	E235.F	2127583	3	24	12.5	5.0	✓
Nitrite in Water by IC	E235.NO2	2127585	3	53	5.6	5.0	✓
Nitrate in Water by IC	E235.NO3	2127584	3	55	5.4	5.0	✓
Sulfate in Water by IC	E235.SO4	2127587	3	41	7.3	5.0	✓
Alkalinity Species by Titration	E290	2127589	3	37	8.1	5.0	✓
Ammonia by Fluorescence	E298	2126286	2	38	5.2	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2126283	2	39	5.1	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2131853	1	10	10.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2127581	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2126285	3	42	7.1	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2127591	1	17	5.8	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2126194	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2127823	2	34	5.8	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2126394	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2129995	2	23	8.7	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2126287	2	39	5.1	5.0	✓
BTEX by Headspace GC-MS	E611A	2126430	1	19	5.2	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2127285	1	16	6.2	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2127588	3	29	10.3	5.0	✓
pH by Meter	E108	2127590	3	26	11.5	5.0	✓
Chloride in Water by IC	E235.Cl	2127586	3	47	6.3	5.0	✓
Fluoride in Water by IC	E235.F	2127583	3	24	12.5	5.0	✓
Nitrite in Water by IC	E235.NO2	2127585	3	53	5.6	5.0	✓
Nitrate in Water by IC	E235.NO3	2127584	3	55	5.4	5.0	✓
Sulfate in Water by IC	E235.SO4	2127587	3	41	7.3	5.0	✓
Alkalinity Species by Titration	E290	2127589	3	37	8.1	5.0	✓
Ammonia by Fluorescence	E298	2126286	2	38	5.2	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2126283	2	39	5.1	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2131853	1	10	10.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2127581	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2126285	4	42	9.5	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2127591	1	17	5.8	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Metals in Water by CRC ICPMS	E420	2126194	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2127823	2	34	5.8	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2126394	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2129995	2	23	8.7	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2126287	2	39	5.1	5.0	✓
BTEX by Headspace GC-MS	E611A	2126430	1	19	5.2	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2127285	1	16	6.2	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	2127588	3	29	10.3	5.0	✓
Chloride in Water by IC	E235.Cl	2127586	3	47	6.3	5.0	✓
Fluoride in Water by IC	E235.F	2127583	3	24	12.5	5.0	✓
Nitrite in Water by IC	E235.NO2	2127585	3	53	5.6	5.0	✓
Nitrate in Water by IC	E235.NO3	2127584	3	55	5.4	5.0	✓
Sulfate in Water by IC	E235.SO4	2127587	3	41	7.3	5.0	✓
Alkalinity Species by Titration	E290	2127589	3	37	8.1	5.0	✓
Ammonia by Fluorescence	E298	2126286	2	38	5.2	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2126283	2	39	5.1	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2131853	1	10	10.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2127581	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2126285	4	42	9.5	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2127591	1	17	5.8	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2126194	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2127823	2	34	5.8	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2126394	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2129995	2	23	8.7	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2126287	2	39	5.1	5.0	✓
BTEX by Headspace GC-MS	E611A	2126430	1	19	5.2	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2127285	1	16	6.2	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	2127586	3	47	6.3	5.0	✓
Fluoride in Water by IC	E235.F	2127583	3	24	12.5	5.0	✓
Nitrite in Water by IC	E235.NO2	2127585	3	53	5.6	5.0	✓
Nitrate in Water by IC	E235.NO3	2127584	3	55	5.4	5.0	✓
Sulfate in Water by IC	E235.SO4	2127587	3	41	7.3	5.0	✓
Ammonia by Fluorescence	E298	2126286	2	38	5.2	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2126283	2	39	5.1	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2131853	1	10	10.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2127581	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2126285	3	42	7.1	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2127591	1	17	5.8	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2126194	1	19	5.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2127823	2	34	5.8	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2129995	2	23	8.7	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2126287	2	39	5.1	5.0	✓
BTEX by Headspace GC-MS	E611A	2126430	1	19	5.2	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2127285	1	16	6.2	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Inorganic Carbon by Combustion	E353-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Inorganic Carbon is determined on a sample which is filtered through a 0.45 micron filter prior to analysis by the high temperature combustion method with measurement by an infrared detector, where the sample is acidified in a reaction chamber to convert all inorganic carbons (carbonates) to carbon dioxide for analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.
Ion Balance using Dissolved Metals	EC101 ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WT2520031**	Page	: 1 of 25
Amendment	: **1**		
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 24-Jul-2025 13:30
PO	: 86912	Date Analysis Commenced	: 25-Jul-2025
C-O-C number	: ----	Issue Date	: 08-Aug-2025 14:14
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 15		
No. of samples analysed	: 15		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett	VOC Section Supervisor	Waterloo VOC, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Waterloo Centralized Prep, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Waterloo Inorganics, Waterloo, Ontario
Jon Fisher	Laboratory Manager - Environmental	Waterloo Metals, Waterloo, Ontario
Kevin Baxter	Supervisor - Inorganic	Winnipeg Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2127588)											
WT2520031-001	BH3-IR	Conductivity	----	E100	2.0	µS/cm	2300	2330	1.30%	10%	----
Physical Tests (QC Lot: 2127589)											
WT2520031-001	BH3-IR	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	820	820	0.00%	20%	----
Physical Tests (QC Lot: 2127590)											
WT2520031-001	BH3-IR	pH	----	E108	0.10	pH units	6.94	6.91	0.433%	4%	----
Physical Tests (QC Lot: 2130550)											
WT2520031-009	BH16-IV	Conductivity	----	E100	2.0	µS/cm	1570	1570	0.318%	10%	----
Physical Tests (QC Lot: 2130551)											
WT2520031-009	BH16-IV	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	580	579	0.193%	20%	----
Physical Tests (QC Lot: 2130553)											
WT2520031-009	BH16-IV	pH	----	E108	0.10	pH units	7.41	7.42	0.135%	4%	----
Physical Tests (QC Lot: 2131294)											
WT2520031-005	BH20R	Alkalinity, total (as CaCO3)	----	E290	10.0	mg/L	2030	2020	0.879%	20%	----
Physical Tests (QC Lot: 2131295)											
WT2520031-005	BH20R	pH	----	E108	0.10	pH units	7.00	7.01	0.143%	4%	----
Physical Tests (QC Lot: 2131296)											
WT2520031-005	BH20R	Conductivity	----	E100	2.0	µS/cm	3920	3880	1.02%	10%	----
Anions and Nutrients (QC Lot: 2126283)											
HA2502618-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	5.00	mg/L	270	258	4.76%	20%	----
Anions and Nutrients (QC Lot: 2126285)											
WT2519895-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0217	0.0214	1.25%	20%	----
Anions and Nutrients (QC Lot: 2126286)											
WT2519917-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0319	0.0314	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2127583)											
HA2502644-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.246	0.243	0.961%	20%	----
Anions and Nutrients (QC Lot: 2127584)											
HA2502644-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.804	0.803	0.0443%	20%	----
Anions and Nutrients (QC Lot: 2127585)											
HA2502644-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	0.025	0.025	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2127586)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2127586) - continued											
HA2502644-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	39.8	39.8	0.0430%	20%	----
Anions and Nutrients (QC Lot: 2127587)											
HA2502644-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	28.4	28.4	0.00169%	20%	----
Anions and Nutrients (QC Lot: 2127591)											
HA2502644-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0179	0.0179	0.112%	20%	----
Anions and Nutrients (QC Lot: 2128769)											
HA2502642-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0040	mg/L	1.15	1.09	5.66%	20%	----
Anions and Nutrients (QC Lot: 2130542)											
HA2502692-001	Anonymous	Chloride	16887-00-6	E235.Cl	1.00	mg/L	31.4	31.4	0.159%	20%	----
Anions and Nutrients (QC Lot: 2130543)											
HA2502692-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2130544)											
HA2502692-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.040	mg/L	<0.040	<0.040	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2130545)											
HA2502692-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.60	mg/L	16.4	16.4	0.0214%	20%	----
Anions and Nutrients (QC Lot: 2130546)											
HA2502692-001	Anonymous	Fluoride	16984-48-8	E235.F	0.040	mg/L	0.076	0.076	0.0005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2131289)											
WT2520031-005	BH20R	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2131290)											
WT2520031-005	BH20R	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2131291)											
WT2520031-005	BH20R	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	<1.50	<1.50	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2131292)											
WT2520031-005	BH20R	Chloride	16887-00-6	E235.Cl	2.50	mg/L	248	247	0.503%	20%	----
Anions and Nutrients (QC Lot: 2131293)											
WT2520031-005	BH20R	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.236	0.262	0.026	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2139052)											
WT2520031-016	BH3-IR	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0642	0.0635	1.06%	20%	----
Anions and Nutrients (QC Lot: 2139842)											
BF2500195-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0143	0.0181	0.0038	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2139844)											
BF2500195-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	0.090	<0.050	0.040	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Organic / Inorganic Carbon (QC Lot: 2127581)											
BF2500179-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	2.50	mg/L	23.5	22.9	0.58	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 2131853)											
WT2520031-001	BH3-IR	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	187	185	0.729%	20%	----
Total Metals (QC Lot: 2126194)											
HA2502604-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0193	0.0207	0.0014	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00024	0.00024	0.0000004	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00530	0.00535	0.869%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000197	0.0000198	0.0000001	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	17.2	17.0	0.931%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	0.00057	<0.00050	0.00007	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.0767	0.0774	0.917%	20%	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.076	0.074	0.002	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000567	0.000572	0.861%	20%	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	0.468	0.472	0.840%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00100	0.00093	0.00006	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00145	0.00145	0.000004	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.326	0.336	0.009	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	14.3	14.3	0.167%	20%	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	0.156	0.157	0.396%	20%	----
Dissolved Metals (QC Lot: 2127823)											
WT2519597-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0039	0.0036	0.0003	Diff <2x LOR	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00243	0.00236	2.81%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00586	0.00574	2.02%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000090	0.0000071	0.0000019	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	81.7	82.3	0.737%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00172	0.00166	3.22%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00111	0.00107	0.00004	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.500	0.499	0.365%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	15.6	15.3	1.51%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 2127823) - continued											
WT2519597-001	Anonymous	Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.180	0.177	1.48%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00368	0.00365	0.00002	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	42.3	42.1	0.551%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000318	0.000311	0.000008	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	53.1	52.5	1.21%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0016	0.0014	0.0002	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2131436)											
HA2502687-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.0514	0.0500	2.75%	20%	----
		Arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.00019	0.00017	0.00002	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.00404	0.00402	0.489%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000062	0.0000083	0.0000021	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	1.03	1.03	0.191%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00024	0.00022	0.00001	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.012	0.012	0.00005	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	0.423	0.413	2.27%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0206	0.0200	2.53%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	0.294	0.285	0.009	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000064	0.000060	0.000004	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	4.64	4.57	1.39%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0019	0.0019	0.00001	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2126287)											
TY2507996-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0500	mg/L	<0.0500	0.0757	0.0257	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2126394)											
WT2520061-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2129995)											
WT2520031-005	BH20R	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	218	219	0.458%	20%	----
Aggregate Organics (QC Lot: 2139846)											
BF2500195-004	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Aggregate Organics (QC Lot: 2147357)											
WT2520031-016	BH3-IR	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	68	66	2	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2126430)											
HA2502611-001	Anonymous	Benzene	71-43-2	E611A	0.50	µg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.50	µg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611A	0.50	µg/L	<0.00050 mg/L	<0.50	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611A	0.40	µg/L	<0.00040 mg/L	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611A	0.30	µg/L	<0.00030 mg/L	<0.30	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2127285)											
TY2507850-002	Anonymous	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon disulfide	75-15-0	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611D	2.0	µg/L	<2.0	<2.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 2127285) - continued											
TY2507850-002	Anonymous	Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2127588)						
Conductivity	----	E100	1	µS/cm	1.2	----
Physical Tests (QCLot: 2127589)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2130550)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2130551)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2131294)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2131296)						
Conductivity	----	E100	1	µS/cm	1.1	----
Anions and Nutrients (QCLot: 2126283)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2126285)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2126286)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2127583)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2127584)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2127585)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2127586)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2127587)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2127591)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2128769)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2130542)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2130543)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2130544)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2130545)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2130546)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2131289)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2131290)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2131291)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2131292)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2131293)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2139052)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2139842)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2139844)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2140285)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Organic / Inorganic Carbon (QCLot: 2127581)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2131853)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 2126194)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Dissolved Metals (QCLot: 2127823)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2127823) - continued						
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Dissolved Metals (QCLot: 2131436)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	<0.00010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2126287)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2126394)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2129995)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Aggregate Organics (QCLot: 2139846)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2147357)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2126430)						
Benzene	71-43-2	E611A	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	<0.50	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611A	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611A	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 2127285)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2127285) - continued						
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2127588)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2127589)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	98.5	85.0	115	----
Physical Tests (QCLot: 2127590)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2130550)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.2	90.0	110	----
Physical Tests (QCLot: 2130551)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	99.8	85.0	115	----
Physical Tests (QCLot: 2130553)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2131294)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	96.0	85.0	115	----
Physical Tests (QCLot: 2131295)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2131296)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Anions and Nutrients (QCLot: 2126283)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	125	75.0	125	----
Anions and Nutrients (QCLot: 2126285)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	98.3	80.0	120	----
Anions and Nutrients (QCLot: 2126286)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	100	85.0	115	----
Anions and Nutrients (QCLot: 2127583)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2127584)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.6	90.0	110	----
Anions and Nutrients (QCLot: 2127585)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 2127586)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.7	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2127587)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2127591)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	95.5	80.0	120	----
Anions and Nutrients (QCLot: 2128769)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	94.1	80.0	120	----
Anions and Nutrients (QCLot: 2130542)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 2130543)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2130544)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.3	90.0	110	----
Anions and Nutrients (QCLot: 2130545)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2130546)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2131289)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	98.1	90.0	110	----
Anions and Nutrients (QCLot: 2131290)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 2131291)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	100	90.0	110	----
Anions and Nutrients (QCLot: 2131292)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.5	90.0	110	----
Anions and Nutrients (QCLot: 2131293)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	98.2	90.0	110	----
Anions and Nutrients (QCLot: 2139052)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	96.9	80.0	120	----
Anions and Nutrients (QCLot: 2139842)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	108	85.0	115	----
Anions and Nutrients (QCLot: 2139844)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	110	75.0	125	----
Anions and Nutrients (QCLot: 2140285)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	96.1	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2127581)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike: Target Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Organic / Inorganic Carbon (QCLot: 2127581) - continued									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	99.7	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2131853)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	91.9	80.0	120	----
Total Metals (QCLot: 2126194)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	110	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	0.05 mg/L	114	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	109	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	107	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	105	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	108	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	108	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	108	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	109	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	105	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	112	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	110	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	108	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	108	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	110	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	104	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	110	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	108	80.0	120	----
Dissolved Metals (QCLot: 2127823)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	99.7	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	103	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	103	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	102	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	103	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	103	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	105	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike: Target Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Dissolved Metals (QCLot: 2127823) - continued									
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	103	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	103	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	103	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	101	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	94.1	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	105	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	103	80.0	120	----
Dissolved Metals (QCLot: 2131436)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	102	80.0	120	----
Arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	102	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	101	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	102	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	99.8	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	99.9	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	101	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	106	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	106	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	104	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	100	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	104	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	103	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	102	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	101	80.0	120	----
Aggregate Organics (QCLot: 2126287)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	103	85.0	115	----
Aggregate Organics (QCLot: 2126394)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	102	85.0	115	----
Aggregate Organics (QCLot: 2129995)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	98.5	85.0	115	----
Aggregate Organics (QCLot: 2139846)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	104	85.0	115	----
Aggregate Organics (QCLot: 2147357)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike: Target Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Aggregate Organics (QCLot: 2147357) - continued									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	106	85.0	115	----
Volatile Organic Compounds (QCLot: 2126430)									
Benzene	71-43-2	E611A	0.5	µg/L	100 µg/L	99.8	70.0	130	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	100 µg/L	93.9	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	100 µg/L	99.2	70.0	130	----
Styrene	100-42-5	E611A	0.5	µg/L	100 µg/L	95.8	70.0	130	----
Toluene	108-88-3	E611A	0.5	µg/L	100 µg/L	99.9	70.0	130	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	200 µg/L	94.4	70.0	130	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	100 µg/L	96.8	70.0	130	----
Volatile Organic Compounds (QCLot: 2127285)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	109	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	93.2	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	81.1	60.0	140	----
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	105	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	104	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	101	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	103	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	96.3	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	107	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	110	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	113	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	105	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	108	70.0	130	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2127285) - continued									
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	107	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	115	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	86.6	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	95.8	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	83.9	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	99.2	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	99.7	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	99.8	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	107	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	101	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	104	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	106	70.0	130	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2126283)										
HA2502618-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 2126285)										
WT2519895-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0957 mg/L	0.1 mg/L	95.7	70.0	130	----
Anions and Nutrients (QCLot: 2126286)										
WT2519917-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.100 mg/L	0.1 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 2127583)										
HA2502644-001	Anonymous	Fluoride	16984-48-8	E235.F	1.06 mg/L	1 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 2127584)										
HA2502644-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.52 mg/L	2.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2127585)										
HA2502644-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.513 mg/L	0.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2127586)										
HA2502644-001	Anonymous	Chloride	16887-00-6	E235.Cl	100.0 mg/L	100 mg/L	100.0	75.0	125	----
Anions and Nutrients (QCLot: 2127587)										
HA2502644-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	101 mg/L	100 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2127591)										
HA2502644-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0203 mg/L	0.02 mg/L	103	70.0	130	----
Anions and Nutrients (QCLot: 2128769)										
HA2502642-002	Anonymous	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 2130542)										
HA2502692-001	Anonymous	Chloride	16887-00-6	E235.Cl	199 mg/L	200 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 2130543)										
HA2502692-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	1.01 mg/L	1 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2130544)										
HA2502692-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	4.96 mg/L	5 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 2130545)										
HA2502692-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	200 mg/L	200 mg/L	100	75.0	125	----
Anions and Nutrients (QCLot: 2130546)										
HA2502692-001	Anonymous	Fluoride	16984-48-8	E235.F	2.09 mg/L	2 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2131289)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2131289) - continued										
WT2520031-005	BH20R	Nitrite (as N)	14797-65-0	E235.NO2	2.43 mg/L	2.5 mg/L	97.0	75.0	125	----
Anions and Nutrients (QCLot: 2131290)										
WT2520031-005	BH20R	Nitrate (as N)	14797-55-8	E235.NO3	12.1 mg/L	12.5 mg/L	96.7	75.0	125	----
Anions and Nutrients (QCLot: 2131291)										
WT2520031-005	BH20R	Sulfate (as SO4)	14808-79-8	E235.SO4	494 mg/L	500 mg/L	98.8	75.0	125	----
Anions and Nutrients (QCLot: 2131292)										
WT2520031-005	BH20R	Chloride	16887-00-6	E235.Cl	497 mg/L	500 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 2131293)										
WT2520031-005	BH20R	Fluoride	16984-48-8	E235.F	4.95 mg/L	5 mg/L	99.1	75.0	125	----
Anions and Nutrients (QCLot: 2139052)										
WT2520031-016	BH3-IR	Phosphorus, total	7723-14-0	E372-U	0.0929 mg/L	0.1 mg/L	92.9	70.0	130	----
Anions and Nutrients (QCLot: 2139842)										
BF2500195-003	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.118 mg/L	0.1 mg/L	118	75.0	125	----
Anions and Nutrients (QCLot: 2139844)										
BF2500195-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	3.22 mg/L	2.5 mg/L	129	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2127581)										
BF2500179-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2131853)										
WT2520031-002	BH3-IIR	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 2126194)										
HA2502605-001	Anonymous	Aluminum, total	7429-90-5	E420	0.111 mg/L	0.1 mg/L	111	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0549 mg/L	0.05 mg/L	110	70.0	130	----
		Barium, total	7440-39-3	E420	0.0133 mg/L	0.012 mg/L	106	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00515 mg/L	0.005 mg/L	103	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0140 mg/L	0.012 mg/L	112	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0138 mg/L	0.012 mg/L	110	70.0	130	----
		Copper, total	7440-50-8	E420	ND mg/L	----	ND	70.0	130	----
		Iron, total	7439-89-6	E420	0.056 mg/L	0.05 mg/L	112	70.0	130	----
		Lead, total	7439-92-1	E420	0.0260 mg/L	0.025 mg/L	104	70.0	130	----
		Magnesium, total	7439-95-4	E420	2.87 mg/L	2.5 mg/L	115	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0141 mg/L	0.012 mg/L	113	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0274 mg/L	0.025 mg/L	110	70.0	130	----
		Potassium, total	7440-09-7	E420	2.75 mg/L	2.5 mg/L	110	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0504 mg/L	0.05 mg/L	101	70.0	130	----
		Silver, total	7440-22-4	E420	0.00514 mg/L	0.005 mg/L	103	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Dissolved Metals (QCLot: 2127823)										
WT2519597-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.106 mg/L	0.1 mg/L	106	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0570 mg/L	0.05 mg/L	114	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0125 mg/L	0.012 mg/L	99.9	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00500 mg/L	0.005 mg/L	100.0	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0126 mg/L	0.012 mg/L	101	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0122 mg/L	0.012 mg/L	97.8	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0114 mg/L	0.012 mg/L	91.2	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.049 mg/L	0.05 mg/L	97.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0239 mg/L	0.025 mg/L	95.5	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0237 mg/L	0.025 mg/L	94.8	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0574 mg/L	0.05 mg/L	115	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00447 mg/L	0.005 mg/L	89.4	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0254 mg/L	0.025 mg/L	101	70.0	130	----
Dissolved Metals (QCLot: 2131436)										
HA2502687-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0915 mg/L	0.1 mg/L	91.5	70.0	130	----
		Arsenic, dissolved	7440-38-2	E421	0.0539 mg/L	0.05 mg/L	108	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.0118 mg/L	0.012 mg/L	94.0	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00508 mg/L	0.005 mg/L	102	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	2.30 mg/L	2.5 mg/L	92.1	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0118 mg/L	0.012 mg/L	94.2	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0118 mg/L	0.012 mg/L	94.1	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0120 mg/L	0.012 mg/L	95.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.046 mg/L	0.05 mg/L	92.1	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0246 mg/L	0.025 mg/L	98.2	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	2.49 mg/L	2.5 mg/L	99.8	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0235 mg/L	0.025 mg/L	94.2	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	2.43 mg/L	2.5 mg/L	97.0	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0600 mg/L	0.05 mg/L	120	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00404 mg/L	0.005 mg/L	80.9	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0249 mg/L	0.025 mg/L	99.8	70.0	130	----
Aggregate Organics (QCLot: 2126287)										
TY2507996-001	Anonymous	Phenols, total (4AAP)	----	E562	ND mg/L	----	ND	75.0	125	----
Aggregate Organics (QCLot: 2129995)										
WT2520031-005	BH20R	Chemical oxygen demand [COD]	----	E559-L	ND mg/L	----	ND	75.0	125	----
Aggregate Organics (QCLot: 2139846)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Aggregate Organics (QCLot: 2139846) - continued										
BF2500195-004	Anonymous	Phenols, total (4AAP)	----	E562	0.0216 mg/L	0.02 mg/L	108	75.0	125	----
Aggregate Organics (QCLot: 2147357)										
WT2520031-016	BH3-IR	Chemical oxygen demand [COD]	----	E559-L	96 mg/L	100 mg/L	95.5	75.0	125	----
Volatile Organic Compounds (QCLot: 2126430)										
HA2502611-001	Anonymous	Benzene	71-43-2	E611A	99.2 µg/L	100 µg/L	99.2	60.0	140	----
		Ethylbenzene	100-41-4	E611A	94.1 µg/L	100 µg/L	94.1	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	98.2 µg/L	100 µg/L	98.2	60.0	140	----
		Styrene	100-42-5	E611A	94.6 µg/L	100 µg/L	94.6	60.0	140	----
		Toluene	108-88-3	E611A	100 µg/L	100 µg/L	100	60.0	140	----
		Xylene, m+p-	179601-23-1	E611A	191 µg/L	200 µg/L	95.7	60.0	140	----
		Xylene, o-	95-47-6	E611A	97.2 µg/L	100 µg/L	97.2	60.0	140	----
Volatile Organic Compounds (QCLot: 2127285)										
TY2507850-002	Anonymous	Acetone	67-64-1	E611D	97 µg/L	100 µg/L	97.4	60.0	140	----
		Benzene	71-43-2	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Bromodichloromethane	75-27-4	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Bromoform	75-25-2	E611D	90.5 µg/L	100 µg/L	90.5	60.0	140	----
		Bromomethane	74-83-9	E611D	79.4 µg/L	100 µg/L	79.4	60.0	140	----
		Carbon disulfide	75-15-0	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Carbon tetrachloride	56-23-5	E611D	99.3 µg/L	100 µg/L	99.3	60.0	140	----
		Chlorobenzene	108-90-7	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Chloroethane	75-00-3	E611D	94.9 µg/L	100 µg/L	94.9	60.0	140	----
		Chloroform	67-66-3	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Chloromethane	74-87-3	E611D	99.0 µg/L	100 µg/L	99.0	60.0	140	----
		Dibromochloromethane	124-48-1	E611D	98.2 µg/L	100 µg/L	98.2	60.0	140	----
		Dibromoethane, 1,2-	106-93-4	E611D	94.1 µg/L	100 µg/L	94.1	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Dichlorodifluoromethane	75-71-8	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611D	98.3 µg/L	100 µg/L	98.3	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	108 µg/L	100 µg/L	108	60.0	140	----
		Dichloromethane	75-09-2	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611D	99.9 µg/L	100 µg/L	99.9	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Ethylbenzene	100-41-4	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Hexane, n-	110-54-3	E611D	108 µg/L	100 µg/L	108	60.0	140	----
		Hexanone, 2-	591-78-6	E611D	76 µg/L	100 µg/L	75.7	60.0	140	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	89 µg/L	100 µg/L	89.0	60.0	140	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	76 µg/L	100 µg/L	76.3	60.0	140	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2127285) - continued										
TY2507850-002	Anonymous	Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Styrene	100-42-5	E611D	93.0 µg/L	100 µg/L	93.0	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	95.5 µg/L	100 µg/L	95.5	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Tetrachloroethylene	127-18-4	E611D	97.5 µg/L	100 µg/L	97.5	60.0	140	----
		Toluene	108-88-3	E611D	100.0 µg/L	100 µg/L	100.0	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	98.5 µg/L	100 µg/L	98.5	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	96.4 µg/L	100 µg/L	96.4	60.0	140	----
		Trichloroethylene	79-01-6	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Vinyl chloride	75-01-4	E611D	94.8 µg/L	100 µg/L	94.8	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	197 µg/L	200 µg/L	98.7	60.0	140	----
		Xylene, o-	95-47-6	E611D	99.8 µg/L	100 µg/L	99.8	60.0	140	----

VW-153
GC-496
MM-262
B-574
N-53155

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Canada Toll Free: 1 800 668 9878

Page 1 of 2

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: IAcheson@orillia.ca
Email 2: zgorbell@orillia.ca
Email 3: HCURRY@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: IAcheson@orillia.ca
Email 2: zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the TA

Environmental Division
Waterloo
Work Order Reference
WT2520031

Telephone : +1 519 886 6910

Project Information

ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Analysis Reque

Indicate Filtered (F), Preserved (P) or Filtered and Pre

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Meta	Major Ions Package(Total Metals)	Dissolved Metals: Trace List	Total Metals: Trace List	Dissolved Orthophosphate	Total Phosphorus	BTEX	VOCs	Arsenic	SAMPLES ON HOLD	EXTENDED STORAGE REQ	SUSPECTED HAZARD (see
						F/P	P	F/P	P	P	P	P	P	F/P			
	BH3-IR	22-Jul-25	14:05	GW	9	R	R	R	R	R	R		R				
	BH3-IIR	22-Jul-25	14:15	GW	9	R	R	R	R	R	R		R	R			
	BH27-I	22-Jul-25	15:00	GW	7	R	R				R						
	BH27-IIR	22-Jul-25	15:05	GW	7	R	R	R	R	R	R						
	BH20R	22-Jul-25	15:10	GW	7	R	R				R						
	BH30-I	22-Jul-25	15:30	GW	7	R	R	R	R	R	R						
	BH30-II	22-Jul-25	15:15	GW	7	R	R	R	R	R	R						
	BH16-I	22-Jul-25	11:15	GW	7	R	R	R	R	R	R						
	BH16-IV	22-Jul-25	11:00	GW	7	R	R				R						
	BH6R	22-Jul-25	10:45	GW	7						R	R					
	BH5-IR	22-Jul-25	16:00	GW	9	R	R	R	R	R	R	R					
	BH5-IIIR	22-Jul-25	15:55	GW	9	R	R				R	R					

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
6.2	6.1	6.6		11.1			

SHIPMENT RELEASE (client use)

Released by: IAcheson Date: July 24/25 Time: 11:05

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: Fahad. M Date: 24 July 25 Time: 13:30

FINAL SHIPMENT RECEPTION (lab use only)

Received by: MT Date: JUL 24 2025 Time: 17:56

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Coolers topped up

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 2 of 2

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: IAcheson@orillia.ca

Email 2: zgorbell@orillia.ca

Email 3: HCURRY@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: IAcheson@orillia.ca

Email 2: zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For tests that can not be performed according to the TAT requested, you will be contacted.

Project Information

ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals) F/P	Major Ions Package(Total Metals) P	Dissolved Metals: Trace List F/P	Total Metals: Trace List P	Dissolved Orthophosphate F/P	Total Phosphorus P	BTEX P	VOCs P	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	DUP6	22-Jul-25	14:05	GW	9	R	R	R	R	R	R		R			
	Field Blank	22-Jul-25	15:30	Water (Lab)	2								R			
	Trip Blank	22-Jul-25	15:15	Water (Lab)	2								R			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
6.2	6.1	6.6					

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
I Acheson	July 24/25	11:05

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
Fahad M	24 July 25	13:30

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

coolers topped up

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

COC Number: 20 - NA

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients	
Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA	☐ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca
Email 3	HCURRY@orillia.ca

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca

Project Information	
ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)			
AFE/Cost Center:		PO#	
Major/Minor Code:		Routing Code:	
Requisitioner:			
Location:			

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Turnaround Time (TAT) Requested

- ☑ Routine [R] if received by 3pm M-F - no surcharges apply
- ☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
- ☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
- ☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
- ☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
- ☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. A fees may apply to rush resuests on weekends, statutory holidays a routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed according to th

Analysis Req

Indicate Filtered (F), Preserved (P) or Filtered an

Environmental Division Waterloo

Work Order Reference

WT2520031

Telephone : +1 519 886 6910

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	P	Total Nutrients Bottles for WT2520031 (BH3-IR & BH3-IIR)	SAMPLES ON HOLD	EXTENDED STORAGE REQ	SUSPECTED HAZARD (see
	BH3-IR	29-Jul-25	12:15	GW	1	R				
	BH3-IIR	29-Jul-25	12:30	GW	1	R				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
12.3				13.3			

SHIPMENT RELEASE (client use)

Released by: Ian Acheson Date: July 31/25 Time: 9:15

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: AM Date: 07/31/25 Time: 14:00

FINAL SHIPMENT RECEPTION (lab use only)

Received by: MA Date: JUL 31 2025 Time: 17:3

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

N-78

CERTIFICATE OF ANALYSIS

Work Order	:	**WT2528815**		
Client	:	**City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	:	Ian Acheson	Account Manager	: Karanpartap Singh
Address	:	50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	:	----	E-mail	: karanpartap.singh@alsglobal.com
Project	:	WASTE DIVERSION SITE	Telephone	: 19055076910
PO	:	86912	Date Samples Received	: 09-Oct-2025 13:30
C-O-C number	:	----	Date Analysis Commenced	: 10-Oct-2025
Sampler	:	IA	Issue Date	: 17-Oct-2025 23:31
Site	:	----		
Quote number	:	Waste Diversion Site		
No. of samples received	:	17		
No. of samples analysed	:	17		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett	VOC Section Supervisor	VOC, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Metals, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Inorganics, Waterloo, Ontario
Kevin Baxter	Supervisor - Inorganic	Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Centralized Prep, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
DTSE	Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.
OWP	Organic water sample contained visible sediment (must be included as part of analysis). Measured concentrations of organic substances in water can be biased high due to presence of sediment.

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR ----	BH21-IIR ----	BH18R ----	BH22-IR ----	BH22-II ----
					Client sampling date / time	08-Oct-2025 11:25	08-Oct-2025 11:40	06-Oct-2025 11:00	06-Oct-2025 14:45	06-Oct-2025 15:00
						WT2528815-001	WT2528815-002	WT2528815-003	WT2528815-004	WT2528815-005
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		524	906	314	343	207
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<10.0 DLHC	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<10.0 DLHC	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		524	906	314	343	207
Conductivity	----	E100/WT	2.0	µS/cm		1210	1870	2310	1080	1510
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		522	690	734	500	505
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		640	826	866	602	727
pH	----	E108/WT	0.10	pH units		7.54	7.07	7.10	7.50	7.95
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		9.54	37.2	0.981	0.317	0.526
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		111 DLDS	126 DLDS	589 DLDS	155 DLDS	143 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.173 DLDS	0.123 DLDS	<0.100 DLDS	0.216 DLDS	<0.100 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		11.6	58.8	3.51	0.637	1.15
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	<0.050 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		<2.29	21.6	2.53	0.320	0.624
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		----	----	----	<0.0010	0.0024
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.217	1.84	0.696	0.396	0.334
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		<1.50 DLDS	2.99 DLDS	7.16 DLDS	12.7 DLDS	413 DLDS

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR ----	BH21-IIR ----	BH18R ----	BH22-IR ----	BH22-II ----
					Client sampling date / time	08-Oct-2025 11:25	08-Oct-2025 11:40	06-Oct-2025 11:00	06-Oct-2025 14:45	06-Oct-2025 15:00
						WT2528815-001	WT2528815-002	WT2528815-003	WT2528815-004	WT2528815-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		106	180	62.2	71.2	38.0
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		16.3	57.0	71.8	7.07	11.5
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		13.6	21.7	23.0	11.5	16.8
Anion sum	----	EC101/WT	0.10	meq/L		13.6	21.7	23.0	11.5	16.8
Cation sum	----	EC101/WT	0.10	meq/L		14.4	23.3	23.9	12.0	14.5
Cation sum (total)	----	EC101A/WT	0.10	meq/L		17.3	29.7	28.8	14.7	20.4
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		127	137	125	128	121
Ion balance (APHA)	----	EC101A/WT	0.010	%		12.0	15.6	11.2	12.2	9.68
Ion balance (cations/anions)	----	EC101/WT	0.010	%		106	107	104	104	86.3
Ion balance (APHA)	----	EC101/WT	0.01	%		2.86	3.56	1.92	2.13	-7.35
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		2.40 DLHC	23.4 DLHC	14.4 DLHC	4.31 DLHC	7.88 DLHC
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.208 DLHC	0.672 DLHC	0.373 DLHC	0.161 DLHC	0.310 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		<0.0000500 DLHC	0.000876 DLHC	0.000474 DLHC	<0.0000500 DLHC	0.0000920 DLHC
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		189 DLHC	256 DLHC	294 DLHC	183 DLHC	234 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00500 DLHC	0.0385 DLHC	<0.00500 DLHC	<0.00500 DLHC	0.0111 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00210 DLHC	0.0149 DLHC	0.00706 DLHC	0.00326 DLHC	0.00398 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.0173 DLHC	0.0560 DLHC	0.0104 DLHC	0.00904 DLHC	0.00715 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L		25.1 DLHC	49.2 DLHC	25.0 DLHC	11.6 DLHC	11.3 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.00167 DLHC	0.0395 DLHC	0.0550 DLHC	0.00414 DLHC	0.00284 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR ----	BH21-IIR ----	BH18R ----	BH22-IR ----	BH22-II ----
					Client sampling date / time	08-Oct-2025 11:25	08-Oct-2025 11:40	06-Oct-2025 11:00	06-Oct-2025 14:45	06-Oct-2025 15:00
						WT2528815-001	WT2528815-002	WT2528815-003	WT2528815-004	WT2528815-005
						Result	Result	Result	Result	Result
Total Metals										
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		40.9 DLHC	45.4 DLHC	32.1 DLHC	35.2 DLHC	34.6 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		1.16 DLHC	1.26 DLHC	0.965 DLHC	3.51 DLHC	0.447 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		<0.00500 DLHC	0.0252 DLHC	0.00734 DLHC	<0.00500 DLHC	0.00717 DLHC
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		42.5 DLHC	116 DLHC	2.39 DLHC	1.96 DLHC	4.29 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	0.00114 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	0.000252 DLHC	0.000179 DLHC	<0.000100 DLHC	<0.000100 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		35.8 DLHC	72.3 DLHC	202 DLHC	36.9 DLHC	103 DLHC
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0300 DLHC	0.189 DLHC	0.0856 DLHC	<0.0300 DLHC	0.0316 DLHC
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		<0.0100 DLHC	0.0210 DLHC	0.206 DLHC	0.0022	0.0259
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.186 DLHC	0.368 DLHC	0.183 DLHC	0.124	0.171
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000500 DLHC	<0.0000500 DLHC	<0.0000500 DLHC	<0.0000050	0.0000062
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		158 DLHC	215 DLHC	254 DLHC	153	163
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	<0.00500 DLHC	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		<0.00100 DLHC	0.00205 DLHC	0.00407 DLHC	0.00082	0.00033
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00200 DLHC	<0.00200 DLHC	<0.00200 DLHC	<0.00020	0.00024
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		20.5 DLHC	21.0 DLHC	11.1 DLHC	5.76	2.62
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000050	0.000052
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		31.1 DLHC	37.2 DLHC	24.2 DLHC	28.7	23.8
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		1.01 DLHC	0.939 DLHC	0.707 DLHC	3.39	0.690 DTC
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	<0.00500 DLHC	0.00067	<0.00050

