HADDAD GEOTECHNICAL INC.

Geotechnical & Environmental Engineers

Phase Two Environmental Site Assessment
805 Dundas Street East
Mississauga, Ontario

PRIVILEGED AND CONFIDENTIAL

Prepared for:

KJC Properties Inc.
1940 Ellesmere Road
Scarborough, Ontario
M1H 2V6

Project: 22-16145

August 31, 2022

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KJC Properties Inc.
1940 Ellesmere Road
Scarborough, Ontario
M1H 2V6

Attention: Mr. Patrick Jabbaz

Re: Phase Two Environmental Site Assessment
805 Dundas Street East
Mississauga, Ontario

Dear Mr. Jabbaz:

Further to your authorization, Haddad Geotechnical Inc. has conducted a Phase Two Environmental Site Assessment of the above-noted property. The results of our investigation, with our site observations, results of laboratory testing, comments and recommendations are presented in the following report.

We trust that the information presented in this report satisfies your present requirements. Should you require further information, please contact our office.

Yours very truly,
HADDAD GEOTECHNICAL INC.

D. Graham Fisher, M.E.Sc., P. Eng., QP_{ESA}

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Phase Two Environmental Site Assessment
805 Dundas Street East, Mississauga, Ontario

Executive Summary

Haddad Geotechnical Inc. was retained by KJC Properties Inc. (the Client) to carry out a Phase Two Environmental Site Assessment (ESA) of the subject property. It is understood that the client proposes to redevelop the property, which is in commercial use, as a multiple unit mix-use residential development. The change in use from commercial to residential will require the filing of a record of site condition (RSC) process as part of City of Mississauga approvals for the proposed re-development.

The purpose of a Phase Two Environmental Site Assessment is to confirm the presence and to further delineate the extent of contamination on a subject property and is accomplished primarily by collecting and analyzing samples of the materials present on a site. For the subject site, the purpose of the current Phase Two Environmental Site Assessment is to provide a general overview of the potential environmental concerns which were identified by a previous Phase One Environmental Site Assessment of the property.

The results of the Phase One Environmental Site Assessment of the subject site and adjacent properties indicated that there were areas of potential environmental concern (APECs), due to potentially contaminating activities (PCAs) on the subject property and at off-locations within the Phase One study area, summarized as follows:

On-Site PCAs:

- PCA1: Existing and former use of the most easterly unit of the 801 Dundas Street East building as a dry-cleaner operation, with documented waste generation of halogenated solvent including perchloroethylene (also known as trichloroethylene). High potential for migration of contaminants, including volatile organic compounds (VOCs) into soils and groundwater on the Property. It noted that the presence of existing monitoring wells to the south and southeast of the above-noted unit suggest a previous investigation of soils and groundwater may have been conducted but no report was available for our review.
- PCA2: Previous ownership of portions of Phase One property by pipeline company and construction companies, potential use of site for storage of construction materials, maintenance of construction equipment, specific location of Phase One property unknown. High potential for migration of contaminants, metals, petroleum hydrocarbons (PHCs), VOCs, polyaromatic hydrocarbons (PAHs) into soils and groundwater below property.
- PCA3: Use of Phase One property as a vehicle parking lot for retail plaza since 1980s. Potential for leaks of automotive fluids, migration of contaminants including PHCs, VOCs into soils and groundwater below property.
- PCA4: Use of Phase One property as a vehicle parking lot for retail plaza since 1980s. Potential for use of salt and other substances for de-icing for public and vehicle safety. Potential migration of contaminants including sodium adsorption ratio (SAR), electrical conductivity (EC) into soils, sodium and chlorides into groundwater below property.

Off-Site PCAs:

- PCA5: Adjacent and up-gradient property to northwest, 3803 Haines Road, records of site condition for property indicates former presence of an underground fuel storage tank, in 2007. Medium potential for contaminants from leaks of fuels (petroleum hydrocarbons, VOCs, metals) from underground storage tank into soil and groundwater in southeast section of Property
- PCA6: Gasoline Station at 820 Dundas Street East, 96.9m east-southeast and cross gradient to lower parts of the south portion of the Phase One property. Existing and former underground fuel storage tanks, one record of surface spill of petroleum product and waste generation of petroleum distillates, waste oils/sludges, light fuels. Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from underground storage tanks and surface spill into soil and groundwater in southeast section of Property
- PCA7: Automobile repair business (Active Green & Ross) at 844 Dundas Street East, east and cross gradient to lower parts of the south portion of the Phase One property. Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from repair operations into soil and groundwater in southeast section of Property

On this basis, it was our recommendation that there is sufficient uncertainty of the environmental condition of the subject Site, to indicate that Phase Two ESA is warranted for the Phase One property. The Client is advised that a Phase Two ESA and completion of a Record of Site Condition (RSC) for the subject Site, in accordance with Ontario Regulation 153/04 (as amended), will be required prior to redevelopment of the site as noted.

The applicable assessment criteria from Ontario Regulation 153/04, for the assessment of analysis data of testing of soil and groundwater samples was made on the following basis:

- The site is not considered to be sensitive, based on the definition set in Ontario Regulation 153/04.
  Groundwater in the vicinity of the subject property in the City of Mississauga is considered to be potable.
- Full depth restoration is to be used.

In light of the above, the criteria selected for the project is Ontario Ministry of the Environment (MECP), “Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act”, April 15, 2011, Table No. 2, “Full Depth Generic Condition Standards in Potable Water Condition”, for sites in residential/parkland property uses, as the proposed property use is residential.

SAR and conductivity in soils are the only exceedance parameters found. Based on Section 49.1.1 from O/Reg. 153/04, as amended December 4, 2019, since the exceedances are solely because of a substance that had been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the property can be considered to meet the applicable site condition standard

The results of the chemical analyses for all parameters analyzed in the groundwater sampled indicated that the concentration of all of the parameters were within the MECP (2011) Table 2 potable water criteria for sites in residential use.

On this basis, the soils and groundwater below the Phase Two property can be considered to meet the appliable site conditions standards, Table No. 2, “Full Depth Generic Condition Standards in Potable Water Condition” for sites in residential use.

Phase Two Environmental Site Assessment
805 Dundas Street East
Mississauga, Ontario

1. INTRODUCTION

1.1 Site Description

1. The site under consideration is located at 799, 801, 803 and 805 Dundas Street East (the Site), in the City of Mississauga, (see Key Map, Drawing No. 1). For the purpose of the present assessment, the Phase Two property is referenced as 805 Dundas Street East, Mississauga.

2. The Property Identification Number (PIN) is 13318-0045 (LT).

3. As the Client proposes to re-develop the site for a more sensitive use (to residential from current commercial uses), the filing of a Record of Site Condition (RSC) is required prior to the completion of the redevelopment. On this basis, the current Phase Two ESA report is prepared in conformance with O.Reg. 153/04 Record of Site Condition (RSC) Standard.

4. The Phase Two property was used as commercial plaza for various retail, restaurant and service businesses at the time of the current assessment.

5. The Phase Two property is located on the north (nominal) side of the Dundas Street East, between Haines Road and Cedar Creek Lane.

1.2 Property Ownership

1. Names and addresses, as well as contact information for the owners, is as listed below:

Phase One Property (the Site):	Phase One Property Owner(s):
799,801,803 and 805 Dundas Street East Mississauga, Ontario, L4Y 2B7 PIN: 13318-0045 (LT).	KJC Properties Inc. 1940 Ellesmere Road Scarborough, ON M1H 2V6 Attn: Patrick Jabbaz

1.3 Current and Proposed Future Uses

1. Based on review of chain of title of the Phase One property and review of municipal directories as well as Fire Insurance Plans (FIPs) available for the area, it was determined that the Site was initially developed in the mid 1980s for commercial use.

2. At the time of our investigation, the subject site is used as commercial plaza and parking lot for retail, restaurant, and service businesses.

3. The change from commercial to residential would prohibit the new use unless a record of site condition is filed for the property (Section 168.3.1 of the Act).

1.4 Applicable Site Condition Standards

1. The applicable assessment criteria from Ontario Regulation 153/04 (as amended), for the assessment of analysis data of testing of soil and groundwater samples was made on the following basis:
    - The site is not considered to be sensitive, based on the definition set in O.Reg. 153/04;
    - For the purpose of this assessment, groundwater in the vicinity of the subject property in the City of Mississauga is considered to be potable;
    - Full depth restoration is to be used;
    - The proposed land use is residential.

2. In light of the above, the criteria originally selected for the project is Ontario Ministry of the Environment, Conservation and Parks (MECP), "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act," April 15, 2011, Table 2, "Full Depth Generic Condition Standards in Potable Water Condition", for sites in residential/parkland property uses, as the proposed property use is residential.

2. BACKGROUND INFORMATION

2.1 Physical Setting

1. The site under consideration lies on the north (nominal) side of the Dundas Street East, between Haines Road and Cedar Creek Lane, in the City of Mississauga (see Key Map, Drawing No. 1).

2. The subject property has a total area of 3.14 acres (1.27 Ha). The subject property was occupied by a retail plaza, with four detached, single-storey buildings. The areas of the property beyond the limits of the above-noted buildings are occupied by asphalt-paved driveways and parking areas. The approximate UTM coordinates for the site are 613180E, 4828115N.

3. The subject property is bounded on the east by Haines Road, on the west by Cedar Creek Lane, on north by 14-unit townhouse in residential use (3038 Haines Road) and on the south by Dundas Street East.

2.2 Previous Investigations/Assessments

1. A Phase One Environmental Site Assessment (Ref. 1) of the subject property was conducted by Haddad Geotechnical Inc., with findings as presented in our report dated June 17, 2022. The results of the Phase One Environmental Site Assessment of the subject site and adjacent properties indicated that there were indicators of potential contamination due to prior and current uses of the subject site.

2. The results of the Phase One Environmental Site Assessment of the Phase One property indicated multiple potential contaminating activities (PCAs), which could be contributing to areas of potential environmental concerns (APECs) at the Phase One property, due to prior and current uses of the subject Site and adjacent properties, These PCAs are listed as follows, and summarized in Table No. 1, with locations as shown on Drawing No. 2:

On-site PCAs:

- **PCA1**: Existing and former use of the most easterly unit of the 801 Dundas Street East building as a dry-cleaner operation, with documented waste generation of halogenated solvent including perchloroethylene (also known as trichloroethylene). High potential for migration of contaminants, including volatile organic compounds (VOCs) into soils and groundwater on the Property. It noted that the presence of existing monitoring wells to the south and southeast of the above-noted unit suggest a previous investigation of soils and groundwater may have been conducted but no report was available for our review.
- **PCA2**: Previous ownership of portions of Phase One property by pipeline company and construction companies, potential use of site for storage of construction materials, maintenance of construction equipment, specific location of Phase One property unknown. High potential for migration of contaminants, metals, petroleum hydrocarbons (PHCs), VOCs, polyaromatic hydrocarbons (PAHs) into soils and groundwater below property.
- **PCA3**: Use of Phase One property as a vehicle parking lot for retail plaza since 1980s. Potential for leaks of automotive fluids, migration of contaminants including PHCs, VOCs into soils and groundwater below property.
- **PCA4**: Use of Phase One property as a vehicle parking lot for retail plaza since 1980s. Potential for use of salt and other substances for de-icing for public and vehicle safety. Potential migration of contaminants including sodium adsorption ratio (SAR), electrical conductivity (EC) into soils, sodium and chlorides into groundwater below property.

Off-site PCAs:

- **PCA5**: Adjacent and up-gradient property to northwest, 3803 Haines Road, records of site condition for property indicates former presence of an underground fuel storage tank, in 2007. Medium potential for contaminants from leaks of fuels (petroleum hydrocarbons, VOCs, metals) from underground storage tank into soil and groundwater in southeast section of Property
- **PCA6**: Gasoline Station at 820 Dundas Street East, 96.9m east-southeast and cross gradient to lower parts of the south portion of the Phase One property. Existing and former underground fuel storage tanks, one record of surface spill of petroleum product and waste generation of petroleum distillates, waste oils/sludges, light fuels. Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from underground storage tanks and surface spill into soil and groundwater in southeast section of Property
- **PCA7**: Automobile repair business (Active Green & Ross) at 844 Dundas Street East, east and cross gradient to lower parts of the south portion of the Phase One property. Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from repair operations into soil and groundwater in southeast section of Property.

3. On this basis, it is recommended that a Phase Two Environmental Site Assessment is to be carried out prior to the submission of a Record of Site Condition for the Phase One property, as per current criteria of Ontario Regulation 153/04 (amended by 511/09).

4. Areas of Potential Environmental Concern (APECs) were identified by the Qualified Person in the Phase One ESA, as listed in Table No. 2, below, and as shown in the plan view on Drawing No. 3.

3. SCOPE OF THE INVESTIGATION

3.1 Overview of the Investigation

1. The fieldwork at the site was carried out on July 11th to 15th, 2022 consisted of the drilling of eight (8) boreholes, with installation of eight (8) monitoring wells for sampling of groundwater at all borehole locations (Borehole Nos. 1, 2, 3, 4, 5, 6, 7, and 8)

2. Representative samples of soils were obtained from the site, and were analysed for the following parameters:
   - Metals and Inorganics,
   - Petroleum Hydrocarbons (F1-F4),
   - BTEX parameters and
   - Volatile Organic Compounds (VOCs)
   - Polychlorinated Biphenyls (PCBs)
   - Polycyclic Aromatic Hydrocarbons (PAHs)

3. Representative samples of groundwater were obtained from the site, and were analysed for the following parameters:
   - Metals and Inorganics,
   - Petroleum Hydrocarbons (F1-F4),
   - BTEX parameters and
   - Volatile Organic Compounds (VOCs)
   - Polycyclic Aromatic Hydrocarbons (PAHs)

3.2 Media Investigated

1. The media investigated below the site include natural soils, as well as groundwater.

2. The rationale for borehole locations and depths for the assessment are as follows:

3. The presence of a drycleaning business in operation since the initial development of the site in the 1980s presents a potential for presence of leaching or leaks of dry-cleaning fluids (PHCs, VOCs) into soils and groundwater in the northeast section of the site.

4. The presence of a vehicle parking lot and driveways in area shown the limits of the existing buildings on the site presents a potential for leaks of vehicle fluids (PHCs, VOCs) and salts from de-icing operations (sodium, chlorides, electrical conductivity, sodium adsorption ratio) into the underlying soils and groundwater.

5. The previous ownership of portions of the subject site by pipeline and construction companies, prior to develop of current commercial plaza, presents a potential for migration of contaminants, metals, petroleum hydrocarbons (PHCs), VOCs, polyaromatic hydrocarbons (PAHs) into soils and groundwater below the property.

Borehole Nos.	Rationale for Borehole Location
BH1/MW1	Located in central area of the site. Area of APEC 2, APEC 3, APEC 4. Borehole to be advanced with sampling of soils to bedrock surface, coring of bedrock to 16.8±m depth. Monitoring well installed for groundwater sampling and testing.
BH2/MW2	Located in north section of site, south of area of existing dry-cleaning business at 801 Dundas St E. Areas of APEC 2, APEC 3, APEC 4. Borehole to be advanced with sampling of soils to bedrock surface, coring of bedrock to 16.8±m depth. Monitoring well installed for groundwater sampling and testing.
BH3/MW3	Located in east-central area of the site, south of dry-cleaning business. With sampling of soils to bedrock surface, coring of bedrock to 12.2±m depth. Monitoring well installed for groundwater sampling and testing.
BH4/MW4	Located in east-central area of the site, south of dry-cleaning business. Areas of APEC 2, APEC 3, APEC 4. Borehole advanced adjacent to BH3, with sampling of soils to bedrock surface. Monitoring well installed to bedrock for shallow groundwater sampling and testing within overburden soils.
BH5/MW5	Located in southeast area of the site within areas of APEC 3, APEC 4, APEC 6 and APEC7 with sampling of soils to bedrock surface, coring of bedrock to 12.2±m depth. Monitoring well installed for groundwater sampling and testing.
BH6/MW6	Located in southeast area of the site within areas of APEC 3, APEC 4, APEC 6 and APEC7. Borehole advanced adjacent to BH5, with sampling of soils to bedrock surface. Monitoring well installed for groundwater sampling and testing within overburden soils.
BH7/MW7	Located in northwest area of the site within areas of APEC 1, APEC 3, APEC 4 and APEC5 with sampling of soils to bedrock surface, coring of bedrock to 12.2±m depth. Monitoring well installed for groundwater sampling and testing.
BH8/MW8	Located in northeast area of the site within areas of APEC 2, APEC 3, APEC 4 and APEC 5. Borehole advanced with sampling of soils to bedrock surface. Monitoring well installed for groundwater sampling and testing within overburden soils.

6. The presence of a vehicle parking lot and driveways in area of the existing buildings on the site presents a potential for leaks of vehicle fluids (PHCs, VOCs) and salts from de-icing operations (sodium, chlorides, electrical conductivity, sodium adsorption ratio) into the underlying soils and groundwater.

7. The previous ownership of portions of the subject site by pipeline and construction companies, prior to develop of current commercial plaza, presents a potential for migration of contaminants, metals, petroleum hydrocarbons (PHCs), VOCs, polyaromatic hydrocarbons (PAHs) into soils and groundwater below the property.

8. The historical presence of an underground fuel storage tank on the adjacent northwest and upgradient property presents a medium potential for contaminants from leaks of fuels (petroleum hydrocarbons, VOCs, metals) from the underground storage tank into soil and groundwater, due to inferred direction of groundwater flow from north to south.

9. The presence of existing and historical gasoline station and auto-repair businesses, east and southeast, cross gradient to the site, presents a potential for gradient contaminants (petroleum hydrocarbons, VOCs, metals) in soil and groundwater below the south area of the site.

10. On this basis, soil and groundwater was tested for metals and inorganics, PHCs, PAHs and VOCs as identified by the findings of the Phase One Environmental Site Assessment.

11. There was no sediment present on the site, therefore no sampling of sediment was performed during this investigation.

3.3 Phase One Conceptual Site Model

1. The Phase One Conceptual Site Model is presented in Drawing Nos. 2 and 3. The plan shows the location of potentially contaminating activities (PCAs) within the Phase One study area (250m radius from subject property) and presents a detail view of the area of the subject property and immediately adjacent areas.