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

					Client sample ID	BH21-IR ----	BH21-IIR ----	BH18R ----	BH22-IR ----	BH22-II ----
					Client sampling date / time	08-Oct-2025 11:25	08-Oct-2025 11:40	06-Oct-2025 11:00	06-Oct-2025 14:45	06-Oct-2025 15:00
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2528815-001	WT2528815-002	WT2528815-003	WT2528815-004	WT2528815-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		41.1 DLHC	115 DLHC	0.629 DLHC	1.03	2.37
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	0.000147	0.000107
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		34.8 DLHC	72.6 DLHC	200 DLHC	36.6	96.8
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		<0.0100 DLHC	<0.0100 DLHC	<0.0100 DLHC	<0.0010	0.0031
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		6.0	27.8	7.0	<3.0 BODL	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		64	1170	382	48	59
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0016	0.0086	0.0013	<0.0010	0.0012
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L		1.87	5.91 OWP	----	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR ----	BH21-IIR ----	BH18R ----	BH22-IR ----	BH22-II ----
					Client sampling date / time	08-Oct-2025 11:25	08-Oct-2025 11:40	06-Oct-2025 11:00	06-Oct-2025 14:45	06-Oct-2025 15:00
						WT2528815-001	WT2528815-002	WT2528815-003	WT2528815-004	WT2528815-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Chloromethane	74-87-3	E611D/WT	2.0	µg/L		<2.0	<2.0	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L		0.88	1.68 OWP	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L		<0.71	<0.71	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		<20	<20	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR ----	BH21-IIR ----	BH18R ----	BH22-IR ----	BH22-II ----
					Client sampling date / time	08-Oct-2025 11:25	08-Oct-2025 11:40	06-Oct-2025 11:00	06-Oct-2025 14:45	06-Oct-2025 15:00
						WT2528815-001	WT2528815-002	WT2528815-003	WT2528815-004	WT2528815-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Styrene	100-42-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		<0.50	211 OWP	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		<0.40	<0.40	----	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		<1.0	211	----	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		----	----	----	<0.50	<0.50

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH21-IR ----	BH21-IIR ----	BH18R ----	BH22-IR ----	BH22-II ----
					Client sampling date / time	08-Oct-2025 11:25	08-Oct-2025 11:40	06-Oct-2025 11:00	06-Oct-2025 14:45	06-Oct-2025 15:00
						WT2528815-001	WT2528815-002	WT2528815-003	WT2528815-004	WT2528815-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds [Fuels]										
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Styrene	100-42-5	E611A/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Toluene	108-88-3	E611A/WT	0.50	µg/L		----	----	----	<0.50	<0.50
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		----	----	----	<0.40	<0.40
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		----	----	----	<0.30	<0.30
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		----	----	----	<0.50	<0.50
BTEX, total	----	E611A/WT	1.0	µg/L		----	----	----	<1.0	<1.0
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		----	----	----	86.8	84.7
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		100	98.9	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		----	----	----	98.3	97.4
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		104	104	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH6R ----	BH1-IR ----	BH29-I ----
					Client sampling date / time	09-Oct-2025 09:10	09-Oct-2025 09:15	08-Oct-2025 11:00	06-Oct-2025 10:20	08-Oct-2025 11:55
						WT2528815-006	WT2528815-007	WT2528815-008	WT2528815-009	WT2528815-010
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		429	274	819	220	487

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Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH6R ----	BH1-IR ----	BH29-I ----
					Client sampling date / time	09-Oct-2025 09:10	09-Oct-2025 09:15	08-Oct-2025 11:00	06-Oct-2025 10:20	08-Oct-2025 11:55
						WT2528815-006	WT2528815-007	WT2528815-008	WT2528815-009	WT2528815-010
						Result	Result	Result	Result	Result
Physical Tests										
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		429	274	819	220	487
Conductivity	----	E100/WT	2.0	µS/cm		1420	1030	1840	784	1140
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		544	445	722	207	642
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		566	405	743	264	1020
pH	----	E108/WT	0.10	pH units		7.81	8.04	7.04	7.85	7.42
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.110	0.0242	27.6	0.127	0.0365
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		217 DLDS	146 DLDS	130 DLDS	118	94.4 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.111 DLDS	0.306 DLDS	<0.100 DLDS	0.322	<0.100 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		0.340	0.434	38.3	0.658	<0.500 DLM
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	0.665 DLDS	<0.100 DLDS	<0.020	<0.100 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	<0.010	<0.050 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		0.230	0.410	10.7	0.531	<0.500
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		<0.0010	0.0138	0.0029	----	<0.0010
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.0335	0.0354	0.554	0.139	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		20.4 DLDS	50.9 DLDS	19.2 DLDS	15.0	29.0 DLDS
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		87.3	58.2	163	49.8	95.9
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		5.35	5.56	35.4	8.99	6.11

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH6R ----	BH1-IR ----	BH29-I ----
					Client sampling date / time	09-Oct-2025 09:10	09-Oct-2025 09:15	08-Oct-2025 11:00	06-Oct-2025 10:20	08-Oct-2025 11:55
						WT2528815-006	WT2528815-007	WT2528815-008	WT2528815-009	WT2528815-010
						Result	Result	Result	Result	Result
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		15.1	10.7	20.4	8.05	13.0
Anion sum	----	EC101/WT	0.10	meq/L		15.1	10.7	20.4	8.05	13.0
Cation sum	----	EC101/WT	0.10	meq/L		16.3	12.6	21.6	6.99	13.9
Cation sum (total)	----	EC101A/WT	0.10	meq/L		16.9	11.3	23.9	9.06	22.6
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		112	106	117	112	174
Ion balance (APHA)	----	EC101A/WT	0.010	%		5.62	2.73	7.90	5.90	27.0
Ion balance (cations/anions)	----	EC101/WT	0.010	%		108	118	106	86.8	107
Ion balance (APHA)	----	EC101/WT	0.01	%		3.82	8.15	2.86	-7.05	3.34
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		0.501	0.397	13.3 DLHC	2.21 DLHC	5.04 DLHC
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.652	0.0717	0.448 DLHC	0.171 DLHC	0.308 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.0000071	0.0000151	0.000168 DLHC	<0.0000500 DLHC	0.0000530 DLHC
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		171	123	234 DLHC	73.4 DLHC	313 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		0.00090	0.00054	0.0146 DLHC	<0.00500 DLHC	0.00689 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00154	0.00150	0.00541 DLHC	0.00180 DLHC	0.00453 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.00297	0.00259	0.00832 DLHC	<0.00500 DLHC	0.00876 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L		13.6	0.410	17.9 DLHC	3.88 DLHC	13.0 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.000458	0.000146	0.00392 DLHC	0.000753 DLHC	0.00287 DLHC
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		33.7	23.7	38.6 DLHC	19.7 DLHC	58.8 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		1.57	0.407	1.07 DLHC	0.312 DLHC	1.60 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.00166	0.00136	0.0112 DLHC	<0.00500 DLHC	0.00708 DLHC

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH6R ----	BH1-IR ----	BH29-I ----
					Client sampling date / time	09-Oct-2025 09:10	09-Oct-2025 09:15	08-Oct-2025 11:00	06-Oct-2025 10:20	08-Oct-2025 11:55
						WT2528815-006	WT2528815-007	WT2528815-008	WT2528815-009	WT2528815-010
						Result	Result	Result	Result	Result
Total Metals										
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		1.36	0.969	36.0 DLHC	2.54 DLHC	2.74 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		0.000080	0.000114	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		0.000012	<0.000010	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		113	72.5	91.5 DLHC	76.1 DLHC	21.8 DLHC
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0030	<0.0030	0.0511 DLHC	<0.0300 DLHC	<0.0300 DLHC
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		0.0018	0.0044	<0.0100 DLHC	0.0050	<0.0010
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.668	0.0717	0.308 DLHC	0.131	0.261
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000050	0.0000069	<0.0000500 DLHC	<0.0000050	0.0000079
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		165	135	229 DLHC	56.3	201
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00500 DLHC	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00116	0.00023	0.00127 DLHC	0.00036	0.00106
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00020	0.00119	<0.00200 DLHC	<0.00020	0.00029
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		12.2	<0.010	7.59 DLHC	1.14	1.96
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000050	<0.000050	<0.000500 DLHC	<0.000050	<0.000050
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		32.1	26.2	36.5 DLHC	16.2	34.0
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		1.53	0.0747	1.00 DLHC	0.192	1.08
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		0.00096	<0.00050	<0.00500 DLHC	<0.00050	0.00098
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		1.18	0.806	34.8 DLHC	1.73	1.42
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		0.000097	0.000110	0.000922 DLHC, DTSE	0.000055	0.000074
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000100 DLHC	<0.000010	<0.000010

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH17-III ----	BH17-IVR ----	BH6R ----	BH1-IR ----	BH29-I ----
					Client sampling date / time	09-Oct-2025 09:10	09-Oct-2025 09:15	08-Oct-2025 11:00	06-Oct-2025 10:20	08-Oct-2025 11:55
						WT2528815-006	WT2528815-007	WT2528815-008	WT2528815-009	WT2528815-010
						Result	Result	Result	Result	Result
Dissolved Metals										
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		112	83.8	92.8 DLHC	63.1	22.1
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		<0.0010	<0.0010	<0.0100 DLHC	<0.0010	0.0011
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		<3.0 BODL	<3.0 BODL	13.5	<3.0 BODL	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		25	19	297	40	43
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0015	<0.0010	0.0025	<0.0010	0.0014
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		<0.50	----	<0.50	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		<0.50	----	<0.50	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		<0.50	----	<0.50	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L		<0.50	----	<0.50	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L		<0.50	----	<0.50	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		<0.40	----	<0.40	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		<0.30	----	<0.30	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		<0.50	----	<0.50	----	----
BTEX, total	----	E611A/WT	1.0	µg/L		<1.0	----	<1.0	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		85.4	----	84.0	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		97.0	----	99.9	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH30-I ----	BH30-II ----	DUP1 ----	----	----
					Client sampling date / time	08-Oct-2025 10:15	08-Oct-2025 10:30	08-Oct-2025 11:00	----	----
						WT2528815-011	WT2528815-012	WT2528815-013	----	----
						Result	Result	Result	----	----
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	----	----
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		1030	811	808	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<10.0 DLM	<2.0	<2.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<10.0 DLM	<2.0	<2.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		1030	811	808	----	----
Conductivity	----	E100/WT	2.0	µS/cm		2350	1630	1830	----	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		947	625	722	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		1880	646	762	----	----
pH	----	E108/WT	0.10	pH units		6.99	7.58	7.12	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.767	9.87	30.3	----	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		303 DLDS	90.7 DLDS	124 DLDS	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		<0.100 DLDS	0.156 DLDS	<0.100 DLDS	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		1.70	11.6	37.3	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	----	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		0.933	<2.31	<7.32	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		<0.0050 DLM	<0.0010	0.0018	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		----	----	0.482	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		<1.50 DLDS	<1.50 DLDS	18.0 DLDS	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH30-I ----	BH30-II ----	DUP1 ----	----	----
					Client sampling date / time: 08-Oct-2025 10:15	08-Oct-2025 10:30	08-Oct-2025 11:00	----	----
					WT2528815-011	WT2528815-012	WT2528815-013	----	----
					Result	Result	Result	----	----
Organic / Inorganic Carbon									
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L	165	167	159	----	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	14.3	12.0	35.6	----	----
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	29.1	18.8	20.0	----	----
Anion sum	----	EC101/WT	0.10	meq/L	29.1	18.8	20.0	----	----
Cation sum	----	EC101/WT	0.10	meq/L	26.8	20.8	21.7	----	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L	48.5	21.5	25.0	----	----
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	167	114	125	----	----
Ion balance (APHA)	----	EC101A/WT	0.010	%	25.0	6.70	11.1	----	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%	92.1	111	108	----	----
Ion balance (APHA)	----	EC101/WT	0.01	%	-4.11	5.05	4.08	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	12.8 DLHC	0.0248	17.0 DLHC	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	2.84 DLHC	0.286	0.489 DLHC	----	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.000132 DLHC	0.0000193	0.000224 DLHC	----	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	526 DLHC	168	240 DLHC	----	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	0.0234 DLHC	0.00066	0.0187 DLHC	----	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	0.0107 DLHC	0.00389	0.00634 DLHC	----	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	0.0232 DLHC	<0.00050	0.0105 DLHC	----	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L	46.6 DLHC	30.4	20.5 DLHC	----	----
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.00757 DLHC	0.000051	0.00472 DLHC	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH30-I ----	BH30-II ----	DUP1 ----	----	----
					Client sampling date / time	08-Oct-2025 10:15	08-Oct-2025 10:30	08-Oct-2025 11:00	----	----
						WT2528815-011	WT2528815-012	WT2528815-013	----	----
						Result	Result	Result	----	----
Total Metals										
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		138 DLHC	55.1	39.6 DLHC	----	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		1.56 DLHC	1.96	1.09 DLHC	----	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.0217 DLHC	0.00288	0.0140 DLHC	----	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		8.22 DLHC	7.48	36.7 DLHC	----	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	0.000221	0.000527 DLHC	----	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	<0.000010	<0.000100 DLHC	----	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		172 DLHC	150	91.5 DLHC	----	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		0.0619 DLHC	0.0040	0.0643 DLHC	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		<0.0100 DLHC	0.0156 DLHC	<0.0100 DLHC	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		2.31 DLHC	0.258 DLHC	0.307 DLHC	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000500 DLHC	<0.0000500 DLHC	<0.0000500 DLHC	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		274 DLHC	161 DLHC	230 DLHC	----	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	<0.00500 DLHC	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		<0.00100 DLHC	0.00360 DLHC	0.00130 DLHC	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00200 DLHC	<0.00200 DLHC	<0.00200 DLHC	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		18.0 DLHC	29.0 DLHC	7.47 DLHC	----	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		63.9 DLHC	54.2 DLHC	35.9 DLHC	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.351 DLHC	1.83 DLHC	0.983 DLHC	----	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		<0.00500 DLHC	<0.00500 DLHC	<0.00500 DLHC	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH30-I ----	BH30-II ----	DUP1 ----	----	----
					Client sampling date / time: 08-Oct-2025 10:15	08-Oct-2025 10:30	08-Oct-2025 11:00	----	----
					WT2528815-011	WT2528815-012	WT2528815-013	----	----
					Result	Result	Result	----	----
Dissolved Metals									
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	4.35 DLHC	6.88 DLHC	34.6 DLHC	----	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	<0.000500 DLHC	<0.000500 DLHC	0.000559 DLHC	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	----	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	163 DLHC	145 DLHC	91.0 DLHC	----	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	<0.0100 DLHC	<0.0100 DLHC	<0.0100 DLHC	----	----
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	----	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	10.4	3.2	12.1	----	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	95	78	395	----	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0020	0.0013	0.0029	----	----
Volatile Organic Compounds [Fuels]									
Benzene	71-43-2	E611A/WT	0.50	µg/L	----	----	<0.50	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L	----	----	<0.50	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L	----	----	<0.50	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L	----	----	<0.50	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L	----	----	<0.50	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L	----	----	<0.40	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L	----	----	<0.30	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L	----	----	<0.50	----	----
BTEX, total	----	E611A/WT	1.0	µg/L	----	----	<1.0	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH30-I ----	BH30-II ----	DUP1 ----	----	----
					Client sampling date / time	08-Oct-2025 10:15	08-Oct-2025 10:30	08-Oct-2025 11:00	----	----
						WT2528815-011	WT2528815-012	WT2528815-013	----	----
						Result	Result	Result	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		----	----	84.1	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		----	----	98.7	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Surface Water (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	D-5 ----	D-6 ----	----	----	----
					Client sampling date / time	07-Oct-2025 10:05	07-Oct-2025 11:10	----	----	----
						WT2528815-014	WT2528815-015	----	----	----
						Result	Result	----	----	----
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	----	----	----
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		372	288	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	12.2	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		372	301	----	----	----
Conductivity	----	E100/WT	2.0	µS/cm		1760	1320	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		542	378	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		534	397	----	----	----
pH	----	E108/WT	0.10	pH units		8.22	8.46	----	----	----
Solids, total suspended [TSS]	----	E160-L/WT	1.0	mg/L		154	126	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.0422	0.0307	----	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: D-5 ----	D-6 ----	----	----	----
					Client sampling date / time: 07-Oct-2025 10:05	07-Oct-2025 11:10	----	----	----
					WT2528815-014	WT2528815-015	----	----	----
					Result	Result	----	----	----
Anions and Nutrients									
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	372 DLDS	249 DLDS	----	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	<0.100 DLDS	<0.100 DLDS	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	1.46	0.695	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	<0.100 DLDS	<0.100 DLDS	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.050 DLDS	<0.050 DLDS	----	----	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L	1.42	0.664	----	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L	0.0033	0.0224	----	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	0.0999	0.284	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	14.1 DLDS	14.7 DLDS	----	----	----
Organic / Inorganic Carbon									
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L	79.8	61.4	----	----	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L	11.9	8.15	----	----	----
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	18.2	13.3	----	----	----
Anion sum	----	EC101/WT	0.10	meq/L	18.2	13.3	----	----	----
Cation sum	----	EC101/WT	0.10	meq/L	19.8	14.0	----	----	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L	19.6	14.5	----	----	----
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	108	109	----	----	----
Ion balance (APHA)	----	EC101A/WT	0.010	%	3.70	4.32	----	----	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%	109	105	----	----	----
Ion balance (APHA)	----	EC101/WT	0.01	%	4.21	2.56	----	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: D-5 ----	Client sample ID: D-6 ----	----	----	----
					Client sampling date / time: 07-Oct-2025 10:05	07-Oct-2025 11:10	----	----	----
					WT2528815-014	WT2528815-015	----	----	----
					Result	Result	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	0.513	0.503	----	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.366	0.238	----	----	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.0000344	0.000104	----	----	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	171	126	----	----	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	0.00106	0.00122	----	----	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	0.00083	0.00036	----	----	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	0.00188	0.00295	----	----	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L	2.61	2.94	----	----	----
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.00111	0.000955	----	----	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	26.1	20.1	----	----	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	0.523	0.543	----	----	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	0.00159	0.00218	----	----	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	12.0	11.4	----	----	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	0.000251	0.000425	----	----	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000010	0.000010	----	----	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	194	140	----	----	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	0.0113	0.0506	----	----	----
Dissolved Metals									
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L	0.0026	0.0027	----	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L	0.370	0.221	----	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L	0.0000074	<0.0000050	----	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: D-5 ----	Client sample ID: D-6 ----	----	----	----
					Client sampling date / time: 07-Oct-2025 10:05	07-Oct-2025 11:10	----	----	----
					WT2528815-014	WT2528815-015	----	----	----
					Result	Result	----	----	----
Dissolved Metals									
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L	173	118	----	----	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L	<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L	0.00056	<0.00010	----	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L	0.00062	0.00046	----	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L	1.56	0.283	----	----	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L	<0.000050	<0.000050	----	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L	26.7	20.2	----	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L	0.515	0.205	----	----	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	0.00089	0.00052	----	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	12.3	12.0	----	----	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	0.000277	0.000200	----	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	197	142	----	----	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	0.0035	0.0022	----	----	----
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	----	----	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	4.7	7.2	----	----	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	53	101	----	----	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0020	0.0020	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

					Client sample ID	FIELD BLANK ----	TRIP BLANK ----	----	----	----
					Client sampling date / time	09-Oct-2025 09:20	09-Oct-2025 09:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2528815-016	WT2528815-017	----	----	----
						Result	Result	----	----	----
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Chloromethane	74-87-3	E611D/WT	2.0	µg/L		<2.0	<2.0	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

					Client sample ID	FIELD BLANK ----	TRIP BLANK ----	----	----	----
					Client sampling date / time	09-Oct-2025 09:20	09-Oct-2025 09:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2528815-016	WT2528815-017	----	----	----
						Result	Result	----	----	----
Volatile Organic Compounds										
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L		<0.71	<0.71	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Styrene	100-42-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: Water (Matrix: Water)					Client sample ID	FIELD BLANK ----	TRIP BLANK ----	----	----	----
					Client sampling date / time	09-Oct-2025 09:20	09-Oct-2025 09:30	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2528815-016	WT2528815-017	----	----	----
						Result	Result	----	----	----
Volatile Organic Compounds										
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		<0.40	<0.40	----	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		99.8	98.9	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		104	104	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

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QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2528815**	Page	: 1 of 43
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 09-Oct-2025 13:30
PO	: 86912	Issue Date	: 17-Oct-2025 23:29
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 17		
No. of samples analysed	: 17		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Method Blank value outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Anions and Nutrients	QC-2274349-001	----	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010 mg/L B	0.001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Matrix Spike (MS) Recoveries								
Dissolved Metals	WT2528815-002	BH21-IIR	Silver, dissolved	7440-22-4	E421	68.4 % MES	70.0-130%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH17-III	E550	09-Oct-2025	----	----	----		11-Oct-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH17-IVR	E550	09-Oct-2025	----	----	----		11-Oct-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH21-IIR	E550	08-Oct-2025	----	----	----		11-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH21-IR	E550	08-Oct-2025	----	----	----		11-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH22-II	E550	06-Oct-2025	----	----	----		10-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH22-IR	E550	06-Oct-2025	----	----	----		10-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH29-I	E550	08-Oct-2025	----	----	----		11-Oct-2025	4 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH30-I	E550	08-Oct-2025	----	----	----		11-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH30-II	E550	08-Oct-2025	----	----	----		11-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH6R	E550	08-Oct-2025	----	----	----		11-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
D-5	E550	07-Oct-2025	----	----	----		10-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
D-6	E550	07-Oct-2025	----	----	----		10-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
DUP1	E550	08-Oct-2025	----	----	----		11-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH18R	E550	06-Oct-2025	----	----	----		10-Oct-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH1-IR	E550	06-Oct-2025	----	----	----		10-Oct-2025	4 days	4 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E559-L	06-Oct-2025	----	----	----		16-Oct-2025	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH1-IR	E559-L	06-Oct-2025	----	----	----		16-Oct-2025	28 days	10 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E559-L	06-Oct-2025	----	----	----		16-Oct-2025	28 days	10 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E559-L	06-Oct-2025	----	----	----		16-Oct-2025	28 days	10 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E559-L	09-Oct-2025	----	----	----		16-Oct-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E559-L	09-Oct-2025	----	----	----		16-Oct-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E559-L	08-Oct-2025	----	----	----		16-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E559-L	08-Oct-2025	----	----	----		16-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E559-L	08-Oct-2025	----	----	----		16-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E559-L	08-Oct-2025	----	----	----		16-Oct-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E559-L	08-Oct-2025	----	----	----		16-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E559-L	08-Oct-2025	----	----	----		16-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP1	E559-L	08-Oct-2025	----	----	----		16-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
D-5	E559-L	07-Oct-2025	----	----	----		16-Oct-2025	28 days	9 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
D-6	E559-L	07-Oct-2025	----	----	----		16-Oct-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E562	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	17-Oct-2025	28 days	6 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E562	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	17-Oct-2025	28 days	6 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E562	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	17-Oct-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E562	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	17-Oct-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E562	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	17-Oct-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP1	E562	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	17-Oct-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E562	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	17-Oct-2025	28 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E562	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	17-Oct-2025	28 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E562	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	17-Oct-2025	28 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
D-5	E562	07-Oct-2025	15-Oct-2025	28 days	8 days	✓	17-Oct-2025	28 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
D-6	E562	07-Oct-2025	15-Oct-2025	28 days	8 days	✓	17-Oct-2025	28 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E562	06-Oct-2025	15-Oct-2025	28 days	9 days	✓	17-Oct-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH1-IR	E562	06-Oct-2025	15-Oct-2025	28 days	9 days	✓	17-Oct-2025	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E562	06-Oct-2025	15-Oct-2025	28 days	9 days	✓	17-Oct-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E562	06-Oct-2025	15-Oct-2025	28 days	9 days	✓	17-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E298	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	16-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E298	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	16-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E298	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	16-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E298	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	16-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E298	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	16-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
DUP1	E298	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	16-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E298	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E298	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E298	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
D-5	E298	07-Oct-2025	15-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
D-6	E298	07-Oct-2025	15-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E298	06-Oct-2025	15-Oct-2025	28 days	9 days	✓	16-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH1-IR	E298	06-Oct-2025	15-Oct-2025	28 days	9 days	✓	16-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E298	06-Oct-2025	15-Oct-2025	28 days	9 days	✓	16-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E298	06-Oct-2025	15-Oct-2025	28 days	9 days	✓	16-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH18R	E235.Cl	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	14-Oct-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH1-IR	E235.Cl	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	14-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.Cl	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	10-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.Cl	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	10-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
D-5	E235.Cl	07-Oct-2025	12-Oct-2025	28 days	5 days	✓	15-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
D-6	E235.Cl	07-Oct-2025	12-Oct-2025	28 days	5 days	✓	15-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.Cl	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.Cl	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.Cl	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.Cl	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH30-II	E235.Cl	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH6R	E235.Cl	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] DUP1	E235.Cl	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH21-IIR	E235.Cl	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	15-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH21-IR	E235.Cl	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	15-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH22-II	E378-U	06-Oct-2025	10-Oct-2025	7 days	4 days	✓	11-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] BH22-IR	E378-U	06-Oct-2025	10-Oct-2025	7 days	4 days	✓	11-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] D-5	E378-U	07-Oct-2025	12-Oct-2025	7 days	5 days	✓	14-Oct-2025	7 days	5 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP] D-6	E378-U	07-Oct-2025	12-Oct-2025	7 days	5 days	✓	14-Oct-2025	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH17-III	E378-U	09-Oct-2025	15-Oct-2025	7 days	6 days	✓	16-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH17-IVR	E378-U	09-Oct-2025	15-Oct-2025	7 days	6 days	✓	16-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH29-I	E378-U	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH30-I	E378-U	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH30-II	E378-U	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH6R	E378-U	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
DUP1	E378-U	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH18R	E235.F	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	14-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH1-IR	E235.F	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	14-Oct-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.F	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	10-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.F	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	10-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
D-5	E235.F	07-Oct-2025	12-Oct-2025	28 days	5 days	✓	15-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
D-6	E235.F	07-Oct-2025	12-Oct-2025	28 days	5 days	✓	15-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.F	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.F	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.F	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.F	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.F	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH6R	E235.F	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] DUP1	E235.F	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH21-IIR	E235.F	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	15-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH21-IR	E235.F	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	15-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] BH18R	E235.NO3	06-Oct-2025	10-Oct-2025	7 days	4 days	✓	14-Oct-2025	7 days	4 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] BH1-IR	E235.NO3	06-Oct-2025	10-Oct-2025	7 days	4 days	✓	14-Oct-2025	7 days	4 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] BH22-II	E235.NO3	06-Oct-2025	10-Oct-2025	7 days	4 days	✓	10-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] BH22-IR	E235.NO3	06-Oct-2025	10-Oct-2025	7 days	4 days	✓	10-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] D-5	E235.NO3	07-Oct-2025	12-Oct-2025	7 days	5 days	✓	15-Oct-2025	7 days	5 days	× EHT

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
D-6	E235.NO3	07-Oct-2025	12-Oct-2025	7 days	5 days	✓	15-Oct-2025	7 days	5 days	× EHT
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.NO3	09-Oct-2025	15-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.NO3	09-Oct-2025	15-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.NO3	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.NO3	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.NO3	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH6R	E235.NO3	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
DUP1	E235.NO3	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH21-IIR	E235.NO3	08-Oct-2025	15-Oct-2025	7 days	7 days	✓	15-Oct-2025	7 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH21-IR	E235.NO3	08-Oct-2025	15-Oct-2025	7 days	7 days	✓	15-Oct-2025	7 days	7 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH18R	E235.NO2	06-Oct-2025	10-Oct-2025	7 days	4 days	✓	14-Oct-2025	7 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH1-IR	E235.NO2	06-Oct-2025	10-Oct-2025	7 days	4 days	✓	14-Oct-2025	7 days	4 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.NO2	06-Oct-2025	10-Oct-2025	7 days	4 days	✓	10-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.NO2	06-Oct-2025	10-Oct-2025	7 days	4 days	✓	10-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
D-5	E235.NO2	07-Oct-2025	12-Oct-2025	7 days	5 days	✓	15-Oct-2025	7 days	5 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
D-6	E235.NO2	07-Oct-2025	12-Oct-2025	7 days	5 days	✓	15-Oct-2025	7 days	5 days	× EHT
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.NO2	09-Oct-2025	15-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.NO2	09-Oct-2025	15-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.NO2	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.NO2	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.NO2	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH6R	E235.NO2	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
DUP1	E235.NO2	08-Oct-2025	14-Oct-2025	7 days	6 days	✓	15-Oct-2025	7 days	6 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH21-IIR	E235.NO2	08-Oct-2025	15-Oct-2025	7 days	7 days	✓	15-Oct-2025	7 days	7 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH21-IR	E235.NO2	08-Oct-2025	15-Oct-2025	7 days	7 days	✓	15-Oct-2025	7 days	7 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH18R	E235.SO4	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	14-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH1-IR	E235.SO4	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	14-Oct-2025	28 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH22-II	E235.SO4	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	10-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH22-IR	E235.SO4	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	10-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
D-5	E235.SO4	07-Oct-2025	12-Oct-2025	28 days	5 days	✓	15-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
D-6	E235.SO4	07-Oct-2025	12-Oct-2025	28 days	5 days	✓	15-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH17-III	E235.SO4	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH17-IVR	E235.SO4	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH29-I	E235.SO4	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH30-I	E235.SO4	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH30-II	E235.SO4	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH6R	E235.SO4	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP1	E235.SO4	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH21-IIR	E235.SO4	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	15-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH21-IR	E235.SO4	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	15-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH18R	E318	06-Oct-2025	16-Oct-2025	28 days	10 days	✓	16-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH1-IR	E318	06-Oct-2025	16-Oct-2025	28 days	10 days	✓	16-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH22-II	E318	06-Oct-2025	16-Oct-2025	28 days	10 days	✓	16-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH22-IR	E318	06-Oct-2025	16-Oct-2025	28 days	10 days	✓	16-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH17-III	E318	09-Oct-2025	16-Oct-2025	28 days	7 days	✓	16-Oct-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E318	09-Oct-2025	16-Oct-2025	28 days	7 days	✓	16-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E318	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E318	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH29-I	E318	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-I	E318	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH30-II	E318	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E318	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP1	E318	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	16-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
D-5	E318	07-Oct-2025	16-Oct-2025	28 days	9 days	✓	16-Oct-2025	28 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
D-6	E318	07-Oct-2025	16-Oct-2025	28 days	9 days	✓	16-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH18R	E372-U	06-Oct-2025	16-Oct-2025	28 days	10 days	✓	17-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH1-IR	E372-U	06-Oct-2025	16-Oct-2025	28 days	10 days	✓	17-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-II	E372-U	06-Oct-2025	16-Oct-2025	28 days	10 days	✓	17-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH22-IR	E372-U	06-Oct-2025	16-Oct-2025	28 days	10 days	✓	17-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-III	E372-U	09-Oct-2025	16-Oct-2025	28 days	7 days	✓	17-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH17-IVR	E372-U	09-Oct-2025	16-Oct-2025	28 days	7 days	✓	17-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IIR	E372-U	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	17-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH21-IR	E372-U	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	17-Oct-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH6R	E372-U	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	17-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP1	E372-U	08-Oct-2025	16-Oct-2025	28 days	8 days	✓	17-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
D-5	E372-U	07-Oct-2025	16-Oct-2025	28 days	9 days	✓	17-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
D-6	E372-U	07-Oct-2025	16-Oct-2025	28 days	9 days	✓	17-Oct-2025	28 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH17-III	E421	09-Oct-2025	10-Oct-2025	180 days	1 days	✓	10-Oct-2025	180 days	1 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH17-IVR	E421	09-Oct-2025	10-Oct-2025	180 days	1 days	✓	10-Oct-2025	180 days	1 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH21-IIR	E421	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH21-IR	E421	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH29-I	E421	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH30-I	E421	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH30-II	E421	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH6R	E421	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP1	E421	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
D-5	E421	07-Oct-2025	10-Oct-2025	180 days	3 days	✓	10-Oct-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
D-6	E421	07-Oct-2025	10-Oct-2025	180 days	3 days	✓	10-Oct-2025	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH18R	E421	06-Oct-2025	10-Oct-2025	180 days	4 days	✓	10-Oct-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH1-IR	E421	06-Oct-2025	10-Oct-2025	180 days	4 days	✓	10-Oct-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH22-II	E421	06-Oct-2025	10-Oct-2025	180 days	4 days	✓	10-Oct-2025	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH22-IR	E421	06-Oct-2025	10-Oct-2025	180 days	4 days	✓	10-Oct-2025	180 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH17-III	E353-L	09-Oct-2025	----	----	----		14-Oct-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH17-IVR	E353-L	09-Oct-2025	----	----	----		14-Oct-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH21-IIR	E353-L	08-Oct-2025	----	----	----		14-Oct-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH21-IR	E353-L	08-Oct-2025	----	----	----		14-Oct-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH29-I	E353-L	08-Oct-2025	----	----	----		14-Oct-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH30-I	E353-L	08-Oct-2025	----	----	----		14-Oct-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH30-II	E353-L	08-Oct-2025	----	----	----		14-Oct-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE										
BH6R	E353-L	08-Oct-2025	----	----	----		14-Oct-2025	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE DUP1	E353-L	08-Oct-2025	----	----	----		14-Oct-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE D-5	E353-L	07-Oct-2025	----	----	----		14-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE D-6	E353-L	07-Oct-2025	----	----	----		14-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH18R	E353-L	06-Oct-2025	----	----	----		14-Oct-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH1-IR	E353-L	06-Oct-2025	----	----	----		14-Oct-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH22-II	E353-L	06-Oct-2025	----	----	----		14-Oct-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE BH22-IR	E353-L	06-Oct-2025	----	----	----		14-Oct-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH17-III	E358-L	09-Oct-2025	10-Oct-2025	28 days	1 days	✓	14-Oct-2025	28 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] BH17-IVR	E358-L	09-Oct-2025	10-Oct-2025	28 days	1 days	✓	14-Oct-2025	28 days	1 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH21-IIR	E358-L	08-Oct-2025	10-Oct-2025	28 days	2 days	✓	14-Oct-2025	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH21-IR	E358-L	08-Oct-2025	10-Oct-2025	28 days	2 days	✓	14-Oct-2025	28 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH18R	E358-L	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	14-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH22-II	E358-L	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	14-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH22-IR	E358-L	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	14-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH29-I	E358-L	08-Oct-2025	12-Oct-2025	28 days	4 days	✓	15-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH30-I	E358-L	08-Oct-2025	12-Oct-2025	28 days	4 days	✓	15-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH30-II	E358-L	08-Oct-2025	12-Oct-2025	28 days	4 days	✓	15-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH6R	E358-L	08-Oct-2025	12-Oct-2025	28 days	4 days	✓	15-Oct-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
DUP1	E358-L	08-Oct-2025	12-Oct-2025	28 days	4 days	✓	15-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
D-5	E358-L	07-Oct-2025	12-Oct-2025	28 days	5 days	✓	15-Oct-2025	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
D-6	E358-L	07-Oct-2025	12-Oct-2025	28 days	5 days	✓	15-Oct-2025	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH1-IR	E358-L	06-Oct-2025	12-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH18R	E290	06-Oct-2025	10-Oct-2025	14 days	4 days	✓	10-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH1-IR	E290	06-Oct-2025	10-Oct-2025	14 days	4 days	✓	10-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH22-II	E290	06-Oct-2025	10-Oct-2025	14 days	4 days	✓	11-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH22-IR	E290	06-Oct-2025	10-Oct-2025	14 days	4 days	✓	11-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
D-5	E290	07-Oct-2025	12-Oct-2025	14 days	5 days	✓	15-Oct-2025	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] D-6	E290	07-Oct-2025	12-Oct-2025	14 days	5 days	✓	15-Oct-2025	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH17-III	E290	09-Oct-2025	15-Oct-2025	14 days	6 days	✓	16-Oct-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH17-IVR	E290	09-Oct-2025	15-Oct-2025	14 days	6 days	✓	16-Oct-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH29-I	E290	08-Oct-2025	14-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH30-I	E290	08-Oct-2025	14-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH30-II	E290	08-Oct-2025	14-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH6R	E290	08-Oct-2025	14-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP1	E290	08-Oct-2025	14-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH21-IIR	E290	08-Oct-2025	15-Oct-2025	14 days	7 days	✓	15-Oct-2025	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH21-IR	E290	08-Oct-2025	15-Oct-2025	14 days	7 days	✓	15-Oct-2025	14 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH18R	E100	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	10-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH1-IR	E100	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	10-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH22-II	E100	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	11-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH22-IR	E100	06-Oct-2025	10-Oct-2025	28 days	4 days	✓	11-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] D-5	E100	07-Oct-2025	12-Oct-2025	28 days	5 days	✓	15-Oct-2025	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] D-6	E100	07-Oct-2025	12-Oct-2025	28 days	5 days	✓	15-Oct-2025	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH17-III	E100	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	16-Oct-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH17-IVR	E100	09-Oct-2025	15-Oct-2025	28 days	6 days	✓	16-Oct-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH29-I	E100	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH30-I	E100	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH30-II	E100	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH6R	E100	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP1	E100	08-Oct-2025	14-Oct-2025	28 days	6 days	✓	15-Oct-2025	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH21-IIR	E100	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	15-Oct-2025	28 days	7 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH21-IR	E100	08-Oct-2025	15-Oct-2025	28 days	7 days	✓	15-Oct-2025	28 days	7 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH18R	E108	06-Oct-2025	10-Oct-2025	14 days	4 days	✓	10-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH1-IR	E108	06-Oct-2025	10-Oct-2025	14 days	4 days	✓	10-Oct-2025	14 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] BH22-II	E108	06-Oct-2025	10-Oct-2025	14 days	4 days	✓	11-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH22-IR	E108	06-Oct-2025	10-Oct-2025	14 days	4 days	✓	11-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] D-5	E108	07-Oct-2025	12-Oct-2025	14 days	5 days	✓	15-Oct-2025	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] D-6	E108	07-Oct-2025	12-Oct-2025	14 days	5 days	✓	15-Oct-2025	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH17-III	E108	09-Oct-2025	15-Oct-2025	14 days	6 days	✓	16-Oct-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH17-IVR	E108	09-Oct-2025	15-Oct-2025	14 days	6 days	✓	16-Oct-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH29-I	E108	08-Oct-2025	14-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH30-I	E108	08-Oct-2025	14-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH30-II	E108	08-Oct-2025	14-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] BH6R	E108	08-Oct-2025	14-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP1	E108	08-Oct-2025	14-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH21-IIR	E108	08-Oct-2025	15-Oct-2025	14 days	7 days	✓	15-Oct-2025	14 days	7 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH21-IR	E108	08-Oct-2025	15-Oct-2025	14 days	7 days	✓	15-Oct-2025	14 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] D-5	E160-L	07-Oct-2025	----	----	----		16-Oct-2025	7 days	9 days	× EHT
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [ON MECP] D-6	E160-L	07-Oct-2025	----	----	----		16-Oct-2025	7 days	9 days	× EHT
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH17-III	E420	09-Oct-2025	10-Oct-2025	180 days	1 days	✓	10-Oct-2025	180 days	1 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH17-IVR	E420	09-Oct-2025	10-Oct-2025	180 days	1 days	✓	10-Oct-2025	180 days	1 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH21-IIR	E420	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH21-IR	E420	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH29-I	E420	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH30-I	E420	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH30-II	E420	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH6R	E420	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP1	E420	08-Oct-2025	10-Oct-2025	180 days	2 days	✓	10-Oct-2025	180 days	2 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) D-5	E420	07-Oct-2025	10-Oct-2025	180 days	3 days	✓	10-Oct-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) D-6	E420	07-Oct-2025	10-Oct-2025	180 days	3 days	✓	10-Oct-2025	180 days	3 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH18R	E420	06-Oct-2025	10-Oct-2025	180 days	4 days	✓	10-Oct-2025	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH1-IR	E420	06-Oct-2025	10-Oct-2025	180 days	4 days	✓	10-Oct-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH22-II	E420	06-Oct-2025	10-Oct-2025	180 days	4 days	✓	10-Oct-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH22-IR	E420	06-Oct-2025	10-Oct-2025	180 days	4 days	✓	10-Oct-2025	180 days	4 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
BH17-III	E611A	09-Oct-2025	15-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
BH6R	E611A	08-Oct-2025	15-Oct-2025	14 days	7 days	✓	15-Oct-2025	14 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
DUP1	E611A	08-Oct-2025	15-Oct-2025	14 days	7 days	✓	15-Oct-2025	14 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
BH22-II	E611A	06-Oct-2025	15-Oct-2025	14 days	9 days	✓	15-Oct-2025	14 days	9 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
BH22-IR	E611A	06-Oct-2025	15-Oct-2025	14 days	9 days	✓	15-Oct-2025	14 days	9 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
FIELD BLANK	E611D	09-Oct-2025	15-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) TRIP BLANK	E611D	09-Oct-2025	15-Oct-2025	14 days	6 days	✓	15-Oct-2025	14 days	6 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH21-IIR	E611D	08-Oct-2025	15-Oct-2025	14 days	7 days	✓	15-Oct-2025	14 days	7 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH21-IR	E611D	08-Oct-2025	15-Oct-2025	14 days	7 days	✓	15-Oct-2025	14 days	7 days	✓

Legend & Qualifier Definitions

EHT: Exceeded ALS recommended hold time prior to analysis.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2269800	6	102	5.8	5.0	✓
pH by Meter	E108	2269803	6	103	5.8	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	2279580	1	10	10.0	4.7	✓
Chloride in Water by IC	E235.Cl	2269796	6	111	5.4	5.0	✓
Fluoride in Water by IC	E235.F	2269797	6	81	7.4	5.0	✓
Nitrite in Water by IC	E235.NO2	2269798	6	102	5.8	5.0	✓
Nitrate in Water by IC	E235.NO3	2269794	6	109	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	2269795	6	110	5.4	5.0	✓
Alkalinity Species by Titration	E290	2269801	6	105	5.7	5.0	✓
Ammonia by Fluorescence	E298	2277440	2	39	5.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2277437	2	38	5.2	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2275145	1	15	6.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2270758	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2277438	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2269793	5	76	6.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2269132	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2269957	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2269566	5	100	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2279538	1	18	5.5	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2277439	2	39	5.1	5.0	✓
BTEX by Headspace GC-MS	E611A	2277540	1	17	5.8	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2276986	1	12	8.3	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2269800	6	102	5.8	5.0	✓
pH by Meter	E108	2269803	6	103	5.8	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	2279580	1	10	10.0	4.7	✓
Chloride in Water by IC	E235.Cl	2269796	6	111	5.4	5.0	✓
Fluoride in Water by IC	E235.F	2269797	6	81	7.4	5.0	✓
Nitrite in Water by IC	E235.NO2	2269798	6	102	5.8	5.0	✓
Nitrate in Water by IC	E235.NO3	2269794	6	109	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	2269795	6	110	5.4	5.0	✓
Alkalinity Species by Titration	E290	2269801	6	105	5.7	5.0	✓
Ammonia by Fluorescence	E298	2277440	2	39	5.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2277437	2	38	5.2	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2275145	1	15	6.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2270758	2	40	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2277438	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2269793	5	76	6.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2269132	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2269957	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2269566	5	100	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2279538	1	18	5.5	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2277439	2	39	5.1	5.0	✓
BTEX by Headspace GC-MS	E611A	2277540	1	17	5.8	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2276986	1	12	8.3	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	2269800	6	102	5.8	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	2279580	1	10	10.0	4.7	✓
Chloride in Water by IC	E235.Cl	2269796	6	111	5.4	5.0	✓
Fluoride in Water by IC	E235.F	2269797	6	81	7.4	5.0	✓
Nitrite in Water by IC	E235.NO2	2269798	6	102	5.8	5.0	✓
Nitrate in Water by IC	E235.NO3	2269794	6	109	5.5	5.0	✓
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Alkalinity Species by Titration	E290	2269801	6	105	5.7	5.0	✓
Ammonia by Fluorescence	E298	2277440	2	39	5.1	5.0	✓
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Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2270758	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2277438	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2269793	5	76	6.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2269132	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2269957	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2269566	5	100	5.0	5.0	✓
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Phenols (4AAP) in Water by Colorimetry	E562	2277439	2	39	5.1	5.0	✓
BTEX by Headspace GC-MS	E611A	2277540	1	17	5.8	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2276986	1	12	8.3	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	2269796	6	111	5.4	5.0	✓
Fluoride in Water by IC	E235.F	2269797	6	81	7.4	5.0	✓
Nitrite in Water by IC	E235.NO2	2269798	6	102	5.8	5.0	✓
Nitrate in Water by IC	E235.NO3	2269794	6	109	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	2269795	6	110	5.4	5.0	✓
Ammonia by Fluorescence	E298	2277440	2	39	5.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2277437	2	38	5.2	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Dissolved Inorganic Carbon by Combustion	E353-L	2275145	1	15	6.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2270758	2	40	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2277438	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2269793	5	76	6.5	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2269132	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2269957	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2279538	1	18	5.5	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2277439	2	39	5.1	5.0	✓
BTEX by Headspace GC-MS	E611A	2277540	1	17	5.8	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2276986	1	12	8.3	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Waterloo	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Dissolved Inorganic Carbon by Combustion	E353-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Inorganic Carbon is determined on a sample which is filtered through a 0.45 micron filter prior to analysis by the high temperature combustion method with measurement by an infrared detector, where the sample is acidified in a reaction chamber to convert all inorganic carbons (carbonates) to carbon dioxide for analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.
Ion Balance using Dissolved Metals	EC101 ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WT2528815**	Page	: 1 of 29
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 09-Oct-2025 13:30
PO	: 86912	Date Analysis Commenced	: 10-Oct-2025
C-O-C number	: ----	Issue Date	: 17-Oct-2025 23:29
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 17		
No. of samples analysed	: 17		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett	VOC Section Supervisor	Waterloo VOC, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Kevin Baxter	Supervisor - Inorganic	Winnipeg Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Centralized Prep, Waterloo, Ontario
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Waterloo Metals, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2269800)											
HA2504321-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	51.3	51.5	0.389%	10%	----
Physical Tests (QC Lot: 2269801)											
HA2504321-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	5.4	5.1	0.3	Diff <2x LOR	----
Physical Tests (QC Lot: 2269803)											
WT2528365-007	Anonymous	pH	----	E108	0.10	pH units	7.64	7.59	0.656%	4%	----
Physical Tests (QC Lot: 2269836)											
WT2528594-001	Anonymous	pH	----	E108	0.10	pH units	7.97	7.99	0.251%	4%	----
Physical Tests (QC Lot: 2269837)											
WT2528594-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	83.4	83.5	0.144%	20%	----
Physical Tests (QC Lot: 2269838)											
WT2528594-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	196	193	1.29%	10%	----
Physical Tests (QC Lot: 2273170)											
WT2528552-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	213	200	6.39%	20%	----
Physical Tests (QC Lot: 2273171)											
WT2528552-002	Anonymous	Conductivity	----	E100	1.0	µS/cm	1080	1060	2.24%	10%	----
Physical Tests (QC Lot: 2273172)											
WT2528552-002	Anonymous	pH	----	E108	0.10	pH units	8.06	8.13	0.865%	4%	----
Physical Tests (QC Lot: 2274337)											
WT2528808-001	Anonymous	pH	----	E108	0.10	pH units	8.38	8.34	0.478%	4%	----
Physical Tests (QC Lot: 2274338)											
WT2528808-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	310	308	0.718%	20%	----
Physical Tests (QC Lot: 2274339)											
WT2528808-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	1750	1750	0.00%	10%	----
Physical Tests (QC Lot: 2276385)											
WT2528763-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	372	369	0.810%	10%	----
Physical Tests (QC Lot: 2276386)											
WT2528763-001	Anonymous	pH	----	E108	0.10	pH units	6.68	6.51	2.58%	4%	----
Physical Tests (QC Lot: 2276387)											
WT2528763-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	154	155	0.453%	20%	----
Physical Tests (QC Lot: 2277090)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Physical Tests (QC Lot: 2277090) - continued											
WT2528815-007	BH17-IVR	Conductivity	----	E100	2.0	µS/cm	1030	1030	0.291%	10%	----
Physical Tests (QC Lot: 2277091)											
WT2528815-007	BH17-IVR	pH	----	E108	0.10	pH units	8.04	8.17	1.60%	4%	----
Physical Tests (QC Lot: 2277092)											
WT2528815-007	BH17-IVR	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	274	275	0.131%	20%	----
Physical Tests (QC Lot: 2279580)											
WT2529213-001	Anonymous	Solids, total suspended [TSS]	----	E160-L	1.0	mg/L	<1.0	1.2	0.2	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2269793)											
HA2504144-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0053	0.0054	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2269794)											
HA2504323-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.299	0.300	0.116%	20%	----
Anions and Nutrients (QC Lot: 2269795)											
HA2504323-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	14.5	14.5	0.0580%	20%	----
Anions and Nutrients (QC Lot: 2269796)											
HA2504323-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	29.6	29.6	0.0450%	20%	----
Anions and Nutrients (QC Lot: 2269797)											
HA2504323-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.608	0.586	3.66%	20%	----
Anions and Nutrients (QC Lot: 2269798)											
HA2504323-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	0.169	0.170	0.280%	20%	----
Anions and Nutrients (QC Lot: 2269840)											
WT2528594-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.037	0.034	0.003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2269841)											
WT2528594-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.041	0.037	0.004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2269842)											
WT2528594-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2269843)											
WT2528594-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	9.01	8.78	2.48%	20%	----
Anions and Nutrients (QC Lot: 2269844)											
WT2528594-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	3.39	3.19	6.00%	20%	----
Anions and Nutrients (QC Lot: 2273174)											
WT2528552-001	Anonymous	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.663	0.668	0.005	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2273175)											
WT2528552-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2273176)											
WT2528552-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2273177)											
WT2528552-001	Anonymous	Chloride	16887-00-6	E235.Cl	2.50	mg/L	21.8	21.5	0.24	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2273178)											
WT2528552-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	407	426	4.55%	20%	----
Anions and Nutrients (QC Lot: 2273182)											
WT2528552-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0010	0.0011	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2274340)											
WT2528808-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	2.00	1.98	0.472%	20%	----
Anions and Nutrients (QC Lot: 2274341)											
WT2528808-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2274343)											
WT2528808-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	162	161	0.633%	20%	----
Anions and Nutrients (QC Lot: 2274344)											
WT2528808-001	Anonymous	Chloride	16887-00-6	E235.Cl	2.50	mg/L	292	290	0.656%	20%	----
Anions and Nutrients (QC Lot: 2274345)											
WT2528808-001	Anonymous	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.130	0.130	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2274349)											
WT2528741-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0515	0.0515	0.00%	20%	----
Anions and Nutrients (QC Lot: 2276379)											
WT2528815-001	BH21-IR	Chloride	16887-00-6	E235.Cl	2.50	mg/L	111	111	0.190%	20%	----
Anions and Nutrients (QC Lot: 2276380)											
WT2528815-001	BH21-IR	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2276381)											
WT2528815-001	BH21-IR	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2276382)											
WT2528815-001	BH21-IR	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	<1.50	<1.50	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2276383)											
WT2528815-001	BH21-IR	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.173	0.174	0.0010	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2277084)											
WT2528916-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	186	187	0.130%	20%	----
Anions and Nutrients (QC Lot: 2277085)											
WT2528916-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	0.313	0.310	0.002	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2277086)											
WT2528916-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	<0.050	<0.050	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2277087)											
WT2528916-001	Anonymous	Fluoride	16984-48-8	E235.F	0.100	mg/L	0.548	0.546	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2277088)											
WT2528916-001	Anonymous	Chloride	16887-00-6	E235.Cl	2.50	mg/L	174	174	0.000863%	20%	----
Anions and Nutrients (QC Lot: 2277093)											
WT2528815-006	BH17-III	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2277437)											
WT2528510-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	0.366	0.384	0.017	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2277438)											
WT2528733-003	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0636	0.0628	1.30%	20%	----
Anions and Nutrients (QC Lot: 2277440)											
WT2528733-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0100	mg/L	0.674	0.683	1.21%	20%	----
Anions and Nutrients (QC Lot: 2277794)											
WT2528815-008	BH6R	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0029	0.0018	0.0011	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2278850)											
WT2528781-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	25.0	mg/L	1020	1050	3.25%	20%	----
Organic / Inorganic Carbon (QC Lot: 2270758)											
WT2528604-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	15.5	15.4	0.0647%	20%	----
Organic / Inorganic Carbon (QC Lot: 2273089)											
HA2504330-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	13.7	13.9	1.20%	20%	----
Organic / Inorganic Carbon (QC Lot: 2275145)											
WT2528815-001	BH21-IR	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	106	106	0.776%	20%	----
Total Metals (QC Lot: 2269132)											
BF2500345-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0362	0.0381	5.06%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.0162	0.0163	0.607%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000185	0.0000184	0.0000001	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	37.9	38.0	0.370%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00036	0.00038	0.00002	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00202	0.00206	0.00004	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.045	0.048	0.002	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000185	0.000184	0.000002	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	30.6	31.3	2.28%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 2269132) - continued											
BF2500345-001	Anonymous	Manganese, total	7439-96-5	E420	0.00010	mg/L	0.00208	0.00245	16.0%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00078	0.00084	0.00006	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	6.21	6.38	2.61%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000394	0.000367	0.000027	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	5.20	5.33	2.41%	20%	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2269957)											
WT2528815-001	BH21-IR	Aluminum, dissolved	7429-90-5	E421	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00100	mg/L	0.186	0.184	0.819%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000500	mg/L	<0.0000500	<0.0000500	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.500	mg/L	158	157	0.368%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00200	mg/L	<0.00200	<0.00200	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.100	mg/L	20.5	19.9	2.78%	20%	----
		Lead, dissolved	7439-92-1	E421	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0500	mg/L	31.1	30.3	2.43%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00100	mg/L	1.01	0.989	2.30%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.500	mg/L	41.1	40.4	1.79%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.500	mg/L	34.8	34.0	2.30%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2269566)											
WT2528832-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	2.0	mg/L	3.9	4.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2270407)											
WT2528763-002	Anonymous	Biochemical oxygen demand [BOD]	----	E550	2.0	mg/L	<2.0	<2.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2271764)											
WT2528763-003	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2271765)											
WT2528970-004	Anonymous	Biochemical oxygen demand [BOD]	----	E550	2.0	mg/L	<2.0	<2.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2271766)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Aggregate Organics (QC Lot: 2271766) - continued											
WT2528841-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2277439)											
WT2528733-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	0.0032	0.0029	0.0002	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2279538)											
WT2528815-001	BH21-IR	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	64	70	7	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2276986)											
WT2528815-001	BH21-IR	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon disulfide	75-15-0	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	1.87	1.84	0.03	Diff <2x LOR	----
		Chloroethane	75-00-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611D	2.0	µg/L	<2.0	<2.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	0.88	0.88	0.004	Diff <2x LOR	----
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 2276986) - continued											
WT2528815-001	BH21-IR	Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2277540)											
WT2528886-016	Anonymous	Benzene	71-43-2	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611A	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611A	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2269800)						
Conductivity	----	E100	1	µS/cm	1.0	----
Physical Tests (QCLot: 2269801)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2269837)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2269838)						
Conductivity	----	E100	1	µS/cm	1.5	----
Physical Tests (QCLot: 2273170)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2273171)						
Conductivity	----	E100	1	µS/cm	1.3	----
Physical Tests (QCLot: 2274338)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	1.3	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.3	----
Physical Tests (QCLot: 2274339)						
Conductivity	----	E100	1	µS/cm	1.7	----
Physical Tests (QCLot: 2276385)						
Conductivity	----	E100	1	µS/cm	1.3	----
Physical Tests (QCLot: 2276387)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2276387) - continued						
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2277090)						
Conductivity	----	E100	1	µS/cm	1.4	----
Physical Tests (QCLot: 2277092)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	1.6	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.6	----
Physical Tests (QCLot: 2279580)						
Solids, total suspended [TSS]	----	E160-L	1	mg/L	<1.0	----
Anions and Nutrients (QCLot: 2269793)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2269794)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2269795)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2269796)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2269797)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2269798)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2269840)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2269841)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2269842)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2269843)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2269844)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2273174)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2273175)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2273176)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2273177)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2273178)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2273182)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2274340)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2274341)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2274343)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2274344)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2274345)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2274349)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	# 0.0010	B
Anions and Nutrients (QCLot: 2276379)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2276380)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2276381)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2276382)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2276383)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2277084)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2277085)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2277086)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2277087)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2277088)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2277093)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2277437)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2277438)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2277440)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2277794)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2278849)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2278850)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Organic / Inorganic Carbon (QCLot: 2270758)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2273089)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2275145)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 2269132)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 2269132) - continued						
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Dissolved Metals (QCLot: 2269957)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2269566)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2270407)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2271764)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2271765)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2271766)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Aggregate Organics (QCLot: 2271766) - continued						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2277439)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2278851)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2279538)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Volatile Organic Compounds (QCLot: 2276986)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2276986) - continued						
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 2277540)						
Benzene	71-43-2	E611A	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	<0.50	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611A	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611A	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	<0.30	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2269800)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2269801)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2269803)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2269836)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2269837)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2269838)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2273170)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2273171)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	105	90.0	110	----
Physical Tests (QCLot: 2273172)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2274337)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2274338)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	100	85.0	115	----
Physical Tests (QCLot: 2274339)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	104	90.0	110	----
Physical Tests (QCLot: 2276385)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	100	90.0	110	----
Physical Tests (QCLot: 2276386)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2276387)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	103	85.0	115	----
Physical Tests (QCLot: 2277090)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2277091)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2277091) - continued									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2277092)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	104	85.0	115	----
Physical Tests (QCLot: 2279580)									
Solids, total suspended [TSS]	----	E160-L	1	mg/L	150 mg/L	99.8	85.0	115	----
Anions and Nutrients (QCLot: 2269793)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	102	80.0	120	----
Anions and Nutrients (QCLot: 2269794)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2269795)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 2269796)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2269797)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	106	90.0	110	----
Anions and Nutrients (QCLot: 2269798)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	106	90.0	110	----
Anions and Nutrients (QCLot: 2269840)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2269841)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2269842)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	105	90.0	110	----
Anions and Nutrients (QCLot: 2269843)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 2269844)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2273174)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2273175)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2273176)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	106	90.0	110	----
Anions and Nutrients (QCLot: 2273177)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2273177) - continued									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2273178)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 2273182)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	100	80.0	120	----
Anions and Nutrients (QCLot: 2274340)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	99.9	90.0	110	----
Anions and Nutrients (QCLot: 2274341)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	105	90.0	110	----
Anions and Nutrients (QCLot: 2274343)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 2274344)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2274345)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2274349)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	105	80.0	120	----
Anions and Nutrients (QCLot: 2276379)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2276380)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	99.0	90.0	110	----
Anions and Nutrients (QCLot: 2276381)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2276382)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	104	90.0	110	----
Anions and Nutrients (QCLot: 2276383)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	103	90.0	110	----
Anions and Nutrients (QCLot: 2277084)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2277085)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2277086)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	99.1	90.0	110	----
Anions and Nutrients (QCLot: 2277087)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	99.1	90.0	110	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2277088)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2277093)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	97.1	80.0	120	----
Anions and Nutrients (QCLot: 2277437)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2277438)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	94.8	80.0	120	----
Anions and Nutrients (QCLot: 2277440)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	99.5	85.0	115	----
Anions and Nutrients (QCLot: 2277794)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	98.4	80.0	120	----
Anions and Nutrients (QCLot: 2278849)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	97.5	75.0	125	----
Anions and Nutrients (QCLot: 2278850)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	103	85.0	115	----
Organic / Inorganic Carbon (QCLot: 2270758)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	97.2	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2273089)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	94.7	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2275145)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	99.5	80.0	120	----
Total Metals (QCLot: 2269132)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	102	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	101	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	98.5	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	103	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	101	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	102	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	100	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	102	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	100	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 2269132) - continued									
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	102	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	100	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	96.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	104	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	101	80.0	120	----
Dissolved Metals (QCLot: 2269957)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	102	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	99.5	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	97.3	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	97.1	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	96.5	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	95.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	95.2	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	95.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	97.9	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	96.9	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	96.4	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	95.1	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	100.0	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	94.6	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	94.0	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	100	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	95.0	80.0	120	----
Aggregate Organics (QCLot: 2269566)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	99.1	85.0	115	----
Aggregate Organics (QCLot: 2270407)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	93.8	85.0	115	----
Aggregate Organics (QCLot: 2271764)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	98.4	85.0	115	----
Aggregate Organics (QCLot: 2271765)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	100	85.0	115	----
Aggregate Organics (QCLot: 2271766)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	95.5	85.0	115	----
Aggregate Organics (QCLot: 2277439)									

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Aggregate Organics (QCLot: 2277439) - continued									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	97.8	85.0	115	----
Aggregate Organics (QCLot: 2278851)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	96.4	85.0	115	----
Aggregate Organics (QCLot: 2279538)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	106	85.0	115	----
Volatile Organic Compounds (QCLot: 2276986)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	109	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	86.9	60.0	140	----
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	109	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	104	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	108	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	115	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	103	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	113	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	117	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	110	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	104	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	110	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	111	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	110	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	112	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	115	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	110	70.0	130	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2276986) - continued									
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	100	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	107	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	110	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	110	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	110	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	113	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	112	70.0	130	----
Volatile Organic Compounds (QCLot: 2277540)									
Benzene	71-43-2	E611A	0.5	µg/L	100 µg/L	104	70.0	130	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	100 µg/L	103	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	100 µg/L	100	70.0	130	----
Styrene	100-42-5	E611A	0.5	µg/L	100 µg/L	86.4	70.0	130	----
Toluene	108-88-3	E611A	0.5	µg/L	100 µg/L	114	70.0	130	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	200 µg/L	95.9	70.0	130	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	100 µg/L	96.0	70.0	130	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2269793)										
HA2504144-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0193 mg/L	0.02 mg/L	98.3	70.0	130	----
Anions and Nutrients (QCLot: 2269794)										
HA2504323-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.78 mg/L	2.5 mg/L	111	75.0	125	----
Anions and Nutrients (QCLot: 2269795)										
HA2504323-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	107 mg/L	100 mg/L	107	75.0	125	----
Anions and Nutrients (QCLot: 2269796)										
HA2504323-001	Anonymous	Chloride	16887-00-6	E235.Cl	108 mg/L	100 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 2269797)										
HA2504323-001	Anonymous	Fluoride	16984-48-8	E235.F	1.09 mg/L	1 mg/L	109	75.0	125	----
Anions and Nutrients (QCLot: 2269798)										
HA2504323-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.609 mg/L	0.5 mg/L	122	75.0	125	----
Anions and Nutrients (QCLot: 2269840)										
WT2528594-001	Anonymous	Fluoride	16984-48-8	E235.F	1.06 mg/L	1 mg/L	106	75.0	125	----
Anions and Nutrients (QCLot: 2269841)										
WT2528594-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.56 mg/L	2.5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2269842)										
WT2528594-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.540 mg/L	0.5 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 2269843)										
WT2528594-001	Anonymous	Chloride	16887-00-6	E235.Cl	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2269844)										
WT2528594-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	104 mg/L	100 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2273174)										
WT2528552-001	Anonymous	Fluoride	16984-48-8	E235.F	4.64 mg/L	5 mg/L	92.7	75.0	125	----
Anions and Nutrients (QCLot: 2273175)										
WT2528552-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	12.4 mg/L	12.5 mg/L	99.2	75.0	125	----
Anions and Nutrients (QCLot: 2273176)										
WT2528552-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	2.53 mg/L	2.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2273177)										
WT2528552-001	Anonymous	Chloride	16887-00-6	E235.Cl	493 mg/L	500 mg/L	98.6	75.0	125	----
Anions and Nutrients (QCLot: 2273178)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2273178) - continued										
WT2528552-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	498 mg/L	500 mg/L	99.6	75.0	125	----
Anions and Nutrients (QCLot: 2273182)										
WT2528552-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0189 mg/L	0.02 mg/L	96.3	70.0	130	----
Anions and Nutrients (QCLot: 2274340)										
WT2528808-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	13.1 mg/L	12.5 mg/L	105	75.0	125	----
Anions and Nutrients (QCLot: 2274341)										
WT2528808-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	2.58 mg/L	2.5 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2274343)										
WT2528808-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	508 mg/L	500 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2274344)										
WT2528808-001	Anonymous	Chloride	16887-00-6	E235.Cl	497 mg/L	500 mg/L	99.5	75.0	125	----
Anions and Nutrients (QCLot: 2274345)										
WT2528808-001	Anonymous	Fluoride	16984-48-8	E235.F	5.08 mg/L	5 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2274349)										
WT2528741-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 2276379)										
WT2528815-001	BH21-IR	Chloride	16887-00-6	E235.Cl	522 mg/L	500 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2276380)										
WT2528815-001	BH21-IR	Nitrite (as N)	14797-65-0	E235.NO2	2.52 mg/L	2.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2276381)										
WT2528815-001	BH21-IR	Nitrate (as N)	14797-55-8	E235.NO3	13.0 mg/L	12.5 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2276382)										
WT2528815-001	BH21-IR	Sulfate (as SO4)	14808-79-8	E235.SO4	516 mg/L	500 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2276383)										
WT2528815-001	BH21-IR	Fluoride	16984-48-8	E235.F	5.38 mg/L	5 mg/L	108	75.0	125	----
Anions and Nutrients (QCLot: 2277084)										
WT2528916-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	482 mg/L	500 mg/L	96.3	75.0	125	----
Anions and Nutrients (QCLot: 2277085)										
WT2528916-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	11.9 mg/L	12.5 mg/L	95.5	75.0	125	----
Anions and Nutrients (QCLot: 2277086)										
WT2528916-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	2.32 mg/L	2.5 mg/L	92.7	75.0	125	----
Anions and Nutrients (QCLot: 2277087)										
WT2528916-001	Anonymous	Fluoride	16984-48-8	E235.F	5.04 mg/L	5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2277088)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2277088) - continued										
WT2528916-001	Anonymous	Chloride	16887-00-6	E235.Cl	484 mg/L	500 mg/L	96.7	75.0	125	----
Anions and Nutrients (QCLot: 2277093)										
WT2528815-006	BH17-III	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0200 mg/L	0.02 mg/L	102	70.0	130	----
Anions and Nutrients (QCLot: 2277437)										
WT2528510-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	2.54 mg/L	2.5 mg/L	N/A	70.0	130	----
Anions and Nutrients (QCLot: 2277438)										
WT2528733-003	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0970 mg/L	0.1 mg/L	97.0	70.0	130	----
Anions and Nutrients (QCLot: 2277440)										
WT2528733-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2277794)										
WT2528815-008	BH6R	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0154 mg/L	0.02 mg/L	78.7	70.0	130	----
Anions and Nutrients (QCLot: 2278849)										
HA2504399-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	----	----		70.0	130	----
Anions and Nutrients (QCLot: 2278850)										
WT2528781-002	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Organic / Inorganic Carbon (QCLot: 2270758)										
WT2528604-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2273089)										
HA2504330-001	Anonymous	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2275145)										
WT2528815-002	BH21-IIR	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 2269132)										
HA2504342-001	Anonymous	Aluminum, total	7429-90-5	E420	ND mg/L	----	ND	70.0	130	----
		Barium, total	7440-39-3	E420	0.0130 mg/L	0.012 mg/L	104	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00522 mg/L	0.005 mg/L	104	70.0	130	----
		Calcium, total	7440-70-2	E420	2.55 mg/L	2.5 mg/L	102	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0132 mg/L	0.012 mg/L	106	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0132 mg/L	0.012 mg/L	106	70.0	130	----
		Copper, total	7440-50-8	E420	0.0133 mg/L	0.012 mg/L	106	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----
		Lead, total	7439-92-1	E420	0.0258 mg/L	0.025 mg/L	103	70.0	130	----
		Magnesium, total	7439-95-4	E420	2.68 mg/L	2.5 mg/L	107	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0262 mg/L	0.025 mg/L	105	70.0	130	----
		Potassium, total	7440-09-7	E420	2.55 mg/L	2.5 mg/L	102	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0526 mg/L	0.05 mg/L	105	70.0	130	----
		Silver, total	7440-22-4	E420	0.00505 mg/L	0.005 mg/L	101	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 2269132) - continued										
HA2504342-001	Anonymous	Zinc, total	7440-66-6	E420	0.0256 mg/L	0.025 mg/L	102	70.0	130	----
Dissolved Metals (QCLot: 2269957)										
WT2528815-002	BH21-IIR	Aluminum, dissolved	7429-90-5	E421	0.975 mg/L	1 mg/L	97.5	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.0468 mg/L	0.05 mg/L	93.6	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.120 mg/L	0.125 mg/L	95.9	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.117 mg/L	0.125 mg/L	93.4	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.117 mg/L	0.125 mg/L	93.6	70.0	130	----
		Iron, dissolved	7439-89-6	E421	ND mg/L	----	ND	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.229 mg/L	0.25 mg/L	91.6	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.232 mg/L	0.25 mg/L	93.0	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.484 mg/L	0.5 mg/L	96.7	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.0342 mg/L	0.05 mg/L	68.4	70.0	130	MES
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.234 mg/L	0.25 mg/L	93.5	70.0	130	----
Aggregate Organics (QCLot: 2277439)										
WT2528733-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0200 mg/L	0.02 mg/L	100	75.0	125	----
Aggregate Organics (QCLot: 2278851)										
HA2504399-002	Anonymous	Phenols, total (4AAP)	----	E562	----	----		75.0	125	----
Aggregate Organics (QCLot: 2279538)										
WT2528815-001	BH21-IR	Chemical oxygen demand [COD]	----	E559-L	105 mg/L	100 mg/L	105	75.0	125	----
Volatile Organic Compounds (QCLot: 2276986)										
WT2528815-001	BH21-IR	Acetone	67-64-1	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Benzene	71-43-2	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Bromodichloromethane	75-27-4	E611D	99.4 µg/L	100 µg/L	99.4	60.0	140	----
		Bromoform	75-25-2	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Bromomethane	74-83-9	E611D	79.9 µg/L	100 µg/L	79.9	60.0	140	----
		Carbon disulfide	75-15-0	E611D	98.0 µg/L	100 µg/L	98.0	60.0	140	----
		Carbon tetrachloride	56-23-5	E611D	94.1 µg/L	100 µg/L	94.1	60.0	140	----
		Chlorobenzene	108-90-7	E611D	98.3 µg/L	100 µg/L	98.3	60.0	140	----
		Chloroethane	75-00-3	E611D	97.9 µg/L	100 µg/L	97.9	60.0	140	----
		Chloroform	67-66-3	E611D	99.6 µg/L	100 µg/L	99.6	60.0	140	----
		Chloromethane	74-87-3	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Dibromochloromethane	124-48-1	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Dibromoethane, 1,2-	106-93-4	E611D	99.1 µg/L	100 µg/L	99.1	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	102 µg/L	100 µg/L	102	60.0	140	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2276986) - continued										
WT2528815-001	BH21-IR	Dichlorobenzene, 1,4-	106-46-7	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Dichlorodifluoromethane	75-71-8	E611D	97.3 µg/L	100 µg/L	97.3	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611D	96.6 µg/L	100 µg/L	96.6	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611D	97.1 µg/L	100 µg/L	97.1	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	99.9 µg/L	100 µg/L	99.9	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	111 µg/L	100 µg/L	111	60.0	140	----
		Dichloromethane	75-09-2	E611D	99.1 µg/L	100 µg/L	99.1	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		Ethylbenzene	100-41-4	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Hexane, n-	110-54-3	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Hexanone, 2-	591-78-6	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	95 µg/L	100 µg/L	94.8	60.0	140	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	98.0 µg/L	100 µg/L	98.0	60.0	140	----
		Styrene	100-42-5	E611D	97.6 µg/L	100 µg/L	97.6	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	97.2 µg/L	100 µg/L	97.2	60.0	140	----
		Tetrachloroethylene	127-18-4	E611D	94.6 µg/L	100 µg/L	94.6	60.0	140	----
		Toluene	108-88-3	E611D	99.3 µg/L	100 µg/L	99.3	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	95.0 µg/L	100 µg/L	95.0	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	98.7 µg/L	100 µg/L	98.7	60.0	140	----
		Trichloroethylene	79-01-6	E611D	98.7 µg/L	100 µg/L	98.7	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611D	97.5 µg/L	100 µg/L	97.5	60.0	140	----
		Vinyl chloride	75-01-4	E611D	97.1 µg/L	100 µg/L	97.1	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	206 µg/L	200 µg/L	103	60.0	140	----
		Xylene, o-	95-47-6	E611D	101 µg/L	100 µg/L	101	60.0	140	----
Volatile Organic Compounds (QCLot: 2277540)										
WT2528886-016	Anonymous	Benzene	71-43-2	E611A	102 µg/L	100 µg/L	102	60.0	140	----
		Ethylbenzene	100-41-4	E611A	95.9 µg/L	100 µg/L	95.9	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	99.4 µg/L	100 µg/L	99.4	60.0	140	----
		Styrene	100-42-5	E611A	84.7 µg/L	100 µg/L	84.7	60.0	140	----
		Toluene	108-88-3	E611A	107 µg/L	100 µg/L	107	60.0	140	----
		Xylene, m+p-	179601-23-1	E611A	180 µg/L	200 µg/L	90.1	60.0	140	----
		Xylene, o-	95-47-6	E611A	92.3 µg/L	100 µg/L	92.3	60.0	140	----

Qualifiers

Qualifier	Description
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

MM - 562 1/968 VW -155
N - 300
B - 754

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

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Canada Toll Free: 1 800 668 9878

Page 1 of 2

Environmental Division Waterloo

Work Order Reference WT2528815

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax IAcheson@orillia.ca

Email 2 zgorbell@orillia.ca

Email 3 HCURRY@orillia.ca

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax IAcheson@orillia.ca

Email 2 zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge mini

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge mini

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge mini

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge mini

Same day [E2] if received by 10am M-S - 200% rush surcharg

☐ fees may apply to rush resuests on weekends, statutory holiday routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed according to

Project Information

ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Analysis Re

Indicate Filtered (F), Preserved (P) or Filtered a

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals)	Major Ions Package(Total Metals)	Dissolved Metals: Trace List F/P	Total Metals: Trace List P	Dissolved Orthophosphate F/P	Total Phosphorus P	BTEX P	VOCs P	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRI	SUSPECTED HAZARD (see note
	BH21-I	8-Oct-25	11:25	GW	9	R	R	R	R		R		R			
	BH21-II	8-Oct-25	11:40	GW	9	R	R	R	R		R		R			
	BH18R	6-Oct-25	11:00	GW	7	R	R	R	R		R					
	BH22-IR	6-Oct-25	14:45	GW	9	R	R	R	R	R	R	R				
	BH22-II	6-Oct-25	15:00	GW	9	R	R	R	R	R	R	R				
	BH17-III	9-Oct-25	9:10	GW	9	R	R	R	R	R	R	R				
	BH17-IVR	9-Oct-25	9:15	GW	7	R	R	R	R	R	R					
	BH6R	8-Oct-25	11:00	GW	9	R	R	R	R	R	R	R				
	BH1-IR	6-Oct-25	10:20	GW	7	R	R	R	R		R					
	BH29-I	8-Oct-25	11:55	GW	7	R	R	R	R	R						
	BH30-I	8-Oct-25	10:15	GW	7	R	R	R	R	R						
	BH30-II	8-Oct-25	10:30	GW	7	R	R	R	R	R						

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
9.8	8.6	9.2	9.9	8.1			

SHIPMENT RELEASE (client use)

Released by: I.Acheson	Date: 9Oct25	Time: 10:30

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: AM	Date: 10/09/25	Time: 13:30

FINAL SHIPMENT RECEPTION (lab use only)

Received by: AG	Date: 9.10.25	Time: 17:45

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALIG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients	
Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA	☐ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca
Email 3	HCURRY@orillia.ca

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca

Project Information	
ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Turnaround Time (TAT) Requested

- ☑ Routine [R] if received by 3pm M-F - no surcharges apply
- ☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
- ☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
- ☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
- ☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
- ☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For tests that can not be performed according to the TAT requested, you will be contacted.

Analysis Request

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals)	Major Ions Package(Total Metals)	Dissolved Metals: Trace List	Total Metals: Trace List	Dissolved Orthophosphate	Total Phosphorus	BTEX	Suspended Solids	VOC	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
						F/P	P	F/P	P	P				P			
	DUP 1	8-Oct-25	11:00	GW	9	R	R	R	R	R	R	R					
	D-5	7-Oct-25	10:05	SW	7	R	R	R	R	R	R		R				
	D-6	7-Oct-25	11:10	SW	7	R	R	R	R	R	R		R				
	Field Blank	9-Oct-25	9:20	Lab Water	2									R			
	Trip Blank	9-Oct-25	9:30	Lab Water	2									R			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
9.8	8.6	9.2	9.9	8.1			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
I.Acheson	9Oct25	10:30

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AM	10/09/25	13:30

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AG	9.10.25	17:45

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALIG 2020 FRONT

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

ALS Canada Ltd.

CERTIFICATE OF ANALYSIS

Work Order	:	**WT2529659**		
Client	:	**City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	:	Ian Acheson	Account Manager	: Karanpartap Singh
Address	:	50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	:	----	E-mail	: karanpartap.singh@alsglobal.com
Project	:	WASTE DIVERSION SITE	Telephone	: 19055076910
PO	:	86912	Date Samples Received	: 17-Oct-2025 09:00
C-O-C number	:	----	Date Analysis Commenced	: 18-Oct-2025
Sampler	:	IA	Issue Date	: 24-Oct-2025 15:51
Site	:	----		
Quote number	:	Waste Diversion Site		
No. of samples received	:	13		
No. of samples analysed	:	13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Metals, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Centralized Prep, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Centralized Prep, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).