2. The assessment has identified various potential contaminating activities (PCAs) both on-site and off-site of the Phase One property, resulting in areas of potential environmental concern (APECs) of the groundwater below the Phase One property; most notably former dry cleaning operations on the property, historical ownership of portions of the site by construction companies, presence of a vehicle parking lot and off-site, historical underground fuel storage tank on adjacent upgradient property to northwest, upgradient to the northwest, use of the property as a vehicle parking lot, use of solvents for auto parts repairs, potential for presence of fill materials of unknown origin in backfill of basement of former structures on the property, presence of electrical transformers near the southwest corner of the property, historical presence of former gasoline service station with underground storage tanks north (upgradient) of the property.

3. The above PCAs create a potential for contamination of soils and groundwater below the entire area of the Phase One Property, with Metals, Petroleum Hydrocarbons (PHCs), BTEX (Benzene, Toluene, Ethylbenzene, Xylene) and Volatile Organic Compounds (VOCs), Polycyclic Aromatic Hydrocarbon (PAHs), metals and other regulated parameters related to salt use.

4. The absence of specific information on the variance of soil and groundwater conditions beyond the limits of the subject property presents uncertainty on how the contaminants associated with off-site potential contaminating activities (PCAs) will or will not migrate toward the subject property. Therefore, some of the off-site PCA locations could be discounted on the basis of direction of groundwater movement and all of the off-site PCA locations are referenced in the APEC table.

3.4 Deviations from Sampling and Analysis Plan

1. The Sampling and Analysis Plan (SAP) is presented in Appendix “A”.

2. Deviations from the SAP included location of boreholes and monitoring wells being moved due to presence of underground utilities, most notably natural gas lines to the north (nominal) of the 801 Dundas Street East building, and easements along the west section of the property by high-pressure natural gas pipelines and City of Mississauga sewer easement.

3. No other deviations from the SAP were noted.

3.5 Impediments

1. No impediments or denial of access were encountered during this investigation, other than minimum required setbacks from buried pipelines and sewers as noted above.

4. INVESTIGATION METHOD

4.1 General

1. The fieldwork at the site was carried out on July 11th to 15th, 2022 consisted of the drilling of eight (8) boreholes, with installation of eight (8) monitoring wells for sampling of groundwater, at the locations shown on the Borehole Location Plan, Drawing No. 4. Groundwater monitoring wells were installed at Borehole Nos. 1, 2, 3, 4, 5, 6, 7 and 8 followed by development, purging and sampling of the groundwater from the wells.

4.2 Drilling and Excavating

1. The drilling and sampling of boreholes and the installation of the groundwater monitoring wells was conducted concurrently by Landshark Drilling using rubber track-mounted, power drilling equipment, employing continuous flight, solid stem augers.

4.3 Soil Sampling

1. Detailed descriptions of the subsoils encountered are presented on the borehole logs, Drawing Nos. B1 to B8, Appendix “B”.

2. The sampling of soils in the boreholes was carried out with a 50mm diameter, split spoon sampler, driven by a 140-lb hammer, falling 30" (760mm). Sampling was conducted at 0.76±m intervals from surface.

3. Between each sampling event, the samplers were washed using a solution of water and dish detergent, then rinsed with water, before and after each sampling event, in order to minimize potential cross-contamination between samples.

4.4 Field Screening Measurements

1. Headspace measurements of combustible vapours were made, using a RKI Eagle 2 Photoionization Detector (PID), VOCs and Hydrocarbon analyser, with the results of the measurements for each sample being presented on the Borehole Logs in Drawing No. B1 to B8.

2. The PID can detect combustible vapours related to volatile organic compounds (VOCs). The detection limit for measurements is 0.5ppm, with accuracy of 10% or 2ppm. Span gas for calibration is isobutylene. Calibration of this device was conducted by the equipment rental company, Maxim Environmental and Safety Inc., and a certificate of calibration was received along with the device.

3. The headspace measurements were used as a guideline for the extent of areas to be explored, as well as a basis for selection of samples of subsoils for chemical analysis for presence of PHCs and VOCs.

4. The headspace measurements at each borehole location were generally below detectable levels.

4.5 Groundwater Well Monitoring Installation

1. The locations of the monitoring wells were chosen on the basis of providing a minimum of three points for determining the direction of groundwater flow, as well as to provide sampling points in the area of the site, which may have been impacted by potentially contaminating activities.

2. Groundwater monitoring wells were installed at Borehole Nos. 1 to 8. Details of monitoring well construction are presented on Table No. 3, with the log for the well installation being presented with the borehole logs in in Drawing No. B1 to B8, Appendix “B’.

3. The water levels in the Monitoring Wells were measured using a Solinst interface probe. The water level measurements are shown in Table No. 4.

4. The monitoring wells were developed by over pumping using bailers. Well development was used to remove fine particles from the filter pack and to remove the sediment from the well to ensure that the samples collected are representative of surrounding aquifer conditions while stabilizing the filter pack around the well screen and reducing the amount of sediment produced during sample collection.

5. Water from monitoring wells was removed from the well until the water appeared to have minimal sediment, approximately three well volumes of water were removed from each of the wells.

4.6 Groundwater: Field Measurements of Water Quality Parameters

1. The wells were sampled using a low-flow sampling method, which consisted of a Horiba U22 flow through cell (a multi-parameter water quality meter) connected to a bladder pump. The elevation of the water was measured before and after development as well as before and after each purging and sampling event, with results as presented in Table No. 4.

2. Water was pumped from the well using the bladder pump at a rate ranging between 0.1 to 0.5L/min through the multi-probe and measurements were recorded at 10-minute intervals until stable readings were achieved between three consecutive readings. Measurements for Temperature, pH, Conductivity, Turbidity, Dissolved Oxygen and Oxygen Reducing Potential (ORP) were recorded until ±0.2 pH, ±3% Conductivity, ±20mV ORP and ±0.2mg/L Dissolved Oxygen was achieved between three consecutive readings.

4.7 Groundwater: Sampling

1. Monitoring wells were sampled on August 2, 2022. All sampling was conducted using a bladder pump and the Horiba U22 (as described above) and new tubing.

2. All groundwater samples were delivered within 12 hours of sampling to ALS Environmental, where measurement of temperature was conducted upon receipt of the samples, as indicated on the certificates of analysis, Appendix “C”.

4.8 Sediment Sampling

1. No sediment was observed to be present on the subject property. On this basis, no sampling of sediment was conducted.

4.9 Analytical Testing

1. Chemical Analysis of soil and groundwater samples obtained in August 2022 was conducted by ALS Environmental, in Waterloo, Ontario.

4.10 Residue Management

1. Residues, including drill spoils from the drilling operations and water from development and purging of the monitoring wells, were retained on the subject Site in steel drums, pending the results of chemical analysis.

4.11 Elevation Surveying

1. The surface elevations at the boreholes are referenced to a benchmark, located on the catch basin at the southeast corner of the parking lot, with an elevation of 124.71±m (see Drawing No. 4).

4.12 Quality Assurance and Quality Control Measures

1. Soil and groundwater samples were placed in sealed glass jars and were placed in coolers with ice packs pending delivery to ALS Environmental.

2. Sample jars were individually labeled with our project number (#16145), company name (Haddad Geotechnical Inc.), site address (805 Dundas Street East), borehole location and sample number, as well as requested chemical analysis for each sample.

3. The split spoon sampler used in boreholes was washed using a solution of water and dish detergent, then rinsed with water, before and after each sampling event, in order to minimize potential cross-contamination.

4. For groundwater monitoring well development and sampling, new bailers were used in each well for development. For each purging and sampling event, new tubing was used for the pump and the Horiba U-22 flow through cell. A new bladder was installed in the pump for each well for each sampling event.

5. REVIEW AND EVALUATION

5.1 Geology

1. The surficial materials at Borehole Nos. 1, 2, 3 and 7 were observed to consist of 100±mm of asphalt, underlain by 100±mm of granular materials. The surficial materials at Borehole No. 5 were observed to consist of 100±mm of grass and topsoil. The surficial materials at Borehole No. 8 were observed to consist of 100±mm of concrete slab.

2. Disturbed native materials consisting of loose to compact sand and/or or sandy silt with trace gravels and trace silt and occasional crushed stone/rock, in moist condition and brown in colour, were observed below the surficial materials at borehole locations 1, 2, 3, 5, 7 and 8 and extended to depths of 2.3±m, 1.5±m, 1.5±m, 1.5±m, 1.5±m and 1.5±m below the existing grades, respectively.

3. Natural, medium dense to very dense, sand subsoils with trace to some gravels and trace silt were observed to underlie the fill materials at borehole locations 2, 3, 5, 7 and 8 and extended to 7.3±m, 7.6±m, 6.1±m, 2.3±m, and 6.1±m below existing grades, respectively. The results of Standard Penetration Tests (SPT) in the sand subsoils indicated penetration resistance of 27 blows per 300mm to over 50 blows per 100mm.

4. Natural, medium dense to very dense, silty sand or silty sand till subsoils with trace gravels and trace clay were observed to underlie the fill materials at borehole location 1 and upper natural subsoils at borehole locations 3, 5 and 7 and extended to 7.3±m, 7.8±m, 6.3±m, and 5.2±m below existing grades, respectively. The results of Standard Penetration Tests (SPT) in the silty sand or silty sand till subsoils indicated penetration resistance of 18 blows per 300mm to over 50 blows per 50mm.

5. The surface of weathered bedrock was encountered at depths of 7.3±m, 7.3±m, 7.6±m, 6.3±m, 5.2±m and 6.1±m depths below existing grades at Borehole Nos. 1, 2, 3, 5, 7 and 8 respectively (elevations ranging from 117.3±m to 120.6±m).

5.2 Groundwater Elevation and Flow Directions

1. Table No. 4, presents the elevations of groundwater of the Monitoring Wells Nos. 1 to 8, approximately ranging from 4 to 8 days, 12 to 16 days and 24 to 28 days after completion of drilling operations.

2. The measured water levels indicate a groundwater flow direction from north to south and slightly flow direction from east to west across the area of the site.

3. No free-flowing products were detected in the monitoring well.

5.3 Groundwater Hydraulic Gradients

1. The subsurface investigation of the property, coupled with groundwater level measurements in monitoring wells, indicates the presence of an aquifer in the natural silty sand subsoil materials below the site.

2. The gradients in groundwater levels across the site, from north to south and slightly flow direction from east to west across the area of the subject property are approximately 5.3% (i.e., see Drawing No. 5).

5.4 Soil Texture

1. The results of gradation analyses of representative samples of the subsoils obtained from the Site are presented in in Appendix "B." The findings of the gradation analyses indicated that the native subsoils consisted of 2-14% gravels, 49-93% sand, 5-29% silt, 3-8% clay.

2. The samples of the natural sand subsoils contain 49% to 93% sand sizes and finer for all of the samples tested. On this basis, the site condition standard for coarse textured soil criteria was applied.

5.5 Soil: Field Screening

1. The headspace measurements generally indicated the presence of combustible vapours at below measurable levels (0 ppm) for all soil samples at all borehole locations.

2. On this basis, it was determined that headspace vapours were not an indicator of potential contamination. Selection of soil samples to be submitted for chemical analysis were made on the basis of visual examination and classification of soil samples, determination of the sample being fill materials or natural soils, presence of materials in the sample including ash and cinders, etc.

5.6 Soil Quality

1. Representative soil samples of the subsoils encountered in the boreholes were submitted to ALS Environmental., with samples analysed for the following:
   - Metals and Inorganics,
   - Petroleum Hydrocarbons (F1-F4),
   - BTEX parameters and
   - Volatile Organic Compounds (VOCs)
   - Polychlorinated Biphenyls (PCBs)
   - Polycyclic Aromatic Hydrocarbons (PAHs)

2. A listing of the soil samples with location, depth range, sample description, result of on-site screening measurements, and analyses are presented in Table No. 5.

3. The certificates of analysis provided by ALS Environmental. are presented in Appendix "C". The results of chemical analysis of soils samples are summarized on Table Nos. 6-1 and 6-2. Samples for which the measured concentrations of individual contaminants were found to exceed the criteria of MECP (2011) Table 2 criteria are indicated in bold and are highlighted in red.

4. The results of chemical analysis of soil samples indicated that the measured concentrations of the parameters tested are within the criteria of Ontario Ministry of the Environment (MECP), “Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act”, April 15, 2011, Table No. 2, “Full Depth Generic Condition Standards in Potable Water Condition”, for sites in residential/parkland property uses, fine to medium soils.

5. The concentrations of contaminants SAR and conductivity in soils that were found in excess of the Table 2 SCS on the Phase Two property may be attributed to the use of substance for snow and ice control on the parking lot on the Phase Two property. Based on Section 49.1.1, O.Reg. 153/04, as amended December 4, 2019, since the exceedance is solely because of a substance that had been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the property can be considered to meet the applicable site condition standard

6. On this basis, the measured concentrations of all potential contaminants of concern in soils are found to meet the applicable site condition standard.

5.7 <u>Groundwater Quality</u>

1. Samples of the groundwater were obtained from Monitoring Well Nos. 1 to 8 on August 2, 2022. The samples were submitted to ALS Environmental, with samples analyzed for the following:
   - Metals and Inorganics,
   - Petroleum Hydrocarbons (F1-F4),
   - BTEX parameters and
   - Volatile Organic Compounds (VOCs)
   - Polycyclic Aromatic Hydrocarbons (PAHs)

2. The certificates of analysis provided by ALS Environmental are presented in Appendix "C". A summary of the well locations, sampling dates, sampling depths, and analysis dates are presented on Table No. 7.

3. The groundwater samples were taken from the approximate centre of the screened interval in each of the monitoring wells.

4. The results of chemical analyses of groundwater samples do not indicate the presence of light non-aqueous phase liquids (LNAPLs) or dense non-aqueous phase liquids (DNAPLs).

5. The results of chemical analysis of groundwater samples indicated that the measured concentrations of the parameters tested are within the criteria of Ontario Ministry of the Environment (MECP), “Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act”, April 15, 2011, Table No. 2, “Full Depth Generic Condition Standards in Potable Water Condition”, for sites in residential/parkland property uses, fine to medium soils.

6. On this basis, it is stated that there are no contaminants of concern in groundwater at the Phase Two Property.

5.8 Quality Assurance and Quality Control

1. Duplicate field samples of soil and groundwater were taken for each parameter.

2. Duplicate field samples of soil were obtained from BH1.

3. All Analytical Protocols were followed with respect to holding time, preservation method, field filtering, storage requirements and container types for all samples that were obtained.

4. In addition to the on-site measures detailed in Section 4.12, above, all samples of soils and groundwater were obtained and placed in labeled and sealed glass jars, and delivered to ALS Canada Laboratory, within 24 hours of the sampling event.

5. A review of the results of analysis of field duplicate samples of soil and groundwater was conducted. In all instances, the relative percent difference (RPD) of results between original and field duplicate samples were well within a maximum RPD of 25%, which is considered to be an acceptable level.

6. Duplicate analysis of random samples was conducted at ALS Environmental.

7. All certificates of analysis received from ALS Environmental comply with subsection 47(3) of Regulation 153/04 (2011). A certificate of analysis has been received from ALS Environmental for each sample submitted for analysis. All certificates of analysis received have been included in full in Appendix “C”.

8. The overall quality of field data from the investigation did not affect decision making in the selection and analysis of samples. The overall objectives of the investigation and the assessment were met.

5.9 Phase Two Conceptual Site Model

1. The Phase Two Conceptual Site Model (CSM) is presented in Appendix F.

6. CONCLUSIONS

1. The results of chemical analysis of soil samples indicated that the measured concentrations of the parameters tested are within the criteria of Ontario Ministry of the Environment (MECP), “Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act,” April 15, 2011, Table No. 2, “Full Depth Generic Condition Standards in Potable Water Condition”, for sites in residential/parkland property uses.

2. The results of the chemical analyses for all parameters analyzed in the groundwater sampled indicated that the concentration of all of the parameters were within the MECP (2011) Table 2 potable water criteria for sites in residential use.

3. On this basis, the soils and groundwater below the Phase Two property can be considered to meet the appliable site conditions standards, Table No. 2, “Full Depth Generic Condition Standards in Potable Water Condition” for sites in residential use.

7. QUALIFICATIONS OF ENVIRONMENTAL ASSESSOR

1. The current Phase Two Environmental Site Assessment Update was conducted by Mr. D. Graham Fisher, M.E.Sc., P.Eng., QP_{ESA}.

2. Mr. Fisher has been the President of Haddad Geotechnical Inc. since 1988, and has over thirty years of professional engineering experience, in Alberta and Ontario, in a wide range of geotechnical and environmental engineering projects, including site assessment and remediation.

3. Mr. Fisher holds degrees of Bachelor of Engineering Science in Civil Engineering (1979) and Master of Engineering Science in Geotechnical Engineering (1982), both from the University of Western Ontario. He is a registered Professional Engineer in the Province of Ontario since 1984, and a designated Consulting Engineer since 1990.

4. Mr. Fisher is a Qualified Person by Ontario Ministry of the Environment for purpose of submitting Record of Site Condition.

8. REPORT LIMITATIONS

1. It should be noted that the information, observations, and recommendations presented in this report are of a general nature only and are limited to the exposed areas on the site, portions of the surrounding sites visible from the subject site and public areas. Should additional information become apparent upon access to restricted areas, excavation or construction, or further investigation, our office should be contacted so that the situation may be reassessed and alternate recommendations made, if deemed necessary.

2. This Phase Two Environmental Site Assessment report was prepared for the exclusive use of KJC Properties Inc. and their designated agents and financial institution.

3. The information provided and recommendations presented in this report reflect the best judgement of Haddad Geotechnical Inc. in light of the information available to it at the time of preparation. Any use which third parties, other than those named above, makes of this report or any reliance on or decisions to be based on it are the responsibility of those third parties. Haddad Geotechnical Inc. accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.

4. This Phase Two Environmental Site Assessment has been carried out in conformance with Ontario Regulation 153/04, as amended.