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Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-1 ----	S-4 ----	S-6 ----	S-7 ----	S-2 ----
					Client sampling date / time	15-Oct-2025 14:40	16-Oct-2025 14:00	15-Oct-2025 11:15	15-Oct-2025 12:15	16-Oct-2025 14:15
						WT2529659-001	WT2529659-002	WT2529659-003	WT2529659-004	WT2529659-005
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		164	289	249	250	95.9
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		3.9	12.9	9.9	11.3	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		168	302	259	262	95.9
Conductivity	----	E100/WT	2.0	µS/cm		1240	1170	1020	1020	1340
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		300	353	310	318	260
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		311	394	347	343	280
pH	----	E108/WT	0.10	pH units		8.39	8.48	8.46	8.49	8.09
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.241	0.701	0.0522	0.0336	0.143
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		229 DLDS	203 DLDS	172 DLDS	171 DLDS	255 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		1.37	1.13	0.506	0.348	2.04
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		11.6 DLDS	0.343 DLDS	0.344 DLDS	0.397 DLDS	19.2 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		0.102 DLDS	<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	0.362 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		1.13	0.429	0.454	0.314	1.90
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		0.0332	0.0018	0.0038	0.0013	0.0473
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.113	0.0245	0.0504	0.0161	0.191
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		69.6 DLDS	16.5 DLDS	12.8 DLDS	12.5 DLDS	95.9 DLDS

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-1 ----	S-4 ----	S-6 ----	S-7 ----	S-2 ----
					Client sampling date / time	15-Oct-2025 14:40	16-Oct-2025 14:00	15-Oct-2025 11:15	15-Oct-2025 12:15	16-Oct-2025 14:15
						WT2529659-001	WT2529659-002	WT2529659-003	WT2529659-004	WT2529659-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		33.6	63.5	55.8	56.4	20.1
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		7.62	5.49	5.18	4.51	9.21
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		12.1	12.1	10.3	10.3	12.5
Anion sum	----	EC101/WT	0.10	meq/L		12.1	12.1	10.3	10.3	12.5
Cation sum	----	EC101/WT	0.10	meq/L		12.2	11.5	10.0	10.1	12.3
Cation sum (total)	----	EC101A/WT	0.10	meq/L		12.1	12.4	10.7	10.6	12.7
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		100	102	104	103	102
Ion balance (APHA)	----	EC101A/WT	0.010	%		0.0	1.22	1.90	1.44	0.794
Ion balance (cations/anions)	----	EC101/WT	0.010	%		101	95.0	97.1	98.1	98.4
Ion balance (APHA)	----	EC101/WT	0.01	%		0.41	-2.54	-1.48	-0.98	-0.81
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		0.265	0.0880	0.244	0.0416	0.436
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L		----	----	----	----	0.00038
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.160	0.361	0.190	0.183	0.0633
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.0000068	0.0000063	0.0000099	<0.0000050	0.0000066
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		87.2	107	100	98.4	79.5
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00050	0.00055	0.00065	<0.00050	<0.00050
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00608	0.00017	0.00018	<0.00010	0.00795
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.00123	0.00096	0.00077	<0.00050	0.00168
Iron, total	7439-89-6	E420/WT	0.010	mg/L		0.137	0.443	0.938	0.381	0.043

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Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-1 ----	S-4 ----	S-6 ----	S-7 ----	S-2 ----
					Client sampling date / time	15-Oct-2025 14:40	16-Oct-2025 14:00	15-Oct-2025 11:15	15-Oct-2025 12:15	16-Oct-2025 14:15
						WT2529659-001	WT2529659-002	WT2529659-003	WT2529659-004	WT2529659-005
						Result	Result	Result	Result	Result
Total Metals										
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.000219	0.000447	0.000482	0.000085	0.000198
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		22.7	30.7	23.7	23.6	19.8
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.0347	0.0991	0.161	0.0594	0.0120
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.00109	0.00061	0.00061	<0.00050	0.00128
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		12.6	3.26	2.39	2.28	17.8
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		0.000115	0.000070	0.000100	0.000074	0.000124
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		127	101	84.0	83.9	151
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		0.0118	0.0045	0.0055	<0.0030	0.0196
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		0.127	0.0030	0.0037	0.0041	0.0967
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.141	0.337	0.161	0.170	0.0618
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		0.0000124	<0.0000050	<0.0000050	<0.0000050	0.0000067
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		83.2	93.5	87.0	90.3	73.6
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00585	0.00012	<0.00010	<0.00010	0.00781
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		0.00098	0.00029	0.00022	0.00031	0.00101
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		0.027	0.028	0.073	0.066	0.026
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		0.000126	<0.000050	<0.000050	<0.000050	0.000187
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		22.4	29.1	22.6	22.5	18.5
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.0312	0.0900	0.127	0.0549	0.0109

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: S-1 ----	S-4 ----	S-6 ----	S-7 ----	S-2 ----
					Client sampling date / time: 15-Oct-2025 14:40	16-Oct-2025 14:00	15-Oct-2025 11:15	15-Oct-2025 12:15	16-Oct-2025 14:15
					WT2529659-001	WT2529659-002	WT2529659-003	WT2529659-004	WT2529659-005
					Result	Result	Result	Result	Result
Dissolved Metals									
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L	0.00097	<0.00050	<0.00050	<0.00050	0.00122
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	11.9	3.32	2.37	2.37	17.0
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	0.000104	0.000075	0.000080	0.000069	0.000117
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	134	99.2	86.4	84.4	152
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	0.0117	0.0013	0.0019	0.0016	0.0200
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	Field	Field
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	24	15	18	10	32
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0012	<0.0010	<0.0010	<0.0010	0.0015

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: S-3 ----	S-11 ----	DUP 2 ----	DUP 3 ----	S-8 ----
					Client sampling date / time: 16-Oct-2025 14:30	16-Oct-2025 11:35	14-Oct-2025 14:15	15-Oct-2025 12:15	15-Oct-2025 11:35
					WT2529659-006	WT2529659-007	WT2529659-008	WT2529659-009	WT2529659-010
					Result	Result	Result	Result	Result
Sample Preparation									
Dissolved carbon filtration location	----	EP358/WT	-	-	field	field	field	field	field
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L	110	111	516	251	395
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	3.8	<2.0	15.8	6.1

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-3 ----	S-11 ----	DUP 2 ----	DUP 3 ----	S-8 ----
					Client sampling date / time	16-Oct-2025 14:30	16-Oct-2025 11:35	14-Oct-2025 14:15	15-Oct-2025 12:15	15-Oct-2025 11:35
						WT2529659-006	WT2529659-007	WT2529659-008	WT2529659-009	WT2529659-010
						Result	Result	Result	Result	Result
Physical Tests										
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		110	115	516	267	401
Conductivity	----	E100/WT	2.0	µS/cm		1330	473	1140	1010	1410
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		269	133	462	316	457
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		291	148	519	345	503
pH	----	E108/WT	0.10	pH units		8.06	8.45	8.10	8.56	8.34
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.191	0.0255	1.90	0.0580	2.52
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		250 DLDS	67.3	93.8 DLDS	170 DLDS	231 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		<0.100 DLDS	0.058	0.113 DLDS	<0.100 DLDS	0.162 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		2.22	0.549	5.41	0.380	2.91
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		17.8 DLDS	0.105	<0.100 DLDS	0.771 DLDS	<0.100 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		0.336 DLDS	<0.010	<0.050 DLDS	<0.050 DLDS	<0.050 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		2.03	0.524	3.51	0.322	<0.585
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		0.0496	0.0013	0.0797	0.0016	0.0037
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.264	0.0092	0.191	0.0157	0.0347
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		90.6 DLDS	17.5	<1.50 DLDS	12.6 DLDS	20.5 DLDS
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		22.1	24.2	108	58.0	86.6
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		9.26	5.59	35.8	5.92	7.13

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-3 ----	S-11 ----	DUP 2 ----	DUP 3 ----	S-8 ----
					Client sampling date / time	16-Oct-2025 14:30	16-Oct-2025 11:35	14-Oct-2025 14:15	15-Oct-2025 12:15	15-Oct-2025 11:35
						WT2529659-006	WT2529659-007	WT2529659-008	WT2529659-009	WT2529659-010
						Result	Result	Result	Result	Result
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		12.4	4.57	13.0	10.4	15.0
Anion sum	----	EC101/WT	0.10	meq/L		12.4	4.57	13.0	10.4	15.0
Cation sum	----	EC101/WT	0.10	meq/L		12.2	4.40	12.8	10.0	14.4
Cation sum (total)	----	EC101A/WT	0.10	meq/L		12.8	4.69	14.5	10.7	15.4
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		103	103	112	103	103
Ion balance (APHA)	----	EC101A/WT	0.010	%		1.59	1.30	5.45	1.42	1.32
Ion balance (cations/anions)	----	EC101/WT	0.010	%		98.4	96.3	98.5	96.2	96.0
Ion balance (APHA)	----	EC101/WT	0.01	%		-0.81	-1.90	-0.78	-1.96	-2.04
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		0.498	0.0058	2.45	0.0366	0.160
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.0861	0.0326	0.240	0.186	0.844
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.0000103	<0.0000050	0.0000376	<0.0000050	0.0000127
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		82.6	44.2	138	99.0	127
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00050	<0.00050	0.00535	<0.00050	0.00056
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00824	0.00018	0.00169	<0.00010	0.00041
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		0.00208	<0.00050	0.00305	<0.00050	0.00102
Iron, total	7439-89-6	E420/WT	0.010	mg/L		0.124	<0.010	3.50	0.366	0.621
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.000430	<0.000050	0.000892	0.000072	0.00111
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		20.6	9.18	42.4	23.8	45.1
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.0226	0.00474	0.366	0.0581	0.238
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.00136	<0.00050	0.00503	<0.00050	0.00133

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	S-3 ----	S-11 ----	DUP 2 ----	DUP 3 ----	S-8 ----
					Client sampling date / time	16-Oct-2025 14:30	16-Oct-2025 11:35	14-Oct-2025 14:15	15-Oct-2025 12:15	15-Oct-2025 11:35
						WT2529659-006	WT2529659-007	WT2529659-008	WT2529659-009	WT2529659-010
						Result	Result	Result	Result	Result
Total Metals										
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		17.2	2.57	20.8	2.33	5.34
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		0.000123	0.000075	0.000266	0.000066	0.000054
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		0.000016	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		148	38.1	69.9	84.8	114
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		0.0202	<0.0030	0.0074	<0.0030	0.0069
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		0.106	0.0030	0.0188 DLM	0.0039	0.0027
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.0837	0.0324	0.171 DLM	0.166	0.785
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		0.0000070	<0.0000050	<0.0000500 DLM	0.0000069	<0.0000050
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		75.0	38.8	119 DLM	88.5	111
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00050	<0.00050	<0.00500 DLM	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00760	0.00018	<0.00100 DLM	<0.00010	0.00033
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		0.00105	0.00032	<0.00200 DLM	0.00037	<0.00020
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		0.024	<0.010	0.786 DLM	0.070	0.031
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		0.000175	<0.000050	<0.000500 DLM	<0.000050	<0.000050
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		19.9	8.66	40.0 DLM	23.0	43.6
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.0177	0.00142	0.348 DLM	0.0561	0.227
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		0.00122	<0.00050	<0.00500 DLM	<0.00050	0.00107
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		16.3	2.60	17.9 DLM	2.39	5.62
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		0.000122	0.000072	<0.000500 DLM	0.000070	0.000074
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000100 DLM	<0.000010	<0.000010

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: S-3 ----	S-11 ----	DUP 2 ----	DUP 3 ----	S-8 ----
					Client sampling date / time: 16-Oct-2025 14:30	16-Oct-2025 11:35	14-Oct-2025 14:15	15-Oct-2025 12:15	15-Oct-2025 11:35
					WT2529659-006	WT2529659-007	WT2529659-008	WT2529659-009	WT2529659-010
					Result	Result	Result	Result	Result
Dissolved Metals									
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	146	38.7	67.7 DLM	84.4	114
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	0.0186	0.0015	<0.0100 DLM	0.0021	0.0019
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	Field	Field
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	35	12	156	11	23
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0015	<0.0010	0.0012	<0.0010	0.0011

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH2-III ----	BH4-II ----	BH14-IIIR ----	----	----
					Client sampling date / time: 14-Oct-2025 15:05	14-Oct-2025 10:45	14-Oct-2025 14:15	----	----
					WT2529659-011	WT2529659-012	WT2529659-013	----	----
					Result	Result	Result	----	----
Sample Preparation									
Dissolved carbon filtration location	----	EP358/WT	-	-	field	field	field	----	----
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L	1220	372	512	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L	<10.0 DLM	<2.0	<2.0	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L	<10.0 DLM	<2.0	<2.0	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	1220	372	512	----	----
Conductivity	----	E100/WT	2.0	µS/cm	2700	1450	1140	----	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L	1070	398	463	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH2-III ----	BH4-II ----	BH14-IIIR ----	----	----
					Client sampling date / time	14-Oct-2025 15:05	14-Oct-2025 10:45	14-Oct-2025 14:15	----	----
						WT2529659-011	WT2529659-012	WT2529659-013	----	----
						Result	Result	Result	----	----
Physical Tests										
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		1260	2100	525	----	----
pH	----	E108/WT	0.10	pH units		7.37	7.71	8.13	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		14.5	0.0461	1.87	----	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		296 DLDS	243 DLDS	92.4 DLDS	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.147 DLDS	<0.100 DLDS	0.111 DLDS	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		22.7	0.252	4.47	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	----	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		8.20	0.206	2.60	----	----
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		0.0012	0.0011	0.0910	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.356	0.692	0.188	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		4.04 DLDS	23.1 DLDS	<1.50 DLDS	----	----
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		258	73.7	109	----	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		39.6	3.99	35.4	----	----
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		32.8	14.8	12.8	----	----
Anion sum	----	EC101/WT	0.10	meq/L		32.8	14.8	12.8	----	----
Cation sum	----	EC101/WT	0.10	meq/L		32.4	14.3	12.8	----	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L		36.7	51.4	14.6	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH2-III ----	BH4-II ----	BH14-IIIR ----	----	----
					Client sampling date / time: 14-Oct-2025 15:05	14-Oct-2025 10:45	14-Oct-2025 14:15	----	----
					WT2529659-011	WT2529659-012	WT2529659-013	----	----
					Result	Result	Result	----	----
Ion Balance									
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	112	347	114	----	----
Ion balance (APHA)	----	EC101A/WT	0.010	%	5.61	55.3	6.57	----	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%	98.8	96.6	100	----	----
Ion balance (APHA)	----	EC101/WT	0.01	%	-0.61	-1.72	0.0	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	3.77 DLHC	16.7 DLHC	2.53 DLHC	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	1.29 DLHC	0.621 DLHC	0.222 DLHC	----	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.0000850 DLHC	0.000103 DLHC	<0.0000500 DLHC	----	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	338 DLHC	559 DLHC	140 DLHC	----	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	0.00638 DLHC	0.0215 DLHC	0.00587 DLHC	----	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	0.00521 DLHC	0.0154 DLHC	0.00154 DLHC	----	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	0.00648 DLHC	0.0407 DLHC	<0.00500 DLHC	----	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L	13.5 DLHC	27.0 DLHC	3.54 DLHC	----	----
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.00551 DLHC	0.00925 DLHC	0.000919 DLHC	----	----
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	101 DLHC	171 DLHC	42.7 DLHC	----	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	0.982 DLHC	2.44 DLHC	0.364 DLHC	----	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	0.0261 DLHC	0.0233 DLHC	<0.00500 DLHC	----	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	29.8 DLHC	6.47 DLHC	19.5 DLHC	----	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	----	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	----	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	202 DLHC	145 DLHC	70.1 DLHC	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

					Client sample ID	BH2-III ----	BH4-II ----	BH14-IIIR ----	----	----
					Client sampling date / time	14-Oct-2025 15:05	14-Oct-2025 10:45	14-Oct-2025 14:15	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2529659-011	WT2529659-012	WT2529659-013	----	----
						Result	Result	Result	----	----
Total Metals										
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0300 DLHC	0.0681 DLHC	<0.0300 DLHC	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		0.0145 DLHC	0.0034	0.0210 DLM	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		1.08 DLHC	0.373	0.172 DLM	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000500 DLHC	0.0000056	<0.0000500 DLM	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		275 DLHC	125	121 DLM	----	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00500 DLHC	<0.00050	<0.00500 DLM	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00325 DLHC	0.00042	<0.00100 DLM	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00200 DLHC	0.00095	<0.00200 DLM	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		9.24 DLHC	0.454	0.782 DLM	----	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000500 DLHC	<0.000050	<0.000500 DLM	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		93.3 DLHC	20.8	39.0 DLM	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.879 DLHC	0.108	0.351 DLM	----	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		0.0186 DLHC	0.00061	<0.00500 DLM	----	----
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		30.3 DLHC	2.21	18.1 DLM	----	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		<0.000500 DLHC	0.000123	<0.000500 DLM	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000100 DLHC	<0.000010	<0.000100 DLM	----	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		203 DLHC	145	67.9 DLM	----	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		<0.0100 DLHC	<0.0010	<0.0100 DLM	----	----
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	----	----

Analytical Results

Sub-Matrix: Surface Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH2-III ----	BH4-II ----	BH14-IIIR ----	----	----
					Client sampling date / time	14-Oct-2025 15:05	14-Oct-2025 10:45	14-Oct-2025 14:15	----	----
						WT2529659-011	WT2529659-012	WT2529659-013	----	----
						Result	Result	Result	----	----
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		15.6	<3.0 BODL	<3.0 BODL	----	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		164	79	160	----	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0030	0.0016	<0.0010	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2529659**	Page	: 1 of 36
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 17-Oct-2025 09:00
PO	: 86912	Issue Date	: 24-Oct-2025 15:48
C-O-C number	: ----		
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-2	E550	16-Oct-2025	----	----	----		19-Oct-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-3	E550	16-Oct-2025	----	----	----		19-Oct-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-4	E550	16-Oct-2025	----	----	----		19-Oct-2025	4 days	2 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH14-IIIR	E550	14-Oct-2025	----	----	----		18-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH2-III	E550	14-Oct-2025	----	----	----		18-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
DUP 2	E550	14-Oct-2025	----	----	----		18-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
DUP 3	E550	15-Oct-2025	----	----	----		19-Oct-2025	4 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-1	E550	15-Oct-2025	----	----	----		19-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-11	E550	16-Oct-2025	----	----	----		19-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-7	E550	15-Oct-2025	----	----	----		19-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH4-II	E550	14-Oct-2025	----	----	----		18-Oct-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-6	E550	15-Oct-2025	----	----	----		19-Oct-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
S-8	E550	15-Oct-2025	----	----	----		19-Oct-2025	4 days	4 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-11	E559-L	16-Oct-2025	----	----	----		21-Oct-2025	28 days	5 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-2	E559-L	16-Oct-2025	----	----	----		21-Oct-2025	28 days	5 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-3	E559-L	16-Oct-2025	----	----	----		21-Oct-2025	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-4	E559-L	16-Oct-2025	----	----	----		21-Oct-2025	28 days	5 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 3	E559-L	15-Oct-2025	----	----	----		21-Oct-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-1	E559-L	15-Oct-2025	----	----	----		21-Oct-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-6	E559-L	15-Oct-2025	----	----	----		21-Oct-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-7	E559-L	15-Oct-2025	----	----	----		21-Oct-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-8	E559-L	15-Oct-2025	----	----	----		21-Oct-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIIR	E559-L	14-Oct-2025	----	----	----		21-Oct-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH2-III	E559-L	14-Oct-2025	----	----	----		21-Oct-2025	28 days	7 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH4-II	E559-L	14-Oct-2025	----	----	----		21-Oct-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 2	E559-L	14-Oct-2025	----	----	----		21-Oct-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-11	E562	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	21-Oct-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-2	E562	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	21-Oct-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-3	E562	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	21-Oct-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-4	E562	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	21-Oct-2025	28 days	2 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 3	E562	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	21-Oct-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-1	E562	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	21-Oct-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-6	E562	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	21-Oct-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-7	E562	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	21-Oct-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
S-8	E562	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	21-Oct-2025	28 days	3 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIIR	E562	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH2-III	E562	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH4-II	E562	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 2	E562	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-11	E298	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	21-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-2	E298	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	21-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-3	E298	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	21-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
S-4	E298	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	21-Oct-2025	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] DUP 3	E298	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	21-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S-1	E298	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	21-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S-6	E298	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	21-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S-7	E298	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	21-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] S-8	E298	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	21-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH14-IIIR	E298	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH2-III	E298	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH4-II	E298	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] DUP 2	E298	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-11	E235.Cl	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-2	E235.Cl	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-3	E235.Cl	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-4	E235.Cl	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] DUP 3	E235.Cl	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-1	E235.Cl	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-6	E235.Cl	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-7	E235.Cl	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] S-8	E235.Cl	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH14-IIIR	E235.Cl	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH2-III	E235.Cl	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH4-II	E235.Cl	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
DUP 2	E235.Cl	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-11	E378-U	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	21-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-2	E378-U	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	21-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-3	E378-U	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	21-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-4	E378-U	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	21-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
DUP 3	E378-U	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	21-Oct-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-1	E378-U	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	21-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-6	E378-U	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	21-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-7	E378-U	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	21-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
S-8	E378-U	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	21-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH14-IIIR	E378-U	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	21-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH2-III	E378-U	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	21-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH4-II	E378-U	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	21-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
DUP 2	E378-U	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	21-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
S-11	E235.F	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S-2	E235.F	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S-3	E235.F	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S-4	E235.F	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] DUP 3	E235.F	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S-1	E235.F	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S-6	E235.F	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S-7	E235.F	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] S-8	E235.F	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] BH14-IIIR	E235.F	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH2-III	E235.F	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH4-II	E235.F	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
DUP 2	E235.F	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
S-11	E235.NO3	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	20-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
S-2	E235.NO3	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	20-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
S-3	E235.NO3	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	20-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
S-4	E235.NO3	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	20-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
DUP 3	E235.NO3	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	20-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
S-1	E235.NO3	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	20-Oct-2025	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
S-6	E235.NO3	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	20-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
S-7	E235.NO3	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	20-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
S-8	E235.NO3	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	20-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH14-IIIR	E235.NO3	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	20-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH2-III	E235.NO3	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	20-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH4-II	E235.NO3	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	20-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
DUP 2	E235.NO3	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	20-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-11	E235.NO2	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	20-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-2	E235.NO2	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	20-Oct-2025	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-3	E235.NO2	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	20-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-4	E235.NO2	16-Oct-2025	18-Oct-2025	7 days	2 days	✓	20-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
DUP 3	E235.NO2	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	20-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-1	E235.NO2	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	20-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-6	E235.NO2	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	20-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-7	E235.NO2	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	20-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
S-8	E235.NO2	15-Oct-2025	18-Oct-2025	7 days	3 days	✓	20-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH14-IIIR	E235.NO2	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	20-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH2-III	E235.NO2	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	20-Oct-2025	7 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH4-II	E235.NO2	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	20-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
DUP 2	E235.NO2	14-Oct-2025	18-Oct-2025	7 days	4 days	✓	20-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S-11	E235.SO4	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S-2	E235.SO4	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S-3	E235.SO4	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S-4	E235.SO4	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
DUP 3	E235.SO4	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S-1	E235.SO4	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
S-6	E235.SO4	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S-7	E235.SO4	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] S-8	E235.SO4	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH14-IIIR	E235.SO4	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH2-III	E235.SO4	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH4-II	E235.SO4	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP 2	E235.SO4	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] S-11	E318	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	22-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] S-2	E318	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	22-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] S-3	E318	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	22-Oct-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-4	E318	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	22-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 3	E318	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	22-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-1	E318	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	22-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-6	E318	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	22-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-7	E318	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	22-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
S-8	E318	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	22-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIIR	E318	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	22-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH2-III	E318	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	22-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH4-II	E318	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	22-Oct-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 2	E318	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	22-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-11	E372-U	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-2	E372-U	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-3	E372-U	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-4	E372-U	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	21-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 3	E372-U	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	21-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-1	E372-U	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	21-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-6	E372-U	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	21-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-7	E372-U	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	21-Oct-2025	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
S-8	E372-U	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	21-Oct-2025	28 days	5 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-IIIR	E372-U	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	21-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH2-III	E372-U	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	21-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH4-II	E372-U	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	21-Oct-2025	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 2	E372-U	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	21-Oct-2025	28 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-11	E421	16-Oct-2025	20-Oct-2025	180 days	4 days	✓	20-Oct-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-2	E421	16-Oct-2025	20-Oct-2025	180 days	4 days	✓	20-Oct-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-3	E421	16-Oct-2025	20-Oct-2025	180 days	4 days	✓	20-Oct-2025	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
S-4	E421	16-Oct-2025	20-Oct-2025	180 days	4 days	✓	20-Oct-2025	180 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP 3	E421	15-Oct-2025	20-Oct-2025	180 days	5 days	✓	20-Oct-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S-1	E421	15-Oct-2025	20-Oct-2025	180 days	5 days	✓	20-Oct-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S-6	E421	15-Oct-2025	20-Oct-2025	180 days	5 days	✓	20-Oct-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S-7	E421	15-Oct-2025	20-Oct-2025	180 days	5 days	✓	20-Oct-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) S-8	E421	15-Oct-2025	20-Oct-2025	180 days	5 days	✓	20-Oct-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BH14-IIIR	E421	14-Oct-2025	20-Oct-2025	180 days	6 days	✓	20-Oct-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BH2-III	E421	14-Oct-2025	20-Oct-2025	180 days	6 days	✓	20-Oct-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) BH4-II	E421	14-Oct-2025	20-Oct-2025	180 days	6 days	✓	20-Oct-2025	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DUP 2	E421	14-Oct-2025	20-Oct-2025	180 days	6 days	✓	20-Oct-2025	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] S-11	E353-L	16-Oct-2025	----	----	----		22-Oct-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] S-2	E353-L	16-Oct-2025	----	----	----		22-Oct-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] S-3	E353-L	16-Oct-2025	----	----	----		22-Oct-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] S-4	E353-L	16-Oct-2025	----	----	----		22-Oct-2025	14 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] DUP 3	E353-L	15-Oct-2025	----	----	----		22-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] S-1	E353-L	15-Oct-2025	----	----	----		22-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] S-6	E353-L	15-Oct-2025	----	----	----		22-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] S-7	E353-L	15-Oct-2025	----	----	----		22-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] S-8	E353-L	15-Oct-2025	----	----	----		22-Oct-2025	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] BH14-IIIR	E353-L	14-Oct-2025	----	----	----		22-Oct-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] BH2-III	E353-L	14-Oct-2025	----	----	----		22-Oct-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] BH4-II	E353-L	14-Oct-2025	----	----	----		22-Oct-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP] DUP 2	E353-L	14-Oct-2025	----	----	----		22-Oct-2025	14 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] S-11	E358-L	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	23-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] S-2	E358-L	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	23-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] S-3	E358-L	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	23-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] S-4	E358-L	16-Oct-2025	20-Oct-2025	28 days	4 days	✓	23-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] DUP 3	E358-L	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	23-Oct-2025	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S-1	E358-L	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	23-Oct-2025	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S-6	E358-L	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	23-Oct-2025	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S-7	E358-L	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	23-Oct-2025	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
S-8	E358-L	15-Oct-2025	20-Oct-2025	28 days	5 days	✓	23-Oct-2025	28 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH14-IIIR	E358-L	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	23-Oct-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH2-III	E358-L	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	23-Oct-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH4-II	E358-L	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	23-Oct-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
DUP 2	E358-L	14-Oct-2025	20-Oct-2025	28 days	6 days	✓	23-Oct-2025	28 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
S-11	E290	16-Oct-2025	18-Oct-2025	14 days	2 days	✓	20-Oct-2025	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-2	E290	16-Oct-2025	18-Oct-2025	14 days	2 days	✓	20-Oct-2025	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-3	E290	16-Oct-2025	18-Oct-2025	14 days	2 days	✓	20-Oct-2025	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-4	E290	16-Oct-2025	18-Oct-2025	14 days	2 days	✓	20-Oct-2025	14 days	2 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP 3	E290	15-Oct-2025	18-Oct-2025	14 days	3 days	✓	20-Oct-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-1	E290	15-Oct-2025	18-Oct-2025	14 days	3 days	✓	20-Oct-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-6	E290	15-Oct-2025	18-Oct-2025	14 days	3 days	✓	20-Oct-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-7	E290	15-Oct-2025	18-Oct-2025	14 days	3 days	✓	20-Oct-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] S-8	E290	15-Oct-2025	18-Oct-2025	14 days	3 days	✓	20-Oct-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH14-IIIR	E290	14-Oct-2025	18-Oct-2025	14 days	4 days	✓	20-Oct-2025	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH2-III	E290	14-Oct-2025	18-Oct-2025	14 days	4 days	✓	20-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH4-II	E290	14-Oct-2025	18-Oct-2025	14 days	4 days	✓	18-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP 2	E290	14-Oct-2025	18-Oct-2025	14 days	4 days	✓	20-Oct-2025	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-11	E100	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-2	E100	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-3	E100	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-4	E100	16-Oct-2025	18-Oct-2025	28 days	2 days	✓	20-Oct-2025	28 days	2 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP 3	E100	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-1	E100	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-6	E100	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-7	E100	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] S-8	E100	15-Oct-2025	18-Oct-2025	28 days	3 days	✓	20-Oct-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH14-IIIR	E100	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH2-III	E100	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH4-II	E100	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	18-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP 2	E100	14-Oct-2025	18-Oct-2025	28 days	4 days	✓	20-Oct-2025	28 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-11	E108	16-Oct-2025	18-Oct-2025	14 days	2 days	✓	20-Oct-2025	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-2	E108	16-Oct-2025	18-Oct-2025	14 days	2 days	✓	20-Oct-2025	14 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] S-3	E108	16-Oct-2025	18-Oct-2025	14 days	2 days	✓	20-Oct-2025	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-4	E108	16-Oct-2025	18-Oct-2025	14 days	2 days	✓	20-Oct-2025	14 days	2 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP 3	E108	15-Oct-2025	18-Oct-2025	14 days	3 days	✓	20-Oct-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-1	E108	15-Oct-2025	18-Oct-2025	14 days	3 days	✓	20-Oct-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-6	E108	15-Oct-2025	18-Oct-2025	14 days	3 days	✓	20-Oct-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-7	E108	15-Oct-2025	18-Oct-2025	14 days	3 days	✓	20-Oct-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] S-8	E108	15-Oct-2025	18-Oct-2025	14 days	3 days	✓	20-Oct-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH14-IIIR	E108	14-Oct-2025	18-Oct-2025	14 days	4 days	✓	20-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH2-III	E108	14-Oct-2025	18-Oct-2025	14 days	4 days	✓	20-Oct-2025	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH4-II	E108	14-Oct-2025	18-Oct-2025	14 days	4 days	✓	18-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
DUP 2	E108	14-Oct-2025	18-Oct-2025	14 days	4 days	✓	20-Oct-2025	14 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S-11	E420	16-Oct-2025	20-Oct-2025	180 days	4 days	✓	20-Oct-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S-2	E420	16-Oct-2025	20-Oct-2025	180 days	4 days	✓	20-Oct-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S-3	E420	16-Oct-2025	20-Oct-2025	180 days	4 days	✓	20-Oct-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S-4	E420	16-Oct-2025	20-Oct-2025	180 days	4 days	✓	20-Oct-2025	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
DUP 3	E420	15-Oct-2025	20-Oct-2025	180 days	5 days	✓	20-Oct-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S-1	E420	15-Oct-2025	20-Oct-2025	180 days	5 days	✓	20-Oct-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
S-6	E420	15-Oct-2025	20-Oct-2025	180 days	5 days	✓	20-Oct-2025	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / **Container / Client Sample ID(s)**	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S-7	E420	15-Oct-2025	20-Oct-2025	180 days	5 days	✓	20-Oct-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) S-8	E420	15-Oct-2025	20-Oct-2025	180 days	5 days	✓	20-Oct-2025	180 days	5 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH14-IIIR	E420	14-Oct-2025	20-Oct-2025	180 days	6 days	✓	20-Oct-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH2-III	E420	14-Oct-2025	20-Oct-2025	180 days	6 days	✓	20-Oct-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH4-II	E420	14-Oct-2025	20-Oct-2025	180 days	6 days	✓	20-Oct-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP 2	E420	14-Oct-2025	20-Oct-2025	180 days	6 days	✓	20-Oct-2025	180 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2283826	2	27	7.4	5.0	✓
pH by Meter	E108	2283828	2	26	7.6	5.0	✓
Chloride in Water by IC	E235.Cl	2283823	2	35	5.7	5.0	✓
Fluoride in Water by IC	E235.F	2283821	2	21	9.5	5.0	✓
Nitrite in Water by IC	E235.NO2	2283822	2	27	7.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2283820	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	2283824	2	29	6.9	5.0	✓
Alkalinity Species by Titration	E290	2283827	2	38	5.2	5.0	✓
Ammonia by Fluorescence	E298	2284114	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2284112	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2290753	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2286865	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2284113	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2283829	2	29	6.9	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2285669	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2286922	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2284825	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2288441	1	17	5.8	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2284115	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2283826	2	27	7.4	5.0	✓
pH by Meter	E108	2283828	2	26	7.6	5.0	✓
Chloride in Water by IC	E235.Cl	2283823	2	35	5.7	5.0	✓
Fluoride in Water by IC	E235.F	2283821	2	21	9.5	5.0	✓
Nitrite in Water by IC	E235.NO2	2283822	2	27	7.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2283820	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	2283824	2	29	6.9	5.0	✓
Alkalinity Species by Titration	E290	2283827	2	38	5.2	5.0	✓
Ammonia by Fluorescence	E298	2284114	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2284112	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2290753	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2286865	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2284113	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2283829	2	29	6.9	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2285669	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2286922	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Biochemical Oxygen Demand - 5 day	E550	2284825	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2288441	1	17	5.8	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2284115	1	20	5.0	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	2283826	2	27	7.4	5.0	✓
Chloride in Water by IC	E235.Cl	2283823	2	35	5.7	5.0	✓
Fluoride in Water by IC	E235.F	2283821	2	21	9.5	5.0	✓
Nitrite in Water by IC	E235.NO2	2283822	2	27	7.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2283820	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	2283824	2	29	6.9	5.0	✓
Alkalinity Species by Titration	E290	2283827	2	38	5.2	5.0	✓
Ammonia by Fluorescence	E298	2284114	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2284112	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2290753	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2286865	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2284113	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2283829	2	29	6.9	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2285669	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2286922	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2284825	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2288441	1	17	5.8	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2284115	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	2283823	2	35	5.7	5.0	✓
Fluoride in Water by IC	E235.F	2283821	2	21	9.5	5.0	✓
Nitrite in Water by IC	E235.NO2	2283822	2	27	7.4	5.0	✓
Nitrate in Water by IC	E235.NO3	2283820	2	34	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	2283824	2	29	6.9	5.0	✓
Ammonia by Fluorescence	E298	2284114	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2284112	1	20	5.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2290753	1	13	7.6	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2286865	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2284113	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2283829	2	29	6.9	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2285669	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2286922	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2288441	1	17	5.8	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2284115	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Inorganic Carbon by Combustion	E353-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Inorganic Carbon is determined on a sample which is filtered through a 0.45 micron filter prior to analysis by the high temperature combustion method with measurement by an infrared detector, where the sample is acidified in a reaction chamber to convert all inorganic carbons (carbonates) to carbon dioxide for analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.
Ion Balance using Dissolved Metals	EC101 ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WT2529659**	Page	: 1 of 14
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 17-Oct-2025 09:00
PO	: 86912	Date Analysis Commenced	: 18-Oct-2025
C-O-C number	: ----	Issue Date	: 24-Oct-2025 15:48
Sampler	: IA		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Greg Pokocky	Manager - Inorganics	Waterloo Centralized Prep, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Centralized Prep, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2283826)											
HA2504536-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	299	299	0.00%	10%	----
Physical Tests (QC Lot: 2283827)											
HA2504536-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	117	116	0.718%	20%	----
Physical Tests (QC Lot: 2283828)											
HA2504536-001	Anonymous	pH	----	E108	0.10	pH units	7.93	7.92	0.126%	4%	----
Physical Tests (QC Lot: 2284076)											
WT2529659-001	S-1	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	168	168	0.0239%	20%	----
Physical Tests (QC Lot: 2284077)											
WT2529659-001	S-1	pH	----	E108	0.10	pH units	8.39	8.32	0.838%	4%	----
Physical Tests (QC Lot: 2284078)											
WT2529659-001	S-1	Conductivity	----	E100	2.0	µS/cm	1240	1250	0.481%	10%	----
Anions and Nutrients (QC Lot: 2283820)											
WT2529667-003	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2283821)											
WT2529667-003	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2283822)											
WT2529667-003	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2283823)											
WT2529667-003	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2283824)											
WT2529667-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	<0.30	<0.30	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2283829)											
HA2504145-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0051	0.0048	0.0004	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2284070)											
WT2529659-001	S-1	Nitrate (as N)	14797-55-8	E235.NO3	0.100	mg/L	11.6	12.0	3.78%	20%	----
Anions and Nutrients (QC Lot: 2284071)											
WT2529659-001	S-1	Nitrite (as N)	14797-65-0	E235.NO2	0.050	mg/L	0.102	0.103	0.001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2284072)											
WT2529593-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	29.2	29.3	0.319%	20%	----
Anions and Nutrients (QC Lot: 2284074)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2284074) - continued											
WT2529659-001	S-1	Fluoride	16984-48-8	E235.F	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2284075)											
WT2529659-001	S-1	Sulfate (as SO4)	14808-79-8	E235.SO4	1.50	mg/L	69.6	72.5	4.17%	20%	----
Anions and Nutrients (QC Lot: 2284079)											
WT2529659-001	S-1	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0332	0.0333	0.150%	20%	----
Anions and Nutrients (QC Lot: 2284112)											
WT2529593-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	0.083	0.135	0.052	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2284113)											
WT2529204-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0020	mg/L	0.0466	0.0464	0.280%	20%	----
Anions and Nutrients (QC Lot: 2284114)											
HA2504460-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.0117	0.0138	0.0021	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 2286865)											
WT2529659-001	S-1	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	7.62	8.07	5.74%	20%	----
Organic / Inorganic Carbon (QC Lot: 2290753)											
WT2529659-001	S-1	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	33.6	33.8	0.456%	20%	----
Total Metals (QC Lot: 2285669)											
HA2504514-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	<3.0 µg/L	0.0032	0.0002	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	2.53 µg/L	0.00242	4.36%	20%	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	156 µg/L	0.158	1.28%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	21.2	21.0	0.784%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.90 µg/L	0.00087	0.00003	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	16 µg/L	0.016	0.0002	Diff <2x LOR	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	1.90	1.92	1.45%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	139 µg/L	0.140	1.02%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	1.59	1.61	1.54%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	<0.050 µg/L	<0.000050	0	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	8.17	8.24	0.825%	20%	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	3.0 µg/L	0.0030	0.00004	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Dissolved Metals (QC Lot: 2286922)											
WT2529659-001	S-1	Aluminum, dissolved	7429-90-5	E421	0.0010	mg/L	0.127	0.125	1.13%	20%	----
		Barium, dissolved	7440-39-3	E421	0.00010	mg/L	0.141	0.146	3.16%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0000124	0.0000111	0.0000013	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.050	mg/L	83.2	79.8	4.22%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	0.00585	0.00578	1.19%	20%	----
		Copper, dissolved	7440-50-8	E421	0.00020	mg/L	0.00098	0.00099	0.000009	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.010	mg/L	0.027	0.026	0.0008	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.000126	0.000126	0.0000005	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0050	mg/L	22.4	22.3	0.419%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00010	mg/L	0.0312	0.0314	0.493%	20%	----
		Nickel, dissolved	7440-02-0	E421	0.00050	mg/L	0.00097	0.00097	0.000002	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.050	mg/L	11.9	12.4	4.30%	20%	----
		Selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.000104	0.000114	0.000011	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.050	mg/L	134	128	4.37%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0010	mg/L	0.0117	0.0118	0.840%	20%	----
Aggregate Organics (QC Lot: 2284115)											
TY2511667-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	0.0022	0.0022	0.00002	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2284825)											
WT2529679-001	Anonymous	Biochemical oxygen demand [BOD]	----	E550	2.0	mg/L	2.1	2.8	28.8%	30%	----
Aggregate Organics (QC Lot: 2285609)											
WT2529659-007	S-11	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2288441)											
WT2529659-001	S-1	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	24	27	3	Diff <2x LOR	----