9. SIGNATURES

1. The current Phase Two Environmental Site Assessment was conducted under the direct supervision of Mr. D. Graham Fisher, M.E.Sc., P.Eng., QP_{ESA}. The carrying out of the Phase Two ESA and the findings and conclusion of the report are confirmed by Mr. Fisher.

We trust that the information presented in this report satisfies your present requirements. Should you require further information, please contact our office.

Yours very truly,
HADDAD GEOTECHNICAL INC.

D. Graham Fisher, M.E.Sc., P. Eng., QP_{ESA}

Encs.
Dist:
KJC Properties Inc. - 1 hard copy & pdf
file: 2216145.805 Dundas Street East.p2esaRSC

10. REFERENCES

1. Ontario Ministry of the Environment (MECP), “Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act,” April 15, 2011, Table 2, “Full Depth Generic Condition Standards in Potable Water Condition”.
2. Ontario Regulation 153/04 Records of Site Condition, as amended.
3. “Phase One Environmental Site Assessment, 799, 801, 803 and 805 Dundas Street East, Mississauga, Ontario”, prepared for KJC Properties Inc., by Haddad Geotechnical Inc., Project 22-16145.
4. Google Earth, 2022 DigitalGlobe©.

FIGURES & TABLES

LIMITS OF PHASE ONE PROPERTY

LIMITS OF PHASE ONE STUDY AREA

N

SCALE

0 50 100 150 200m

Site Plan is excerpt from Surveyor's Real Property Report, Aksan Piller Corporation, May 30 2022

HADDAD GEOTECHNICAL INC.
151 Amber Street, Unit 17
Markham, Ontario, Canada, L3R 3B3
905-475-0951, fax: 905-475-8338
info@haddadgeo.com

799-805 DUNDAS ST. E., MISSISSAUGA

PHASE ONE STUDY AREA

SCALE AS NOTED
DRAWN BY: GF

PROJECT: 22-16145
DRAWING No. 1
DATE: JUNE 16, 2022

LOCATION OF POTENTIALLY CONTAMINATING ACTIVITY (PCA)

LOCATION OF HISTORICAL UNDERGROUND STORAGE TANK

LIMITS OF PHASE ONE PROPERTY

LIMITS OF PHASE ONE STUDY AREA

INFERRED DIRECTION OF GROUNDWATER FLOW

N

SCALE

0 50 100 150 200m

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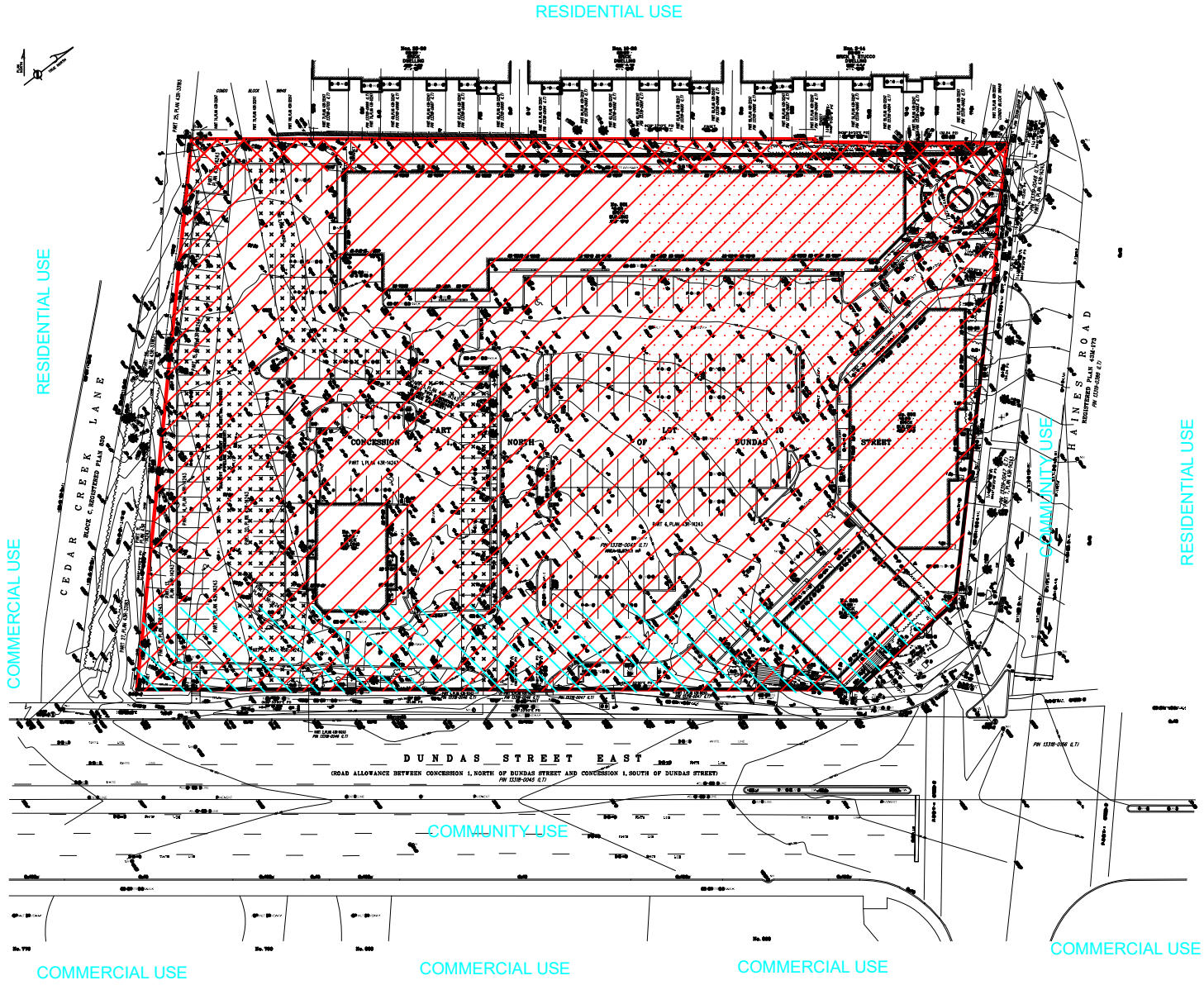
799-805 DUNDAS ST. E., MISSISSAUGA

PLAN SHOWING LOCATIONS OF POTENTIAL CONTAMINATING ACTIVITIES (PCAs)

SCALE AS NOTED
DRAWN BY: GF

PROJECT: 22-16145
DRAWING No. 2
DATE: JUNE 16, 2022



Subject Property

Phase One Property

Existing Easements (Trans Northern Pipeline, City of Mississauga)

APEC 1- Northeast portionof of property. PCA1: (on-site) 801 Dundas St E., dry cleaner business

APEC 2- Entire area of property. PCA2: 799-801,803,805 Dundas St E. (on-site), construction businesses on site

APEC 3- Entire area of property. PCA3 (on-site) automobile parking lot. Contaminants from automobile leaks

APEC 4- Entire area of property. PCA4 (on-site) automobile parking lot Use of substances for de-icing

APEC 5- Northwest portion of corner of property, PCA5 (off-site), historical underground fuel tank on adjacent upgradient property

APEC 6 - southeast area of site. PCA6 (off-site, east southeast) gasoline station with underground fuel storage tanks

APEC 7 - southeast area of site. PCA7 (off-site, east) automobile repairs

N

SCALE
0 10 20 30 40m

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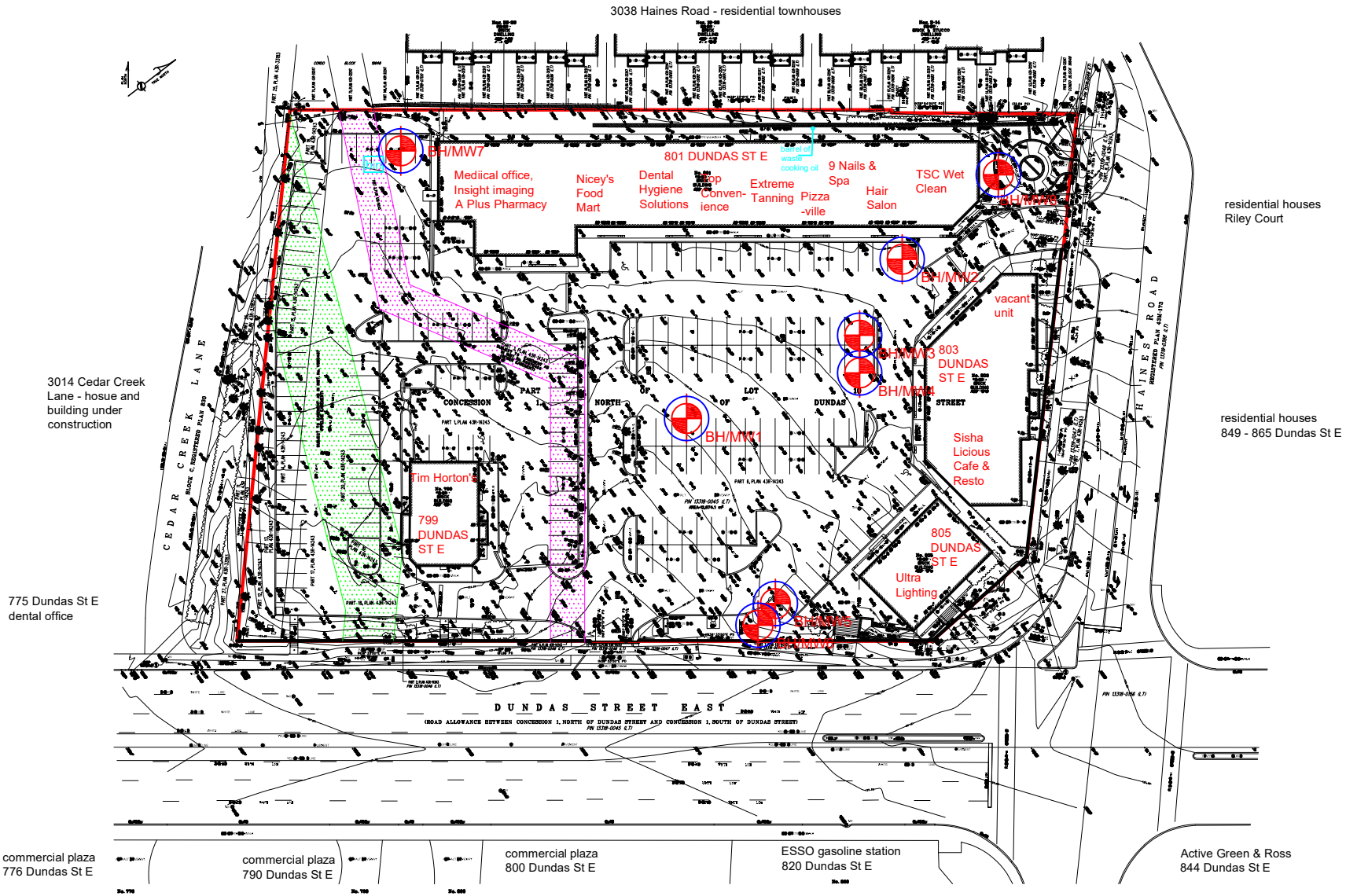
799,801,803 AND 805 DUNDAS STREET EAST, MISSISSAUGA

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN (APECs)

SCALE AS NOTED
DRAWN BY: GF

PROJECT:22-16145
DRAWING No. 3
DATE: JUNE 17, 2022



LIMITS OF PHASE ONE PROPERTY

LIMITS OF EASEMENT- TRANS-NORTH PIPELINES (high pressure gas pipeline)

LIMITS OF EASEMENT- CITY OF MISSISSAUGA (sewer)

MONITORING WELL (approximate location)

Site Plan is excerpt from Surveyor's Real Property Report, Aksan Piller Corporation, May 30 2022

SCALE

0 10 20 30 40m

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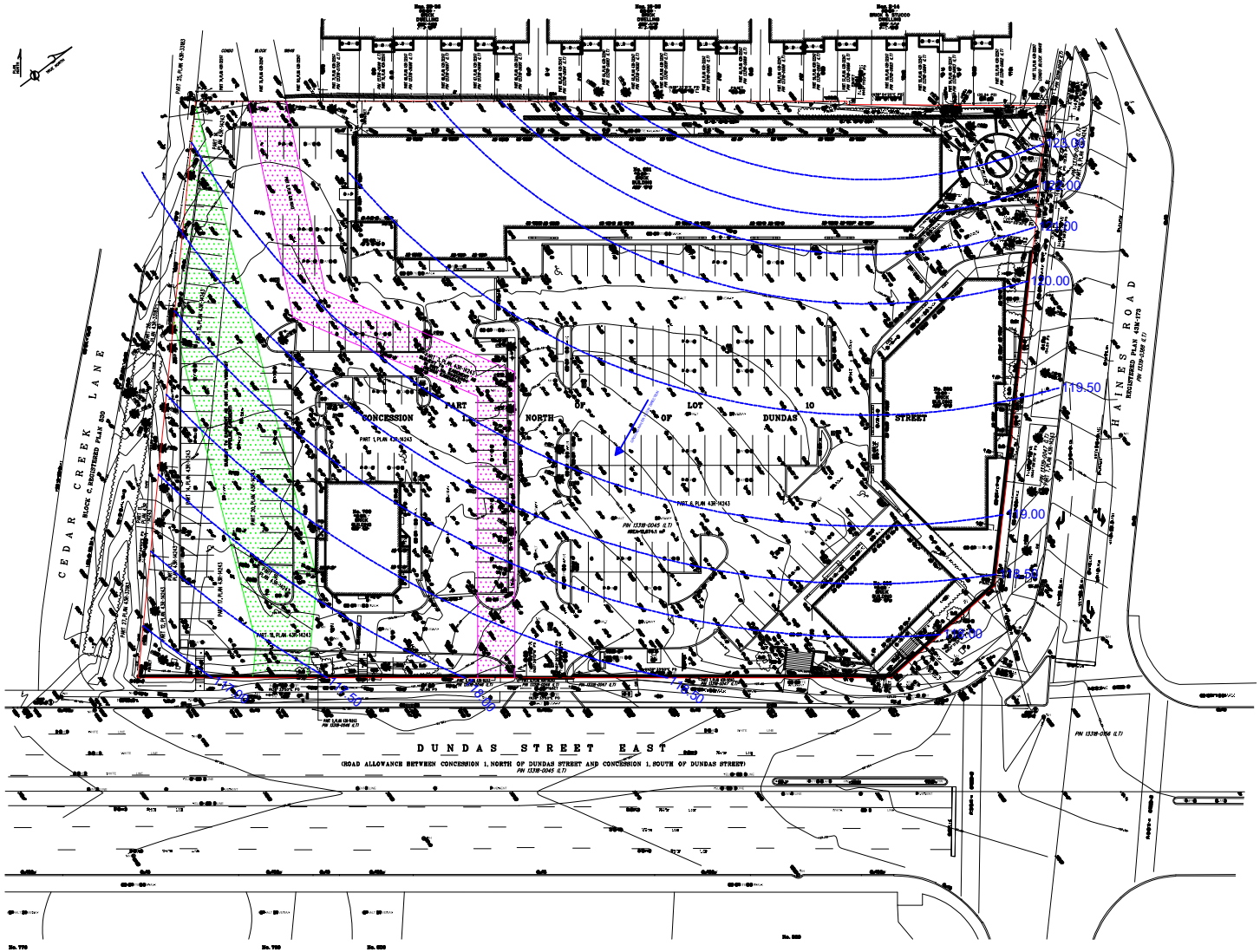
799-805 DUNDAS ST. E., MISSISSAUGA

SITE PLAN SHOWING BOREHOLE/MONITORING WELL LOCATION

SCALE AS NOTED
DRAWN BY: GF

PROJECT: 22-16145
DRAWING No. 4
DATE: JUNE 16, 2022



LIMITS OF PHASE ONE PROPERTY

LIMITS OF EASEMENT- TRANS-NORTH PIPELINES (high pressure gas pipeline)

LIMITS OF EASEMENT- CITY OF MISSISSAUGA (sewer)

SCALE

0 10 20 30 40m

Site Plan is excerpt from Surveyor's Real Property Report, Aksan Piller Corporation, May 30 2022

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799-805 DUNDAS ST. E., MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL
PLAN VIEW: GROUNDWATER CONTOURS

SCALE AS NOTED
DRAWN BY: GF

PROJECT: 22-16145
DRAWING No. 5
DATE: JUNE 16, 2022

Table No. 1
List of Potentially Contaminating Activities (PCAs)

PCA number	Address	Location to RSC Property	Description	Potential APEC on the property (yes/no)	Justification
PCA1	801 Dundas Street East	On-Site, northeast portion	Use of east portion of 801 Dundas building as dry-cleaning businesses, 1980s to 2022	Yes	High potential for migration of contaminants from dry-cleaning operations into soil and groundwater on the Property.
PCA2	799, 801, 803, 805 Dundas Street East	On-Site, entire site	Former ownership of portion of property by pipeline company and construction companies	Yes	High potential for migration of contaminants from storage of construction materials, maintenance of construction vehicles into soil and groundwater on the Property.
PCA3	799, 801, 803, 805 Dundas Street East	On-Site, entire site	Use of Phase One property as a vehicle parking lot for retail plaza since 1980s	Yes	High potential for migration of contaminants from leaks of automotive fluids into soil and groundwater on the Property.
PCA4	799, 801, 803, 805 Dundas Street East	On-Site, entire site	Use of Phase One property as a vehicle parking lot for retail plaza since 1980s	Yes	High potential for migration of contaminants from salt and other substances for de-icing operations, into soil and groundwater on the Property.
PCA5	3803 Haines Road	Off-Site, northwest adjacent property	Historical underground fuel storage tank	Yes	High potential for migration of contaminants from storage of fuel in underground tank on adjacent upgradient property into soil and groundwater on the Property.
PCA6	820 Dundas Street East	Off-Site, east-southeast	Existing and historical gasoline service station	Yes	Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from underground storage tanks and surface spill into soil and groundwater in southeast section of Property
PCA7	844 Dundas Street East	Off-site, east	Automobile repair business	Yes	Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from repair operations into soil and groundwater in southeast section of Property
PCA8	2576 Haines Road	Off-site, east-southeast	Automobile repair businesses	No	Low potential for migration of contaminants (PHCs, BTEX, VOCs) into groundwater on the Property, due to distance and down-gradient location.
PCA9	776 Dundas Street East	Off-site, south	Automobile repair business	No	Low potential for migration of contaminants (PHCs, BTEX, VOCs) into groundwater on the Property, due to distance and down-gradient location.