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2283826)						
Conductivity	----	E100	1	µS/cm	1.6	----
Physical Tests (QCLot: 2283827)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	1.3	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.3	----
Physical Tests (QCLot: 2284076)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2284078)						
Conductivity	----	E100	1	µS/cm	1.4	----
Anions and Nutrients (QCLot: 2283820)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2283821)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2283822)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2283823)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2283824)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2283829)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2284070)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2284071)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2284072)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2284074)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2284074) - continued						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2284075)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2284079)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2284112)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2284113)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2284114)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Organic / Inorganic Carbon (QCLot: 2286865)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2290753)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 2285669)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Dissolved Metals (QCLot: 2286922)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2286922) - continued						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2284115)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2284825)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2285609)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2288441)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2283826)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2283827)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	98.8	85.0	115	----
Physical Tests (QCLot: 2283828)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2284076)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	105	85.0	115	----
Physical Tests (QCLot: 2284077)									
pH	----	E108	----	pH units	7 pH units	102	98.0	102	----
Physical Tests (QCLot: 2284078)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	98.7	90.0	110	----
Anions and Nutrients (QCLot: 2283820)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	98.0	90.0	110	----
Anions and Nutrients (QCLot: 2283821)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	----
Anions and Nutrients (QCLot: 2283822)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	98.1	90.0	110	----
Anions and Nutrients (QCLot: 2283823)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	98.9	90.0	110	----
Anions and Nutrients (QCLot: 2283824)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2283829)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	93.3	80.0	120	----
Anions and Nutrients (QCLot: 2284070)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2284071)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2284072)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	101	90.0	110	----
Anions and Nutrients (QCLot: 2284074)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	104	90.0	110	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2284075)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.8	90.0	110	----
Anions and Nutrients (QCLot: 2284079)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	92.5	80.0	120	----
Anions and Nutrients (QCLot: 2284112)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	98.3	75.0	125	----
Anions and Nutrients (QCLot: 2284113)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	98.3	80.0	120	----
Anions and Nutrients (QCLot: 2284114)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	101	85.0	115	----
Organic / Inorganic Carbon (QCLot: 2286865)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	105	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2290753)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	94.2	80.0	120	----
Total Metals (QCLot: 2285669)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	99.0	80.0	120	----
Arsenic, total	7440-38-2	E420	0.0001	mg/L	0.05 mg/L	103	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	105	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	97.6	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	97.8	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	98.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	97.6	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	96.5	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	98.7	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	99.6	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	99.8	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	100	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	97.1	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	101	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	99.7	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	93.4	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	101	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	95.8	80.0	120	----
Dissolved Metals (QCLot: 2286922)									

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Dissolved Metals (QCLot: 2286922) - continued									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	98.4	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	101	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	100.0	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	97.0	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	99.0	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	96.4	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	97.7	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	98.5	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	99.3	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	105	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	98.0	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	97.2	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	98.5	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	98.1	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	98.9	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	97.9	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	97.5	80.0	120	----
Aggregate Organics (QCLot: 2284115)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	99.0	85.0	115	----
Aggregate Organics (QCLot: 2284825)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	98.6	85.0	115	----
Aggregate Organics (QCLot: 2285609)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	95.2	85.0	115	----
Aggregate Organics (QCLot: 2288441)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	104	85.0	115	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2283820)										
WT2529667-003	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.41 mg/L	2.5 mg/L	96.3	75.0	125	----
Anions and Nutrients (QCLot: 2283821)										
WT2529667-003	Anonymous	Fluoride	16984-48-8	E235.F	1.04 mg/L	1 mg/L	104	75.0	125	----
Anions and Nutrients (QCLot: 2283822)										
WT2529667-003	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.484 mg/L	0.5 mg/L	96.8	75.0	125	----
Anions and Nutrients (QCLot: 2283823)										
WT2529667-003	Anonymous	Chloride	16887-00-6	E235.Cl	96.9 mg/L	100 mg/L	96.9	75.0	125	----
Anions and Nutrients (QCLot: 2283824)										
WT2529667-003	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	98.3 mg/L	100 mg/L	98.3	75.0	125	----
Anions and Nutrients (QCLot: 2283829)										
HA2504145-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0185 mg/L	0.02 mg/L	94.4	70.0	130	----
Anions and Nutrients (QCLot: 2284070)										
WT2529659-001	S-1	Nitrate (as N)	14797-55-8	E235.NO3	12.6 mg/L	12.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2284071)										
WT2529659-001	S-1	Nitrite (as N)	14797-65-0	E235.NO2	2.40 mg/L	2.5 mg/L	96.0	75.0	125	----
Anions and Nutrients (QCLot: 2284072)										
WT2529593-001	Anonymous	Chloride	16887-00-6	E235.Cl	103 mg/L	100 mg/L	103	75.0	125	----
Anions and Nutrients (QCLot: 2284074)										
WT2529659-001	S-1	Fluoride	16984-48-8	E235.F	4.62 mg/L	5 mg/L	92.5	75.0	125	----
Anions and Nutrients (QCLot: 2284075)										
WT2529659-001	S-1	Sulfate (as SO4)	14808-79-8	E235.SO4	493 mg/L	500 mg/L	98.5	75.0	125	----
Anions and Nutrients (QCLot: 2284079)										
WT2529659-001	S-1	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	ND mg/L	----	ND	70.0	130	----
Anions and Nutrients (QCLot: 2284112)										
WT2529593-001	Anonymous	Kjeldahl nitrogen, total [TKN]	----	E318	3.05 mg/L	2.5 mg/L	122	70.0	130	----
Anions and Nutrients (QCLot: 2284113)										
WT2529204-001	Anonymous	Phosphorus, total	7723-14-0	E372-U	0.0942 mg/L	0.1 mg/L	94.2	70.0	130	----
Anions and Nutrients (QCLot: 2284114)										
HA2504460-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.105 mg/L	0.1 mg/L	105	75.0	125	----
Organic / Inorganic Carbon (QCLot: 2286865)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Organic / Inorganic Carbon (QCLot: 2286865) - continued										
WT2529659-001	S-1	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2290753)										
WT2529659-002	S-4	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 2285669)										
HA2504515-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0948 mg/L	0.1 mg/L	94.8	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0491 mg/L	0.05 mg/L	98.2	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00502 mg/L	0.005 mg/L	100	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0120 mg/L	0.012 mg/L	96.4	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0121 mg/L	0.012 mg/L	96.9	70.0	130	----
		Copper, total	7440-50-8	E420	0.0122 mg/L	0.012 mg/L	97.6	70.0	130	----
		Iron, total	7439-89-6	E420	0.048 mg/L	0.05 mg/L	96.7	70.0	130	----
		Lead, total	7439-92-1	E420	0.0241 mg/L	0.025 mg/L	96.6	70.0	130	----
		Magnesium, total	7439-95-4	E420	2.43 mg/L	2.5 mg/L	97.2	70.0	130	----
		Manganese, total	7439-96-5	E420	0.0120 mg/L	0.012 mg/L	96.1	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0241 mg/L	0.025 mg/L	96.5	70.0	130	----
		Potassium, total	7440-09-7	E420	2.39 mg/L	2.5 mg/L	95.7	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0503 mg/L	0.05 mg/L	100	70.0	130	----
		Silver, total	7440-22-4	E420	0.00463 mg/L	0.005 mg/L	92.5	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	0.0238 mg/L	0.025 mg/L	95.4	70.0	130	----
Dissolved Metals (QCLot: 2286922)										
WT2529659-002	S-4	Aluminum, dissolved	7429-90-5	E421	0.0984 mg/L	0.1 mg/L	98.4	70.0	130	----
		Barium, dissolved	7440-39-3	E421	ND mg/L	----	ND	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.00489 mg/L	0.005 mg/L	97.9	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.0122 mg/L	0.012 mg/L	98.0	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.0119 mg/L	0.012 mg/L	95.4	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.0113 mg/L	0.012 mg/L	90.3	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.046 mg/L	0.05 mg/L	92.1	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.0231 mg/L	0.025 mg/L	92.5	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	ND mg/L	----	ND	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.0230 mg/L	0.025 mg/L	92.0	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	ND mg/L	----	ND	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.0581 mg/L	0.05 mg/L	116	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.00364 mg/L	0.005 mg/L	72.7	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.0237 mg/L	0.025 mg/L	95.0	70.0	130	----
Aggregate Organics (QCLot: 2284115)										
TY2511667-001	Anonymous	Phenols, total (4AAP)	----	E562	0.0203 mg/L	0.02 mg/L	102	75.0	125	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Aggregate Organics (QCLot: 2288441)										
WT2529659-001	S-1	Chemical oxygen demand [COD]	----	E559-L	108 mg/L	100 mg/L	108	75.0	125	----

B-768 N-330
OG-025 BM
MM-582

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 1 of 2

ALS www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Environmental Division
Waterloo
Work Order Reference
WT2529659

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients	
Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA	☐ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca
Email 3	HCURRY@orillia.ca

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca

Turnaround Time (TAT) Requested

- ☑ Routine [R] if received by 3pm M-F - no surcharges apply
- ☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
- ☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
- ☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
- ☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
- ☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the TA

Analysis Reque

Project Information	
ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only): WT2529659 BM

ALS Contact: KSINGH Sampler: Ian Acheson

Indicate Filtered (F), Preserved (P) or Filtered and Pr

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals)	Major Ions Package(Total Metals)	Dissolved Metals: Trace List F/P	Total Metals: Trace List P	Dissolved Orthophosphate F/P	Total Phosphorus P	BTEX P	VOCs P	Arsenic	SAMPLES ON HOLD	EXTENDED STORAGE REQUI	SUSPECTED HAZARD (see no
	S-1	15-Oct-25	14:40	Surface Water	7	R	R	R	R	R	R						
	S-4	16-Oct-25	14:00	Surface Water	7	R	R	R	R	R	R						
	S-6	15-Oct-25	11:15	Surface Water	7	R	R	R	R	R	R						
	S-7	15-Oct-25	12:15	Surface Water	7	R	R	R	R	R	R						
	S-2	16-Oct-25	14:15	Surface Water	7	R	R	R	R	R	R			R			
	S-3	16-Oct-25	14:30	Surface Water	7	R	R	R	R	R	R						
	S-11	16-Oct-25	11:35	Surface Water	7	R	R	R	R	R	R						
	DUP 2	14-Oct-25	14:15	Ground Water	7	R	R	R	R	R	R						
	DUP 3	15-Oct-25	12:15	Surface Water	7	R	R	R	R	R	R						
	S-8	15-Oct-25	11:35	Surface Water	7	R	R	R	R	R	R						
	BH2-III	14-Oct-25	15:05	Ground Water	7	R	R	R	R	R	R						
	BH4-II	14-Oct-25	10:45	Ground Water	7	R	R	R	R	R	R						

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☒ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				4.9	8.6	5.4	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: I.Acheson	Date: 16Oct25	Time: 15:00	Received by:	Date:	Time:	Received by: VW-P	Date: 17 Oct 25	Time: 9:00

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Project Information	
ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

ALS Lab Work Order # (lab use only):

Reports / Recipients	
Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA	☐ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca
Email 3	HCURRY@orillia.ca

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	IAcheson@orillia.ca
Email 2	zgorbell@orillia.ca

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Contact: KSINGH **Sampler:** Ian Acheson

Turnaround Time (TAT) Requested

- ☑ Routine [R] if received by 3pm M-F - no surcharges apply
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- ☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
- ☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For tests that can not be performed according to the TAT requested, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals)	Major Ions Package(Total Metals)	Dissolved Metals: Trace List F/P	Total Metals: Trace List P	Dissolved Orthophosphate F/P	Total Phosphorus P	BTEX P	VOCs P	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH14-IIIR	14-Oct-25	14:15	Ground Water	7	R	R	R	R	R	R					

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☑ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				4.9	8.6	5.4	

SHIPMENT RELEASE (client use)		
Released by: I.Acheson	Date: 16Oct25	Time: 15:00

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)		
Received by: VW - P	Date: 17/Oct/25	Time: 9:00

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

CERTIFICATE OF ANALYSIS

Work Order	:	**WT2530426**		
Client	:	**City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	:	Ian Acheson	Account Manager	: Karanpartap Singh
Address	:	50 Andrew St. S. Suite 300 Orillia Ontario Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	:	----	E-mail	: karanpartap.singh@alsglobal.com
Project	:	WASTE DIVERSION SITE	Telephone	: 19055076910
PO	:	86912	Date Samples Received	: 24-Oct-2025 09:00
C-O-C number	:	----	Date Analysis Commenced	: 24-Oct-2025
Sampler	:	Ian Acheson	Issue Date	: 03-Nov-2025 21:45
Site	:	----		
Quote number	:	Waste Diversion Site		
No. of samples received	:	13		
No. of samples analysed	:	13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett	VOC Section Supervisor	VOC, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Centralized Prep, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Centralized Prep, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
%	percent
meq/L	milliequivalents per litre
mg/L	milligrams per litre
pH units	pH units
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
BODL	Limit of Reporting for BOD was increased to account for the largest volume of sample tested.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTSE	Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.
SP	Sample was preserved at the laboratory.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	DUP 5 ----	BH20R ----	BH16-I ----
					Client sampling date / time	22-Oct-2025 10:30	22-Oct-2025 10:45	20-Oct-2025 15:15	22-Oct-2025 11:30	20-Oct-2025 14:00
						WT2530426-001	WT2530426-002	WT2530426-003	WT2530426-004	WT2530426-005
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		598	2140	498	1990	590
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<10.0 DLM	<2.0	<10.0 DLM	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<10.0 DLM	<2.0	<10.0 DLM	<2.0
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		598	2140	498	1990	590
Conductivity	----	E100/WT	2.0	µS/cm		1430	5460	1210	3640	1590
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		720	802	406	1310	673
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		710	908	780	1470	714
pH	----	E108/WT	0.10	pH units		7.61	7.39	7.73	7.31	7.82
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.503	298	1.25	95.2	0.0705
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		142 DLDS	572 DLDS	97.1 DLDS	256 DLDS	174 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.168 DLDS	0.350 DLDS	<0.100 DLDS	0.221 DLDS	<0.100 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		1.28	306	17.3	113	0.552
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.200 DLDS	<0.100 DLDS	<0.200 DLDS	<0.100 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.100 DLDS	<0.050 DLDS	<0.100 DLDS	<0.050 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		0.777	<63.9	16.0	<22.5	0.482
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		----	<0.0010	----	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.0446	0.547	1.97	0.595	0.0443
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		<1.50 DLDS	<3.00 DLDS	<1.50 DLDS	<3.00 DLDS	<1.50 DLDS

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	DUP 5 ----	BH20R ----	BH16-I ----
					Client sampling date / time	22-Oct-2025 10:30	22-Oct-2025 10:45	20-Oct-2025 15:15	22-Oct-2025 11:30	20-Oct-2025 14:00
						WT2530426-001	WT2530426-002	WT2530426-003	WT2530426-004	WT2530426-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		128	433	105	106	123
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		14.7	151	39.4	69.7	9.95
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		16.0	58.9	12.7	47.0	16.7
Anion sum	----	EC101/WT	0.10	meq/L		16.0	58.9	12.7	47.0	16.7
Cation sum	----	EC101/WT	0.10	meq/L		19.2	60.3	12.8	47.0	18.2
Cation sum (total)	----	EC101A/WT	0.10	meq/L		18.4	63.5	29.6	50.8	19.2
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		115	108	233	108	115
Ion balance (APHA)	----	EC101A/WT	0.010	%		6.98	3.76	40.0	3.89	6.96
Ion balance (cations/anions)	----	EC101/WT	0.010	%		120	102	101	100	109
Ion balance (APHA)	----	EC101/WT	0.01	%		9.09	1.17	0.39	0.0	4.30
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		0.112 DLHC	1.11 DLHC	59.3 DLHC	0.0420 DLHC	0.190
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.537 DLHC	0.601 DLHC	1.06 DLHC	0.635 DLHC	0.684
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		<0.0000500 DLHC	0.000163 DLHC	0.00103 DLHC	<0.0000500 DLHC	0.0000057
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		192 DLHC	154 DLHC	237 DLHC	338 DLHC	191
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00500 DLHC	0.0136 DLHC	0.0704 DLHC	0.00574 DLHC	0.00055
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		0.00225 DLHC	0.0165 DLHC	0.0294 DLHC	0.00528 DLHC	0.00026
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		<0.00500 DLHC	0.00534 DLHC	0.0822 DLHC	<0.00500 DLHC	<0.00050
Iron, total	7439-89-6	E420/WT	0.010	mg/L		12.3 DLHC	29.6 DLHC	62.7 DLHC	57.7 DLHC	9.23
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		<0.000500 DLHC	0.00732 DLHC	0.0389 DLHC	0.00309 DLHC	0.000149

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	DUP 5 ----	BH20R ----	BH16-I ----
					Client sampling date / time	22-Oct-2025 10:30	22-Oct-2025 10:45	20-Oct-2025 15:15	22-Oct-2025 11:30	20-Oct-2025 14:00
						WT2530426-001	WT2530426-002	WT2530426-003	WT2530426-004	WT2530426-005
						Result	Result	Result	Result	Result
Total Metals										
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		56.1 DLHC	127 DLHC	45.6 DLHC	151 DLHC	57.5
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.823 DLHC	0.376 DLHC	0.935 DLHC	1.32 DLHC	0.0930
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		0.00569 DLHC	0.0713 DLHC	0.0567 DLHC	0.0187 DLHC	0.00252
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		2.31 DLHC	164 DLHC	91.6 DLHC	94.7 DLHC	3.01
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	0.000709 DLHC	0.00248 DLHC	<0.000500 DLHC	<0.000050
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	<0.000100 DLHC	0.000192 DLHC	<0.000100 DLHC	<0.000010
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		83.2 DLHC	430 DLHC	61.2 DLHC	233 DLHC	103
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0300 DLHC	0.0313 DLHC	0.293 DLHC	<0.0300 DLHC	<0.0030
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		<0.0010	0.0323 DLHC	0.0640 DLHC	0.0165 DLHC	<0.0010
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.505	0.613 DLHC	0.278 DLHC	0.647 DLHC	0.679
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000050	<0.0000500 DLHC	<0.0000500 DLHC	<0.0000500 DLHC	<0.0000050
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		193	125 DLHC	126 DLHC	297 DLHC	177
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00050	0.0101 DLHC	<0.00500 DLHC	<0.00500 DLHC	<0.00050
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00200	0.0163 DLHC	<0.00100 DLHC	0.00539 DLHC	0.00012
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00020	<0.00200 DLHC	<0.00200 DLHC	<0.00200 DLHC	<0.00020
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		12.1	26.9 DLHC	1.09 DLHC	53.4 DLHC	8.87
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000050	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC	<0.000050
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		57.7	119 DLHC	22.1 DLHC	139 DLHC	56.0
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.978	0.304 DLHC	0.197 DLHC	1.24 DLHC	0.0697
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		0.00550	0.0677 DLHC	<0.00500 DLHC	0.0158 DLHC	0.00217

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	DUP 5 ----	BH20R ----	BH16-I ----
					Client sampling date / time	22-Oct-2025 10:30	22-Oct-2025 10:45	20-Oct-2025 15:15	22-Oct-2025 11:30	20-Oct-2025 14:00
						WT2530426-001	WT2530426-002	WT2530426-003	WT2530426-004	WT2530426-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		2.73	157 DLHC	72.5 DLHC	88.9 DLHC	3.20
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		0.00131 DTSE	0.000757 DLHC	0.000694 DLHC	<0.000500 DLHC	0.000074
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000010	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC	<0.000010
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L		96.7	415 DLHC	61.9 DLHC	223 DLHC	101
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L		<0.0010	<0.0100 DLHC	<0.0100 DLHC	<0.0100 DLHC	<0.0010
Dissolved metals filtration location	----	EP421/WT	-	-		Field	Field	Field	Field	Field
Aggregate Organics										
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L		5.3	32.1	<3.0 BODL	14.1	<3.0 BODL
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L		50	535	468	239	32
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L		0.0021	0.0147	0.0012	0.0145	0.0016
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L		<0.50	5.18	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L		<0.50	5.23	----	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	DUP 5 ----	BH20R ----	BH16-I ----
					Client sampling date / time	22-Oct-2025 10:30	22-Oct-2025 10:45	20-Oct-2025 15:15	22-Oct-2025 11:30	20-Oct-2025 14:00
						WT2530426-001	WT2530426-002	WT2530426-003	WT2530426-004	WT2530426-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Chloromethane	74-87-3	E611D/WT	2.0	µg/L		<2.0	<2.0	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L		<0.50	1.08	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L		<0.71	<0.71	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		<20	<20	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	DUP 5 ----	BH20R ----	BH16-I ----
					Client sampling date / time	22-Oct-2025 10:30	22-Oct-2025 10:45	20-Oct-2025 15:15	22-Oct-2025 11:30	20-Oct-2025 14:00
						WT2530426-001	WT2530426-002	WT2530426-003	WT2530426-004	WT2530426-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		<20	<20	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		<0.50	1.11	----	----	----
Styrene	100-42-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		<0.20	<0.20	----	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		<0.40	1.25	----	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		<0.30	0.43	----	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		<0.50	1.68	----	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		<1.0	6.9	----	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		----	----	<0.50	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH3-IR ----	BH3-IIR ----	DUP 5 ----	BH20R ----	BH16-I ----
					Client sampling date / time	22-Oct-2025 10:30	22-Oct-2025 10:45	20-Oct-2025 15:15	22-Oct-2025 11:30	20-Oct-2025 14:00
						WT2530426-001	WT2530426-002	WT2530426-003	WT2530426-004	WT2530426-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds [Fuels]										
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		----	----	<0.40	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		----	----	<0.30	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		----	----	<0.50	----	----
BTEX, total	----	E611A/WT	1.0	µg/L		----	----	<1.0	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		----	----	88.8	----	----
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		104	103	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		----	----	98.9	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		101	100	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH11R ----	DUP 4 ----	BH5-IR ----	BH5-IIIR ----	BH8R ----
					Client sampling date / time	20-Oct-2025 11:45	20-Oct-2025 11:45	20-Oct-2025 15:45	20-Oct-2025 15:15	20-Oct-2025 11:25
						WT2530426-006	WT2530426-007	WT2530426-008	WT2530426-009	WT2530426-010
						Result	Result	Result	Result	Result
Sample Preparation										
Dissolved carbon filtration location	----	EP358/WT	-	-		field	field	field	field	field
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L		360	356	1730	493	1390

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH11R ----	DUP 4 ----	BH5-IR ----	BH5-IIIR ----	BH8R ----
					Client sampling date / time	20-Oct-2025 11:45	20-Oct-2025 11:45	20-Oct-2025 15:45	20-Oct-2025 15:15	20-Oct-2025 11:25
						WT2530426-006	WT2530426-007	WT2530426-008	WT2530426-009	WT2530426-010
						Result	Result	Result	Result	Result
Physical Tests										
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<10.0 DLM	<2.0	<10.0 DLM
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L		<2.0	<2.0	<10.0 DLM	<2.0	<10.0 DLM
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L		360	356	1730	493	1390
Conductivity	----	E100/WT	2.0	µS/cm		1490	1500	1230	1200	2750
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L		484	476	502	420	1100
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L		527	523	4630	655	1110
pH	----	E108/WT	0.10	pH units		7.15	7.07	7.53	7.93	7.52
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L		0.119	0.107	0.101	1.25	55.4
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L		149 DLDS	152 DLDS	125 DLDS	101 DLDS	147 DLDS
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L		0.112 DLDS	0.112 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L		1.89	1.90	1.53	18.7	55.9
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L		<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	<0.100 DLDS	7.15 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L		<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	<0.050 DLDS	0.190 DLDS
Nitrogen, total organic	----	EC363/WT	0.050	mg/L		1.77	1.79	1.43	17.4	<11.7
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L		----	----	0.0018	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L		0.162	15.1	8.33	0.0197	0.288
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L		183 DLDS	204 DLDS	18.3 DLDS	<1.50 DLDS	6.27 DLDS
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		76.9	76.9	94.2	102	266
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		27.3	26.9	4.94	37.9	49.7

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH11R ----	DUP 4 ----	BH5-IR ----	BH5-IIIR ----	BH8R ----
					Client sampling date / time: 20-Oct-2025 11:45	20-Oct-2025 11:45	20-Oct-2025 15:45	20-Oct-2025 15:15	20-Oct-2025 11:25
					WT2530426-006	WT2530426-007	WT2530426-008	WT2530426-009	WT2530426-010
					Result	Result	Result	Result	Result
Ion Balance									
Anion sum	----	EC101A/WT	0.10	meq/L	15.2	15.7	38.5	12.7	32.6
Anion sum	----	EC101/WT	0.10	meq/L	15.2	15.7	38.5	12.7	32.6
Cation sum	----	EC101/WT	0.10	meq/L	15.7	15.5	13.6	13.1	35.6
Cation sum (total)	----	EC101A/WT	0.10	meq/L	16.8	16.6	109	26.3	35.7
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	111	106	283	207	110
Ion balance (APHA)	----	EC101A/WT	0.010	%	5.00	2.79	47.8	34.9	4.54
Ion balance (cations/anions)	----	EC101/WT	0.010	%	103	98.7	35.3	103	109
Ion balance (APHA)	----	EC101/WT	0.01	%	1.62	-0.64	-47.8	1.55	4.40
Total Metals									
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	3.40	3.27	74.6 DLHC	56.2 DLHC	0.454 DLHC
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.328	0.323	6.98 DLHC	0.968 DLHC	0.592 DLHC
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.000196	0.000199	0.000581 DLHC	0.000669 DLHC	0.0000950 DLHC
Calcium, total	7440-70-2	E420/WT	0.050	mg/L	145	145	1420 DLHC	193 DLHC	290 DLHC
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	0.00557	0.00528	0.116 DLHC	0.0691 DLHC	<0.00500 DLHC
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	0.00903	0.00881	0.0630 DLHC	0.0268 DLHC	0.00374 DLHC
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	0.0221	0.0215	0.172 DLHC	0.0587 DLHC	0.00657 DLHC
Iron, total	7439-89-6	E420/WT	0.010	mg/L	4.52	4.33	114 DLHC	60.1 DLHC	3.33 DLHC
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.00256	0.00255	0.0420 DLHC	0.0281 DLHC	0.00132 DLHC
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	40.0	39.1	264 DLHC	42.1 DLHC	93.5 DLHC
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	0.208	0.204	5.96 DLHC	0.793 DLHC	0.537 DLHC
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	0.0125	0.0121	0.122 DLHC	0.0517 DLHC	0.0145 DLHC

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH11R ----	DUP 4 ----	BH5-IR ----	BH5-IIIR ----	BH8R ----
					Client sampling date / time	20-Oct-2025 11:45	20-Oct-2025 11:45	20-Oct-2025 15:45	20-Oct-2025 15:15	20-Oct-2025 11:25
						WT2530426-006	WT2530426-007	WT2530426-008	WT2530426-009	WT2530426-010
						Result	Result	Result	Result	Result
Total Metals										
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		26.3	25.8	24.9 DLHC	82.3 DLHC	60.9 DLHC
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		0.000364	0.000313	<0.000500 DLHC	0.00140 DLHC	<0.000500 DLHC
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		0.000031	0.000034	0.000340 DLHC	0.000180 DLHC	<0.000100 DLHC
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		117	115	83.4 DLHC	58.7 DLHC	180 DLHC
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		0.0274	0.0261	0.327 DLHC	0.275 DLHC	<0.0300 DLHC
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		0.0451	0.0427	<0.0100 DLHC	0.0558 DLHC	0.0109 DLHC
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.244	0.254	3.48 DLHC	0.284 DLHC	0.666 DLHC
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		0.0000306	0.0000328	<0.0000500 DLHC	<0.0000500 DLHC	<0.0000500 DLHC
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		131	129	139 DLHC	131 DLHC	284 DLHC
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		0.00063	0.00063	<0.00500 DLHC	<0.00500 DLHC	<0.00500 DLHC
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		0.00278	0.00274	<0.00100 DLHC	<0.00100 DLHC	0.00405 DLHC
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		0.00252	0.00245	<0.00200 DLHC	<0.00200 DLHC	0.00224 DLHC
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		1.76	1.77	2.80 DLHC	1.11 DLHC	1.01 DLHC
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		0.000069	0.000070	<0.000500 DLHC	<0.000500 DLHC	<0.000500 DLHC
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		38.1	37.4	37.5 DLHC	22.6 DLHC	94.7 DLHC
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.276	0.272	0.221 DLHC	0.205 DLHC	0.496 DLHC
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		0.00632	0.00625	<0.00500 DLHC	<0.00500 DLHC	0.0141 DLHC
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L		24.9	24.1	2.18 DLHC	75.4 DLHC	58.4 DLHC
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L		0.000360	0.000333	<0.000500 DLHC	0.000582 DLHC	<0.000500 DLHC
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L		<0.000010	<0.000010	<0.000100 DLHC	<0.000100 DLHC	<0.000100 DLHC

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Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH11R ----	DUP 4 ----	BH5-IR ----	BH5-IIIR ----	BH8R ----
					Client sampling date / time: 20-Oct-2025 11:45	20-Oct-2025 11:45	20-Oct-2025 15:45	20-Oct-2025 15:15	20-Oct-2025 11:25
					WT2530426-006	WT2530426-007	WT2530426-008	WT2530426-009	WT2530426-010
					Result	Result	Result	Result	Result
Dissolved Metals									
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	123	121	78.0 DLHC	61.6 DLHC	187 DLHC
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	0.0046	0.0046	<0.0100 DLHC	<0.0100 DLHC	0.0172 DLHC
Dissolved metals filtration location	----	EP421/WT	-	-	Field	Field	Field	Field	Field
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	<3.0 BODL	<3.0 BODL	<3.0 BODL	<3.0 BODL	6.1
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	87	80	62	426	188
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0020	0.0013	0.0039 SP	0.0019	0.0054
Volatile Organic Compounds [Fuels]									
Benzene	71-43-2	E611A/WT	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----
Styrene	100-42-5	E611A/WT	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----
Toluene	108-88-3	E611A/WT	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L	<0.40	<0.40	<0.40	<0.40	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L	<0.30	<0.30	<0.30	<0.30	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L	<0.50	<0.50	<0.50	<0.50	----
BTEX, total	----	E611A/WT	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	----
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%	89.5	88.4	89.8	86.1	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%	99.1	98.5	98.9	98.5	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH10R ----	FIELD BLANK ----	TRIP BLANK ----	----	----
					Client sampling date / time: 20-Oct-2025 10:45	22-Oct-2025 11:00	22-Oct-2025 12:00	----	----
					WT2530426-011	WT2530426-012	WT2530426-013	----	----
					Result	Result	Result	----	----
Sample Preparation									
Dissolved carbon filtration location	----	EP358/WT	-	-	field	----	----	----	----
Physical Tests									
Alkalinity, bicarbonate (as CaCO3)	----	E290/WT	2.0	mg/L	401	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/WT	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/WT	2.0	mg/L	401	----	----	----	----
Conductivity	----	E100/WT	2.0	µS/cm	1290	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/WT	0.50	mg/L	485	----	----	----	----
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L	516	----	----	----	----
pH	----	E108/WT	0.10	pH units	7.48	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	0.326	----	----	----	----
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	120 DLDS	----	----	----	----
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	<0.100 DLDS	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/WT	0.050	mg/L	2.44	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	<0.100 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.050 DLDS	----	----	----	----
Nitrogen, total organic	----	EC363/WT	0.050	mg/L	2.11	----	----	----	----
Phosphorus, total	7723-14-0	E372-U/WT	0.0020	mg/L	0.310	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	103 DLDS	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

					Client sample ID	BH10R ----	FIELD BLANK ----	TRIP BLANK ----	----	----
					Client sampling date / time	20-Oct-2025 10:45	22-Oct-2025 11:00	22-Oct-2025 12:00	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		WT2530426-011	WT2530426-012	WT2530426-013	----	----
						Result	Result	Result	----	----
Organic / Inorganic Carbon										
Carbon, dissolved inorganic [DIC]	----	E353-L/WP	0.50	mg/L		87.0	----	----	----	----
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		20.6	----	----	----	----
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L		13.5	----	----	----	----
Anion sum	----	EC101/WT	0.10	meq/L		13.5	----	----	----	----
Cation sum	----	EC101/WT	0.10	meq/L		13.8	----	----	----	----
Cation sum (total)	----	EC101A/WT	0.10	meq/L		14.8	----	----	----	----
Ion balance (cations/anions)	----	EC101A/WT	0.01	%		110	----	----	----	----
Ion balance (APHA)	----	EC101A/WT	0.010	%		4.59	----	----	----	----
Ion balance (cations/anions)	----	EC101/WT	0.010	%		102	----	----	----	----
Ion balance (APHA)	----	EC101/WT	0.01	%		1.10	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L		1.76 DLHC	----	----	----	----
Barium, total	7440-39-3	E420/WT	0.00010	mg/L		0.184 DLHC	----	----	----	----
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L		0.0000660 DLHC	----	----	----	----
Calcium, total	7440-70-2	E420/WT	0.050	mg/L		133 DLHC	----	----	----	----
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L		<0.00500 DLHC	----	----	----	----
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L		<0.00100 DLHC	----	----	----	----
Copper, total	7440-50-8	E420/WT	0.00050	mg/L		<0.00500 DLHC	----	----	----	----
Iron, total	7439-89-6	E420/WT	0.010	mg/L		3.08 DLHC	----	----	----	----
Lead, total	7439-92-1	E420/WT	0.000050	mg/L		0.00108 DLHC	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH10R ----	FIELD BLANK ----	TRIP BLANK ----	----	----
					Client sampling date / time	20-Oct-2025 10:45	22-Oct-2025 11:00	22-Oct-2025 12:00	----	----
						WT2530426-011	WT2530426-012	WT2530426-013	----	----
						Result	Result	Result	----	----
Total Metals										
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L		44.6 DLHC	----	----	----	----
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L		0.117 DLHC	----	----	----	----
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L		<0.00500 DLHC	----	----	----	----
Potassium, total	7440-09-7	E420/WT	0.050	mg/L		21.0 DLHC	----	----	----	----
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L		<0.000500 DLHC	----	----	----	----
Silver, total	7440-22-4	E420/WT	0.000010	mg/L		<0.000100 DLHC	----	----	----	----
Sodium, total	7440-23-5	E420/WT	0.050	mg/L		82.2 DLHC	----	----	----	----
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L		<0.0300 DLHC	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/WT	0.0010	mg/L		<0.0100 DLHC	----	----	----	----
Barium, dissolved	7440-39-3	E421/WT	0.00010	mg/L		0.181 DLHC	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/WT	0.0000050	mg/L		<0.0000500 DLHC	----	----	----	----
Calcium, dissolved	7440-70-2	E421/WT	0.050	mg/L		124 DLHC	----	----	----	----
Chromium, dissolved	7440-47-3	E421/WT	0.00050	mg/L		<0.00500 DLHC	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/WT	0.00010	mg/L		<0.00100 DLHC	----	----	----	----
Copper, dissolved	7440-50-8	E421/WT	0.00020	mg/L		<0.00200 DLHC	----	----	----	----
Iron, dissolved	7439-89-6	E421/WT	0.010	mg/L		0.159 DLHC	----	----	----	----
Lead, dissolved	7439-92-1	E421/WT	0.000050	mg/L		<0.000500 DLHC	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/WT	0.0050	mg/L		42.5 DLHC	----	----	----	----
Manganese, dissolved	7439-96-5	E421/WT	0.00010	mg/L		0.122 DLHC	----	----	----	----
Nickel, dissolved	7440-02-0	E421/WT	0.00050	mg/L		<0.00500 DLHC	----	----	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH10R ----	FIELD BLANK ----	TRIP BLANK ----	----	----
					Client sampling date / time: 20-Oct-2025 10:45	22-Oct-2025 11:00	22-Oct-2025 12:00	----	----
					WT2530426-011	WT2530426-012	WT2530426-013	----	----
					Result	Result	Result	----	----
Dissolved Metals									
Potassium, dissolved	7440-09-7	E421/WT	0.050	mg/L	21.1 DLHC	----	----	----	----
Selenium, dissolved	7782-49-2	E421/WT	0.000050	mg/L	<0.000500 DLHC	----	----	----	----
Silver, dissolved	7440-22-4	E421/WT	0.000010	mg/L	<0.000100 DLHC	----	----	----	----
Sodium, dissolved	7440-23-5	E421/WT	0.050	mg/L	81.3 DLHC	----	----	----	----
Zinc, dissolved	7440-66-6	E421/WT	0.0010	mg/L	<0.0100 DLHC	----	----	----	----
Dissolved metals filtration location	----	EP421/WT	-	-	Field	----	----	----	----
Aggregate Organics									
Biochemical oxygen demand [BOD]	----	E550/WT	2.0	mg/L	<3.0 BODL	----	----	----	----
Chemical oxygen demand [COD]	----	E559-L/WT	10	mg/L	81	----	----	----	----
Phenols, total (4AAP)	----	E562/WT	0.0010	mg/L	0.0012	----	----	----	----
Volatile Organic Compounds									
Acetone	67-64-1	E611D/WT	20	µg/L	----	<20	<20	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L	----	<0.50	<0.50	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L	----	<0.50	<0.50	----	----
Bromoform	75-25-2	E611D/WT	0.50	µg/L	----	<0.50	<0.50	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L	----	<0.50	<0.50	----	----
Carbon disulfide	75-15-0	E611D/WT	1.0	µg/L	----	<1.0	<1.0	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L	----	<0.20	<0.20	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L	----	<0.50	<0.50	----	----
Chloroethane	75-00-3	E611D/WT	0.50	µg/L	----	<0.50	<0.50	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L	----	<0.50	<0.50	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH10R ----	FIELD BLANK ----	TRIP BLANK ----	----	----
					Client sampling date / time	20-Oct-2025 10:45	22-Oct-2025 11:00	22-Oct-2025 12:00	----	----
						WT2530426-011	WT2530426-012	WT2530426-013	----	----
						Result	Result	Result	----	----
Volatile Organic Compounds										
Chloromethane	74-87-3	E611D/WT	2.0	µg/L		----	<2.0	<2.0	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L		----	<0.20	<0.20	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichloroethylene, cis+trans-1,2-	540-59-0	E611D/WT	0.71	µg/L		----	<0.71	<0.71	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		----	<1.0	<1.0	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		----	<0.30	<0.30	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		----	<0.30	<0.30	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Hexanone, 2-	591-78-6	E611D/WT	20	µg/L		----	<20	<20	----	----

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	BH10R ----	FIELD BLANK ----	TRIP BLANK ----	----	----
					Client sampling date / time	20-Oct-2025 10:45	22-Oct-2025 11:00	22-Oct-2025 12:00	----	----
						WT2530426-011	WT2530426-012	WT2530426-013	----	----
						Result	Result	Result	----	----
Volatile Organic Compounds										
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		----	<20	<20	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		----	<20	<20	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Styrene	100-42-5	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
Vinyl chloride	75-01-4	E611D/WT	0.20	µg/L		----	<0.20	<0.20	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		----	<0.40	<0.40	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		----	<0.30	<0.30	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		----	<0.50	<0.50	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		----	<1.0	<1.0	----	----
Trihalomethanes [THMs], total	----	E611D/WT	1.0	µg/L		----	<1.0	<1.0	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		----	101	96.1	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		----	100	98.3	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2530426**	Page	: 1 of 34
Client	: **City of Orillia**	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 24-Oct-2025 09:00
PO	: 86912	Issue Date	: 03-Nov-2025 21:43
C-O-C number	: ----		
Sampler	: Ian Acheson		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Duplicate outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Physical Tests	QC-MRG2-2297037001	----	Conductivity	----	E100	2.2 µS/cm B	2 µS/cm	Blank result exceeds permitted value
Total Metals	QC-2300574-001	----	Chromium, total	7440-47-3	E420	0.00072 mg/L B	0.0005 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Duplicate (DUP) RPDs								
Total Metals	Anonymous	Anonymous	Aluminum, total	7429-90-5	E420	85.9 % DUP-H	20%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

Qualifier	Description
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH16-I	E550	20-Oct-2025	----	----	----		24-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH20R	E550	22-Oct-2025	----	----	----		25-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH3-IIR	E550	22-Oct-2025	----	----	----		25-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH3-IR	E550	22-Oct-2025	----	----	----		25-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH5-IIIR	E550	20-Oct-2025	----	----	----		24-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH5-IR	E550	20-Oct-2025	----	----	----		24-Oct-2025	4 days	3 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
DUP 5	E550	20-Oct-2025	----	----	----		24-Oct-2025	4 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH10R	E550	20-Oct-2025	----	----	----		24-Oct-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH11R	E550	20-Oct-2025	----	----	----		24-Oct-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
BH8R	E550	20-Oct-2025	----	----	----		24-Oct-2025	4 days	4 days	✓
Aggregate Organics : Biochemical Oxygen Demand - 5 day										
HDPE [BOD HT-4d]										
DUP 4	E550	20-Oct-2025	----	----	----		24-Oct-2025	4 days	4 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E559-L	22-Oct-2025	----	----	----		28-Oct-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E559-L	22-Oct-2025	----	----	----		28-Oct-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E559-L	22-Oct-2025	----	----	----		28-Oct-2025	28 days	6 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E559-L	20-Oct-2025	----	----	----		28-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E559-L	20-Oct-2025	----	----	----		28-Oct-2025	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E559-L	20-Oct-2025	----	----	----		28-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IIIR	E559-L	20-Oct-2025	----	----	----		28-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E559-L	20-Oct-2025	----	----	----		28-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH8R	E559-L	20-Oct-2025	----	----	----		28-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 4	E559-L	20-Oct-2025	----	----	----		28-Oct-2025	28 days	8 days	✓
Aggregate Organics : Chemical Oxygen Demand by Colourimetry (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 5	E559-L	20-Oct-2025	----	----	----		28-Oct-2025	28 days	8 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E562	22-Oct-2025	29-Oct-2025	28 days	7 days	✓	29-Oct-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E562	22-Oct-2025	29-Oct-2025	28 days	7 days	✓	29-Oct-2025	28 days	7 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E562	22-Oct-2025	29-Oct-2025	28 days	7 days	✓	29-Oct-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E562	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	29-Oct-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E562	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	29-Oct-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E562	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	29-Oct-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IIIR	E562	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	29-Oct-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E562	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	29-Oct-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
BH8R	E562	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	29-Oct-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 4	E562	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	29-Oct-2025	28 days	9 days	✓
Aggregate Organics : Phenols (4AAP) in Water by Colorimetry										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 5	E562	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	29-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E298	22-Oct-2025	29-Oct-2025	28 days	7 days	✓	30-Oct-2025	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH3-IIR	E298	22-Oct-2025	29-Oct-2025	28 days	7 days	✓	30-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH3-IR	E298	22-Oct-2025	29-Oct-2025	28 days	7 days	✓	30-Oct-2025	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH10R	E298	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	30-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH11R	E298	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	30-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH16-I	E298	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	30-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH5-IIIR	E298	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	30-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH5-IR	E298	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	30-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] BH8R	E298	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	30-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] DUP 4	E298	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	30-Oct-2025	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] DUP 5	E298	20-Oct-2025	29-Oct-2025	28 days	9 days	✓	30-Oct-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH20R	E235.Cl	22-Oct-2025	24-Oct-2025	28 days	2 days	✓	24-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH3-IIR	E235.Cl	22-Oct-2025	24-Oct-2025	28 days	2 days	✓	24-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH3-IR	E235.Cl	22-Oct-2025	24-Oct-2025	28 days	2 days	✓	24-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH10R	E235.Cl	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH11R	E235.Cl	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH16-I	E235.Cl	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH5-IIIR	E235.Cl	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP] BH5-IR	E235.Cl	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
BH8R	E235.Cl	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
DUP 4	E235.Cl	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
DUP 5	E235.Cl	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH3-IIR	E378-U	22-Oct-2025	25-Oct-2025	7 days	3 days	✓	27-Oct-2025	7 days	3 days	✓
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)										
HDPE [ON MECP]										
BH5-IR	E378-U	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	27-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH20R	E235.F	22-Oct-2025	24-Oct-2025	28 days	2 days	✓	24-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH3-IIR	E235.F	22-Oct-2025	24-Oct-2025	28 days	2 days	✓	24-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.F	22-Oct-2025	24-Oct-2025	28 days	2 days	✓	24-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH10R	E235.F	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH11R	E235.F	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.F	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.F	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH5-IR	E235.F	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH8R	E235.F	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
DUP 4	E235.F	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
DUP 5	E235.F	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH20R	E235.NO3	22-Oct-2025	24-Oct-2025	7 days	2 days	✓	24-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH3-IIR	E235.NO3	22-Oct-2025	24-Oct-2025	7 days	2 days	✓	24-Oct-2025	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.NO3	22-Oct-2025	24-Oct-2025	7 days	2 days	✓	24-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH10R	E235.NO3	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH11R	E235.NO3	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.NO3	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.NO3	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH5-IR	E235.NO3	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH8R	E235.NO3	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
DUP 4	E235.NO3	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
DUP 5	E235.NO3	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH20R	E235.NO2	22-Oct-2025	24-Oct-2025	7 days	2 days	✓	24-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH3-IIR	E235.NO2	22-Oct-2025	24-Oct-2025	7 days	2 days	✓	24-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.NO2	22-Oct-2025	24-Oct-2025	7 days	2 days	✓	24-Oct-2025	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH10R	E235.NO2	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH11R	E235.NO2	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.NO2	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.NO2	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH5-IR	E235.NO2	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH8R	E235.NO2	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
DUP 4	E235.NO2	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
DUP 5	E235.NO2	20-Oct-2025	24-Oct-2025	7 days	4 days	✓	24-Oct-2025	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH20R	E235.SO4	22-Oct-2025	24-Oct-2025	28 days	2 days	✓	24-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH3-IIR	E235.SO4	22-Oct-2025	24-Oct-2025	28 days	2 days	✓	24-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH3-IR	E235.SO4	22-Oct-2025	24-Oct-2025	28 days	2 days	✓	24-Oct-2025	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH10R	E235.SO4	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH11R	E235.SO4	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH16-I	E235.SO4	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH5-IIIR	E235.SO4	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH5-IR	E235.SO4	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] BH8R	E235.SO4	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP 4	E235.SO4	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DUP 5	E235.SO4	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH10R	E318	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	30-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH11R	E318	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	30-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH16-I	E318	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	30-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH5-IIIR	E318	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	30-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] BH5-IR	E318	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	30-Oct-2025	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH8R	E318	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	30-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 4	E318	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	30-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 5	E318	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	30-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E318	22-Oct-2025	30-Oct-2025	28 days	8 days	✓	30-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E318	22-Oct-2025	30-Oct-2025	28 days	8 days	✓	30-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E318	22-Oct-2025	30-Oct-2025	28 days	8 days	✓	30-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH10R	E372-U	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	31-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH11R	E372-U	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	31-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH16-I	E372-U	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	31-Oct-2025	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IIIR	E372-U	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	31-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH5-IR	E372-U	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	31-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH8R	E372-U	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	31-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 4	E372-U	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	31-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
DUP 5	E372-U	20-Oct-2025	30-Oct-2025	28 days	10 days	✓	31-Oct-2025	28 days	10 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH20R	E372-U	22-Oct-2025	30-Oct-2025	28 days	8 days	✓	31-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IIR	E372-U	22-Oct-2025	30-Oct-2025	28 days	8 days	✓	31-Oct-2025	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.002 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH3-IR	E372-U	22-Oct-2025	30-Oct-2025	28 days	8 days	✓	31-Oct-2025	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH20R	E421	22-Oct-2025	27-Oct-2025	180 days	5 days	✓	27-Oct-2025	180 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH3-IIR	E421	22-Oct-2025	27-Oct-2025	180 days	5 days	✓	27-Oct-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH3-IR	E421	22-Oct-2025	27-Oct-2025	180 days	5 days	✓	27-Oct-2025	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH10R	E421	20-Oct-2025	27-Oct-2025	180 days	7 days	✓	27-Oct-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH11R	E421	20-Oct-2025	27-Oct-2025	180 days	7 days	✓	27-Oct-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH16-I	E421	20-Oct-2025	27-Oct-2025	180 days	7 days	✓	27-Oct-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH5-IIIR	E421	20-Oct-2025	27-Oct-2025	180 days	7 days	✓	27-Oct-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH5-IR	E421	20-Oct-2025	27-Oct-2025	180 days	7 days	✓	27-Oct-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH8R	E421	20-Oct-2025	27-Oct-2025	180 days	7 days	✓	27-Oct-2025	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP 4	E421	20-Oct-2025	27-Oct-2025	180 days	7 days	✓	27-Oct-2025	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
DUP 5	E421	20-Oct-2025	27-Oct-2025	180 days	7 days	✓	27-Oct-2025	180 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
BH20R	E353-L	22-Oct-2025	----	----	----		27-Oct-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
BH3-IIR	E353-L	22-Oct-2025	----	----	----		27-Oct-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
BH3-IR	E353-L	22-Oct-2025	----	----	----		27-Oct-2025	14 days	5 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
BH10R	E353-L	20-Oct-2025	----	----	----		27-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
BH11R	E353-L	20-Oct-2025	----	----	----		27-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
BH16-I	E353-L	20-Oct-2025	----	----	----		27-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
BH5-IIIR	E353-L	20-Oct-2025	----	----	----		27-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
BH5-IR	E353-L	20-Oct-2025	----	----	----		27-Oct-2025	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
BH8R	E353-L	20-Oct-2025	----	----	----		27-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
DUP 4	E353-L	20-Oct-2025	----	----	----		27-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Inorganic Carbon by Combustion										
HDPE [ON MECP]										
DUP 5	E353-L	20-Oct-2025	----	----	----		27-Oct-2025	14 days	7 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH20R	E358-L	22-Oct-2025	26-Oct-2025	28 days	4 days	✓	31-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH3-IIR	E358-L	22-Oct-2025	26-Oct-2025	28 days	4 days	✓	31-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH3-IR	E358-L	22-Oct-2025	26-Oct-2025	28 days	4 days	✓	31-Oct-2025	28 days	4 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH10R	E358-L	20-Oct-2025	26-Oct-2025	28 days	6 days	✓	31-Oct-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH11R	E358-L	20-Oct-2025	26-Oct-2025	28 days	6 days	✓	31-Oct-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH16-I	E358-L	20-Oct-2025	26-Oct-2025	28 days	6 days	✓	31-Oct-2025	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH5-IIIR	E358-L	20-Oct-2025	26-Oct-2025	28 days	6 days	✓	31-Oct-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH5-IR	E358-L	20-Oct-2025	26-Oct-2025	28 days	6 days	✓	31-Oct-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
BH8R	E358-L	20-Oct-2025	26-Oct-2025	28 days	6 days	✓	31-Oct-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
DUP 4	E358-L	20-Oct-2025	26-Oct-2025	28 days	6 days	✓	31-Oct-2025	28 days	6 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
DUP 5	E358-L	20-Oct-2025	26-Oct-2025	28 days	6 days	✓	31-Oct-2025	28 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH20R	E290	22-Oct-2025	25-Oct-2025	14 days	3 days	✓	29-Oct-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH3-IIR	E290	22-Oct-2025	25-Oct-2025	14 days	3 days	✓	28-Oct-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH3-IR	E290	22-Oct-2025	25-Oct-2025	14 days	3 days	✓	29-Oct-2025	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH10R	E290	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	25-Oct-2025	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH11R	E290	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	25-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH16-I	E290	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	24-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH5-IIIR	E290	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	24-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH5-IR	E290	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	25-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH8R	E290	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	25-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP 4	E290	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	25-Oct-2025	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DUP 5	E290	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	24-Oct-2025	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH20R	E100	22-Oct-2025	25-Oct-2025	28 days	3 days	✓	29-Oct-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH3-IIR	E100	22-Oct-2025	25-Oct-2025	28 days	3 days	✓	28-Oct-2025	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH3-IR	E100	22-Oct-2025	25-Oct-2025	28 days	3 days	✓	29-Oct-2025	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH10R	E100	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	25-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH11R	E100	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	25-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH16-I	E100	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH5-IIIR	E100	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH5-IR	E100	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	25-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] BH8R	E100	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	25-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP 4	E100	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	25-Oct-2025	28 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DUP 5	E100	20-Oct-2025	24-Oct-2025	28 days	4 days	✓	24-Oct-2025	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] BH20R	E108	22-Oct-2025	25-Oct-2025	14 days	3 days	✓	29-Oct-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH3-IIR	E108	22-Oct-2025	25-Oct-2025	14 days	3 days	✓	28-Oct-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH3-IR	E108	22-Oct-2025	25-Oct-2025	14 days	3 days	✓	29-Oct-2025	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH10R	E108	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	25-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH11R	E108	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	25-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH16-I	E108	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	24-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH5-IIIR	E108	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	24-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH5-IR	E108	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	25-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] BH8R	E108	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	25-Oct-2025	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP 4	E108	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	25-Oct-2025	14 days	4 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] DUP 5	E108	20-Oct-2025	24-Oct-2025	14 days	4 days	✓	24-Oct-2025	14 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH20R	E420	22-Oct-2025	28-Oct-2025	180 days	6 days	✓	28-Oct-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH3-IIR	E420	22-Oct-2025	28-Oct-2025	180 days	6 days	✓	28-Oct-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH3-IR	E420	22-Oct-2025	28-Oct-2025	180 days	6 days	✓	28-Oct-2025	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH10R	E420	20-Oct-2025	28-Oct-2025	180 days	8 days	✓	28-Oct-2025	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH11R	E420	20-Oct-2025	28-Oct-2025	180 days	8 days	✓	28-Oct-2025	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH16-I	E420	20-Oct-2025	28-Oct-2025	180 days	8 days	✓	28-Oct-2025	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH5-IIIR	E420	20-Oct-2025	28-Oct-2025	180 days	8 days	✓	28-Oct-2025	180 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH5-IR	E420	20-Oct-2025	28-Oct-2025	180 days	8 days	✓	28-Oct-2025	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) BH8R	E420	20-Oct-2025	28-Oct-2025	180 days	8 days	✓	28-Oct-2025	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP 4	E420	20-Oct-2025	28-Oct-2025	180 days	8 days	✓	28-Oct-2025	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DUP 5	E420	20-Oct-2025	28-Oct-2025	180 days	8 days	✓	28-Oct-2025	180 days	8 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH11R	E611A	20-Oct-2025	27-Oct-2025	14 days	7 days	✓	27-Oct-2025	14 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH5-IIIR	E611A	20-Oct-2025	27-Oct-2025	14 days	7 days	✓	27-Oct-2025	14 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) BH5-IR	E611A	20-Oct-2025	27-Oct-2025	14 days	7 days	✓	27-Oct-2025	14 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) DUP 4	E611A	20-Oct-2025	27-Oct-2025	14 days	7 days	✓	27-Oct-2025	14 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) DUP 5	E611A	20-Oct-2025	27-Oct-2025	14 days	7 days	✓	27-Oct-2025	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH3-IIR	E611D	22-Oct-2025	28-Oct-2025	14 days	6 days	✓	28-Oct-2025	14 days	6 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) BH3-IR	E611D	22-Oct-2025	28-Oct-2025	14 days	6 days	✓	28-Oct-2025	14 days	6 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) FIELD BLANK	E611D	22-Oct-2025	28-Oct-2025	14 days	6 days	✓	28-Oct-2025	14 days	6 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate) TRIP BLANK	E611D	22-Oct-2025	28-Oct-2025	14 days	6 days	✓	28-Oct-2025	14 days	6 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2296902	4	44	9.0	5.0	✓
pH by Meter	E108	2296904	4	58	6.9	5.0	✓
Chloride in Water by IC	E235.Cl	2297751	1	12	8.3	5.0	✓
Fluoride in Water by IC	E235.F	2297752	1	12	8.3	5.0	✓
Nitrite in Water by IC	E235.NO2	2297749	1	12	8.3	5.0	✓
Nitrate in Water by IC	E235.NO3	2297748	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	2297750	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	2296903	4	54	7.4	5.0	✓
Ammonia by Fluorescence	E298	2305056	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2305055	1	23	4.3	5.0	✗
Dissolved Inorganic Carbon by Combustion	E353-L	2301508	1	11	9.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2299641	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2305058	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2296905	2	26	7.6	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2300574	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2301670	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2296556	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2303193	1	19	5.2	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2305057	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2302142	1	20	5.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2302377	2	40	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2296902	4	44	9.0	5.0	✓
pH by Meter	E108	2296904	4	58	6.9	5.0	✓
Chloride in Water by IC	E235.Cl	2297751	1	12	8.3	5.0	✓
Fluoride in Water by IC	E235.F	2297752	1	12	8.3	5.0	✓
Nitrite in Water by IC	E235.NO2	2297749	1	12	8.3	5.0	✓
Nitrate in Water by IC	E235.NO3	2297748	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	2297750	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	2296903	4	54	7.4	5.0	✓
Ammonia by Fluorescence	E298	2305056	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2305055	3	23	13.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2301508	1	11	9.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2299641	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2305058	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2296905	2	26	7.6	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Metals in Water by CRC ICPMS	E420	2300574	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2301670	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2296556	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2303193	1	19	5.2	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2305057	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2302142	1	20	5.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2302377	2	40	5.0	5.0	✓
Method Blanks (MB)							
Conductivity in Water	E100	2296902	4	44	9.0	5.0	✓
Chloride in Water by IC	E235.Cl	2297751	1	12	8.3	5.0	✓
Fluoride in Water by IC	E235.F	2297752	1	12	8.3	5.0	✓
Nitrite in Water by IC	E235.NO2	2297749	1	12	8.3	5.0	✓
Nitrate in Water by IC	E235.NO3	2297748	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	2297750	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	2296903	4	54	7.4	5.0	✓
Ammonia by Fluorescence	E298	2305056	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2305055	3	23	13.0	5.0	✓
Dissolved Inorganic Carbon by Combustion	E353-L	2301508	1	11	9.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2299641	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2305058	1	20	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2296905	2	26	7.6	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2300574	2	20	10.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2301670	1	20	5.0	5.0	✓
Biochemical Oxygen Demand - 5 day	E550	2296556	2	40	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2303193	1	19	5.2	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2305057	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2302142	1	20	5.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2302377	2	40	5.0	5.0	✓
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	2297751	1	12	8.3	5.0	✓
Fluoride in Water by IC	E235.F	2297752	1	12	8.3	5.0	✓
Nitrite in Water by IC	E235.NO2	2297749	1	12	8.3	5.0	✓
Nitrate in Water by IC	E235.NO3	2297748	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	2297750	1	13	7.6	5.0	✓
Ammonia by Fluorescence	E298	2305056	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	2305055	1	23	4.3	5.0	×
Dissolved Inorganic Carbon by Combustion	E353-L	2301508	1	11	9.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	2299641	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U	2305058	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2296905	2	26	7.6	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2300574	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	2301670	1	20	5.0	5.0	✓
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L	2303193	1	19	5.2	5.0	✓
Phenols (4AAP) in Water by Colorimetry	E562	2305057	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	2302142	1	20	5.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	2302377	2	40	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Waterloo	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Inorganic Carbon by Combustion	E353-L ALS Environmental - Winnipeg	Water	APHA 5310 B (mod)	Dissolved Inorganic Carbon is determined on a sample which is filtered through a 0.45 micron filter prior to analysis by the high temperature combustion method with measurement by an infrared detector, where the sample is acidified in a reaction chamber to convert all inorganic carbons (carbonates) to carbon dioxide for analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.002 mg/L)	E372-U ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically using a discrete analyzer after heated persulfate digestion of the sample.
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Biochemical Oxygen Demand - 5 day	E550 ALS Environmental - Waterloo	Water	APHA 5210 B (mod)	Samples are diluted and incubated for a specified time period, after which the oxygen depletion is measured using a dissolved oxygen meter. Free chlorine is a negative interference in the BOD method; please advise ALS when free chlorine is present in samples.
Chemical Oxygen Demand by Colourimetry (Low Level)	E559-L ALS Environmental - Waterloo	Water	APHA 5220 D (mod)	Samples are analyzed using the closed reflux colourimetric method.
Phenols (4AAP) in Water by Colorimetry	E562 ALS Environmental - Waterloo	Water	EPA 9066	This automated method is based on the distillation of phenol and subsequent reaction of the distillate with alkaline ferricyanide (K3Fe(CN)6) and 4-amino-antipyrine (4-AAP) to form a red complex which is measured colorimetrically.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.
Ion Balance using Dissolved Metals	EC101 ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum, Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Dissolved species are used where available. Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Total Organic Nitrogen (Calculation)	EC363 ALS Environmental - Waterloo	Water	APHA 4500-NORG (TKN)/NH3-NITROGEN (NH3)	Total Organic Nitrogen is a calculated parameter. Total Organic Nitrogen = Total Kjeldahl Nitrogen - Ammonia.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Waterloo	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Waterloo	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.

ALS Canada Ltd.

QUALITY CONTROL REPORT

Work Order	: **WT2530426**	Page	: 1 of 26
Client	: City of Orillia	Laboratory	: ALS Environmental - Waterloo
Contact	: Ian Acheson	Account Manager	: Karanpartap Singh
Address	: 50 Andrew St. S. Suite 300 Orillia ON Canada L3V 7T5	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: ----	Telephone	: 19055076910
Project	: WASTE DIVERSION SITE	Date Samples Received	: 24-Oct-2025 09:00
PO	: 86912	Date Analysis Commenced	: 24-Oct-2025
C-O-C number	: ----	Issue Date	: 03-Nov-2025 21:43
Sampler	: Ian Acheson		
Site	: ----		
Quote number	: Waste Diversion Site		
No. of samples received	: 13		
No. of samples analysed	: 13		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
David Tremblett	VOC Section Supervisor	Waterloo VOC, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Centralized Prep, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Hannah Lewis	Inorganics Analyst	Waterloo Inorganics, Waterloo, Ontario
Lee McTavish		Winnipeg Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Waterloo Centralized Prep, Waterloo, Ontario
Nik Perkio	Senior Analyst	Waterloo Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Waterloo Metals, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario

General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO = Data Quality Objective.
LOR = Limit of Reporting (detection limit).
RPD = Relative Percent Difference
= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2296902)											
WT2530329-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	202	201	0.496%	10%	----
Physical Tests (QC Lot: 2296903)											
WT2530329-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	62.6	63.3	1.18%	20%	----
Physical Tests (QC Lot: 2296904)											
WT2530329-001	Anonymous	pH	----	E108	0.10	pH units	7.98	8.02	0.500%	4%	----
Physical Tests (QC Lot: 2297036)											
WT2530173-001	Anonymous	pH	----	E108	0.10	pH units	4.53	4.49	0.04	Diff <2x LOR	----
Physical Tests (QC Lot: 2297037)											
WT2530173-001	Anonymous	Conductivity	----	E100	2.0	µS/cm	2570	2560	0.390%	10%	----
Physical Tests (QC Lot: 2297038)											
WT2530173-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	<2.0	<2.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 2299116)											
HA2504667-002	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	<1.0	<1.0	0	Diff <2x LOR	----
Physical Tests (QC Lot: 2299117)											
HA2504667-002	Anonymous	Conductivity	----	E100	1.0	µS/cm	48.1	48.3	0.415%	10%	----
Physical Tests (QC Lot: 2299119)											
HA2504667-002	Anonymous	pH	----	E108	0.10	pH units	4.68	4.66	0.02	Diff <2x LOR	----
Physical Tests (QC Lot: 2299527)											
WT2530426-001	BH3-IR	pH	----	E108	0.10	pH units	7.61	7.48	1.72%	4%	----
Physical Tests (QC Lot: 2299528)											
WT2530426-001	BH3-IR	Conductivity	----	E100	2.0	µS/cm	1430	1410	1.62%	10%	----
Physical Tests (QC Lot: 2299529)											
WT2530426-001	BH3-IR	Alkalinity, total (as CaCO3)	----	E290	2.0	mg/L	598	581	2.79%	20%	----
Anions and Nutrients (QC Lot: 2296905)											
HA2503838-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0059	0.0058	0.0001	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2297748)											
HA2504642-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	0.029	0.029	0.0003	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2297749)											
HA2504642-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2297750)											

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Anions and Nutrients (QC Lot: 2297750) - continued											
HA2504642-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	3.47	3.39	2.28%	20%	----
Anions and Nutrients (QC Lot: 2297751)											
HA2504642-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	16.7	16.5	1.12%	20%	----
Anions and Nutrients (QC Lot: 2297752)											
HA2504642-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	0.032	0.030	0.002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2299126)											
HA2504667-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2305055)											
WT2530426-001	BH3-IR	Kjeldahl nitrogen, total [TKN]	----	E318	0.050	mg/L	1.28	1.30	1.74%	20%	----
Anions and Nutrients (QC Lot: 2305056)											
WT2530426-002	BH3-IIR	Ammonia, total (as N)	7664-41-7	E298	5.00	mg/L	298	271	9.45%	20%	----
Anions and Nutrients (QC Lot: 2305058)											
WT2530426-003	DUP 5	Phosphorus, total	7723-14-0	E372-U	0.200	mg/L	1.97	1.94	0.0240	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 2299641)											
WT2530426-001	BH3-IR	Carbon, dissolved organic [DOC]	----	E358-L	0.50	mg/L	14.7	14.9	1.36%	20%	----
Organic / Inorganic Carbon (QC Lot: 2301508)											
WT2530426-001	BH3-IR	Carbon, dissolved inorganic [DIC]	----	E353-L	0.50	mg/L	128	125	2.36%	20%	----
Total Metals (QC Lot: 2300574)											
WT2530639-001	Anonymous	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0748	0.187	85.9%	20%	DUP-H
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.147	0.150	1.79%	20%	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	0.0000080	0.0000063	0.0000017	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.050	mg/L	80.1	80.1	0.0747%	20%	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	0.00015	0.00015	0.000001	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00051	0.00055	0.00004	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.315	0.342	8.15%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000062	0.000061	0.000001	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	34.2	35.2	2.79%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.261	0.271	3.86%	20%	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	0.00074	0.00078	0.00003	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	2.44	2.52	3.29%	20%	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000214	0.000203	0.000011	Diff <2x LOR	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	7.27	7.44	2.34%	20%	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Total Metals (QC Lot: 2300574) - continued											
WT2530639-001	Anonymous	Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 2301670)											
WT2530286-001	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.0100	mg/L	0.0151	0.0151	0.00006	Diff <2x LOR	----
		Barium, dissolved	7440-39-3	E421	0.00100	mg/L	0.0363	0.0359	1.26%	20%	----
		Cadmium, dissolved	7440-43-9	E421	0.0000500	mg/L	<0.0000500	<0.0000500	0	Diff <2x LOR	----
		Calcium, dissolved	7440-70-2	E421	0.500	mg/L	34.9	34.5	1.01%	20%	----
		Chromium, dissolved	7440-47-3	E421	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	----
		Cobalt, dissolved	7440-48-4	E421	0.00100	mg/L	<0.00100	<0.00100	0	Diff <2x LOR	----
		Copper, dissolved	7440-50-8	E421	0.00200	mg/L	<0.00200	<0.00200	0	Diff <2x LOR	----
		Iron, dissolved	7439-89-6	E421	0.100	mg/L	<0.100	<0.100	0	Diff <2x LOR	----
		Lead, dissolved	7439-92-1	E421	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Magnesium, dissolved	7439-95-4	E421	0.0500	mg/L	11.2	11.0	2.34%	20%	----
		Manganese, dissolved	7439-96-5	E421	0.00100	mg/L	0.00288	0.00268	0.00020	Diff <2x LOR	----
		Nickel, dissolved	7440-02-0	E421	0.00500	mg/L	<0.00500	<0.00500	0	Diff <2x LOR	----
		Potassium, dissolved	7440-09-7	E421	0.500	mg/L	4.45	4.40	0.052	Diff <2x LOR	----
		Selenium, dissolved	7782-49-2	E421	0.000500	mg/L	<0.000500	<0.000500	0	Diff <2x LOR	----
		Silver, dissolved	7440-22-4	E421	0.000100	mg/L	<0.000100	<0.000100	0	Diff <2x LOR	----
		Sodium, dissolved	7440-23-5	E421	0.500	mg/L	285	279	2.27%	20%	----
		Zinc, dissolved	7440-66-6	E421	0.0100	mg/L	<0.0100	<0.0100	0	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2296556)											
WT2530219-014	Anonymous	Biochemical oxygen demand [BOD]	----	E550	2.0	mg/L	<2.0	<2.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2299420)											
WT2530436-004	Anonymous	Biochemical oxygen demand [BOD]	----	E550	3.0	mg/L	<3.0	<3.0	0.0%	30%	----
Aggregate Organics (QC Lot: 2303193)											
WT2530426-001	BH3-IR	Chemical oxygen demand [COD]	----	E559-L	10	mg/L	50	48	2	Diff <2x LOR	----
Aggregate Organics (QC Lot: 2305057)											
WP2518692-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2302142)											
WT2530314-001	Anonymous	Benzene	71-43-2	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611A	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611A	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 2302142) - continued											
WT2530314-001	Anonymous	Xylene, o-	95-47-6	E611A	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2302377)											
WT2530426-001	BH3-IR	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon disulfide	75-15-0	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611D	2.0	µg/L	<2.0	<2.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 2302377) - continued											
WT2530426-001	BH3-IR	Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 2302394)											
TY2512252-001	Anonymous	Acetone	67-64-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Benzene	71-43-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromodichloromethane	75-27-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromoform	75-25-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Bromomethane	74-83-9	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Carbon disulfide	75-15-0	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Carbon tetrachloride	56-23-5	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Chlorobenzene	108-90-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroethane	75-00-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Chloromethane	74-87-3	E611D	2.0	µg/L	<2.0	<2.0	0	Diff <2x LOR	----
		Dibromochloromethane	124-48-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----

Sub-Matrix: **Water**

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Volatile Organic Compounds (QC Lot: 2302394) - continued											
TY2512252-001	Anonymous	Dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
		Dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----
		Ethylbenzene	100-41-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexane, n-	110-54-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	<20	0	Diff <2x LOR	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Styrene	100-42-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Tetrachloroethylene	127-18-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Toluene	108-88-3	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichloroethylene	79-01-6	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Trichlorofluoromethane	75-69-4	E611D	0.50	µg/L	<0.50	<0.50	0	Diff <2x LOR	----
		Vinyl chloride	75-01-4	E611D	0.20	µg/L	<0.20	<0.20	0	Diff <2x LOR	----
		Xylene, m+p-	179601-23-1	E611D	0.40	µg/L	<0.40	<0.40	0	Diff <2x LOR	----
		Xylene, o-	95-47-6	E611D	0.30	µg/L	<0.30	<0.30	0	Diff <2x LOR	----

Qualifiers

Qualifier	*Description*
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2296902)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2296903)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2297037)						
Conductivity	----	E100	1	µS/cm	# 2.2	B
Physical Tests (QCLot: 2297038)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2299116)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	<1.0	----
Physical Tests (QCLot: 2299117)						
Conductivity	----	E100	1	µS/cm	1.1	----
Physical Tests (QCLot: 2299528)						
Conductivity	----	E100	1	µS/cm	<1.0	----
Physical Tests (QCLot: 2299529)						
Alkalinity, bicarbonate (as CaCO3)	----	E290	1	mg/L	1.1	----
Alkalinity, carbonate (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290	1	mg/L	<1.0	----
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.1	----
Anions and Nutrients (QCLot: 2296905)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2297748)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2297749)						

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Anions and Nutrients (QCLot: 2297749) - continued						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	----
Anions and Nutrients (QCLot: 2297750)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	----
Anions and Nutrients (QCLot: 2297751)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Anions and Nutrients (QCLot: 2297752)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	----
Anions and Nutrients (QCLot: 2299126)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	----
Anions and Nutrients (QCLot: 2305055)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2305056)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	----
Anions and Nutrients (QCLot: 2305058)						
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	<0.0020	----
Anions and Nutrients (QCLot: 2308995)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Anions and Nutrients (QCLot: 2311313)						
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	<0.050	----
Organic / Inorganic Carbon (QCLot: 2299641)						
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	<0.50	----
Organic / Inorganic Carbon (QCLot: 2301508)						
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	<0.50	----
Total Metals (QCLot: 2300574)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	# 0.00072	B
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 2300574) - continued						
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Total Metals (QCLot: 2304725)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	----
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	----
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	----
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	----
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Dissolved Metals (QCLot: 2301670)						
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	<0.0010	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	<0.00010	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	<0.050	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	<0.00050	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	<0.00010	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	<0.00020	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	<0.010	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	<0.0050	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Dissolved Metals (QCLot: 2301670) - continued						
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	<0.00010	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	<0.050	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	<0.000050	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	<0.000010	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	<0.050	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	<0.0010	----
Aggregate Organics (QCLot: 2296556)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2299420)						
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	<2.0	----
Aggregate Organics (QCLot: 2303193)						
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	<10	----
Aggregate Organics (QCLot: 2305057)						
Phenols, total (4AAP)	----	E562	0.001	mg/L	<0.0010	----
Volatile Organic Compounds (QCLot: 2302142)						
Benzene	71-43-2	E611A	0.5	µg/L	<0.50	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	<0.50	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611A	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611A	0.5	µg/L	<0.50	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 2302377)						
Acetone	67-64-1	E611D	20	µg/L	<20	----
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2302377) - continued						
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 2302394)						
Acetone	67-64-1	E611D	20	µg/L	<20	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2302394) - continued						
Benzene	71-43-2	E611D	0.5	µg/L	<0.50	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	<0.50	----
Bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
Bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
Carbon disulfide	75-15-0	E611D	1	µg/L	<1.0	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
Chloroethane	75-00-3	E611D	0.5	µg/L	<0.50	----
Chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
Chloromethane	74-87-3	E611D	2	µg/L	<2.0	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	<0.50	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	<0.20	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	<0.50	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	<0.50	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	<0.50	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	<0.50	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	<0.50	----
Dichloromethane	75-09-2	E611D	1	µg/L	<1.0	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	<0.50	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	<0.30	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	<0.30	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	<0.50	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	<0.50	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	<20	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	<20	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	<20	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	<0.50	----
Styrene	100-42-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	<0.50	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	<0.50	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	<0.50	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 2302394) - continued						
Toluene	108-88-3	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	<0.50	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	<0.50	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	<0.50	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	<0.50	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	<0.20	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----