Table No. 2
Table of Areas of Potential Environmental Concern
(Refer to Clause 16(2)(a), Schedule D, O.Reg. 153/04)
799, 801, 803 and 805 Dundas Street East, Mississauga, PIN 13318-0045 (LT)

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potential Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC-1	Entire Area of Phase One Property	Not applicable-Parking Lot	PCA1 On-site	PHCs BTEX VOCs	Soils and Groundwater
APEC 2	Entire Area of Phase One Property North section of Phase One Property	Not applicable-Parking Lot	PCA2 On-site	SAR, Conductivity Sodium, Chlorides	Soils Groundwater
APEC3	Southeast Section of Phase One Property	37. Operation of Dry-Cleaning Equipment (where chemicals are used)	PCA3 Off-site (southeast)	VOCs	Groundwater
APEC4	Southeast section of Phase One Property	Not Applicable - Funeral Home	PCA4 On-Site (south)	VOCs	Groundwater
APEC5	Southwest Section of Phase One Property	54. Textile Manufacturing and Processing	PCA5 Off-site (southwest)	PHCs BTEX VOCs	Groundwater
APEC6	Southwest Section of Phase One Property	57. Vehicles and Associated Parts Manufacturing	PCA6 Off-site (southwest)	PHCs BTEX VOCs	Groundwater

Table No. 3
Summary of Monitoring Well Installation

Well No.	MW1	MW2	MW3	MW4
Installation Date	July 14, 2022	July 13, 2022	July 13, 2022	July 12, 2022
Pipe diameter, mm	50	50	50	50
Grade Elevation (masl)	124.60	126.00	125.60	125.60
Screened Interval (m)	13.8 – 16.8	9.2-12.2	9.2 – 12.2	2.7-5.8
Screen Length (m)	3.0	3.0	3.0	3.1
Riser Length (m)	13.8	9.2	9.2	2.7
Sand Backfill (m)	13.5 – 16.8	8.9 – 12.2	8.9 - 12.2	2.4 – 5.8
Bentonite Backfill (m)	0.0 – 13.5	0.0 – 8.9	0.0 – 8.9	0.0 – 2.4

Well No.	MW5	MW6	MW7	MW8
Installation Date	July 12, 2022	July 11, 2022	July 11, 2022	July 15, 2022
Pipe diameter, mm	50	50	50	50
Grade Elevation (masl)	124.40	124.40	125.80	126.40
Screened Interval (m)	9.2 – 12.2	2.7 - 5.8	9.2 – 12.2	3.0-6.1
Screen Length (m)	3.0	3.1	3.0	3.1
Riser Length (m)	9.2	2.7	9.2	3.0
Sand Backfill (m)	8.9 – 12.2	2.4 – 5.8	8.9 - 12.2	2.7 – 6.1
Bentonite Backfill (m)	0.0 – 8.9	0.0 – 2.4	0.0 – 8.9	0.0 – 2.7

Table No. 4
Measured Water Levels

Monitoring Well (BH) No.	Existing Grade Elevation, ±m	Reading on July 19, 2022		Reading on July 27, 2022		Reading on August 08, 2022	
		Depth, ±m	Groundwater Elevation at or below, ±m	Depth, ±m	Groundwater Elevation at or below, ±m	Depth, ±m	Groundwater Elevation at or below, ±m
1	124.6	3.83	120.8	4.91	119.7	4.95	119.7
2	126.0	5.20	120.8	5.16	120.8	5.22	120.8
3	125.6	5.80	119.8	5.84	119.8	5.86	119.7
4	125.6	4.80	120.8	5.79	119.8	5.75	119.9
5	124.4	5.79	118.6	6.36	118.0	6.41	118.0
6	124.4	dry	<118.6	dry	<118.6	dry	<118.6
7	125.8	4.92	120.9	5.33	120.5	5.42	120.4
8	126.4	2.84	123.6	2.84	123.6	2.89	123.5

Table No. 5
List of Soil and Groundwater Samples Submitted for Chemical Analyses in 2022

Sample Location	Sample Name	Depth Range (±m)	Date Sampled	Sample Description (headspace measurement, ppm)	Parameters Analyzed
Soil					
BH1-SS2	16145-BH1SS2	1.5-1.9	July 18, 2022	Sand trace gravel and silt, brown, moist (0.0ppm)	Metals & Inorganics Petroleum Hydrocarbons (PHC) Volatile Organic Compounds (VOCs) BTEX, Polychlorinated Biphenyls (PCBs) Polycyclic Aromatic Hydrocarbons (PAHs)
BH1-SS2-FD	16145-BH1SS2-FD	1.5-1.9	July 18, 2022	Sand trace gravel and silt, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX, PCBs, PAHs
BH1-SS6	16145-BH1SS6	6.1-6.6	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX,
BH3-SS2	16145-BH3SS2	1.5-1.9	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX, PCBs, PAHs
BH3-SS5	16145-BH3SS5	0.7-1.2	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX,
BH5-SS3	16145-BH5SS3	2.2-2.7	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX, PCBs, PAHs
BH5-SS6	16145-BH5SS6	6.1-6.6	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX,
BH2-SS1	16145-BH2SS1	0.7-1.2	July 18, 2022	Sand trace gravel and silt, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX, PCBs, PAHs
BH2-SS2	16145-BH2SS2	1.5-1.9	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX,
BH2-SS4	16145-BH2SS4	3.0-3.5	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX,
BH7-SS2	16145-BH7SS2	1.5-1.9	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX, PCBs, PAHs
BH7-SS4	16145-BH7SS4	3.0-3.5	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX,
BH8-SS2	16145-BH8SS2	1.5-1.9	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX, PAHs
BH8-SS3	16145-BH8SS3	2.2-2.7	July 18, 2022	Silty Sand, brown, moist (0.0ppm)	Metals & Inorganics, PHCs, VOCs, BTEX,
Water					
MW1	16145-MW1	14.0-14.5	Aug 03, 2022	Groundwater	Metals & Inorganics, PHCs, VOCs, BTEX,
MW2	16145-MW2	10.0-10.5	Aug 03, 2022	Groundwater	Metals & Inorganics, PHCs, VOCs, BTEX, PAHs
MW3	16145-MW3	10.0-10.5	Aug 03, 2022	Groundwater	Metals & Inorganics, PHCs, VOCs, BTEX, PAHs
MW4	16145-MW4	5.0-5.5	Aug 03, 2022	Groundwater	Metals & Inorganics, PHCs, VOCs, BTEX, PAHs
MW5	16145-MW5	10.0-10.5	Aug 03, 2022	Groundwater	Metals & Inorganics, PHCs, VOCs, BTEX,
MW7	16145-MW7	5.0-5.5	Aug 03, 2022	Groundwater	Metals & Inorganics, PHCs, VOCs, BTEX,
MW8	16145-MW8	10.0-10.5	Aug 03, 2022	Groundwater	Metals & Inorganics, PHCs, VOCs, BTEX, PAHs
Trip Blank	TRIP BLANK	NA	Aug 03, 2022	NA	VOCs, BTEX

Table No. 6-1
Results of Soil Sample Chemical Analyses

			Guidelines 3/04 - April 15, 2011 /Park/Inst. Property ON153/04 Pass Limits									
			Lower	Upper	WT2207852-001 (1)	WT2207852-002 (1)	WT2207852-003 (1)	WT2207852-004 (1)	WT2207852-005 (1)	WT2207852-006 (1)	WT2207852-007 (1)	
Sample												
Description												
Name					16145-BH1SS2	16145-BH1SS2-FD	16145-BH1SS6	16145-BH3SS2	16145-BH3SS5	16145-BH5SS3	16145-BH5SS6	
Sampling Date					19-07-2022	19-07-2022	19-07-2022	19-07-2022	19-07-2022	19-07-2022	19-07-2022	
ALS ID					WT2207852-001	WT2207852-002	WT2207852-003	WT2207852-004	WT2207852-005	WT2207852-006	WT2207852-007	
Test	**Unit**	**LOR**										
Cyanides												
cyanide, weak acid dissociable	mg/kg	0.05		<=0.051	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Hydrocarbons												
chromatogram to baseline at nC50					YES	YES	YES	YES	YES	YES	YES	
F1 (C6-C10)	mg/kg	5		<=65	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
F1-BTEX	mg/kg	5		<=65	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
F2 (C10-C16)	mg/kg	10		<=150	<10	<10	<10	<10	<10	<10	<10	
F3 (C16-C34)	mg/kg	50		<=1300	<50	<50	<50	<50	<50	<50	<50	
F4 (C34-C50)	mg/kg	50		<=5600	<50	<50	<50	<50	<50	81	<50	
hydrocarbons, total (C6-C50)	mg/kg	80			<80	<80	<80	<80	<80	81	<80	
Hydrocarbons Surrogates												
bromobenzotrifluoride, 2- (F2-F4 surr)	mg/kg				440	376	369	352	370	359	426	
dichlorotoluene, 3,4-	mg/kg				28.3	20.7	22.1	25.7	25.5	25.7	22.8	
Metals												
antimony	mg/kg	0.1		<=7.5	<0.10	<0.10	0.28	<0.10	<0.10	<0.10	<0.10	
arsenic	mg/kg			<=18	2.74	2.78	11.8	2.28	5.80	4.03	5.28	
barium	mg/kg			<=390	20.1	19.5	36.0	17.8	26.7	21.3	13.2	
beryllium	mg/kg			<=5	0.26	0.28	1.20	0.18	0.30	0.36	0.14	
boron	mg/kg	5		<=120	<5.0	<5.0	20.3	<5.0	<5.0	5.8	<5.0	
boron, hot water soluble	mg/kg	0.1		<=1.5	0.13	0.14	1.39	0.16	0.11	0.11	<0.10	
cadmium	mg/kg			<=1.2	0.083	0.077	0.023	0.041	0.067	0.106	0.020	
chromium	mg/kg			<=160	9.09	9.23	51.4	5.78	10.6	11.5	4.74	
cobalt	mg/kg			<=22	4.57	4.59	19.7	3.11	5.37	7.20	2.49	
copper	mg/kg			<=180	16.6	16.6	52.3	8.98	22.4	28.3	6.63	
lead	mg/kg			<=120	10.5	10.0	5.70	5.84	9.79	11.7	3.08	
mercury	mg/kg	0.005		<=1.8	0.0153	0.0135	0.0142	0.0054	0.0113	0.0112	<0.0050	
molybdenum	mg/kg			<=6.9	0.35	0.35	0.40	0.19	0.45	0.59	0.16	
nickel	mg/kg			<=130	10.2	10.2	40.3	6.51	11.2	15.2	5.01	
selenium	mg/kg	0.2		<=2.4	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
silver	mg/kg	0.1		<=25	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
thallium	mg/kg	0.05		<=1	0.070	0.070	0.111	0.053	0.072	0.109	<0.050	
uranium	mg/kg			<=23	0.329	0.358	0.697	0.235	0.357	0.436	0.194	
vanadium	mg/kg			<=86	16.8	16.8	38.9	11.9	19.9	19.3	7.84	
zinc	mg/kg			<=340	39.2	40.2	78.2	20.4	42.5	58.7	15.8	
Physical Tests												
conductivity (1:2 leachate)	mS/cm			<=0.7	1.30	1.30	0.457	0.235	0.302	0.410	0.208	
moisture	%				7.48	7.16	6.32	6.36	7.92	6.03	16.6	
pH (1:2 soil:CaCl2-aq)	pH units				7.65	7.73	7.85	7.91	7.74	7.96	7.81	
Polychlorinated Biphenyls												
Aroclor 1016	mg/kg	0.01			<0.010	<0.010		<0.010		<0.010		
Aroclor 1221	mg/kg	0.01			<0.010	<0.010		<0.010		<0.010		
Aroclor 1232	mg/kg	0.01			<0.010	<0.010		<0.010		<0.010		
Aroclor 1242	mg/kg	0.01			<0.010	<0.010		<0.010		<0.010		
Aroclor 1248	mg/kg	0.01			<0.010	<0.010		<0.010		<0.010		
Aroclor 1254	mg/kg	0.01			<0.010	<0.010		<0.010		<0.010		
Aroclor 1260	mg/kg	0.01			<0.010	<0.010		<0.010		<0.010		
Aroclor 1262	mg/kg	0.01			<0.010	<0.010		<0.010		<0.010		
Aroclor 1268	mg/kg	0.01			<0.010	<0.010		<0.010		<0.010		
polychlorinated biphenyls [PCBs], total	mg/kg	0.03		<=0.35	<0.030	<0.030		<0.030		<0.030		
Polychlorinated Biphenyls Surrogates												
decachlorobiphenyl	mg/kg				0.1	0.1		0.1		0.1		
fluorobiphenyl, 2-	mg/kg				N/A	N/A		N/A		N/A		
terphenyl-d14, p-	mg/kg				N/A	N/A		N/A		N/A		
tetrachloro-m-xylene	mg/kg	0.1			<0.1	<0.1		<0.1		<0.1		
Polycyclic Aromatic Hydrocarbons												
acenaphthene	mg/kg	0.05		<=29	<0.050	<0.050		<0.050		<0.050		
acenaphthylene	mg/kg	0.05		<=0.17	<0.050	<0.050		<0.050		<0.050		
anthracene	mg/kg	0.05		<=0.74	<0.050	<0.050		<0.050		<0.050		
benz(a)anthracene	mg/kg	0.05		<=0.63	<0.050	<0.050		<0.050		<0.050		
benzo(a)pyrene	mg/kg	0.05		<=0.3	<0.050	<0.050		<0.050		<0.050		
benzo(b+j)fluoranthene	mg/kg	0.05		<=0.78	<0.050	<0.050		<0.050		<0.050		
benzo(g,h,i)perylene	mg/kg	0.05		<=7.8	<0.050	<0.050		<0.050		<0.050		
benzo(k)fluoranthene	mg/kg	0.05		<=0.78	<0.050	<0.050		<0.050		<0.050		
chrysene	mg/kg	0.05		<=7.8	<0.050	<0.050		<0.050		<0.050		
dibenz(a,h)anthracene	mg/kg	0.05		<=0.1	<0.050	<0.050		<0.050		<0.050		
fluoranthene	mg/kg	0.05		<=0.69	<0.050	<0.050		<0.050		<0.050		
fluorene	mg/kg	0.05		<=69	<0.050	<0.050		<0.050		<0.050		
indeno(1,2,3-c,d)pyrene	mg/kg	0.05		<=0.48	<0.050	<0.050		<0.050		<0.050		
methylnaphthalene, 1-	mg/kg	0.03		<=3.4	<0.030	<0.030		<0.030		<0.030		
methylnaphthalene, 1+2-	mg/kg	0.05		<=3.4	<0.050	<0.050		<0.050		<0.050		
methylnaphthalene, 2-	mg/kg	0.03		<=3.4	<0.030	<0.030		<0.030		<0.030		
naphthalene	mg/kg	0.01		<=0.75	<0.010	<0.010		<0.010		<0.010		
phenanthrene	mg/kg	0.05		<=7.8	<0.050	<0.050		<0.050		<0.050		
pyrene	mg/kg	0.05		<=78	<0.050	<0.050		<0.050		<0.050		
Polycyclic Aromatic Hydrocarbons Surrogates												
fluorobiphenyl, 2-	mg/kg				0.7	0.7		0.7		0.7		
terphenyl-d14, p-	mg/kg				0.7	0.7		0.7		0.7		
Saturated Paste Extractables												
calcium, soluble ion content	mg/L	0.5			73.5	77.3	26.3	<0.50	5.26	<0.50	2.58	
magnesium, soluble ion content	mg/L	0.5			5.25	5.57	5.51	<0.50	<0.50	<0.50	<0.50	
sodium adsorption ratio [SAR]	-			<=5	4.77	4.71	1.28	12.42	6.74	20.77	6.75	
sodium, soluble ion content	mg/L				157	159	27.6	51.9	56.1	86.8	39.4	
Speciated Metals												
chromium, hexavalent [Cr VI]	mg/kg	0.1		<=10	0.21	0.15	<0.10	<0.10	0.13	0.13	<0.10	
Volatile Organic Compounds												
acetone	mg/kg	0.5		<=28	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
benzene	mg/kg	0.005		<=0.17	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
bromodichloromethane	mg/kg	0.05		<=1.9	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
bromoform	mg/kg	0.05		<=0.26	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
bromomethane	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
BTEX, total	mg/kg	0.1			<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
carbon tetrachloride	mg/kg	0.05		<=0.12	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
chlorobenzene	mg/kg	0.05		<=2.7	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
chloroform	mg/kg	0.05		<=0.18	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dibromochloromethane	mg/kg	0.05		<=2.9	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dibromoethane, 1,2-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichlorobenzene, 1,2-	mg/kg	0.05		<=1.7	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichlorobenzene, 1,3-	mg/kg	0.05		<=6	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichlorobenzene, 1,4-	mg/kg	0.05		<=0.097	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichlorodifluoromethane	mg/kg	0.05		<=25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichloroethane, 1,1-	mg/kg	0.05		<=0.6	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichloroethane, 1,2-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichloroethylene, 1,1-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichloroethylene, cis-1,2-	mg/kg	0.05		<=2.5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichloroethylene, trans-1,2-	mg/kg	0.05		<=0.75	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichloromethane	mg/kg	0.045		<=0.96	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	
dichloropropane, 1,2-	mg/kg	0.05		<=0.085	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichloropropylene, cis+trans-1,3-	mg/kg	0.05		<=0.081	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
dichloropropylene, cis-1,3-	mg/kg	0.03			<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
dichloropropylene, trans-1,3-	mg/kg	0.03			<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
ethylbenzene	mg/kg	0.015		<=1.6	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	
hexane, n-	mg/kg	0.05		<=34	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
methyl ethyl ketone [MEK]	mg/kg	0.5		<=44	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
methyl isobutyl ketone [MIBK]	mg/kg	0.5		<=4.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
methyl-tert-butyl ether [MTBE]	mg/kg	0.04		<=1.4	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	
styrene	mg/kg	0.05		<=2.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
tetrachloroethane, 1,1,1,2-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
tetrachloroethane, 1,1,2,2-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
tetrachloroethylene	mg/kg	0.05		<=2.3	<0.050	<0.050	<0.050	<0.050	<0.050	0.064	0.065	
toluene	mg/kg	0.05		<=6	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
trichloroethane, 1,1,1-	mg/kg	0.05		<=3.4	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
trichloroethane, 1,1,2-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
trichloroethylene	mg/kg	0.01		<=0.52	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
trichlorofluoromethane	mg/kg	0.05		<=5.8	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
vinyl chloride	mg/kg	0.02		<=0.022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	
xylene, m+p-	mg/kg	0.03			<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
xylene, o-	mg/kg	0.03			<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	
xylenes, total	mg/kg	0.05		<=25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	
Volatile Organic Compounds Surrogates												
bromofluorobenzene, 4-	mg/kg				0.23	0.19	0.20	0.22	0.22	0.23	0.20	
difluorobenzene, 1,4-	mg/kg				0.32	0.26	0.27	0.30	0.31	0.31	0.27	