Qualifiers

Qualifier	Description
B	*Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.*

Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2296902)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 2296903)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	102	85.0	115	----
Physical Tests (QCLot: 2296904)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 2297036)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2297037)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	99.3	90.0	110	----
Physical Tests (QCLot: 2297038)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	98.6	85.0	115	----
Physical Tests (QCLot: 2299116)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	104	85.0	115	----
Physical Tests (QCLot: 2299117)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2299119)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 2299527)									
pH	----	E108	----	pH units	7 pH units	101	98.0	102	----
Physical Tests (QCLot: 2299528)									
Conductivity	----	E100	1	µS/cm	1410 µS/cm	102	90.0	110	----
Physical Tests (QCLot: 2299529)									
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	150 mg/L	105	85.0	115	----
Anions and Nutrients (QCLot: 2296905)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	102	80.0	120	----
Anions and Nutrients (QCLot: 2297748)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	97.3	90.0	110	----
Anions and Nutrients (QCLot: 2297749)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	93.3	90.0	110	----
Anions and Nutrients (QCLot: 2297750)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	101	90.0	110	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2297751)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	99.2	90.0	110	----
Anions and Nutrients (QCLot: 2297752)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	97.7	90.0	110	----
Anions and Nutrients (QCLot: 2299126)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	102	80.0	120	----
Anions and Nutrients (QCLot: 2305055)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	122	75.0	125	----
Anions and Nutrients (QCLot: 2305056)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	103	85.0	115	----
Anions and Nutrients (QCLot: 2305058)									
Phosphorus, total	7723-14-0	E372-U	0.002	mg/L	0.333 mg/L	95.8	80.0	120	----
Anions and Nutrients (QCLot: 2308995)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	111	75.0	125	----
Anions and Nutrients (QCLot: 2311313)									
Kjeldahl nitrogen, total [TKN]	----	E318	0.05	mg/L	4 mg/L	121	75.0	125	----
Organic / Inorganic Carbon (QCLot: 2299641)									
Carbon, dissolved organic [DOC]	----	E358-L	0.5	mg/L	8.57 mg/L	105	80.0	120	----
Organic / Inorganic Carbon (QCLot: 2301508)									
Carbon, dissolved inorganic [DIC]	----	E353-L	0.5	mg/L	50 mg/L	101	80.0	120	----
Total Metals (QCLot: 2300574)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	101	80.0	120	----
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	96.8	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	94.8	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	95.4	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	99.5	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	98.0	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	96.8	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	97.7	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	103	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	107	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	99.7	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	96.9	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	97.6	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 2300574) - continued									
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	93.3	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	100	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	98.5	80.0	120	----
Dissolved Metals (QCLot: 2301670)									
Aluminum, dissolved	7429-90-5	E421	0.001	mg/L	0.1 mg/L	106	80.0	120	----
Barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.012 mg/L	104	80.0	120	----
Cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	103	80.0	120	----
Calcium, dissolved	7440-70-2	E421	0.05	mg/L	2.5 mg/L	99.9	80.0	120	----
Chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.012 mg/L	103	80.0	120	----
Cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.012 mg/L	102	80.0	120	----
Copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.012 mg/L	100	80.0	120	----
Iron, dissolved	7439-89-6	E421	0.01	mg/L	0.05 mg/L	103	80.0	120	----
Lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	107	80.0	120	----
Magnesium, dissolved	7439-95-4	E421	0.005	mg/L	2.5 mg/L	113	80.0	120	----
Manganese, dissolved	7439-96-5	E421	0.0001	mg/L	0.012 mg/L	100	80.0	120	----
Nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	101	80.0	120	----
Potassium, dissolved	7440-09-7	E421	0.05	mg/L	2.5 mg/L	104	80.0	120	----
Selenium, dissolved	7782-49-2	E421	0.00005	mg/L	0.05 mg/L	106	80.0	120	----
Silver, dissolved	7440-22-4	E421	0.00001	mg/L	0.005 mg/L	100	80.0	120	----
Sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	105	80.0	120	----
Zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	100	80.0	120	----
Aggregate Organics (QCLot: 2296556)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	99.7	85.0	115	----
Aggregate Organics (QCLot: 2299420)									
Biochemical oxygen demand [BOD]	----	E550	2	mg/L	198 mg/L	92.5	85.0	115	----
Aggregate Organics (QCLot: 2303193)									
Chemical oxygen demand [COD]	----	E559-L	10	mg/L	100 mg/L	108	85.0	115	----
Aggregate Organics (QCLot: 2305057)									
Phenols, total (4AAP)	----	E562	0.001	mg/L	0.02 mg/L	96.4	85.0	115	----
Volatile Organic Compounds (QCLot: 2302142)									
Benzene	71-43-2	E611A	0.5	µg/L	100 µg/L	115	70.0	130	----
Ethylbenzene	100-41-4	E611A	0.5	µg/L	100 µg/L	101	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	0.5	µg/L	100 µg/L	112	70.0	130	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2302142) - continued									
Styrene	100-42-5	E611A	0.5	µg/L	100 µg/L	98.9	70.0	130	----
Toluene	108-88-3	E611A	0.5	µg/L	100 µg/L	111	70.0	130	----
Xylene, m+p-	179601-23-1	E611A	0.4	µg/L	200 µg/L	107	70.0	130	----
Xylene, o-	95-47-6	E611A	0.3	µg/L	100 µg/L	103	70.0	130	----
Volatile Organic Compounds (QCLot: 2302377)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	119	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	111	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	112	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	82.9	60.0	140	----
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	93.3	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	103	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	94.0	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	105	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	113	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	117	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	99.1	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	99.4	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	114	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	94.6	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	103	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	109	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	112	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	113	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	98.2	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	98.6	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	125	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	127	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	128	70.0	130	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
					Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2302377) - continued									
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	105	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	99.6	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	97.0	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	111	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	110	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	97.3	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	95.6	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	97.8	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	100	70.0	130	----
Volatile Organic Compounds (QCLot: 2302394)									
Acetone	67-64-1	E611D	20	µg/L	100 µg/L	125	70.0	130	----
Benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	110	70.0	130	----
Bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	93.0	60.0	140	----
Carbon disulfide	75-15-0	E611D	1	µg/L	100 µg/L	102	70.0	130	----
Carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	98.4	70.0	130	----
Chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Chloroethane	75-00-3	E611D	0.5	µg/L	100 µg/L	111	60.0	140	----
Chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Chloromethane	74-87-3	E611D	2	µg/L	100 µg/L	123	60.0	140	----
Dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	108	70.0	130	----
Dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	104	70.0	130	----
Dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	106	70.0	130	----
Dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	137	60.0	140	----
Dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	117	70.0	130	----
Dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	113	70.0	130	----
Dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
Dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	115	70.0	130	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2302394) - continued									
Dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	108	70.0	130	----
Dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	101	70.0	130	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	98.6	70.0	130	----
Ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	119	70.0	130	----
Hexanone, 2-	591-78-6	E611D	20	µg/L	100 µg/L	95.9	70.0	130	----
Methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	117	70.0	130	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	101	70.0	130	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	98.7	70.0	130	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
Tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	99.5	70.0	130	----
Toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	97.3	70.0	130	----
Trichloroethane, 1,1,2-	79-00-5	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
Trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	106	60.0	140	----
Vinyl chloride	75-01-4	E611D	0.2	µg/L	100 µg/L	112	60.0	140	----
Xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	98.0	70.0	130	----
Xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	103	70.0	130	----

Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2296905)										
HA2503838-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0162 mg/L	0.02 mg/L	82.4	70.0	130	----
Anions and Nutrients (QCLot: 2297748)										
HA2504642-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.39 mg/L	2.5 mg/L	95.6	75.0	125	----
Anions and Nutrients (QCLot: 2297749)										
HA2504642-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.458 mg/L	0.5 mg/L	91.6	75.0	125	----
Anions and Nutrients (QCLot: 2297750)										
HA2504642-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	97.9 mg/L	100 mg/L	97.9	75.0	125	----
Anions and Nutrients (QCLot: 2297751)										
HA2504642-001	Anonymous	Chloride	16887-00-6	E235.Cl	96.4 mg/L	100 mg/L	96.4	75.0	125	----
Anions and Nutrients (QCLot: 2297752)										
HA2504642-001	Anonymous	Fluoride	16984-48-8	E235.F	0.958 mg/L	1 mg/L	95.8	75.0	125	----
Anions and Nutrients (QCLot: 2299126)										
HA2504667-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0165 mg/L	0.02 mg/L	84.0	70.0	130	----
Anions and Nutrients (QCLot: 2305055)										
WT2530426-001	BH3-IR	Kjeldahl nitrogen, total [TKN]	----	E318	3.23 mg/L	2.5 mg/L	129	70.0	130	----
Anions and Nutrients (QCLot: 2305056)										
WT2530426-002	BH3-IIR	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2305058)										
WT2530426-003	DUP 5	Phosphorus, total	7723-14-0	E372-U	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2299641)										
WT2530426-001	BH3-IR	Carbon, dissolved organic [DOC]	----	E358-L	ND mg/L	----	ND	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2301508)										
WT2530426-002	BH3-IIR	Carbon, dissolved inorganic [DIC]	----	E353-L	ND mg/L	----	ND	70.0	130	----
Total Metals (QCLot: 2300574)										
WT2530639-002	Anonymous	Aluminum, total	7429-90-5	E420	0.0987 mg/L	0.1 mg/L	98.7	70.0	130	----
		Barium, total	7440-39-3	E420	ND mg/L	----	ND	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00495 mg/L	0.005 mg/L	99.0	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0126 mg/L	0.012 mg/L	101	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0120 mg/L	0.012 mg/L	95.8	70.0	130	----
		Copper, total	7440-50-8	E420	0.0118 mg/L	0.012 mg/L	94.5	70.0	130	----
		Iron, total	7439-89-6	E420	ND mg/L	----	ND	70.0	130	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 2300574) - continued										
WT2530639-002	Anonymous	Lead, total	7439-92-1	E420	0.0241 mg/L	0.025 mg/L	96.4	70.0	130	----
		Magnesium, total	7439-95-4	E420	ND mg/L	----	ND	70.0	130	----
		Manganese, total	7439-96-5	E420	ND mg/L	----	ND	70.0	130	----
		Nickel, total	7440-02-0	E420	0.0238 mg/L	0.025 mg/L	95.1	70.0	130	----
		Potassium, total	7440-09-7	E420	ND mg/L	----	ND	70.0	130	----
		Selenium, total	7782-49-2	E420	0.0503 mg/L	0.05 mg/L	101	70.0	130	----
		Silver, total	7440-22-4	E420	0.00500 mg/L	0.005 mg/L	100.0	70.0	130	----
		Sodium, total	7440-23-5	E420	ND mg/L	----	ND	70.0	130	----
		Zinc, total	7440-66-6	E420	0.0238 mg/L	0.025 mg/L	95.1	70.0	130	----
Dissolved Metals (QCLot: 2301670)										
WT2530380-002	Anonymous	Aluminum, dissolved	7429-90-5	E421	0.986 mg/L	1 mg/L	98.6	70.0	130	----
		Barium, dissolved	7440-39-3	E421	0.121 mg/L	0.125 mg/L	96.5	70.0	130	----
		Cadmium, dissolved	7440-43-9	E421	0.0496 mg/L	0.05 mg/L	99.2	70.0	130	----
		Calcium, dissolved	7440-70-2	E421	ND mg/L	----	ND	70.0	130	----
		Chromium, dissolved	7440-47-3	E421	0.121 mg/L	0.125 mg/L	97.0	70.0	130	----
		Cobalt, dissolved	7440-48-4	E421	0.119 mg/L	0.125 mg/L	95.5	70.0	130	----
		Copper, dissolved	7440-50-8	E421	0.118 mg/L	0.125 mg/L	94.2	70.0	130	----
		Iron, dissolved	7439-89-6	E421	0.498 mg/L	0.5 mg/L	99.6	70.0	130	----
		Lead, dissolved	7439-92-1	E421	0.254 mg/L	0.25 mg/L	101	70.0	130	----
		Magnesium, dissolved	7439-95-4	E421	24.7 mg/L	25 mg/L	98.7	70.0	130	----
		Manganese, dissolved	7439-96-5	E421	ND mg/L	----	ND	70.0	130	----
		Nickel, dissolved	7440-02-0	E421	0.233 mg/L	0.25 mg/L	93.3	70.0	130	----
		Potassium, dissolved	7440-09-7	E421	24.3 mg/L	25 mg/L	97.3	70.0	130	----
		Selenium, dissolved	7782-49-2	E421	0.531 mg/L	0.5 mg/L	106	70.0	130	----
		Silver, dissolved	7440-22-4	E421	0.0483 mg/L	0.05 mg/L	96.5	70.0	130	----
		Sodium, dissolved	7440-23-5	E421	ND mg/L	----	ND	70.0	130	----
		Zinc, dissolved	7440-66-6	E421	0.242 mg/L	0.25 mg/L	96.7	70.0	130	----
Aggregate Organics (QCLot: 2303193)										
WT2530426-001	BH3-IR	Chemical oxygen demand [COD]	----	E559-L	102 mg/L	100 mg/L	102	75.0	125	----
Aggregate Organics (QCLot: 2305057)										
WP2518692-002	Anonymous	Phenols, total (4AAP)	----	E562	0.0198 mg/L	0.02 mg/L	99.0	75.0	125	----
Volatile Organic Compounds (QCLot: 2302142)										
WT2530314-001	Anonymous	Benzene	71-43-2	E611A	108 µg/L	100 µg/L	108	60.0	140	----
		Ethylbenzene	100-41-4	E611A	92.0 µg/L	100 µg/L	92.0	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A	107 µg/L	100 µg/L	107	60.0	140	----
		Styrene	100-42-5	E611A	91.6 µg/L	100 µg/L	91.6	60.0	140	----
		Toluene	108-88-3	E611A	102 µg/L	100 µg/L	102	60.0	140	----
		Xylene, m+p-	179601-23-1	E611A	195 µg/L	200 µg/L	97.5	60.0	140	----
		Xylene, o-	95-47-6	E611A	95.3 µg/L	100 µg/L	95.3	60.0	140	----
Volatile Organic Compounds (QCLot: 2302377)										
WT2530426-001	BH3-IR	Acetone	67-64-1	E611D	121 µg/L	100 µg/L	121	60.0	140	----

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2302377) - continued										
WT2530426-001	BH3-IR	Benzene	71-43-2	E611D	113 µg/L	100 µg/L	113	60.0	140	----
		Bromodichloromethane	75-27-4	E611D	110 µg/L	100 µg/L	110	60.0	140	----
		Bromoform	75-25-2	E611D	114 µg/L	100 µg/L	114	60.0	140	----
		Bromomethane	74-83-9	E611D	84.3 µg/L	100 µg/L	84.3	60.0	140	----
		Carbon disulfide	75-15-0	E611D	94.0 µg/L	100 µg/L	94.0	60.0	140	----
		Carbon tetrachloride	56-23-5	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Chlorobenzene	108-90-7	E611D	112 µg/L	100 µg/L	112	60.0	140	----
		Chloroethane	75-00-3	E611D	95.8 µg/L	100 µg/L	95.8	60.0	140	----
		Chloroform	67-66-3	E611D	111 µg/L	100 µg/L	111	60.0	140	----
		Chloromethane	74-87-3	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Dibromochloromethane	124-48-1	E611D	117 µg/L	100 µg/L	117	60.0	140	----
		Dibromoethane, 1,2-	106-93-4	E611D	119 µg/L	100 µg/L	119	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	99.8 µg/L	100 µg/L	99.8	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Dichlorodifluoromethane	75-71-8	E611D	110 µg/L	100 µg/L	110	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611D	110 µg/L	100 µg/L	110	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611D	112 µg/L	100 µg/L	112	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611D	95.5 µg/L	100 µg/L	95.5	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	111 µg/L	100 µg/L	111	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		Dichloromethane	75-09-2	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611D	112 µg/L	100 µg/L	112	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	115 µg/L	100 µg/L	115	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	116 µg/L	100 µg/L	116	60.0	140	----
		Ethylbenzene	100-41-4	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Hexane, n-	110-54-3	E611D	98.7 µg/L	100 µg/L	98.7	60.0	140	----
		Hexanone, 2-	591-78-6	E611D	132 µg/L	100 µg/L	132	60.0	140	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	136 µg/L	100 µg/L	136	60.0	140	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	135 µg/L	100 µg/L	135	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	111 µg/L	100 µg/L	111	60.0	140	----
		Styrene	100-42-5	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	111 µg/L	100 µg/L	111	60.0	140	----
		Tetrachloroethylene	127-18-4	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Toluene	108-88-3	E611D	99.3 µg/L	100 µg/L	99.3	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	113 µg/L	100 µg/L	113	60.0	140	----
		Trichloroethylene	79-01-6	E611D	112 µg/L	100 µg/L	112	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611D	97.8 µg/L	100 µg/L	97.8	60.0	140	----
		Vinyl chloride	75-01-4	E611D	96.8 µg/L	100 µg/L	96.8	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	203 µg/L	200 µg/L	101	60.0	140	----
		Xylene, o-	95-47-6	E611D	103 µg/L	100 µg/L	103	60.0	140	----
Volatile Organic Compounds (QCLot: 2302394)										

Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 2302394) - continued										
TY2512252-001	Anonymous	Acetone	67-64-1	E611D	111 µg/L	100 µg/L	111	60.0	140	----
		Benzene	71-43-2	E611D	112 µg/L	100 µg/L	112	60.0	140	----
		Bromodichloromethane	75-27-4	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Bromoform	75-25-2	E611D	117 µg/L	100 µg/L	117	60.0	140	----
		Bromomethane	74-83-9	E611D	80.6 µg/L	100 µg/L	80.6	60.0	140	----
		Carbon disulfide	75-15-0	E611D	89.1 µg/L	100 µg/L	89.1	60.0	140	----
		Carbon tetrachloride	56-23-5	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Chlorobenzene	108-90-7	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Chloroethane	75-00-3	E611D	96.4 µg/L	100 µg/L	96.4	60.0	140	----
		Chloroform	67-66-3	E611D	110 µg/L	100 µg/L	110	60.0	140	----
		Chloromethane	74-87-3	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Dibromochloromethane	124-48-1	E611D	112 µg/L	100 µg/L	112	60.0	140	----
		Dibromoethane, 1,2-	106-93-4	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		Dichlorobenzene, 1,2-	95-50-1	E611D	109 µg/L	100 µg/L	109	60.0	140	----
		Dichlorobenzene, 1,3-	541-73-1	E611D	109 µg/L	100 µg/L	109	60.0	140	----
		Dichlorobenzene, 1,4-	106-46-7	E611D	109 µg/L	100 µg/L	109	60.0	140	----
		Dichlorodifluoromethane	75-71-8	E611D	113 µg/L	100 µg/L	113	60.0	140	----
		Dichloroethane, 1,1-	75-34-3	E611D	95.7 µg/L	100 µg/L	95.7	60.0	140	----
		Dichloroethane, 1,2-	107-06-2	E611D	119 µg/L	100 µg/L	119	60.0	140	----
		Dichloroethylene, 1,1-	75-35-4	E611D	91.8 µg/L	100 µg/L	91.8	60.0	140	----
		Dichloroethylene, cis-1,2-	156-59-2	E611D	110 µg/L	100 µg/L	110	60.0	140	----
		Dichloroethylene, trans-1,2-	156-60-5	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Dichloromethane	75-09-2	E611D	96.4 µg/L	100 µg/L	96.4	60.0	140	----
		Dichloropropane, 1,2-	78-87-5	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		Dichloropropylene, cis-1,3-	10061-01-5	E611D	104 µg/L	100 µg/L	104	60.0	140	----
		Dichloropropylene, trans-1,3-	10061-02-6	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Ethylbenzene	100-41-4	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Hexane, n-	110-54-3	E611D	93.6 µg/L	100 µg/L	93.6	60.0	140	----
		Hexanone, 2-	591-78-6	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		Methyl ethyl ketone [MEK]	78-93-3	E611D	121 µg/L	100 µg/L	121	60.0	140	----
		Methyl isobutyl ketone [MIBK]	108-10-1	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Styrene	100-42-5	E611D	88.9 µg/L	100 µg/L	88.9	60.0	140	----
		Tetrachloroethane, 1,1,1,2-	630-20-6	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Tetrachloroethane, 1,1,2,2-	79-34-5	E611D	111 µg/L	100 µg/L	111	60.0	140	----
		Tetrachloroethylene	127-18-4	E611D	100 µg/L	100 µg/L	100	60.0	140	----
		Toluene	108-88-3	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		Trichloroethane, 1,1,1-	71-55-6	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		Trichloroethane, 1,1,2-	79-00-5	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		Trichloroethylene	79-01-6	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		Trichlorofluoromethane	75-69-4	E611D	94.5 µg/L	100 µg/L	94.5	60.0	140	----
		Vinyl chloride	75-01-4	E611D	95.3 µg/L	100 µg/L	95.3	60.0	140	----
		Xylene, m+p-	179601-23-1	E611D	201 µg/L	200 µg/L	101	60.0	140	----
		Xylene, o-	95-47-6	E611D	96.4 µg/L	100 µg/L	96.4	60.0	140	----

UW-223 MM.616
9F-75
N-354 B-786

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Canada Toll Free: 1 800 668 9878

Page 1 of 2

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Environmental Division Waterloo

Work Order Reference

WT2530426

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax IAcheson@orillia.ca

Email 2 zgorbell@orillia.ca

Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax IAcheson@orillia.ca

Email 2 zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge m

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge r

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge r

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge r

☐ Same day [E2] if received by 10am M-S - 200% rush surch

☐ fees may apply to rush resuests on weekends, statutory holi

routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed accordin

Project Information

ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only): WT2530426 **ALS Contact:** KSINGH **Sampler:** Ian Acheson

Analysis

Indicate Filtered (F), Preserved (P) or Filter

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals)	Major Ions Package(Total Metals)	Dissolved Metals: Trace List F/P	Total Metals: Trace List P	Dissolved Orthophosphate F/P	Total Phosphorus P	BTEX P	VOCs P	SAMPLES ON HOLD	EXTENDED STORAGE REQUIR	SUSPECTED HAZARD (see notes)
	BH3-IR	22-Oct-25	10:30	Ground Water	9	R	R	R	R		R		R			
	BH3-IIR	22-Oct-25	10:45	Ground Water	9	R	R	R	R	R	R		R			
	DUP 5	20-Oct-25	15:15	Ground Water	9	R	R	R	R		R	R				
	BH20R	22-Oct-25	11:30	Ground Water	7	R	R	R	R		R					
	BH16-I	20-Oct-25	14:00	Ground Water	7	R	R	R	R		R					
	BH11R	20-Oct-25	11:45	Ground Water	9	R	R	R	R		R	R				
	DUP 4	20-Oct-25	11:45	Ground Water	9	R	R	R	R		R	R				
	BH5-IR	20-Oct-25	15:45	Ground Water	9	R	R	R	R	R	R	R				
	BH5-IIIR	20-Oct-25	15:15	Ground Water	9	R	R	R	R		R	R				
	BH8R	20-Oct-25	11:25	Ground Water	7	R	R	R	R		R					
	BH10R	20-Oct-25	10:45	Ground Water	9	R	R	R	R		R					
	Field Blank	22-Oct-25	11:00	Lab Water	2								R			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				+9	6.6	7.8	

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
I.Acheson	23Oct25	9:45

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AD	31-Oct-25	9:00

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form.**

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

Page 2 of 2

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Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	City of Orillia
Contact:	Ian Acheson and Zach Gorbell
Phone:	705-325-2227/249-881-0113
	Company address below will appear on the final report
Street:	40 Kitchener St
City/Province:	Orillia/ON
Postal Code:	L3V 6Z9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax IAcheson@orillia.ca
Email 2 zgorbell@orillia.ca
Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax IAcheson@orillia.ca
Email 2 zgorbell@orillia.ca

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm am/pm

For tests that can not be performed according to the TAT requested, you will be contacted.

Project Information

ALS Account # / Quote #:	GMOI100 / Waste Diversion Site
Job #:	Waste Diversion Site
PO / AFE:	86912
LSD:	

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: KSINGH **Sampler:** Ian Acheson

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Major Ions Package(Dissolved Metals)	Major Ions Package(Total Metals)	Dissolved Metals: Trace List (F/P)	Total Metals: Trace List (P)	Dissolved Orthophosphate (F/P)	Total Phosphorus (P)	BTEX (P)	VOCs (P)	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	Trip Blank	22-Oct-25	12:00	Lab Water	2								R			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
☐ YES ☑ NO

Are samples for human consumption/ use?
☐ YES ☑ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED
Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO
Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				7.9	6.6	7.8	

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
I Acheson	23Oct25	9:45

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AP	24-Oct-25	9:00

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY AUG 2020 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

APPENDIX H

Field Notes and Procedures

APPENDIX E

WASTE DIVERSION SITE GROUND AND SURFACE WATER MONITORING PROTOCOLS

Environmental Services & Operations Department
Revised September 2018

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1.0 INTRODUCTION

These protocols have been prepared to assist staff of the City of Orillia in consistently obtaining representative water samples using a standardized set of sampling protocols. This document replaces previous sampling and protocols manuals. The protocols have been prepared by City staff and follow the framework of the 1993 Gartner Lee Limited version with updates to the current program.

This document is used for ongoing reference by City staff so that sampling methodology remains consistent over time, and to introduce new City staff to the monitoring program whenever necessary. In this way, the reviewing technical consultants may be assured of a dependable data base. It is recommended that the protocols be reviewed in the field, once annually for both ground and surface water monitoring.

Future monitoring results may dictate changes to the sampling frequency or to the analytical parameters required. This manual should be revised on an ongoing basis to reflect changes that may occur and are approved by the Ministry of the Environment and Climate Change (MOECC).

The protocols are divided into four sections dealing with surface water monitoring, ground water monitoring, quality assurance/quality control measures, and health and safety protocols.

2.0 SURFACE WATER MONITORING PROTOCOLS

The objective of the surface water monitoring program is to provide sufficient information to identify potential impacts to surface water quality related to the Waste Diversion Site.

2.1 Surface Water Monitoring Program

The monitoring program currently consists of 12 surface water monitoring stations, where nine are monitored three times a year (March/April, July/August, and October/November) and the remaining three stations are measured once per year (July/August). The program also includes sampling from an additional six known surface water drainage areas at this site during larger rainfall-runoff events (e.g., anticipated rainfall over 24 hours of at least 25 mm or events which generate sufficient surface water runoff for sample collection). Sampling of runoff from the drainage stations occurs twice a year in March/April and October/November if there is a significant rainfall event. Water samples are collected at each station and submitted to an accredited laboratory for analysis of selected parameters. The surface water monitoring program is summarized in Attachment 1.

As well, the following field measurements will be taken at each station; pH, conductivity, water and air temperature, and dissolved oxygen. These field measurements are used for the interpretation of the water chemistry data. Water level and flow measurements are also

taken at selected stations and are used to relate the surface water system to the ground water flow system. Note that sampling locations and frequency are revised from time to time based on recommendations from the City's hydrogeology consultant (i.e., a qualified professional engineer and/or professional geoscientist) and approval from the MOECC's Barrie District Office. The most recent annual water monitoring report contains the lists of stations sampled and the parameters analysed.

At each station, sample collection is performed first, followed by field measurements, and, lastly, by flow measurements. Sample collection is always performed first to ensure that sediments are not disturbed by field meters or vessels and that potential cross contamination from other locations is not carried over by field meters or vessels prior to filling sample containers.

2.1.1 Station Locations

The station locations are shown on Figure 1. Note that Stations S10, S12, S13, S15, S16, S17 and S20 were inactivated in 2015 as they provided duplicate information and as approved by the MOECC. A brief description of each station location is provided below.

Ben's Ditch

S1 located in Ben's Ditch upstream of the site entrance bridge. S1 is the furthest downstream station on Ben's Ditch prior to discharge to Lake Simcoe.

S2 located in the drainage ditch from the Wastewater Treatment Centre (WWTC), below the weir. It should be taken 2 m east of its discharge into Ben's Ditch to avoid turbulent conditions, and also to avoid mixing with water from Ben's Ditch.

S3 located in Ben's Ditch downstream of the outfall from the WWTC.

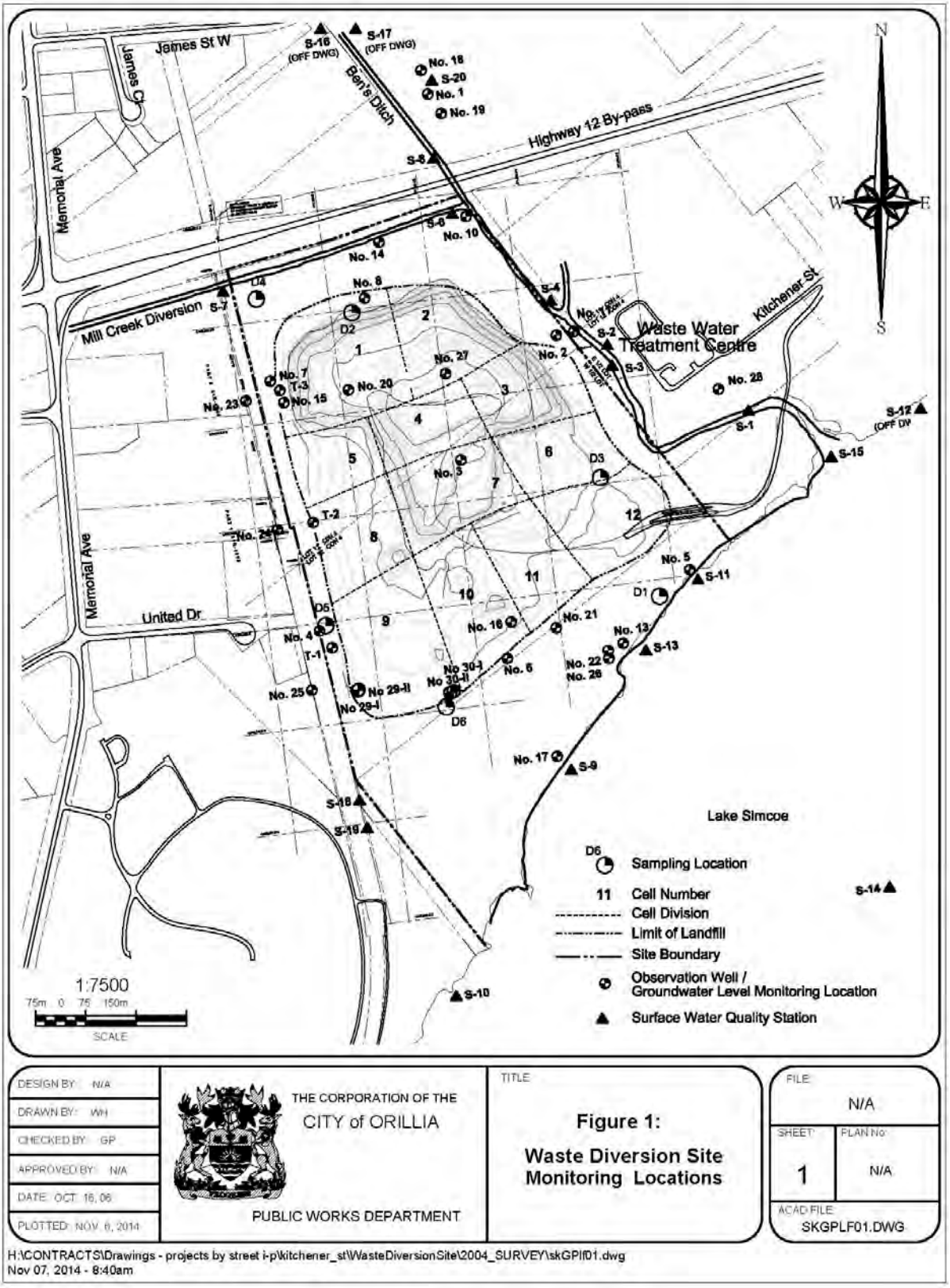
S4 located in Ben's Ditch immediately upstream of the outfall from the WWTC.

S8 located in Ben's Ditch upstream of Highway 12. S8 is the background station for Ben's Ditch.

Mill Creek Diversion

S6 located in the Mill Creek Diversion immediately upstream of its discharge into Ben's Ditch.

S7 located in the Mill Creek Diversion upstream of the former CNR line. S7 is the background station for the Mill Creek Diversion.


James St W
James Cr
Memorial Ave
Ben's Ditch
Highway 12 By-pass
Mill Creek Diversion
Kitchener St
Waste Water Treatment Centre
United Dr
Lake Simcoe
N
S
E
W
S-16 (OFF DWG)
S-17 (OFF DWG)
S-18
S-19
S-10
S-12 (OFF DW
D1
D2
D3
D4
D5
D6
T-1
T-2
T-3
1:7500
75m 0 75 150m
SCALE
D6 Sampling Location
11 Cell Number
Cell Division
Limit of Landfill
Site Boundary
Observation Well / Groundwater Level Monitoring Location
Surface Water Quality Station
DESIGN BY: N/A
DRAWN BY: WH
CHECKED BY: GP
APPROVED BY: N/A
DATE: OCT. 16, 06
PLOTTED: NOV. 6, 2014
THE CORPORATION OF THE
CITY of ORILLIA
PUBLIC WORKS DEPARTMENT
TITLE
Figure 1:
Waste Diversion Site Monitoring Locations
FILE: N/A
SHEET: 1
PLAN No: N/A
ACAD FILE: SKGPLF01.DWG
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Nov 07, 2014 - 8:40am

Lake Simcoe

S9 located in the near shore waters of Lake Simcoe, approximately 25 m out from ground water monitor 17.

S11 located in the near shore waters of Lake Simcoe approximately 25 m out from ground water monitor 5.

S14 located out from S13, approximately 300 m from the shore where the water begins to deepen (3 - 4m of water).

Former CNR Bed

S18 located on the east end of a culvert across the former CNR line about 60 m south of BH25.

S19 located on the east end of a culvert across the former CNR line about 55 m south of S18.

Drainage Stations

D1 located in the low-lying wet area along a drainage path along the Lake Simcoe shoreline between Boreholes 5 and 13

D2 located at the toe of Cell 1 in the roadside ditch at the intersection of the perimeter road with the northern Fire Access Road,

D3 located at the upstream end of the culvert at the southeast end of the perimeter road.

Drainage Stations (Near Relocated Composting Pad)

The following station locations will be finalized in 2014 now that the relocated composting pad has been constructed.

D4 at a location between the downstream area of the stormwater collection swale outlet and the Mill Creek Diversion;

D5 at the outlet of the stormwater collection swale;

D6 at the outlet of the channel passing south of the proposed compost pad just before it enters the low wet area draining towards the lake.

The surface water stations should be sampled in the following order:

First	S10
	S9
	S11
	S14
	S1
	S3
	S2
	S4
	S8
	S6
	S7
	S18
Last	S19
During High Rainfall Events	D1
	D3
	D2
	D4
	D6
	D5

Stream surface water monitoring stations should be sampled from downstream to upstream to prevent sampling activity upstream from influencing the water quality downstream. Background lake samples should be sampled before those stations opposite the landfill. Drainage stations should be sampled from during high rainfall events as defined earlier.

Any ground water seepage areas observed along the shores during a monitoring event should be noted in the field book. Colour and odour should be noted for seepage areas. If possible, a reasonable estimate of the flow rate of groundwater seepage should be noted. Detailed descriptions regarding the locations of any groundwater seepage areas should be maintained so that these areas can be re-visited and evaluated on a regular basis. Photographs should also be taken if possible.

2.1.2 Equipment List

The following supplies will be required in order to properly monitor the surface water stations:

a) Sample Bottles - The number of bottles needed shall be determined by the lab. **Testing for COD performed in the WWTC Laboratory.** It is advantageous to label the bottles prior to setting out;

b) Cooler – All coolers should contain cooler packs to keep them at approximately 4°C prior to delivery to the laboratory;

c) Disposable Medical Gloves - A new pair of gloves should be worn for the sampling of each surface water station. These gloves prevent cross

contamination between sampling locations, prevent surface water contamination from getting onto the hands of the sampler, and also prevent dirt, salts, etc. on the sampler's hands from getting into the sample;

d) Dissolved Oxygen/Conductivity/pH Meter and Distilled Water - for taking field measurements. Sensors must be rinsed with distilled water after each measurement. The meter should be calibrated at least daily;

e) Float, Stopwatch and Measuring Tape - for taking flow measurements;

f) Swing Arm Manual Sampler - For obtaining samples;

g) Field Book, Water Proof Paper, Pen and Pencil;

h) Safety equipment as appropriate (life jackets, safety line, hip waders, first aid kit).

Laboratory Chain of Custody sheets and sample bottles are normally prepared at the WWTC prior to sampling with sampling times noted in the field book (Table 2). Calibration of field measurement meters is also performed at the WWTC.

2.1.3 Field Book

It is important that a field book be set up prior to initiating the sampling program each year. The field book should include:

a) A map of the site and the sampling locations;
b) Field record sheets for each station (Table 2);
c) Record of Weather Conditions sheet (Table 3); and
d) Field Observations sheet (Table 4).

The field record sheets (Tables 2 to 4) are set up to allow for documentation of the following information:

a) Date, time, location;
b) Name of sampler;
c) Field measurements; pH, conductivity, water and air temperatures, dissolved oxygen, and water level readings;
d) Notes on weather, i.e., cloudy, raining, wind direction, relative velocity (e.g., very strong wind from southeast) and if sampling followed a storm event;
e) Notes on observations including erosion areas, seepage zones near the station, algae growth, discolouration or oily films on the water; and
f) Sample number/identification

The information collected in the field is as important in evaluating the surface water quality as the laboratory results. Good documentation is important. Field personnel should record any

deviation from sampling protocols (accidental or intentional), which may affect water quality results. In this way, any anomalous results may be examined by a reviewer with the deviation from protocol in mind.

2.2 Field Measurements

The following surface water field measurements should be collected:

- Dissolved oxygen;
- pH;
- Conductivity;
- Water and air temperatures;
- Water levels; and
- Flow measurements.

Field meters for dissolved oxygen and pH should be calibrated on a daily basis (when possible and as recommended by the manufacturer) prior to undertaking field measurements. Calibrations are recorded in Table 1. Field measurements should be recorded on Tables 2 through 4.

Table 1: Calibration Log Sheet for Field Meter

Date	Time	pH			Conductivity (µs/cm)	D.O. (% Sat)	Initials	Comments
		Buffer 4	Buffer 7	Slope OK?				

Table 2: Field Summary Sheet

Station	Lab No.	Staff Gauge Water Level (m)	Date (d/m/y)	Time	Field						General Comments
					pH	Cond µS	Water Temp (ºC)	Air Temp (ºC)	DO (mg/L)	WWTC Lab COD	
S1											
S2											
S3											
S4											
S6											
S7											
S8											
S9											
S11											
S14											
S14-0											
S14-1											
S14-2											
S14-3											
S14-4											
S14-5											
S18											
S19											
Duplicate 1											
Duplicate 2											

Note: Water level only measured at S1, S2, S7 and S8 (unshaded)

Completed By: _____ Date: _____ Time: _____

Table 3: Record of Weather Conditions During Surface & Ground Water Sampling Session

Sampling Date (d/m/y)	**Weather Conditions**	**Temperature** (ºC)	**Winds**

Table 4: Field Observations During Surface & Ground Water Sampling Session

Note: Please note in the following table any deficient wells, location(s) of any leachate seepage areas (colour, odour, estimated flow rate), dry wells, algae growth erosion areas, discolouration or oily films on the water, etc.

Date (d/m/y)	**Observation**

2.2.1 Dissolved Oxygen

Dissolved oxygen should always be the first of the field measurements to be taken. Dissolved oxygen concentrations must be determined in the field. Dissolved oxygen is mainly derived from air mixed in water by turbulence and photosynthetic processes by chlorophyll-bearing aquatic plants. Dissolved oxygen is mainly used or lost by respiration by the inhabiting animals and plants, decomposition of organic matter, reduction in volume by another gas (carbon dioxide, methane) dissolved in water, and increasing temperatures.

2.2.2 Conductivity/TDS

Conductivity is the ability of a solution to transmit electrical current. The ability of a solution to conduct electricity is proportional to the number of ions present in the conducting solution.

2.2.3 pH

The pH is a measure of the acidity or alkalinity of a solution. Solutions with pH 7 are neutral, acid solutions have a pH less than 7 and alkaline solutions have a pH greater than 7.

2.2.4 Water Temperature

Water temperature is frequently a limiting factor for fish and aquatic life. In addition, temperature, together with pH, frequently regulates the species of various chemicals in the water column such as ammonium. Water temperature is used to calculate concentrations of un-ionized ammonia. Un-ionized ammonia is toxic to fish and aquatic life in low concentrations.

Water temperature can be recorded when carrying out the field measurements discussed above. At the start and finish of each day, the temperature reading of the meter should be compared to that of an alcohol thermometer. Any differences should be noted.

Follow the steps below when measuring temperature with an alcohol thermometer.

1. Use a glass/alcohol immersible thermometer.

2. Place thermometer in the stream/lake and allow it to rest there for 2-3 minutes. Do not stick the thermometer into the bottom sediment.

3. Do not place the thermometer in any of the sample bottles being submitted to the laboratory.

4. Remove the thermometer from the stream and immediately read the temperature to the nearest 0.5°C.

5. Record the water temperature on the field data sheet in degrees Celsius.

2.2.5 Air Temperature

Air temperatures provide an important measurement in terms of assessing the nature of the stream water at the time of sampling. For example, when air temperature is compared to water temperature, it can indicate the water source, i.e., ground water versus surface water.

How to Measure Air Temperature

a) Use a dry bulb thermometer in the shade (thermometer located at WWTC).
b) Let it sit two minutes and record the temperature of the field data sheet, in degrees Celsius.
c) Measure and record this periodically throughout the day. Alternatively, this can be done at each station as a simple routine.

2.2.6 Water Levels

Staff gauges have been installed at stations S1, S2, S7 and S8. The water level should be recorded at each of these stations, by electronic water level meter or with a hand-held tape. For ergonomic and safety reasons, station stakes for measuring water level will be moved closer to the shoreline if the shoreline erodes appreciably. This will be noted in the field notes.

a) When using a water level meter, lower the meter along the stake from the top of the stake.
b) Record the depth at which the meter signals contact with water through a "beep". (Do not measure from the tip of the meter probe as this is not the zero point on these meters).
c) In choppy water, measure the peaks and troughs and then take the average reading.

2.3 Sample Collection

The following protocols are to be followed when collecting surface water samples:

a) At each creek station, sample bottles should be filled at the mid-point between the stream banks. A swing arm manual sampler should be used to retrieve samples when necessary.

b) Caution should be exercised to avoid collection of bottom sediment.

c) If the sampler is standing in the creek, or is in a boat, the sample should be taken upstream (or in the direction where the waves are moving towards the boat) of the sampler's position.

d) A swing arm manual sampler should be used to retrieve samples from the lake stations where necessary.

e) For all bottles except those with preservative, rinse the bottle three times with

ambient water.

f) The sample bottles should be filled independently in the stream, one after the other. In very shallow water, a single vessel may be used to fill all the bottles at one station, but should not be reused at another station. This will minimize cross contamination between stations.

g) Generally most sample bottles can be filled such that there is air space ("head room") at the top of the bottle. However, VOC and BOD samples must be filled such that there is no head room in the bottle. If air bubbles are present in a VOC sample, the volatile organics can volatilize into the air bubbles. If air is present in a BOD sample, chemical processes can continue after collection of the sample and can alter the analytical results.

h) If the sample bottle already has preservative in it, care should be taken in filling the bottle so that it does not overflow and dilute the preservative. A sampling vessel, as described in f) above, should be used to fill sample bottles which already contain preservatives. If the preservative is diluted, the pH level required to keep the sample preserved until analysis will not be maintained, and the results may be influenced.

i) For samples which require that preservatives be added in the field, ensure that only fresh preservatives supplied by the laboratory are used.

j) In streams which have a very low water level, care must be taken to ensure that sediment does not enter the sample bottle. Sediment in the sample can cause concentrations of various parameters to be elevated as the entire sample (water + sediment) is analyzed.

k) Immediately following the collection of samples at a station, count the bottles to verify that all samples have been collected for that station. Once samples have been collected, they should be stored in a cooler on ice until delivery to the laboratory to avoid biodegradation and chemical changes. Surface water samples are not filtered in the field and as such, influence from aquatic organisms can occur if not refrigerated.

2.4 Flow Measurements

Flow is to be measured at S7 using the "Float Method". The protocols for this method are provided below.

a) Measure a 5 m length (reach) of the stream and clear away overhanging grass.
b) At three locations (upstream, middle and downstream locations in the reach), measure the width of the stream. Depths should be measured at three points across the stream (i.e., at quarter points) at each location.
c) Record the information on the flow measurement sheet (Table 5)
d) Drop a float in the stream upstream of the 5 m measuring reach. Record the

time for the float to travel the 5 m distance.

e) Repeat the previous step three times and record the times on the flow measurement sheet.

Note: Tall grass may require cutting and removal from stream prior to flow measurement procedure being done.

2.5 Laboratory Submission of Samples

Samples should be delivered to the laboratory as soon as possible following sampling to ensure no degradation of the samples. All bottles should be labelled with job, date, station number, preservatives, and sampler's name. A permanent marker should be used to fill out the labels on the bottles. Labelling of the bottles prior to visiting the site saves considerable field time, although spare bottles should be carried in case of accidental breakage.

Chain of custody forms should be filled out listing station numbers, number of bottles, submission codes, date of sampling, job, time and date samples are shipped to laboratory, name of laboratory, and the names of personnel delivering and receiving samples. This form should be signed by the receiver and a copy retained both by the lab and by the sampler.

2.6 Submission of Results to Hydrogeology Consultant

At the end of each sampling run, copies of all field sheets should be collected, copied, and forwarded to the hydrogeology consultant. Additions or changes to the sampling program can, therefore, be made for the next sampling run in a timely manner.

Table 5: Flow Measurement Sheet

Station:

Date:

Time:

Observation:

Staff Gauge m

Location	Width	Depth			
		A 1/4 Way Across Stream	B 1/2 Way Across Stream	C 3/4 Way Across Stream	Average Depth (Depth A + Depth B+Depth C)/4
Begin of 5m reach Centre of 5m reach End of 5m reach	m m m	m m m	m m m	m m m	

Time for float to travel 5m 1) sec
2) sec
3) sec

3.0 GROUND WATER MONITORING PROTOCOLS

Ground water is monitored regularly to provide data which is used to assess the degree to which leachate contamination from the landfill is impacting the ground water regime.

3.1 Ground Water Monitoring Program

Ground water monitoring presently takes place three times annually (March/April, July/August, October/November). The ground water monitoring program is summarized in Attachment 1. Note that sampling locations and frequency are revised from time to time based on recommendations from the City's water monitoring consultant and approval by the MOECC's Barrie District Office. The most recent annual water monitoring report contains lists of stations to be sampled and the parameters for analysis.

3.1.1 Station Locations

The groundwater station locations are shown on Figure 1.

3.1.2 Equipment List

The following equipment is required prior to setting out on a ground water monitoring event:

a) Water Level Meter, Distilled Water - For obtaining ground water elevation measurements. Probe must be rinsed with distilled water before and after each measurement to prevent carrying contamination from one monitor to another.

b) Sample Bottles - It is advantageous to label the bottles prior to setting out from the site office.

c) Cooler - Should contain cooler packs to keep all samples at approximately 4°C prior to delivery to the laboratory.

d) Disposable Medical Gloves - A new pair of gloves should be worn for the sampling of each ground water monitor. These gloves prevent cross contamination between sampling locations, prevent ground water contamination from getting onto the hands of the sampler, and also prevent dirt, salts, etc. on the sampler's hands from getting into the sample.

e) In-line Disposable Filters - An adequate supply of 0.45 micron filters should be taken on each sampling run. The supply should be larger than the number of monitors to be sampled in case some of the filters become clogged by excess sediment. Filters should never be re-used.

f) Dissolved Oxygen/Conductivity/pH Meter - For taking field measurements of conductivity, pH and temperature. Sensors must be rinsed with distilled water after each measurement. The meter should be calibrated according to the owner's manual.

g) Field Book - The ground water field book can be assembled with the surface water field book. Pages should be available to record the water levels, field measurements and purging volumes (Table 6).

3.2 Water Levels

Prior to purging and sampling all the boreholes, the water level should be obtained in each ground water monitor on-site, including those that are not sampled. It is imperative that the water levels be measured prior to any water being removed from the borehole. Water level measurements are obtained to determine seasonal ground water fluctuations, hydrostatic pressures, and hydraulic gradients. These factors form the basis for the evaluation of the performance of the site.

a) Water levels can be taken the same day as the purging and sampling. All wells installed at a nested location should be measured for water levels prior to purging, in order to eliminate draw down in those adjacent wells. Purging and sampling is to be done once water levels have been measured across the entire site. Weather conditions should be reported, both for the day of measurement, and the day prior to measurement. All efforts should be made to ensure that tubing is not pulled up from its resting position prior to measuring the water level. Pulling the tubing prior to measuring the water level can bias the calculated static water elevation low.

b) Monitoring staff should always work from monitors furthest from the refuse towards those monitors situated in the refuse. This minimizes the risk of leachate contamination being passed to a clean monitor. If there is more than one monitor at a given location, work from the deepest monitor (labelled as I) to the shallowest monitor (labelled as II, III, etc.). The deeper monitors are generally cleaner than the shallower monitors, so that the risk of contamination is again minimized.

c) The water level probe must be rinsed off with distilled water before and after each reading.

d) All readings are taken from the top of the monitor pipe (if the pipe is cut unevenly, measure from the highest point). Caution should be exercised to ensure that false readings, due to sidewall condensation or pipe couplings at depth, are avoided. Confirm reading prior to recording it.

e) The condition of the monitor should be recorded if maintenance work is required. Maintenance could be required for conditions such as cracked or broken PVC pipes, dug out or "slumped-in" surface seals, loose protective casings, or previous repairs which have proved to be insufficient. If new tubing or foot valves are required, this should also be documented. If temporary repairs are made, glue or tape should not be used. Monitoring staff should also ensure that monitoring wells are clearly labelled.

Table 6: Orillia Waste Diversion Site Purging and Sampling Field Record Sheet

SAMPLING PERSONNEL: _____

BH	Lab No.	STATIC WATER LEVEL	TOTAL DEPTH OF MONITOR	PURGE VOLUME (L)			PURGING					SAMPLING					WWTC Lab COD	GENERAL COMMENTS (Smell, Colour etc.)
				Calculated 1 Well Vol.	(X3)	Actual	DATE	TIME	pH	COND	TEMP °C	DATE	TIME	pH	COND	TEMP °C		

CONVERSION FACTORS FOR PIPE : [(1” = 0.51 L/m), (1.25” = 0.79 L/m), (1.5” = 1.2 L/m), (2” = 2.03 L/m)]

e) When working at a monitor, it is critical that no foreign material be allowed to enter the monitor. Should this occur, purge the monitor immediately, and document the incident in the field book. In this way, anomalous sampling results may be explained.

3.3 Purging/Development Procedures

Purging or developing the monitors prior to sampling is required in order to remove stagnant water from the pipe and from the sand pack in the boreholes, thus allowing fresh representative ground water to move into the monitor. Although sometimes tedious, proper purging is extremely important.

a) Field parameters (conductivity, pH, temperature) should be measured in the field, in a separate container from the sample bottles. These measurements are generally taken three to four times during the purging of a monitor so that changes can be observed. These parameters should be measured following removal of each consecutive well volume, when possible. At the very minimum, they should be measured at the beginning of purging and just prior to sampling. Results should be recorded on the field data sheets and forwarded with the other field data.

b) If the calibrated volume flask used for purging purposes fills during purging, the water should be discarded several meters from the monitor to prevent infiltration back to the monitor.

c) Experience has shown that removal of three well volumes is sufficient for obtaining representative ground water samples. One well volume is the amount of water stored in the monitor prior to sampling. Table 7 can be used to readily calculate the volume of water to be removed from a given monitor. In order to increase sampling efficiency and be in line with current industry standards low yielding wells (recovery is less than 0.5 L/min) can be purged dry once and then sampled.

Table 7 shows the volume of water in litres per lineal metre of pipe, for pipes of differing diameter. If, for example, a 2 inch pipe (51 mm) had 4.3 m of water in it, then one well volume would consist of 4.3 x 2.03L = 8.73 L of water. Therefore, three times this volume, or 26.2 L (rounded to 27 L) of water would be removed from the borehole prior to sampling. In addition to the water level measurement, the total depth of each borehole on-site is required in order to calculate the total water volume in a given monitor. Well bottom depths are generally re-measured once annually to confirm well depths as fine grained material may be entering the well. A standard table may be prepared on seasonal water levels and measured well depths, and could be appended to the field book for ease of use.

Table 7: Purge Volumes Based On Monitor Pipe Diameter

Pipe Diameter		Volume of H_2O per Lineal metre of Pipe
4.0"	(102 mm)	8.00 L
2.0"	(51 mm)	2.03 L
1.75"	(44 mm)	1.55 L
1.5"	(38 mm)	1.14 L
1.25"	(32 mm)	0.79 L
1”	(25.4mm)	0.51 L

d) The field form (Table 6) can be used to document the volume of water removed from each monitor. This should be filled out for each sampling event.

e) Monitoring wells with high yields should be sampled immediately after purging instead of on the following day.

f) Purging of the monitors are conducted using the dedicated foot valves that are in place. All monitors at the site are fitted with these pumps except boreholes (BH) 27-I, 27-IIR, and 3-IIR, which each have dedicated bailers. The foot valve pumps consist of a 25 mm diameter by 75 mm long foot valve made of Delrin, attached to a 12.7 mm (inner diameter) polyethylene tubing. Water is drawn to the surface with this pump by oscillating the tubing up and down. This draws in successive aliquots of water past the foot valve and eventually results in the discharge of waters at surface.

g) If a monitor goes dry, leave it to recover for a few hours. It should then be pumped dry a second time to ensure that no stagnant water from the sand pack has entered the monitor. At this time, the tubing should be removed and drained to ensure that all stagnant water is removed from the borehole. Extreme care should be taken to prevent the tubing from contacting the ground surface as it is being drained. Again, the monitor should be left for a few hours to recover. Upon return, obtain as many samples as possible (i.e., phenolics, metals, and general chemistry samples). The water in the monitor may be considered to be representative ground water. This practice should be documented in the field book.

h) Table 8 is a summary sheet indicating how the monitors respond to purging. This table can be used to determine the order in which the monitors should be purged.

i) When installing new tubing in a monitor, or if the tubing has come into contact with the ground surface while being drained, it should be wiped down with a clean cloth or paper towel, dampened with distilled water. This should be done as the tubing is lowered down the hole. If it cannot be properly cleaned, it should be replaced.

j) If water purged from refuse/leachate wells (BH3, 20 & 27) is considered to be potent or heavily impacted by sampling staff, it should be containerized for disposal at the Wastewater Treatment Centre.

3.4 Sample Collection

a) Once the field parameters (conductivity, pH, and temperature) have stabilized after purging (i.e., less than 10% deviation in field parameter readings on consecutive well volumes), the samples can be obtained. However, some monitors will be pumped dry and the monitor will require some time to recover. Dedicated laboratory bottles should remain sealed until they are ready to be used at the sampling location.

b) All samples of ground water to be analyzed for trace metals and nutrients (phosphorous, aluminum, etc.) should be filtered in the field. Filtering causes agitation of the water samples, and also traps clay sediment in the filter. Organic compounds will be absorbed onto the clay particles in the filter, or will be lost through volatilization caused by the agitation of the water. Both instances result in anomalously low organic readings. Therefore, samples to be analyzed for organic parameters, including phenolics and volatile organics, should not be filtered. The need for filtering for various samples has been included in Table 9. As a general rule of thumb, it is better to pump slowly when obtaining all ground water samples in order to avoid agitation.

c) A high capacity 0.45 micron in-line filter (or equivalent) should be used. This filter fits onto the dedicated tubing in the borehole and filters the water as it is pumped from the hole. Care must be taken to ensure that any water leaking around the filter/tubing joint does not enter the sample bottle. The sample bottle should be held away from the filter rather than directly beneath it.

d) Samples are obtained using the dedicated foot valves. If problems arise with the foot valves due to sediment, the tubing can be removed and the foot valve cleansed with distilled water. Again, the tubing should be wiped down with a clean cloth as it is reinserted down the borehole. If problems persist, a plastic bailer can be used. The bailer should be thoroughly rinsed prior to its use. It is important to discard the first bailer volume to ensure a non-biased sample.

e) All sample bottles and lids, without preservatives already enclosed, should be rinsed with sample water prior to obtaining the sample. The only exception is for

the collection of volatile organics. These compounds can adhere to the walls of the sample bottle during the rinse and, therefore, the sample bottles for these compounds are not rinsed.

f) When sampling for volatile organic compounds (VOCs) care must be taken to prevent agitation of the water and to prevent extended contact of the sample with air. These samples are obtained using the dedicated foot valve and tubing. The tubing is filled with water and about 3 m is slowly withdrawn from the hole. Volatile bottles are slowly filled as the water is allowed to drain from the tubing. Hold the bottle on a slant, allowing the water to drain along the side of the bottle to the bottom, thus preventing agitation. A high meniscus is left on the bottles, and the lid is quickly and carefully screwed on snugly. Take care to ensure that the rubber septum in the cap of the bottles does not fall on the ground during filling. The bottles are then turned upside down and tapped. If air bubbles exist the bottle should be topped off again and recapped. It is critical that no air bubbles are found in the bottles as these compounds are found in the parts per billion range and can volatilize into air bubbles and be lost from the sample. The volatile bottles should be stored in the sample cooler upside down.

g) Phenolics are analyzed from a separate bottle with sulphuric acid preservative and, therefore, the bottles should not be rinsed. The bottles should only be filled to the specified line.

h) Samples for trace metals are filtered and preserved in the field. Extreme care should be taken to ensure that no unfiltered water enters the sample bottle from the filter. This will result in sediment entering the sample bottle. The preservative (nitric acid) will dissolve this sediment resulting in anomalously high metal values. If the sample cannot be filtered in the field due to excessive sediment, it should be filtered in the laboratory at the Wastewater Treatment Centre as soon as possible and should subsequently be preserved.

The amount of nitric acid (HNO_3) added to the samples should be sufficient to lower the pH to approximately 2. Metals can come out of solution on the walls of the sample bottle or settle out of solution if the pH is not low enough. Generally 10 drops should be added to a 250 mL sample bottle. The amount of nitric acid added is dependent on the strength of the acid used and on the original pH of the samples. It is critical that the monitoring staff inquire from the laboratory as to whether sufficient preservative is being added.

k) All samples are to be stored with a cooler pack immediately after collection. The samples should be kept in the dark at 4°C to prevent biological activity in the sample bottles. An alcohol thermometer could be kept in the cooler to monitor the temperature of the coolers. This information should be recorded on the field data sheets.

l) Staff shall coordinate with the laboratory performing the analyses to ensure that

proper preservatives, sampling bottles and filtration practices are being utilized by the sampling staff.

3.5 Laboratory Submission of Samples

Samples should be delivered to the laboratory as soon as possible following sampling, to ensure no degradation of the samples occurs. All bottles should be labelled with job, date, monitor location, sampler's name, and preservatives added. A permanent marker should be used to fill out the labels on the bottles. Labelling of the bottles prior to visiting the site saves considerable field time, although spare bottles should be carried in case of accidental breakage.

Chain of custody forms should be filled out listing the number of bottles, location and monitor number, submission codes, date of sampling, job, time and date samples sent to laboratory, name of laboratory, and the names of personnel delivering samples. This form should be signed by the receiver and a copy obtained both by the lab and by the sampler.

3.6 Submission of Results to Hydrogeology Consultant

At the end of each sampling run, copies of all field sheets should be collected, copied, and forwarded to the hydrogeology consultant. Additions or changes to the sampling program can, therefore, be made for the next sampling run in a timely manner.

Table 8: Summary Sheet of Relative Response Times to Purging

MONITOR	RELATIVE RESPONSE TIMES		
	RECOVER SLOWLY (2-3 DAYS TO SAMPLE)	INTERMEDIATE RECOVERY	IMMEDIATE RECOVERY
1-IR		X	
1-III			X
2II		X	
2III		X	
3-IR		X	
3-IIR		X	
4-II			X
5-IR			X
5-IIIR			X
6R		X	
8R	X		
10R	X		
11R			X
14-I			X
14-IIIR		X	
15-IIIR	X		
16-I			X
16-IVR			X
17-III			X
17-IVR			X
18R			X
20R			X
21-IR			X
21-II			X
22-IR		X	
22-II		X	
23			X
24R			X
25		X	
26		X	
27-I	X		
27-IIR	X		
29-I			X
29-II	X		
30-I			X
30-II			X

Table 9: General Protocols

Parameter	Volume Required	Container	Preservation	Max. Holding Time	Filtration
VOC's	40 mL	Amber Glass Vial Teflon Lined Septum	4°C; Hydrogen Chloride, No Headspace	7 Days	No
Metals/Aluminum	250 mL	HDPE	4°C; Nitric Acid (1mL 1 + 1 HNO_3)	6 Months	Yes
Chromium (VI)	250 mL	HDPE	4°C; Nitric Acid (1mL 1 + 1 HNO_3)	24 Hours	Yes
General Chemistry	500 mL	PETE (clear plastic bottle)	4°C	48 Hours	No Yes – ortho-phosphate
TKN/Ammonia/TP	250 mL	Glass Amber With Foil-Lined Cap	4°C; Sulphuric Acid (1mL 1 + 1 H_2SO_4)	28 Days	Yes
Phenols	250 mL	Glass Amber With Foil-Lined Cap	4°C; Sulphuric Acid (2.5mL $CuSO4/H_3PO_4$)	4 Days	No
BOD	500 mL	PETE	4°C	48 Hours	No

Note: General protocols based on Caduceon Environmental Laboratory requirements (May 2004)

4.0 QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

As a means of assessing the accuracy of laboratory analyses, and potential biases due to sampling methods, a quality assurance/quality control (QA/QC) program should be in place. This program will provide a check on the laboratory and on the sampling procedures, thus validating the chemical data base put forth in annual monitoring reports.

4.1 Blind Duplicate Samples

At the Waste Diversion Site, it is recommended that approximately 10 to 15% of the total number of samples submitted to the laboratory should be QA/QC samples. This may change as recommended by the City hydrogeology consultant. Regular water quality sampling at the Waste Diversion Site occurs at:

- 36 ground water monitors (out of a total of 53 monitors at 30 locations),
- 12 surface water stations,
- Six drainage stations.

Based on this, the following numbers of quality assurance samples should be taken:

- Four blind duplicate groundwater samples per ground water sampling event (spring, summer & fall);
- Two blind duplicate surface water samples per sampling event (spring, summer & fall); and

- One blind duplicate drainage station sample per sampling event (spring and fall).

Quality assurance samples include blind duplicate samples and travel blanks. Blind duplicate samples act as checks on the sampling methodology and on the laboratory. These quality assurance samples are collected by filling up the regular "original" set of bottles, as well as a second "duplicate" set of bottles. The split sampling technique is used to collect blind duplicates of ground water samples. Since it is possible for the ground water chemistry to change as a well is pumped, this technique enables a duplicate sample to be taken which has the same chemistry as the original sample. The split sampling technique is accomplished by filling up half of the original bottle of each pair (i.e., two pairs of General Chemistry bottles, one pair of trace metals bottles, and one pair of TKN/TP/Phenols/COD bottles) and then half of the duplicate of each pair. The original is then filled, followed by the duplicate. This procedure is repeated until each pair of bottles for the sampling location has been filled. For volatile organic analyses, the split sampling technique is NOT used. In this case, the original is filled and then the duplicate is filled. This is also the method used for collecting blind duplicates at surface water stations. Blind duplicates are labelled with a fictitious sampling location (i.e., the laboratory is not aware it is a duplicate). Field sheets should record the actual blind duplicate location carefully. The locations selected for quality assurance/quality control samples should vary on each sampling run.

4.2 Travel & Field Blanks

Travel and field blanks should be taken whenever volatile organic samples are collected. These quality assurance samples indicate whether volatiles can be introduced into a sample during the field sampling work. Deionized water is placed into a volatile organic sampling bottle at the start of the sampling run. The travel blank is kept in the cooler with the other volatile organic samples. The field blank is opened to the atmosphere at the dirtiest well and transferred into a new VOC sampling vial to mimic actual sampling techniques and demonstrate that sampling methods are not resulting in cross contamination during sampling. Near the beginning of the sampling run, the travel blank bottle should be opened to the atmosphere on-site. This ensures a similar treatment to the actual samples. All travel and field blanks should be filled using laboratory supplied blank-grade deionized water and should be submitted blind with a sample identifier that does not identify it as a blank. Top the travel and field blanks up with deionized water before closing to eliminate air space.

5.0 HEALTH AND SAFETY

The primary Health and Safety issues associated with the monitoring program relate to working in water and working with leachate impacted water.

For surface water monitoring, where the person carrying out the monitoring must enter the water, two person crews should be used with one individual remaining on shore. In locations of high flow, a line should be tied to the individual entering the water to ensure this individual's safety. When operating a boat, a marine radio must be used, and the operator

must have a Pleasure Craft Operator Card.

With respect to leachate and leachate impacted water, disposable medical gloves should be worn. New gloves should be used at each location. Hands should be thoroughly washed with soap and water prior to eating and at the end of the day. Safety glasses should be worn when entering forested areas.

ATTACHMENT 1

Schedule of Parameters Measured in the Annual Water Monitoring at the Waste Diversion Site

Waste Diversion Site Annual Water Monitoring Program Schedule

SPRING & FALL SAMPLING

Parameters	Groundwater																														
	1-IR	1-III	2-III	3-IR	3-IIR	4-II	5-IR	5-IIIR	6R	8R	10R	11R	14-IIIR	16-I	16-IVR	17-III	17-IVR	18R	20R	21-IR	21-II	22-IR	22-II	26	27-I	27-IIR	29-I	29-II	30-1	30-II
Major Ions	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Trace Metals					X		X									X	X					X	X	X		X	X	X	X	X
o-Phosphate					X		X									X	X					X	X	X		X	X	X	X	X
T. Phosphorus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
BTEX							X	X	X			X				X						X	X	X						
VOC				X	X															X	X									

Surface Water	S-1	S-2	S-3	S-4	S-6	S-7	S-8	S-11	D-1	D-2	D-3	D4	D5	D6
Major Ions (with BOD)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Trace Metals	X	X	X	X	X	X	X	X	X	X	X	X	X	X
o-Phosphate	X	X	X	X	X	X	X	X	X	X	X	X	X	X
T. Phosphorus	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Suspended Solids	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Arsenic		X												

Travel Blanks: 2

Field Blanks: 2

SUMMER SAMPLING

Parameters	Groundwater																																
	1-IR	1-III	2-II	2-III	3-IR	3-IIR	4-II	5-IR	5-IIIR	6R	8R	10R	11R	14-I	14-IIIR	15-IIIR	16-I	16-IVR	17-III	17-IVR	18R	20R	21-IR	21-II	22-IR	22-II	23	24R	25	26	27-I	27-IIR	29-I	29-II	30-1	30-II
Major Ions	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Trace Metals	X		X		X	X	X	X						X			X		X	X			X		X	X			X	X		X	X	X	X	X
o-Phosphate	X		X		X	X	X	X						X			X		X	X			X		X	X			X	X		X	X	X	X	X
T. Phosphorus	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Arsenic						X																														
BTEX								X	X	X			X						X						X	X				X						
VOC					X	X																	X	X												

Surface Water	S-1	S-2	S-3	S-4	S-6	S-7	S-8	S-9	S-11	S-14	S-18	S-19
Major Ions (with BOD)	X	X	X	X	X	X	X	X	X	X	X	X
Trace Metals	X	X	X	X	X	X	X	X	X	X	X	X
o-Phosphate	X	X	X	X	X	X	X	X	X	X	X	X
T. Phosphorus	X	X	X	X	X	X	X	X	X	X	X	X
Suspended Solids	X	X	X	X	X	X	X	X	X	X	X	X
Arsenic		X								X		

Travel Blanks: 2

Field Blanks: 2

Notes:

1.) Major Ions include: Alkalinity, Conductivity, Hardness, pH, Chloride, Sulphate, Calcium, Magnesium, Sodium, Potassium, Phenols, Nitrite, Nitrate, Ammonia, TKN, Organic Nitrogen, COD, DOC, DIC, Iron & Manganese. In addition to these items, BOD is also measured for surface water.

2.) Trace Metals include: Aluminum, Barium, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Selenium, Silver, & Zinc. Arsenic is measured separately at specified locations.

3.) O-Phosphate measured at same locations as Trace Metals.

4.) Water Levels measured at all boreholes during each sampling session including BHs: 1-IR, 1-II, 1-III, 2-I, 2-II, 2-III, 3-IR, 3-IIR, 4-I, 4-II, 5-IR, 5-IIR, 5-IIIR, 6, 7, 8, 10R, 11R, 13, 14-I, 14-II, 14-III, 15-I, 15-II, 15-III, 16-I, 16-II, 16-III, 16-IV, 17-I, 17-II, 17-III, 17-IVR, 18R, 19, 20R, 21-IR, 21-II, 22-IR, 22-II, 23, 24R, 25, 26, 27-I, 27-IIR, 29-I, 29-II, 30-I, 30-II, T1, T2, and T3.

APPENDIX I

Summary of Waste Tonnages

City of Orillia

Waste Diversion Site

50 Andrew St. S, #300, Orillia, ON L3V7T5
Tel: (705) 325-1311 Fax: (705) 325-5178

Annual Material Report (2025)

Material Name	Residential		Commercial		Municipal		Total	
	Tonnage	Load	Tonnage	Load	Tonnage	Load	Tonnage	Load
Asphalt	10.30	22	2.39	2	420.13	35	432.82	59
Bagged Diapers	0.32	15	0.00	0	0.00	0	0.32	15
Brush/Tree Wood	312.01	1,363	41.96	109	377.56	552	731.53	2,024
Building/Demolition Wood	319.61	1,741	58.00	130	22.40	28	400.01	1,899
Cardboard	1.62	65	0.00	0	0.23	2	1.85	67
Catchbasin	0.00	0	0.00	0	8.16	2	8.16	2
Christmas Tree	0.01	1	0.00	0	0.00	0	0.01	1
Christmas Trees - City Contract	0.00	0	0.00	0	7.47	11	7.47	11
Clean Fill - Chargeable	70.38	49	7.28	5	0.00	0	77.66	54
Clean Fill - Non-Chargeable Municipal	14.80	11	1.96	1	319.39	50	336.15	62
Concrete	121.29	208	25.71	33	224.71	22	371.71	263
Difficult Wastes	3.00	22	0.57	1	0.00	0	3.57	23
Green Bin Yard Waste (Commercial)	0.00	0	193.75	591	42.89	131	236.64	722
Green Bin/Yard Waste	201.60	1,866	0.00	0	78.13	208	279.73	2,074
Green Bin/Yard Waste - City Contract	0.00	0	0.00	0	3,604.96	974	3,604.96	974
Gypsum Drywall	45.09	245	0.96	2	0.00	0	46.05	247
Mattresses & Box Springs (EA)	29.53	884	0.16	6	0.07	2	29.76	892
Mixed Loads	3.94	7	0.00	0	0.00	0	3.94	7
Oil Filters	0.00	0	0.00	0	0.41	2	0.41	2
Recycling - Do not Use	0.00	1,061	0.00	1	0.00	22	0.00	1,084
Recycling - Inbound	0.00	0	1.23	16	0.00	0	1.23	16
Refrigeration Equipment Certification	24.25	205	0.43	2	0.00	0	24.68	207
Regular Garbage	1,221.72	11,497	26.96	135	496.43	827	1,745.11	12,459
Regular Garbage - City Contract	0.00	0	0.00	0	2,599.75	675	2,599.75	675
Road Building Fill	0.00	0	0.00	0	2.38	1	2.38	1
Scrap Metal	36.48	619	0.29	1	3.90	15	40.67	635
Shingles	27.28	69	0.00	0	0.00	0	27.28	69
Spill Cleanup Material	0.00	0	0.00	0	0.00	0	0.00	0
Storm Brush	3,097.44	4,742	93.91	106	1,216.79	346	4,408.14	5,194
Storm Brush Chips	0.00	0	0.00	0	0.00	0	0.00	0
Street Sweepings	0.63	6	0.00	0	318.98	34	319.61	40
Street Sweepings - Chargeable	0.00	0	0.00	0	0.00	0	0.00	0
Tagged Garbage	223.04	3,849	0.24	4	0.00	0	223.28	3,853
Tires No Rim (over 10) Ont Tire Stewardship	9.07	72	0.00	0	0.00	0	9.07	72
Tires No Rim (up to 10) Ont Tire Stewardship	20.79	385	0.02	1	0.00	0	20.81	386
Tires on the Rim	2.47	26	0.00	0	0.00	0	2.47	26
Top Soil	0.00	0	0.00	0	0.00	0	0.00	0
Township Yard Waste (RAMA only)	0.00	0	1.73	7	0.00	0	1.73	7
Weight Only	0.00	3	0.00	15	0.00	0	0.00	18
Woodchips	183.04	93	0.00	0	110.47	46	293.51	139
Woodchips (Commercial)	0.00	0	51.81	35	32.44	19	84.25	54
Total	5,979.71	29,126	509.36	1,203	9,887.65	4,004	16,376.72	34,333

City of Orillia

Waste Diversion Site

50 Andrew St. S, #300, Orillia, ON L3V7T5
Tel: (705) 325-1311 Fax: (705) 325-5178

Annual Material Report (2025)

(Source : City of Orillia / Outbound)

20/04/2026 4:44:54PM

Material Name	Fees	Loads	Loads (%)	Tonnage	Tonnage (%)
Broken Roll-Outs/Boxes - Outbound	0.00	0	0.00%	0.00	0.00 %
Cardboard Depot - Outbound	0.00	35	3.96%	53.80	2.49 %
Clean Fill - Outbound	0.00	0	0.00%	0.00	0.00 %
Containers Depot - Outbound	0.00	22	2.49%	19.76	0.92 %
Crushed Stone/Concrete - Outbound	0.00	0	0.00%	0.00	0.00 %
Electronics - Outbound	0.00	6	0.68%	38.21	1.77 %
Gypsum Drywall - Outbound	0.00	16	1.81%	388.49	18.01 %
Household Hazardous Waste - Outbound	0.00	6	0.68%	64.69	3.00 %
Mixed Paper Depot - Outbound	0.00	0	0.00%	0.00	0.00 %
Plastic Film Depot - Outbound	0.00	0	0.00%	0.00	0.00 %
Propane Tanks - Outbound	0.00	14	1.58%	5.19	0.24 %
Styrofoam Depot - Outbound	0.00	0	0.00%	0.00	0.00 %
Textiles - Outbound	0.00	0	0.00%	0.00	0.00 %
Tires - Outbound	0.00	5	0.57%	53.09	2.46 %
Used Oil - Outbound	0.00	20	2.26%	19.43	0.90 %
Used Glycol - Outbound	0.00	3	0.34%	2.75	0.13 %
Backyard Composter - Outbound	270.00	8	0.90%	0.00	0.00 %
Compost - Outbound	928.97	41	4.64%	16.65	0.77 %
Compost Loaded - Outbound	159.79	4	0.45%	5.65	0.26 %
Garbage Tags (Qty. 5) - Outbound	7305.00	237	26.81%	0.00	0.00 %
Green Bin - Outbound	1780.00	70	7.92%	0.00	0.00 %
Kitchen Container - Outbound	280.00	51	5.77%	0.00	0.00 %
Rain Barrel - Resident - Outbound	1449.94	23	2.60%	0.00	0.00 %
Rain Barrel - Non Resident - Outbound	0.00	0	0.00%	0.00	0.00 %
Recycling Box - Outbound	1899.99	121	13.69%	0.00	0.00 %
Roll-Out Cart - Outbound	0.00	0	0.00%	0.00	0.00 %
Scrap Metal - Outbound	39301.34	6	0.68%	120.45	5.58 %
Woodchips - Outbound	0.00	0	0.00%	0.00	0.00 %
Woodchips Loaded - Outbound	0.00	0	0.00%	0.00	0.00 %
Street Sweepings-Outbound	0.00	0	0.00%	0.00	0.00 %
Firewood - Outbound (KG)	90.40	4	0.45%	3.58	0.17 %
Firewood Loaded - Outbound (KG)	0.00	0	0.00%	0.00	0.00 %
Empty Auto Containers - Outbound	0.00	24	2.71%	1.50	0.07 %
Shingles - Outbound	0.00	3	0.34%	108.39	5.03 %
Fluorescent Lamps - Outbound	0.00	1	0.11%	12.43	0.58 %
Mattresses & Box Springs - Outbound	0.00	11	1.24%	24.46	1.13 %
Lumber & Wood - Outbound	22.60	1	0.11%	0.01	0.00 %
Lumber & Wood Loaded - Outbound	0.00	0	0.00%	0.00	0.00 %
Surplus Compost - Outbound	0.00	128	14.48%	767.43	35.58 %
Carpets - Outbound	0.00	0	0.00%	0.00	0.00 %
Auto Batteries - Outbound	1052.80	4	0.45%	4.21	0.20 %
Bulk Compost - Loaded Outbound (general)	96.58	2	0.23%	7.77	0.36 %
Demo Woodchips - Outbound	0.00	0	0.00%	0.00	0.00 %
Recycling Wheel Kit - Outbound	10.00	1	0.11%	0.00	0.00 %
Surplus Woodchips - Outbound	0.00	0	0.00%	0.00	0.00 %
Surplus Firewood - Outbound	0.00	0	0.00%	0.00	0.00 %
Cooking Oil - Outbound	0.00	3	0.34%	1.54	0.07 %

Material Name	Fees	Loads	Loads (%)	Tonnage	Tonnage (%)
Bulk Compost - awarded (Summers)	6670.71	14	1.58%	437.28	20.27 %
Yearly Totals	**$ 61,318.12**	**884**		**2,156.76**	



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