Table No. 6-2
Results of Soil Sample Chemical Analyses

			Guidelines 3/04 - April 15, 2011 /Park/Inst. Property ON153/04 Pass Limits								
			Lower	Upper	WT2207852-008 (1)	WT2207852-009 (1)	WT2207852-010 (1)	WT2207852-011 (1)	WT2207852-012 (1)	WT2207852-013 (1)	WT2207852-014 (1)
Sample											
Description											
Name					16145-BH6SS1	16145-BH6SS2	16145-BH6SS4	16145-BH7SS2	16145-BH7SS4	16145-BH8SS2	16145-BH8SS3
Sampling Date					19-07-2022	19-07-2022	19-07-2022	19-07-2022	19-07-2022	19-07-2022	19-07-2022
ALS ID					WT2207852-008	WT2207852-009	WT2207852-010	WT2207852-011	WT2207852-012	WT2207852-013	WT2207852-014
Test	**Unit**	**LOR**									
Cyanides											
cyanide, weak acid dissociable	mg/kg	0.05		<=0.051	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Hydrocarbons											
chromatogram to baseline at nC50	-				YES	YES	YES	YES	YES	YES	YES
F1 (C6-C10)	mg/kg	5		<=65	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
F1-BTEX	mg/kg	5		<=65	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	mg/kg	10		<=150	<10	<10	<10	<10	<10	<10	<10
F3 (C16-C34)	mg/kg	50		<=1300	<50	<50	<50	<50	<50	<50	<50
F4 (C34-C50)	mg/kg	50		<=5600	<50	<50	<50	<50	<50	<50	<50
hydrocarbons, total (C6-C50)	mg/kg	80			<80	<80	<80	<80	<80	<80	<80
Hydrocarbons Surrogates											
bromobenzotrifluoride, 2- (F2-F4 surr)	mg/kg				337	354	333	397	367	374	346
dichlorotoluene, 3,4-	mg/kg				18.1	24.5	20.2	23.2	25.7	24.7	24.1
Metals											
antimony	mg/kg	0.1		<=7.5	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
arsenic	mg/kg			<=18	4.48	1.72	2.57	5.45	1.65	1.82	3.49
barium	mg/kg			<=390	51.5	12.8	25.9	54.2	10.9	19.1	29.6
beryllium	mg/kg			<=5	0.44	0.16	0.24	0.22	0.20	0.18	0.29
boron	mg/kg	5		<=120	6.9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
boron, hot water soluble	mg/kg	0.1		<=1.5	<0.10	<0.10	<0.10	<0.10	0.11	<0.10	0.17
cadmium	mg/kg			<=1.2	0.124	0.042	0.061	0.040	0.026	0.036	0.041
chromium	mg/kg			<=160	12.2	5.92	10.5	7.15	6.29	6.98	8.4
cobalt	mg/kg			<=22	7.46	2.74	4.65	3.21	2.88	3.88	5.44
copper	mg/kg			<=180	28.4	8.30	14.8	7.98	7.20	7.42	13.5
lead	mg/kg			<=120	13.2	4.62	6.10	4.80	3.74	5.02	4.01
mercury	mg/kg	0.005		<=1.8	0.0143	<0.0050	0.0067	0.0052	0.0075	<0.0050	0.0064
molybdenum	mg/kg			<=6.9	0.59	0.25	0.44	0.18	0.13	0.44	0.64
nickel	mg/kg			<=130	17.0	5.74	9.38	6.79	5.83	6.68	10.6
selenium	mg/kg	0.2		<=2.4	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
silver	mg/kg	0.1		<=25	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
thallium	mg/kg	0.05		<=1	0.119	<0.050	0.066	<0.050	<0.050	<0.050	0.061
uranium	mg/kg			<=23	0.513	0.314	0.319	0.232	0.224	0.320	0.357
vanadium	mg/kg			<=86	20.3	10.9	14.2	15.1	12.5	18.7	20.6
zinc	mg/kg			<=340	58.5	20.3	33.2	20.5	17.4	16.1	25.7
Physical Tests											
conductivity (1:2 leachate)	mS/cm			<=0.7	0.666	0.422	0.707	1.23	1.10	0.569	0.413
moisture	%				4.46	3.60	4.43	10.5	11.6	5.08	5.95
pH (1:2 soil:CaCl2-aq)	pH units				8.08	8.05	8.06	7.85	7.97	9.81	8.54
Polychlorinated Biphenyls											
Aroclor 1016	mg/kg	0.01			<0.010			<0.010			
Aroclor 1221	mg/kg	0.01			<0.010			<0.010			
Aroclor 1232	mg/kg	0.01			<0.010			<0.010			
Aroclor 1242	mg/kg	0.01			<0.010			<0.010			
Aroclor 1248	mg/kg	0.01			<0.010			<0.010			
Aroclor 1254	mg/kg	0.01			<0.010			<0.010			
Aroclor 1260	mg/kg	0.01			<0.010			<0.010			
Aroclor 1262	mg/kg	0.01			<0.010			<0.010			
Aroclor 1268	mg/kg	0.01			<0.010			<0.010			
polychlorinated biphenyls [PCBs], total	mg/kg	0.03		<=0.35	<0.030			<0.030			
Polychlorinated Biphenyls Surrogates											
decachlorobiphenyl	mg/kg				0.1			0.1			
fluorobiphenyl, 2-	mg/kg				N/A			N/A			
terphenyl-d14, p-	mg/kg				N/A			N/A			
tetrachloro-m-xylene	mg/kg	0.1			<0.1			<0.1			
Polycyclic Aromatic Hydrocarbons											
acenaphthene	mg/kg	0.05		<=29	<0.050			<0.050		<0.050	
acenaphthylene	mg/kg	0.05		<=0.17	<0.050			<0.050		<0.050	
anthracene	mg/kg	0.05		<=0.74	<0.050			<0.050		<0.050	
benz(a)anthracene	mg/kg	0.05		<=0.63	<0.050			<0.050		<0.050	
benzo(a)pyrene	mg/kg	0.05		<=0.3	<0.050			<0.050		<0.050	
benzo(b+j)fluoranthene	mg/kg	0.05		<=0.78	<0.050			<0.050		<0.050	
benzo(g,h,i)perylene	mg/kg	0.05		<=7.8	<0.050			<0.050		<0.050	
benzo(k)fluoranthene	mg/kg	0.05		<=0.78	<0.050			<0.050		<0.050	
chrysene	mg/kg	0.05		<=7.8	<0.050			<0.050		<0.050	
dibenz(a,h)anthracene	mg/kg	0.05		<=0.1	<0.050			<0.050		<0.050	
fluoranthene	mg/kg	0.05		<=0.69	<0.050			<0.050		<0.050	
fluorene	mg/kg	0.05		<=69	<0.050			<0.050		<0.050	
indeno(1,2,3-c,d)pyrene	mg/kg	0.05		<=0.48	<0.050			<0.050		<0.050	
methylnaphthalene, 1-	mg/kg	0.03		<=3.4	<0.030			<0.030		<0.030	
methylnaphthalene, 1+2-	mg/kg	0.05		<=3.4	<0.050			<0.050		<0.050	
methylnaphthalene, 2-	mg/kg	0.03		<=3.4	<0.030			<0.030		<0.030	
naphthalene	mg/kg	0.01		<=0.75	<0.010			<0.010		<0.010	
phenanthrene	mg/kg	0.05		<=7.8	<0.050			<0.050		<0.050	
pyrene	mg/kg	0.05		<=78	<0.050			<0.050		<0.050	
Polycyclic Aromatic Hydrocarbons Surrogates											
fluorobiphenyl, 2-	mg/kg				0.7			0.8		0.7	
terphenyl-d14, p-	mg/kg				0.6			0.7		0.7	
Saturated Paste Extractables											
calcium, soluble ion content	mg/L	0.5			<0.50	<0.50	<0.50	1.19	0.99	1.81	7.40
magnesium, soluble ion content	mg/L	0.5			<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
sodium adsorption ratio [SAR]	-			<=5	31.35	20.20	33.26	59.8	58.1	21.9	7.40
sodium, soluble ion content	mg/L				131	84.4	139	237	210	107	73.1
Speciated Metals											
chromium, hexavalent [Cr VI]	mg/kg	0.1		<=10	<0.10	0.13	0.20	<0.10	<0.10	<0.10	0.26
Volatile Organic Compounds											
acetone	mg/kg	0.5		<=28	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
benzene	mg/kg	0.005		<=0.17	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
bromodichloromethane	mg/kg	0.05		<=1.9	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
bromoform	mg/kg	0.05		<=0.26	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
bromomethane	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
BTEX, total	mg/kg	0.1			<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
carbon tetrachloride	mg/kg	0.05		<=0.12	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
chlorobenzene	mg/kg	0.05		<=2.7	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
chloroform	mg/kg	0.05		<=0.18	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dibromochloromethane	mg/kg	0.05		<=2.9	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dibromoethane, 1,2-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichlorobenzene, 1,2-	mg/kg	0.05		<=1.7	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichlorobenzene, 1,3-	mg/kg	0.05		<=6	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichlorobenzene, 1,4-	mg/kg	0.05		<=0.097	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichlorodifluoromethane	mg/kg	0.05		<=25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethane, 1,1-	mg/kg	0.05		<=0.6	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethane, 1,2-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethylene, 1,1-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethylene, cis-1,2-	mg/kg	0.05		<=2.5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethylene, trans-1,2-	mg/kg	0.05		<=0.75	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichloromethane	mg/kg	0.045		<=0.96	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
dichloropropane, 1,2-	mg/kg	0.05		<=0.085	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichloropropylene, cis+trans-1,3-	mg/kg	0.05		<=0.081	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
dichloropropylene, cis-1,3-	mg/kg	0.03			<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
dichloropropylene, trans-1,3-	mg/kg	0.03			<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
ethylbenzene	mg/kg	0.015		<=1.6	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
hexane, n-	mg/kg	0.05		<=34	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
methyl ethyl ketone [MEK]	mg/kg	0.5		<=44	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
methyl isobutyl ketone [MIBK]	mg/kg	0.5		<=4.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
methyl-tert-butyl ether [MTBE]	mg/kg	0.04		<=1.4	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
styrene	mg/kg	0.05		<=2.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
tetrachloroethane, 1,1,1,2-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
tetrachloroethane, 1,1,2,2-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
tetrachloroethylene	mg/kg	0.05		<=2.3	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.151
toluene	mg/kg	0.05		<=6	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
trichloroethane, 1,1,1-	mg/kg	0.05		<=3.4	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
trichloroethane, 1,1,2-	mg/kg	0.05		<=0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
trichloroethylene	mg/kg	0.01		<=0.52	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
trichlorofluoromethane	mg/kg	0.05		<=5.8	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
vinyl chloride	mg/kg	0.02		<=0.022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
xylene, m+p-	mg/kg	0.03			<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
xylene, o-	mg/kg	0.03			<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
xylenes, total	mg/kg	0.05		<=25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Volatile Organic Compounds Surrogates											
bromofluorobenzene, 4-	mg/kg				0.17	0.16	0.14	0.15	0.17	0.16	0.16
difluorobenzene, 1,4-	mg/kg				0.24	0.25	0.22	0.23	0.28	0.26	0.26

Table No. 7
Results of Groundwater Sample Chemical Analyses

			Guidelines 153/04 - April 15, 2011 f (Fine Soil)-All Type ON153/04 Pass Limits										
			Lower	Upper	WT2209423-001 (1)	WT2209423-002 (1)	WT2209423-003 (1)	WT2209423-004 (1)	WT2209423-005 (1)	WT2209423-006 (1)	WT2209423-007 (1)	WT2209423-008 (1)	
Sample													
Description													
Name					16145- MW1	16145- MW2	16145- MW3	16145- MW4	16145- MW5	16145- MW7	16145- MW8	TRIP BLANK	
Sampling Date					03-08-2022	03-08-2022	03-08-2022	03-08-2022	03-08-2022	03-08-2022	03-08-2022	03-08-2022	
ALS ID					WT2209423-001	WT2209423-002	WT2209423-003	WT2209423-004	WT2209423-005	WT2209423-006	WT2209423-007	WT2209423-008	
Test	**Unit**	**LOR**											
Anions and Nutrients													
chloride	mg/L			<=790	97.4	142	108	166	117	238	237		
Cyanides													
cyanide, weak acid dissociable	µg/L	2		<=66	<2.0	4.4	2.7	<2.0	2.8	<2.0	<2.0		
Dissolved Metals													
antimony, dissolved	µg/L			<=6	0.26	0.29	0.30	0.31	0.30	0.64	0.65		
arsenic, dissolved	µg/L			<=25	0.87	0.92	0.98	0.99	1.01	1.13	1.11		
barium, dissolved	µg/L			<=1000	39.0	44.3	45.2	45.9	45.6	95.6	94.2		
beryllium, dissolved	µg/L	0.02		<=4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		
boron, dissolved	µg/L			<=5000	80	94	95	94	94	285	272		
cadmium, dissolved	µg/L			<=2.7	0.0233	0.0241	0.0243	0.0306	0.0247	0.0550	0.0511		
chromium, dissolved	µg/L	0.5		<=50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		
cobalt, dissolved	µg/L	0.1		<=3.8	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10		
copper, dissolved	µg/L			<=87	13.1	21.9	22.3	19.2	21.5	4.33	4.38		
dissolved mercury filtration location	-				Field	Field	Field	Field	Field	Field	Field		
dissolved metals filtration location	-				Field	Field	Field	Field	Field	Field	Field		
lead, dissolved	µg/L	0.05		<=10	0.163	<0.050	<0.050	0.060	<0.050	<0.050	<0.050		
mercury, dissolved	µg/L	0.005		<=1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050		
molybdenum, dissolved	µg/L			<=70	2.24	2.52	2.59	2.70	2.56	5.74	5.80		
nickel, dissolved	µg/L			<=100	1.59	0.92	1.00	1.10	0.88	0.72	0.71		
selenium, dissolved	µg/L			<=10	0.129	0.146	0.142	0.135	0.162	0.155	0.145		
silver, dissolved	µg/L	0.01		<=1.5	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		
sodium, dissolved	µg/L			<=490000	46000	49500	51000	52400	51400	127000	132000		
thallium, dissolved	µg/L	0.01		<=2	<0.010	<0.010	0.011	<0.010	<0.010	<0.010	<0.010		
uranium, dissolved	µg/L			<=20	0.320	0.373	0.367	0.376	0.363	0.468	0.442		
vanadium, dissolved	µg/L	0.5		<=6.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		
zinc, dissolved	µg/L	1		<=1100	6.2	3.4	3.8	3.9	3.0	1.0	<1.0		
Hydrocarbons													
chromatogram to baseline at nC50	-				YES	YES	YES	YES	YES	YES	YES		
F1 (C6-C10)	µg/L	25		<=750	<25	<25	<25	<25	<25	<25	<25		
F1-BTEX	µg/L	25		<=750	<25	<25	<25	<25	<25	<25	<25		
F2 (C10-C16)	µg/L	100		<=150	<100	<100	<100	<100	<100	<100	<100		
F3 (C16-C34)	µg/L	250		<=500	<250	<250	<250	<250	<250	<250	<250		
F4 (C34-C50)	µg/L	250		<=500	<250	<250	<250	<250	<250	<250	<250		
hydrocarbons, total (C6-C50)	µg/L	370			<370	<370	<370	<370	<370	<370	<370		
Hydrocarbons Surrogates													
bromobenzotrifluoride, 2- (F2-F4 surr)	µg/L				5550	5990	5420	5640	6240	5520	5570		
dichlorotoluene, 3,4-	µg/L				792	809	816	778	785	814	923		
Physical Tests													
conductivity	mS/cm				0.590	0.752	0.628	0.850	0.661	1.11	1.11		
pH	pH units				7.92	8.00	7.89	7.90	7.87	7.88	7.97		
Polycyclic Aromatic Hydrocarbons													
acenaphthene	µg/L	0.016		<=4.1		<0.016	<0.010	<0.010			<0.015		
acenaphthylene	µg/L	0.01		<=1		<0.010	<0.010	<0.010			<0.010		
anthracene	µg/L	0.01		<=2.4		<0.010	<0.010	<0.010			<0.010		
benz(a)anthracene	µg/L	0.01		<=1		<0.010	<0.010	<0.010			<0.010		
benzo(a)pyrene	µg/L	0.005		<=0.01		<0.0050	<0.0050	<0.0050			<0.0050		
benzo(b+j)fluoranthene	µg/L	0.01		<=0.1		<0.010	<0.010	<0.010			<0.010		
benzo(g,h,i)perylene	µg/L	0.01		<=0.2		<0.010	<0.010	<0.010			<0.010		
benzo(k)fluoranthene	µg/L	0.01		<=0.1		<0.010	<0.010	<0.010			<0.010		
chrysene	µg/L	0.01		<=0.1		<0.010	<0.010	<0.010			<0.010		
dibenz(a,h)anthracene	µg/L	0.005		<=0.2		<0.0050	<0.0050	<0.0050			<0.0050		
fluoranthene	µg/L	0.01		<=0.41		<0.010	<0.010	<0.010			<0.010		
fluorene	µg/L	0.01		<=120		<0.010	<0.010	<0.010			<0.010		
indeno(1,2,3-c,d)pyrene	µg/L	0.01		<=0.2		<0.010	<0.010	<0.010			<0.010		
methylnaphthalene, 1-	µg/L	0.01		<=3.2		<0.010	<0.010	<0.010			<0.010		
methylnaphthalene, 1+2-	µg/L	0.015		<=3.2		<0.015	<0.015	<0.015			<0.015		
methylnaphthalene, 2-	µg/L	0.01		<=3.2		<0.010	<0.010	0.013			<0.010		
naphthalene	µg/L	0.05		<=11		<0.050	<0.050	<0.050			<0.050		
phenanthrene	µg/L	0.02		<=1		<0.020	<0.020	<0.020			<0.020		
pyrene	µg/L	0.01		<=4.1		<0.010	<0.010	<0.010			<0.010		
Polycyclic Aromatic Hydrocarbons Surrogates													
chrysene-d12	µg/L					0.8	0.8	0.8			0.9		
naphthalene-d8	µg/L					1.0	0.9	1.0			1.0		
phenanthrene-d10	µg/L					0.9	0.9	0.9			0.9		
Speciated Metals													
chromium, hexavalent [Cr VI], dissolved	µg/L	0.5			<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		
Volatile Organic Compounds													
Acetone	µg/L	20		<=2700	<20	<20	<20	<20	<20	<20	<20	<20	
benzene	µg/L	0.5		<=5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
bromodichloromethane	µg/L	0.5		<=16	2.81	2.44	2.71	2.41	2.61	1.93	0.75	<0.50	
bromoform	µg/L	0.5		<=25	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
bromomethane	µg/L	0.5		<=0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
BTEX, total	µg/L	1			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
carbon tetrachloride	µg/L	0.2		<=5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
chlorobenzene	µg/L	0.5		<=30	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
chloroform	µg/L	0.5		<=22	2.23	1.98	2.28	2.10	2.16	1.67	0.79	<0.50	
dibromochloromethane	µg/L	0.5		<=25	1.94	1.78	1.95	1.65	1.90	1.38	<0.50	<0.50	
dibromoethane, 1,2-	µg/L	0.2		<=0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
dichlorobenzene, 1,2-	µg/L	0.5		<=3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
dichlorobenzene, 1,3-	µg/L	0.5		<=59	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
dichlorobenzene, 1,4-	µg/L	0.5		<=1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
dichlorodifluoromethane	µg/L	0.5		<=590	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
dichloroethane, 1,1-	µg/L	0.5		<=5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
dichloroethane, 1,2-	µg/L	0.5		<=5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
dichloroethylene, 1,1-	µg/L	0.5		<=14	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
dichloroethylene, cis-1,2-	µg/L	0.5		<=17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
dichloroethylene, trans-1,2-	µg/L	0.5		<=17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.60	<0.50	
dichloromethane	µg/L	1		<=50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
dichloropropane, 1,2-	µg/L	0.5		<=5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
dichloropropylene, cis+trans-1,3-	µg/L	0.5		<=0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
dichloropropylene, cis-1,3-	µg/L	0.3			<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	
dichloropropylene, trans-1,3-	µg/L	0.3			<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	
ethylbenzene	µg/L	0.5		<=2.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
hexane, n-	µg/L	0.5		<=520	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
methyl ethyl ketone [MEK]	µg/L	20		<=1800	<20	<20	<20	<20	<20	<20	<20	<20	
methyl isobutyl ketone [MIBK]	µg/L	20		<=640	<20	<20	<20	<20	<20	<20	<20	<20	
methyl-tert-butyl ether [MTBE]	µg/L	0.5		<=15	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
styrene	µg/L	0.5		<=5.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
tetrachloroethane, 1,1,1,2-	µg/L	0.5		<=1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
tetrachloroethane, 1,1,2,2-	µg/L	0.5		<=1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
tetrachloroethylene	µg/L	0.5		<=17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
toluene	µg/L	0.5		<=24	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
trichloroethane, 1,1,1-	µg/L	0.5		<=200	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
trichloroethane, 1,1,2-	µg/L	0.5		<=5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
trichloroethylene	µg/L	0.5		<=5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
trichlorofluoromethane	µg/L	0.5		<=150	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
vinyl chloride	µg/L	0.5		<=1.7	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
xylene, m+p-	µg/L	0.4			<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	
xylene, o-	µg/L	0.3			<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	
xylenes, total	µg/L	0.5		<=300	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Volatile Organic Compounds Surrogates													
bromofluorobenzene, 4-	µg/L				8.0	8.1	7.9	7.9	8.0	8.0	7.0	6.9	
difluorobenzene, 1,4-	µg/L				9.9	9.8	9.8	9.8	9.8	9.8	10.5	10.3	

Table No. 9
Maximum Concentrations in Soils

Parameter	Units	MOE Criteria (2011) Table 2 Potable Residential Fine-Medium soils	Maximum Measured Concentration ug/g	Sample Name	Sample Date	Lab No.	Comments
Sodiuam Adsorption Ratio		5	**59.8**	16145-BH7SS2	July 19 2022	WT2207832-011	exceeds Table 2 SCS
Conductivity	mS/cm	0.7	**1.3**	16145-BH1SS2	July 19 2022	WT2207832-001	exceeds Table 2 SCS
Antimony (Sb)	ug/g	7.5	0.28	16145-BH1SS6	July 19 2022	WT2207832-003	
Arsenic (As)	ug/g	18	11.8	16145-BH1SS6	July 19 2022	WT2207832-003	
Barium (Ba)	ug/g	390	36	16145-BH1SS6	July 19 2022	WT2207832-003	
Beryllium (Be)	ug/g	5	1.2	16145-BH1SS6	July 19 2022	WT2207832-003	
Boron (B)	ug/g	120	20.3	16145-BH1SS6	July 19 2022	WT2207832-003	
Cadmium (Cd)	ug/g	1.2	0.124	16145-BH6SS1	July 19 2022	WT2207832-008	
Chromium (Cr)	ug/g	160	31.4	16145-BH1SS6	July 19 2022	WT2207832-003	
Chromium VI	ug/g	10	0.26	16145-BH8SS3	July 19 2022	WT2207832-014	
Cobalt (Co)	ug/g	22	19.7	16145-BH1SS6	July 19 2022	WT2207832-003	
Copper (Cu)	ug/g	180	32.3	16145-BH1SS6	July 19 2022	WT2207832-003	
Lead (Pb)	ug/g	120	13.2	16145-BH6SS1	July 19 2022	WT2207832-008	
Molybdenum (Mo)	ug/g	6.9	0.64	16145-BH8SS3	July 19 2022	WT2207832-014	
Nickel (Ni)	ug/g	130	49.3	16145-BH1SS6	July 19 2022	WT2207832-003	
Selenium (Se)	ug/g	2.4	<0.20	n/a	July 19 2022	n/a	below measureable all samples
Silver (Ag)	ug/g	25	<0.10	n/a	July 19 2022	n/a	below measureable all samples
Thallium (Tl)	ug/g	1	0.119	16145-BH6SS1	July 19 2022	WT2207832-008	
Uranium (U)	ug/g	23	0.697	16145-BH1SS6	July 19 2022	WT2207832-003	
Vanadium (V)	ug/g	86	38.9	16145-BH1SS6	July 19 2022	WT2207832-003	
Zinc (Zn)	ug/g	340	78.2	16145-BH1SS6	July 19 2022	WT2207832-003	
Acetone	ug/g	28	<0.5	n/a	July 19 2022	n/a	below measureable all samples
Benzene	ug/g	0.17	<0.0050	n/a	July 19 2022	n/a	below measureable all samples
Bromodichloromethane	ug/g	13	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Bromoform	ug/g	0.26	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Bromomethane	ug/g	0.05	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Carbon tetrachloride	ug/g	0.12	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Chlorobenzene	ug/g	2.7	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Dibromochloromethane	ug/g	9.4	<0.045	n/a	July 19 2022	n/a	below measureable all samples
Chloroform	ug/g	0.18	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,2-Dibromoethane	ug/g	0.05	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,2-Dichlorobenzene	ug/g	4.3	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,3-Dichlorobenzene	ug/g	6	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,4-Dichlorobenzene	ug/g	0.097	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Dichlorodifluoromethane	ug/g	25	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,1-Dichloroethane	ug/g	11	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,2-Dichloroethane	ug/g	0.05	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,1-Dichloroethylene	ug/g	0.05	<0.05	n/a	July 19 2022	n/a	below measureable all samples
cis-1,2-Dichloroethylene	ug/g	30	<0.05	n/a	July 19 2022	n/a	below measureable all samples
trans-1,2-Dichloroethylene	ug/g	0.75	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Methylene Chloride	ug/g	0.96	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,2-Dichloropropane	ug/g	0.085	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,3-Dichloropropene (cis & trans)	ug/g	0.083	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Ethylbenzene	ug/g	15	<0.015	n/a	July 19 2022	n/a	below measureable all samples
n-Hexane	ug/g	34	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Methyl Ethyl Ketone	ug/g	44	<0.5	n/a	July 19 2022	n/a	below measureable all samples
Methyl Isobutyl Ketone	ug/g	4.3	<0.5	n/a	July 19 2022	n/a	below measureable all samples
MTBE	ug/g	1.4	<0.04	n/a	July 19 2022	n/a	below measureable all samples
Styrene	ug/g	2.2	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,1,1,2-Tetrachloroethane	ug/g	0.05	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Tetrachloroethylene	ug/g	2.3	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Toluene	ug/g	6	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,1,1-Trichloroethane	ug/g	3.4	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1,1,2-Trichloroethane	ug/g	0.05	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Trichloroethylene	ug/g	0.52	<0.01	n/a	July 19 2022	n/a	below measureable all samples
Trichlorofluoromethane	ug/g	5.8	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Vinyl chloride	ug/g	0.022	<0.02	n/a	July 19 2022	n/a	below measureable all samples
Xylenes (Total)	ug/g	25	<0.05	n/a	July 19 2022	n/a	below measureable all samples
F1 (C6-C10)	ug/g	65	<5.0	n/a	July 19 2022	n/a	below measureable all samples
F2 (C10-C16)	ug/g	150	<10	n/a	July 19 2022	n/a	below measureable all samples
F3 (C16-C34)	ug/g	1300	<50	n/a	July 19 2022	n/a	below measureable all samples
F4 (C34-C50)	ug/g	5600	81	16145-BH5SS3	July 19 2022	WT2207832-006	
Acenaphthene	ug/g	58	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Acenaphthylene	ug/g	0.17	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Anthracene	ug/g	0.74	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Benzo(a)anthracene	ug/g	0.63	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Benzo(a)pyrene	ug/g	0.3	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Benzo(b)fluoranthene	ug/g	0.78	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Benzo(g,h,i)perylene	ug/g	7.8	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Benzo(k)fluoranthene	ug/g	0.78	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Chrysene	ug/g	7.8	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Dibenzo(ah)anthracene	ug/g	0.1	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Fluoranthene	ug/g	0.69	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Fluorene	ug/g	69	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Indeno(1,2,3-cd)pyrene	ug/g	0.48	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1+2-Methylnaphthalenes	ug/g	3.4	<0.05	n/a	July 19 2022	n/a	below measureable all samples
1-Methylnaphthalene	ug/g	3.4	<0.03	n/a	July 19 2022	n/a	below measureable all samples
2-Methylnaphthalene	ug/g	3.4	<0.03	n/a	July 19 2022	n/a	below measureable all samples
Naphthalene	ug/g	0.75	<0.01	n/a	July 19 2022	n/a	below measureable all samples
Phenanthrene	ug/g	7.8	<0.05	n/a	July 19 2022	n/a	below measureable all samples
Pyrene	ug/g	78	<0.05	n/a	July 19 2022	n/a	below measureable all samples
PCBs (total)	ug/g	0.03	<0.03	n/a	July 19 2022	n/a	below measureable all samples

Table No. 10
Maximum Concentrations in Groundwater

Parameter	Units	MOE Criteria (2011) Table 2 Potable Residential Fine-Medium soils	Maximum Measured Concentration ug/L	Sample Name	Sample Date	Lab No.	Comments
Chloride (Cl)	mg/L	790	238	16145-MW7	03-Aug-22	WT2209423-006	
Cyanide, Weak Acid Diss	ug/L	66	4.4	16145-MW2	03-Aug-22	WT2209423-002	
Antimony (Sb)-Dissolved	ug/L	20000	0.65	16145-MW8	03-Aug-22	WT2209423-007	
Arsenic (As)-Dissolved	ug/L	1900	1.13	16145-MW7	03-Aug-22	WT2209423-006	
Barium (Ba)-Dissolved	ug/L	1000	95.6	16145-MW7	03-Aug-22	WT2209423-006	
Beryllium (Be)-Dissolved	ug/L	67	<0.020	n/a	03-Aug-22	n/a	below measureable all samples
Boron (B)-Dissolved	ug/L	5000	285	16145-MW7	03-Aug-22	WT2209423-006	
Cadmium (Cd)-Dissolved	ug/L	2.7	0.55	16145-MW7	03-Aug-22	WT2209423-006	
Chromium (Cr)-Dissolved	ug/L	50	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Cobalt (Co)-Dissolved	ug/L	3.8	<0.10	n/a	03-Aug-22	n/a	below measureable all samples
Copper (Cu)-Dissolved	ug/L	87	22.3	16145-MW3	03-Aug-22	WT2209423-003	
Lead (Pb)-Dissolved	ug/L	10	0.163	16145-MW1	03-Aug-22	WT2209423-001	
Mercury (Hg)-Dissolved	ug/L	1	<0.0050	n/a	03-Aug-22	n/a	below measureable all samples
Molybdenum (Mo)-Dissolved	ug/L	70	5.8	16145-MW8	03-Aug-22	WT2209423-007	
Nickel (Ni)-Dissolved	ug/L	100	1.59	16145-MW1	03-Aug-22	WT2209423-001	
Selenium (Se)-Dissolved	ug/L	10	0.162	16145-MW5	03-Aug-22	WT2209423-005	
Silver (Ag)-Dissolved	ug/L	1.5	<0.010	n/a	03-Aug-22	n/a	below measureable all samples
Sodium (Na)-Dissolved	ug/L	490000	132000	16145-MW8	03-Aug-22	WT2209423-007	
Thallium (Tl)-Dissolved	ug/L	2	<0.010	n/a	03-Aug-22	n/a	below measureable all samples
Uranium (U)-Dissolved	ug/L	20	0.4648	16145-MW7	03-Aug-22	WT2209423-006	
Vanadium (V)-Dissolved	ug/L	6.2	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Zinc (Zn)-Dissolved	ug/L	1100	6.2	16145-MW1	03-Aug-22	WT2209423-001	
Chromium, Hexavalent	ug/L	25	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Acetone	ug/L	2700	<20	n/a	03-Aug-22	n/a	below measureable all samples
Benzene	ug/L	5	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Bromodichloromethane	ug/L	16	2.81	16145-MW1	03-Aug-22	WT2209423-001	
Bromoform	ug/L	25	0.54	16145-MW1	03-Aug-22	WT2209423-001	
Bromomethane	ug/L	0.89	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Carbon tetrachloride	ug/L	5	<0.2	n/a	03-Aug-22	n/a	below measureable all samples
Chlorobenzene	ug/L	30	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Dibromochloromethane	ug/L	25	1.95	n/a	03-Aug-22	n/a	below measureable all samples
Chloroform	ug/L	22	2.28	16145-MW3	03-Aug-22	WT2209423-1003	
1,2-Dibromoethane	ug/L	0.2	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,2-Dichlorobenzene	ug/L	3	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,3-Dichlorobenzene	ug/L	59	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,4-Dichlorobenzene	ug/L	1	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Dichlorodifluoromethane	ug/L	590	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,1-Dichloroethane	ug/L	5	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,2-Dichloroethane	ug/L	5	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,1-Dichloroethylene	ug/L	14	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
cis-1,2-Dichloroethylene	ug/L	17	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
trans-1,2-Dichloroethylene	ug/L	17	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Methylene Chloride	ug/L	50	<1.0	n/a	03-Aug-22	n/a	below measureable all samples
1,2-Dichloropropane	ug/L	5	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,3-Dichloropropene (cis & trans)	ug/L	0.5	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Ethylbenzene	ug/L	2.4	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
n-Hexane	ug/L	520	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Methyl Ethyl Ketone	ug/L	1800	<20	n/a	03-Aug-22	n/a	below measureable all samples
Methyl Isobutyl Ketone	ug/L	640	<20	n/a	03-Aug-22	n/a	below measureable all samples
MTBE	ug/L	15	<0.5	n/a	03-Aug-22	n/a	below measureable all samples
Styrene	ug/L	5.4	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,1,1,2-Tetrachloroethane	ug/L	28	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,1,2,2-Tetrachloroethane	ug/L	15	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Tetrachloroethylene	ug/L	17	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Toluene	ug/L	24	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,1,1-Trichloroethane	ug/L	200	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
1,1,2-Trichloroethane	ug/L	5	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Trichloroethylene	ug/L	5	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Trichlorofluoromethane	ug/L	150	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Vinyl chloride	ug/L	1.7	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
Xylenes (Total)	ug/L	300	<0.50	n/a	03-Aug-22	n/a	below measureable all samples
F1 (C6-C10)	ug/L	750	<25	n/a	03-Aug-22	n/a	below measureable all samples
F1-BTEX	ug/L	750	<25	n/a	03-Aug-22	n/a	below measureable all samples
F2 (C10-C16)	ug/L	150	<100	n/a	03-Aug-22	n/a	below measureable all samples
F3 (C16-C34)	ug/L	500	<250	n/a	03-Aug-22	n/a	below measureable all samples
F4 (C34-C50)	ug/L	500	<250	n/a	03-Aug-22	n/a	below measureable all samples
Acenaphthene	ug/L	4.1	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Acenaphthylene	ug/L	1	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Anthracene	ug/L	2.4	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Benzo(a)anthracene	ug/L	1	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Benzo(a)pyrene	ug/L	0.01	<0.01	n/a	03-Aug-22	n/a	below measureable all samples
Benzo(b)fluoranthene	ug/L	0.1	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Benzo(g,h,i)perylene	ug/L	0.2	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Benzo(k)fluoranthene	ug/L	0.1	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Chrysene	ug/L	0.1	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Dibenzo(ah)anthracene	ug/L	0.2	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Fluoranthene	ug/L	0.41	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Fluorene	ug/L	120	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Indeno(1,2,3-cd)pyrene	ug/L	0.2	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
2-Methylnaphthalene	ug/L	3.2	0.013	16145-MW4	03-Aug-22	WT2209423-4	
Naphthalene	ug/L	11	<0.050	n/a	03-Aug-22	n/a	below measureable all samples
Phenanthrene	ug/L	1	<0.02	n/a	03-Aug-22	n/a	below measureable all samples
Pyrene	ug/L	4.1	<0.01	n/a	03-Aug-22	n/a	below measureable all samples

Appendix “A”

Sampling and Analysis Plan
Phase Two Environmental Site Assessment
805 Dundas Street East, Mississauga

Sampling and Analysis Plan
Phase Two Environmental Site Assessment
805 Dundas Street East, Mississauga

1. Project Description

1.1 Introduction

Haddad Geotechnical Inc. was authorized by KJC Properties Inc, (the Client) to conduct a Phase Two Environmental Site Assessment of the above noted property. It is understood that the client proposes redevelop the property, which is in commercial use, as a multiple unit residential development.

The site under consideration is located at 799, 801, 803 and 805 Dundas Street East (the Site), in the City of Mississauga, (see Key Map, Drawing No. 1). For the purpose of the present assessment, the Phase Two property is referenced as 805 Dundas Street East, Mississauga. The subject property has a total area of 0.28 acres (0.1120 Ha). The subject property was occupied by a retail plaza, with four detached, single-storey buildings. The areas of the property beyond the limits of the above-noted buildings are occupied by asphalt-paved driveways and parking areas. The approximate UTM coordinates for the site are 613180E, 4828115N.

This document presents a description of the technical approach to this project, including the Sampling and Analysis Plan (SAP).

1.2 Purpose & Objective

1. This Phase Two ESA is being performed to evaluate a number of potential environmental concerns that we identified as the results of a Phase One Environmental Site Assessment (Phase One ESA) that was conducted by Haddad Geotechnical Inc. It is understood that the owners of the subject property require the current assessment to document site conditions for purpose of filing of a Record of Site Condition to Ontario Ministry of the Environment as a requirement for building permit to construct a proposed residential development on the site.

2. The purpose of the Phase Two ESA is to evaluate the presence of and delineate the extent of contamination on a subject property, and is accomplished primarily by collecting and analyzing samples of the materials present on a site. For the subject site, the purpose of the current Phase Two assessment is to provide a general overview of the potential environmental concerns which were identified by a previous Phase One Environmental Site Assessment of the property. The results of the Phase One Environmental Site Assessment of the subject Site and adjacent properties indicated that several PCAs were identified within the Phase One study area, which may be contributing to area of potential environmental concern (APEC) at the Phase One property, as defined in Table 2 of Schedule D, of Ontario Regulation 153/04 Records of Site Condition – Part XV.1 of The Environmental Protection Act. These PCAs are listed as follows:

On-site PCAs:

- **PCA1**: Existing and former use of the most easterly unit of the 801 Dundas Street East building as a dry-cleaner operation, with documented waste generation of halogenated solvent including perchloroethylene (also known as trichloroethylene). High potential for migration of contaminants, including volatile organic compounds (VOCs) into soils and groundwater on the Property. It noted that the presence of existing monitoring wells to the south and southeast of the above-noted unit suggest a previous investigation of soils and groundwater may have been conducted but no report was available for our review.
- **PCA2**: Previous ownership of portions of Phase One property by pipeline company and construction companies, potential use of site for storage of construction materials, maintenance of construction equipment, specific location of Phase One property unknown. High potential for migration of contaminants, metals, petroleum hydrocarbons (PHCs), VOCs, polyaromatic hydrocarbons (PAHs) into soils and groundwater below property.
- **PCA3**: Use of Phase One property as a vehicle parking lot for retail plaza since 1980s. Potential for leaks of automotive fluids, migration of contaminants including PHCs, VOCs into soils and groundwater below property.
- **PCA4**: Use of Phase One property as a vehicle parking lot for retail plaza since 1980s. Potential for use of salt and other substances for de-icing for public and vehicle safety. Potential migration of contaminants including sodium adsorption ratio (SAR), electrical conductivity (EC) into soils, sodium, and chlorides into groundwater below property.

Off-site PCAs:

- **PCA5**: Adjacent and up-gradient property to northwest, 3803 Haines Road, records of site condition for property indicates former presence of an underground fuel storage tank, in 2007. Medium potential for contaminants from leaks of fuels (petroleum hydrocarbons, VOCs, metals) from underground storage tank into soil and groundwater in southeast section of Property
- **PCA6**: Gasoline Station at 820 Dundas Street East, 96.9m east-southeast and cross gradient to lower parts of the south portion of the Phase One property. Existing and former underground fuel storage tanks, one record of surface spill of petroleum product and waste generation of petroleum distillates, waste oils/sludges, light fuels. Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from underground storage tanks and surface spill into soil and groundwater in southeast section of Property
- **PCA7**: Automobile repair business (Active Green & Ross) at 844 Dundas Street East, east and cross gradient to lower parts of the south portion of the Phase One property. Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from repair operations into soil and groundwater in southeast section of Property.

3. The soil and groundwater below subject property is to be evaluated for presence of Metals, Inorganics, Polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons (PHCs), BTEX parameters and volatile organic components (VOCs). Samples of surface and subsurface soils and groundwater will be analyzed with results being evaluated in comparison to the criteria of Ontario Ministry of the Environment (MECP), "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 15, 2011, Table No. 2, "Full Depth Generic Site Condition Standards in Potable Water Condition", for sites in residential use (MECP Table 2 criteria).

1.3 Scope of Work

1. The Scope of work for the Phase Two ESA includes the preparation of this SAP, the execution of field sampling activities, the laboratory analysis of soil and groundwater samples for the selected constituents, and preparation of a report. This document presents the site sampling and analysis procedures and standard operating procedures applicable to this project.

2. Data generated by field sampling and analysis will be tabulated and depicted on figures for purpose of visual illustration of potential environmental concerns.

1.4 Data Quality Objectives

1. The overall objective for data quality for this investigation is to collect data that is representative of current site conditions to determine the levels of any potential target contaminants. Additionally, data must be of known quality and must have sufficient sensitivity to confidently detect target parameters at, or below the evaluation criteria specified above.

2. To meet these objectives, acceptance criteria have been defined in terms of precision, accuracy, representativeness, completeness, and comparability of the data that are needed to support decision making. To satisfy these objectives, this SAP defines the quality assurance/quality control (QA/QC) measures, sampling requirements and data management procedures as presented in the following sections.

3. The soil sampling procedures and associated QC measures have been developed to assure that the sampling approach meets regulatory requirements, is technically defensible and will serve to meeting the sampling objectives by providing data of sufficient accuracy and sensitivity to compare against predefined action levels.

2. Sample Design

2.1 Theoretical Sampling Grid

1. The proposed sampling plan was determined based on the assumption that the variance in soil types encountered over the area of the subject property, in the horizontal direction, will be relatively uniform. With the area of approximately 1133.1m^2, the selection of borehole locations, spaced at regular intervals spacing over the site was deemed to be appropriate for this Phase Two ESA.

2. The locations of the boreholes on the site are presented on Drawing No. 4. The locations and depths of boreholes are limited by several factors, including restricted access to drilling equipment to interior of structures, and presence of underground utilities and /or overhead wires. Where site access restrictions limit the drilling of boreholes, the sampling is to be conducted by test pits excavated by hand shovel.

3. The sampling interval for soils in each borehole is to be as follows: samples at 0.76m (2.5 ft) interval to lowest extent of boreholes.

4. On the basis of field screening, including visual and olfactory examination, and results of measurements of volatile organic vapours in headspace, representative samples for chemical analysis will be selected at each borehole location. Samples of the upper fill materials and lower, natural soils are to be obtained at each borehole locations. For each of the fill materials and natural soils, samples, the worst-case sample will be selected for chemical analysis on the bases of the above-noted field screening.

2.2 Evaluation of the Data

1. The results of the chemical analysis of soil samples for metals, inorganic parameters, petroleum hydrocarbons (PHCs), volatile organic components (VOCs) and polycyclic aromatic hydrocarbons (PAHs) will be compared to the limits for each parameter as listed in the MECP Table 2 criteria, discussed in Section 1.3, above.

3. Sampling Tasks

3.1 Task 1 – Mobilization

1. Haddad will obtain clearances for all utilities prior to commencing drilling and sampling operations, by contacting Ontario One Call service. Clearances of potential privately owned serviced within the limits of the property will be obtain by contacting a private locate service, Premier Locates, with completion and receipt of clearance report prior to the commencement of drilling and sampling operations.

3.2 Task 2 – Layout of Sampling Grid

1. Borehole locations are to be marked on site, by means of fluorescent paint marks on the pavement surface, prior to commencement of drilling and sampling operations.

2. Borehole locations are to the measured by measuring tape in reference to the corners of the existing buildings and other permanent structures.

3. A copy of the legal survey of the report, showing the location of the buildings is to be obtained from the owner, so that borehole locations can be precisely located on a plan. For purpose of this assessment, Dundas Street East will be considered to be the south side of the property.

4. The surface elevations at the boreholes are referenced to a benchmark, located on the catch basin near the southeast corner at 805 Dundas Street East, with elevation of 124.71±m, as indicated on topographic survey plan.

3.3 Task 3 – Soil Sampling

1. The boreholes is advanced using track-mounted, power drilling equipment, employing continuous flight augers.

2. The sampling of soils in the boreholes is to be carried out with a split spoon sampler, driven by a 140-lb hammer, falling 30" (760mm).

3. Sampling is to be conducted at 0.76±m intervals from surface to lowest extent of boreholes.

4. Between each sampling event, the sampler is to be washed using a solution of water and dish detergent, then rinsed with water, before and after each sampling event, in order to minimize potential cross-contamination.

4.0 Sampling Program

1. On the basis of four boreholes to be located on the site, it is anticipated that fourteen soil samples, i.e., two to three samples per borehole, are to be collected, plus one field duplicate sample for each parameter to be tested.

2. On the basis of three monitoring wells to be installed on the site, it is anticipated that seven groundwater samples, i.e., one sample per well, are to be collected, plus one field duplicate sample for each parameter to be tested.

4.1 Sampling Methodology

1. Soil sampling will be conducted using split spoon samplers, as described in Section 3.3, above.

2. Composite soil sample and grab soil samples are not to be obtained as part of this sampling plan.

4.2 Field Sampling Documentation

1. Each sample obtained from the above process is to be examined while still in the opened, split spoon samples, with description of the constituents of the sample, soil types, coloration, foreign matter, variation along the length of the sample, to be recorded.

2. The total length of the sample recovery is also to be noted, in comparison to the driven length of the sampler.

3. Each sample is to be identified in field notes and on sample containers, referencing Project No. (22-16145), Borehole Location number, Sample No., Sample type, with “SS” denoting a split spoon sample, sample depth range, and date of sample. It is useful for the personnel supervising the drilling and sampling operation to prepare the labeled sample containers prior to the commencement of drilling operations, and to have them available on site.

4. Following the description of sample as indicated above, and composition of field screening procedures, such as headspace measurements of combustible vapours, the sample is to be placed in the appropriate glass jar or vial for the type of analysis to be conducted on the sample, as determined by list of sample containers provided by chemical laboratory on the rear side of the Chain of Custody (COC) document.

5. The blank chain of custody documents is provided by the chemical laboratory (ALS Environmental). The chain of custody document is to be fully completed, with Haddad Geotechnical Inc., name, address, phone number and emails, name of project manager, Project Number and site address, MECP criteria (Table 2 residential), whether or not the samples are for purposed for an RSC (Yes), required turnaround time for samples, Rush confirmation number if rush service is required (number to be obtained from Emily Hansen, (519-886-6910, ext. 103) prior to leaving the site.

6. For each sample, the following information is to be entered on the chain of custody form: Project Number, Sampled identification number, date and time sampled, matrix (soil or water), number of containers for each sample, analysis requested for each sample, and comments. The information entered on the label on the individual sample bottles must exactly match the information on the chain of custody.

7. The bottled samples are to be placed in an insulated plastic cooler or similar container described as “strong outer packaging”. Ice packs are to be placed in the cooler to keep samples below temperature below 10ºC.

8. The container with the samples and the chain of custody form are to be delivered directly from the site to the chemical laboratory, and are to be delivered to the chemical laboratory, Paracel Laboratories Ltd. within 12 hours of sampling. If delivery at end of day is not possible to reach the receiving desk of the laboratory within their operating hours, the sample container and chain of custody are to be transported to the office of Haddad Geotechnical Inc, and placed in refrigerator in the lab room, and arrangements are to be made by the person who sampled to deliver the container to the chemical laboratory at first opportunity the next day, or arrange for courier pick-up and delivery.

5.0 Analytical Methods and Field Quality Control Sampling

1. This section describes the analytical methods, sample containers, preservatives, holding time requirements, and field QC samples.

5.2 Analytical Methods

1. All samples will be specifically tested for metals, inorganic parameters (pH, Sodium Absorptions Ratio, Electrical Conductivity), Petroleum Hydrocarbons (F1 to F4 phases), volatile organic compounds (VOCs) including BTEX, polycyclic aromatic hydrocarbons (PAHs) and Polychlorinated Biphenyls (PCBs).

2. The analytical methods to be used by the chemical analysis laboratory (ALS Environmental) will be in conformance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under part XV.1 of the Environmental Protection Act.

5.3 Sample Containers, Preservatives and Holding Times

1. Samples must be placed in new, unused sample containers, to be obtained from and certified by the chemical laboratory that will be conducting the analyses, in order ensure that the samples comply with laboratory specific requirements.

2. Samples must be placed in containers which have been properly prepared certified by the manufacturer to be pre-cleaned. Consult with the project manager at the laboratory to verify specific types and numbers of containers.

3. A list of required types of sample containers for each analysis type is presented below.

Parameters to be analyzed:	Matrix	Size, type of container	Number of Containers per sample	Preservatives
pH	Soil	250mL glass jar, Teflon lines lid	1	None
Conductivity	Soil	250mL glass jar, Teflon lined lid	1	None
Metals (incl hydrides, SAR, HWS Boron, Ca, Mg, Na, CrVI)	Soil	250mL glass jar	1	None
BTEX, PHCs (F1), VOCs (for RSC work)	Soil	40mL glass vial, hermetic sampler, plus 60mL glass jar for moisture content, Teflon lined lid	1	10mL methanol for glass vial; hermetic sampler to be stabilized with methanol within 48 hours of sampling
PHCs (F2-F4) and moisture	Soil	120mL glass jar , Teflon lined lid	1	None
PAHs	Soil	120mL glass jar , Teflon lined lid	1	None
PCBs	Soil	120mL glass jar , Teflon lined lid	1	None

5.3 Field Control Samples

1. Field quality control is applied using a graded approach and depends on decisions require for individual tasks. Decisions must be made on procedures that are established to meet the objectives of the defined investigation. Specific QC procedures implemented in this SAP include:
    - Cleaning of sampling equipment that is re-used.
    - Appropriate sample custody, documentation, and document control procedures.
    - All samples are to be obtained using split-spoon sampler.
    - Latex gloves are to be worn when removing samples from the split spoon sampler.

5.3.1 Field Duplicates and Field Splits

1. Field duplicates (FD) and field splits (FS) are second samples collected at the same location and depth as the original sample. Duplicate or split samples are collected by splitting the collected sample and managed in the same manner during storage, transportation, and analysis as the original sample. The purpose of the duplicate/split sample is to assess the precision of the sample collection process. The precision is evaluated using relative percent difference between the samples.

2. The difference between an FD sample and an FS sample is that the FS is sent to a different laboratory that than the original sample, in an attempt to evaluate laboratory performance.

3. The results of analysis of FD and FS samples are evaluated on the basis of relative percent difference (RPD), which typically should not exceed 50 per cent. Natural variability or the heterogeneity of soils will be an influencing factor in measured variability.

4. It is proposed for this project to conclude FD sampling, and that no FS samples are to be conducted.

5. Typically, one field duplicate is collected for every ten field samples.

5.3.2 Matrix Spike and Matrix Spike Duplicates

1. A matrix spike is an aliquot of sample fortified in the laboratory with a known concentration of representative analytical parameters of interest, before sample preparation and analysis. The spiked sample is to provide precision and accuracy information about the effect of each sample matrix on the sample preparation and measurement methodology. This procedure is typically conducted as an in-house procedure by the chemical laboratory and is reported on the certificate of analysis.

6.0 Analytical Quality Control Procedures

6.1 Laboratory Qualification

1. Haddad Geotechnical Inc. has retained ALS Environmental. for chemical analysis of soil and water samples for this project. ALS Environmental. is accredited by SCC for the analysis of all specific parameters as required by Ontario Regulation 153/04. Quality assurance and quality control procedures are conducted in-house by ALS Environmental, including calibration, instrument blanks, method blanks, laboratory control samples matrix spike and matrix spike duplicate, as reported in full on their certificate of analysis.

6.2 Data Review

1. All analytic data generated by the laboratory will be extensively reviewed prior to report release to assure validity of the data.

6.3 Laboratory Deliverables

1. The laboratory will deliver a definitive data package (certificate of analysis) to Haddad Geotechnical Inc., in electronic "pdf" and "excel spreadsheet" formats.

7.0 Data Management

7.1.1 Data Acquisition and Management Process

1. The data flow from the field and laboratory to of project team shall be sufficiently documented to ensure the data are property tracked, review and validate for use. The primary elements of the data acquisition and management process include:
   - Project planning
   - Field sampling
   - Laboratory analysis and reporting
   - Data loading and data entry
   - Data review and validation
   - Data reporting

2. Data collection will be performed in accordance with this sampling and analysis plan.

7.1.2 Sample Nomenclature

1. Each sample is to be identified in field notes and on sample containers, referencing Project No. (22-16145), Borehole Location number, Sample No., Sample type, with "SS" denoting a split spoon sample, sample depth range, and date of sample. It is useful for the personnel supervising the drilling and sampling operation to prepare the labeled sample containers prior to the commencement of drilling operations, and to have them available on site. Further details are presented in Section 4.2, above.

7.1.3 Field Data Collection Activities

1. The field work supervisor will plan each day's activities, including preparing sampling kits and the appropriate type and number of containers. Container labels are to be prepared in advance.

2. Sample collection logs with summary of proposed sample collection are also to be prepared in advance, allowing for unexpected deviation in the field. The information is to include the container types and quantities, chemical preservation, and associated QA/QC. Field observations along with any changes to the plan are to be recorded on the sample collection logs forms. The completed sample collection logs are to compile, and transport to the laboratory for review and for reference in the preparation of chains of custody that will accompany the samples to the chemical laboratory.

3. During field sampling activities, custody of the samples must be maintained from the time that the samples are collected until laboratory data is issued and samples are appropriately disposed. Initial information concerning collection of the samples will be records in field logbook/sample collection log.

4. A project-specific sampling plan is to be prepared prior to the commencement of field work. Pre-planned samples will have labels prepared prior to commencement of fieldwork.

5. Each sample collected for chemical analysis or to be archived for possible future analysis will be placed in the appropriate container(s) and labeled at the time of sample collections with the following information: Haddad project number, sample numbers, date, and time of collection, required analysis and methods, type of preservative (if applicable), volume of sample and container type.

6. An additional number of samples contained will accompany the collector in the field, in the event that it be deemed necessary to collect additional samples, over and above those which are preplanned. The sample collector will complete labeling of these additional samples in the field.

7. The sample collector is responsible for verifying that the appropriate paperwork is submitted for each sample, the correct sample containers are used, and samples are correctly preserved or maintained at the appropriate temperature, and that assigned QA/QC samples are collected. The following forms will be assembled into a file folder for each sampling location: sampling collection logs/filed forms, survey data, COC records and field data.

7.1.4 Laboratory Analysis and Data Deliverables

1. The chemical laboratory is to verify receipt of the samples with the sampling collector and project coordinator, by means of returned copy of COC, and by emailed conformation. Any sample integrity problems or discrepancies are to be addressed at this time.

7.2 Data Validation

1. Analytical data is to be validated to ensure that method, procedural, contractual compliance is achieved, and analytical data quality are met.

7.3 Data Evaluation

1. Once the validity and usability of the data has been determined, as series of standard or custom reports will be generated by the chemical laboratory. Electronic files in various formats can also be generated as deemed necessary.

8.0 Quality Assurance

1. Quality assurance activities associates with this sampling effort will include a readiness review to verify that all systems and procedures are in place and will be followed by periodic assessment of field activities provided by the chemical laboratory.

8.1 Readiness Review

1. A readiness review will be performed prior to commencement of field work in order to verify that all systems, procedures, and supplies are in place. Procedures will be reviewed to ensure that all work activities are defined and that required preparation and training has been completed.

8.2 Field Assessments

1. The Haddad project coordinator will schedule and coordinate periodic assessments and surveillances of field activities to evaluate the execution of sample collection, sample identification and control of samples in the field, as well as observations of COC procedures, completeness and accuracy of field documentation and capture of any field measurements. Field documents and COC forms will be reviewed to ensure that all entries are printed or written in indelible ink and are dated and signed.

2. Sampling operations will be reviewed and compared against this SAP and other applicable procedures. The review will verify that sample collections techniques specified in the SAP are uniformly applied during each sampling event and are consistent between different sampling teams. The reviewer will also verify that the appropriate containers are used, and that documentation of the sampling operation is complete, accurate and legible.

8.3 Corrective Action Procedures for Field Sampling

1. The field sampling program will employ a corrective action program that addresses all out of normal situations. If different conditions are encountered that require modification of the number or locations of samples to be collected, a variance report will be generated that identifies any changes that are made and the reason for the change. The project coordinator will verify all variances and will make recommendations as necessary to address recurring problems, any deficiencies in the process or opportunities for improvement.

8.4 Laboratory Quality Assurance Program

1. All chemical analysis is to be performed by an accredited laboratory that has a written QA/QC program that meeting provincial regulatory requirements. Following completion of analyses, laboratory personnel will verify compliance with the minimum QC requirements of the laboratory QA/QC plan.

8.5 Disposition of Records

1. During the course of the project, Haddad will maintain all electronic and hard copy data as part of the project file. Following completion of the project, or as otherwise required by contact, all records, COC form, logbooks, log forms hard copy data packages, validated data and records and other filed records shall be archived by Haddad for long-term storage, or be transferred to the client is directed by contract.

Appendix “B”

Finalized Field Logs and Data

HADDAD GEOTECHNICAL INC.

Engineering Data Sheet For Borehole No. 1 and Monitoring Well No. 1

Project No. 22-16145
Drawing No. B1

Project: Proposed Residential Development
Location: 799-805 Dundas Street East, Mississauga
Hole Location: see Drawing No. 1
Hole Elevation & Datum: 124.6±m, see Note 1
Start Date: July 14, 2022 | End Date: July 14, 2022
Field Supervision: HR

LEGEND
51 mm dia Split Spoon Sample
Auger Sample
N - Standard Penetration Value
Gradation Analysis Completed M
No Split Spoon Recovery NR
Water Level
Pocket Penetrometer

GROUND SURFACE OF BOREHOLE NO. 1 — Elev. 124.6 m, Depth 0.0 m

ASPHALT - 100±mm
GRANULAR MATERIALS - 100±mm
FILL MATERIALS - loose to compact sand, trace gravels, trace silt, brown, moist

122.3 m (1.8 m)

SILTY SAND - trace gravels, trace clay, medium dense, layering, brown, moist

bentonite backfill: 0.0m - 13.5m

120.8 m (July 19, 2022)

120.1 m (3.0 m)

SILTY SAND TILL - trace gravels, trace clay, very dense, occ. crushed rock at tip of spilt spoon, brown, moist

119.7 m (July 27, 2022) (Aug 08, 2022)

ALS Lab No. WT2209423-001
Exceedance of Table 2 SCS: none

117.3 m (4.6 m)

WEATHERED SHALE - very dense, grey, moist

CONTINUED ON DRAWING NO. B1

110.9 m (13.7 m)

Strength and Penetration Resistance (KPa): 0 | 50 | 100 | 150 | 200 | 250
N Blows/300mm: 0 | 20 | 40 | 60 | 80 | 100

ALS Lab No. WT2207852-001
Exceedance of Table 2 SCS: none

ALS Lab No. WT2207852-002 (field duplicate)
Exceedance of Table 2 SCS: none

ALS Lab No. WT2207852-003
Exceedance of Table 2 SCS: none

Sample No.	N	Moisture Content %
SS0	31	6.0
SS1	8	13.7
SS2	14	9.7
SS3	18	8.2
SS4	23	12.6
SS5	50/3"	7.9
SS6	50/2"	2.0

RUN NUMBER	RUN LENGTH, m	RECOVERY, %	R.Q.D., %	CORE SIZE / CASING	JOINT SYSTEM	COMMENTS - ROCK QUALITY
1	0.76	93	14	NX		Very Poor
2	1.52	98	49	NX	some vertical near top	Poor
3	1.52	95	63	NX	vertical for bottom 45cm	Fair
4	1.52	100	89	NX		Good
5	1.52	100	88	NX		Good

HADDAD GEOTECHNICAL INC.

Engineering Data Sheet For Borehole No. 1 and Monitoring Well No. 1

Project No. 22-16145
Drawing No. B2

Project: Proposed Residential Development

Location: 799-805 Dundas Street East, Mississauga

Hole Location: see Drawing No. 1

Hole Elevation & Datum: XXX.XX±m, see Note 1

Start Date: July 14, 2022 | End Date: July 14, 2022

Field Supervision: HR

LEGEND

- 51 mm dia Split Spoon Sample
- Auger Sample
- N - Standard Penetration Value
- Gradation Analysis Completed M
- No Split Spoon Recovery NR
- Water Level
- Pocket Penetrometer

Description	Elev. ±m	Depth ±m	Strength and Penetration Resistance (KPa) 0 50 100 150 200 250 / N Blows/300mm 0 20 40 60 80 100	Sample No.	N	Moisture Content %
CONTINUED FROM DRAWING NO. B1						
WEATHERED SHALE - very dense, grey, moist	110.9	13.7				
sand backfill: 13.5m - 16.8m		14.0				
screening interval: 13.8m - 16.8m		15.0				
		16.0				
END OF BOREHOLE	107.8	17.0				
		18.0				
		19.0				
		20.0				
		21.0				
		22.0				
		23.0				
		24.0				
		25.0				
		26.0				
		27.0				

NOTES:

1. Elevation datum, referenced to the existing catch basin, El. 125.45±m, located east of 803 Dundas Street East, as per the site survey plan provided by client.
2. Monitoring well MW1 installed on July 14, 2022 with flush mount covering.
   - 0 - 13.8m riser
   - 13.8 - 16.8m screen
   - 0.0 - 13.5m bentonite backfill
   - 13.5 - 16.8m sand backfill
3. Water levels (depth (elevation), m)

July 19, 2022	3.83	(120.8)
July 27, 2022	4.91	(119.7)
August 08, 2022	4.95	(119.7)

HADDAD GEOTECHNICAL INC.

Engineering Data Sheet For Borehole No. 2 and Monitoring Well No. 2

Project No. 22-16145
Drawing No. B3

Project: Proposed Residential Development

Location: 799-805 Dundas Street East, Mississauga

Hole Location: see Drawing No. 1

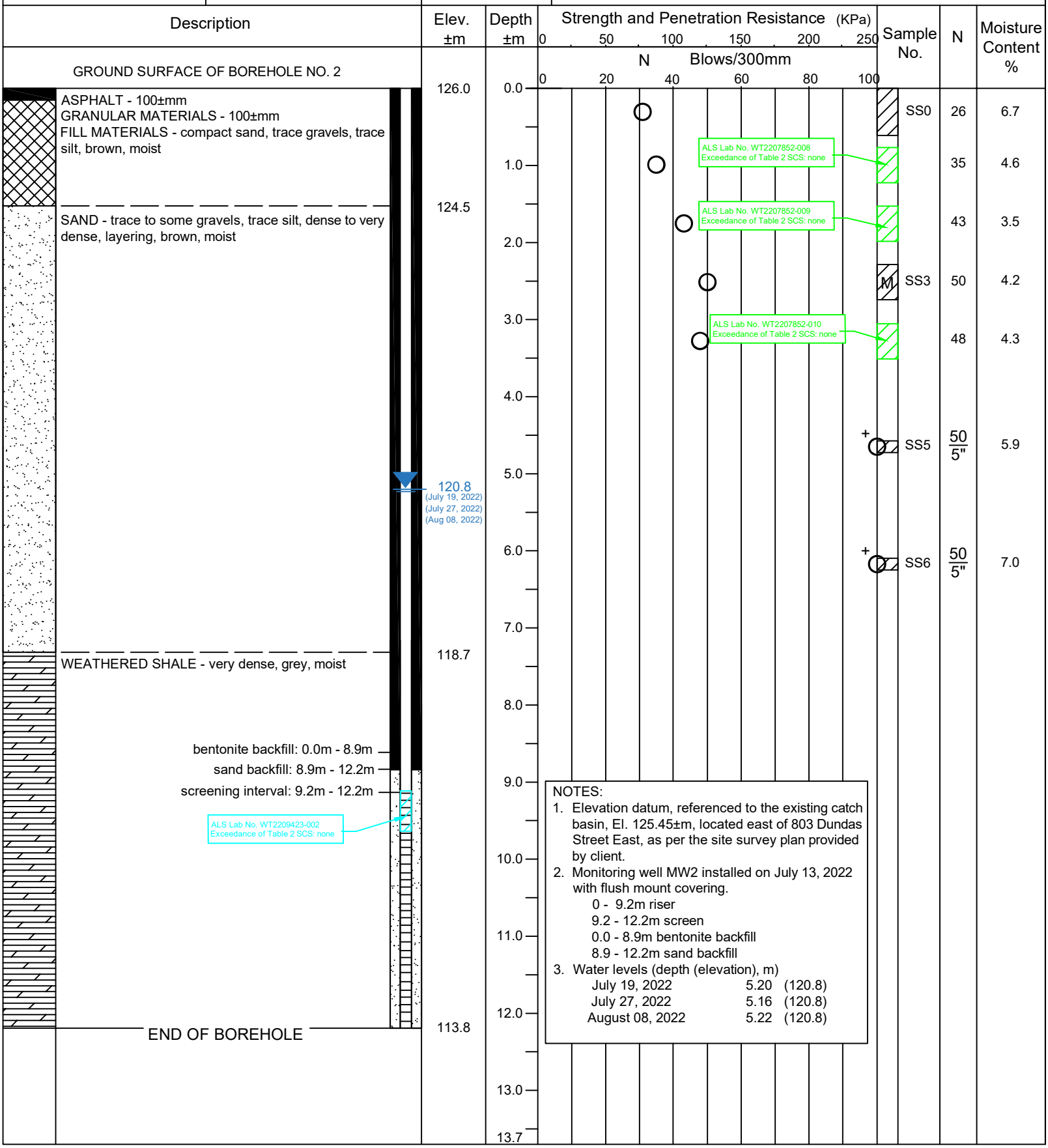
Hole Elevation & Datum: 126.0±m, see Note 1

Start Date: July 13, 2022 | End Date: July 13, 2022

Field Supervision: HR

LEGEND

- 51 mm dia Split Spoon Sample
- Auger Sample
- N - Standard Penetration Value
- Gradation Analysis Completed (M)
- No Split Spoon Recovery (NR)
- Water Level
- Pocket Penetrometer



NOTES:

1. Elevation datum, referenced to the existing catch basin, El. 125.45±m, located east of 803 Dundas Street East, as per the site survey plan provided by client.
2. Monitoring well MW2 installed on July 13, 2022 with flush mount covering.
   - 0 - 9.2m riser
   - 9.2 - 12.2m screen
   - 0.0 - 8.9m bentonite backfill
   - 8.9 - 12.2m sand backfill
3. Water levels (depth (elevation), m)

July 19, 2022	5.20	(120.8)
July 27, 2022	5.16	(120.8)
August 08, 2022	5.22	(120.8)

HADDAD GEOTECHNICAL INC.

Engineering Data Sheet For Borehole No. 3 and Monitoring Well No. 3

Project No. 22-16145
Drawing No. B4

Project: Proposed Residential Development

Location: 799-805 Dundas Street East, Mississauga

Hole Location: see Drawing No. 1

Hole Elevation & Datum: 125.6±m, see Note 1

Start Date: July 13, 2022 | End Date: July 13, 2022

Field Supervision: HR

LEGEND

- 51 mm dia Split Spoon Sample
- Auger Sample
- N - Standard Penetration Value
- Gradation Analysis Completed M
- No Split Spoon Recovery NR
- Water Level
- Pocket Penetrometer

Description	Elev. ±m	Depth ±m	Sample No.	N	Moisture Content %
GROUND SURFACE OF BOREHOLE NO. 3	125.6	0.0			
ASPHALT - 100±mm GRANULAR MATERIALS - 100±mm FILL MATERIALS - compact sand, trace gravels, trace silt, brown, moist			SS0	26	5.7
		1.0	SS1	42	5.9
SAND - trace to some gravels, trace silt, dense to very dense, layering, brown, moist	124.1	2.0	SS2	44	5.5
		3.0	SS3	52	6.4
		4.0	SS4	44	5.5
		5.0	SS5	44	6.0
	119.8 (July 19, 2022) (July 27, 2022) 119.7 (Aug 08, 2022)	6.0	SS6	75	15.9
SILTY SAND TILL - trace gravels, trace clay, very dense, grey, moist	118.0	7.0	SS7	50/3"	9.6
WEATHERED SHALE - very dense, grey, moist	117.8	8.0			
bentonite backfill: 0.0m - 8.9m sand backfill: 8.9m - 12.2m screening interval: 9.2m - 12.2m		9.0			
END OF BOREHOLE	113.4	12.0			
		13.0			
		13.7			

Strength and Penetration Resistance (KPa)
0 50 100 150 200 250

N Blows/300mm
0 20 40 60 80 100

ALS Lab No. WT2207852-004
Exceedance of Table 2 SCS: none

ALS Lab No. WT2207852-005
Exceedance of Table 2 SCS: none

ALS Lab No. WT2209423-003
Exceedance of Table 2 SCS: none

NOTES:

1. Elevation datum, referenced to the existing catch basin, El. 125.45±m, located east of 803 Dundas Street East, as per the site survey plan provided by client.
2. Monitoring well MW3 installed on July 13, 2022 with flush mount covering.
   - 0 - 9.2m riser
   - 9.2 - 12.2m screen
   - 0.0 - 8.9m bentonite backfill
   - 8.9 - 12.2m sand backfill
3. Water levels (depth (elevation), m)

July 19, 2022	5.80	(119.8)
July 27, 2022	5.84	(119.8)
August 08, 2022	5.86	(119.7)

HADDAD GEOTECHNICAL INC.

Engineering Data Sheet For Borehole No. 4 and Monitoring Well No. 4

Project No. 22-16145
Drawing No. B5

Project: Proposed Residential Development

Location: 799-805 Dundas Street East, Mississauga

Hole Location: see Drawing No. 1

Hole Elevation & Datum: 125.6±m, see Note 1

Start Date: July 12, 2022 | End Date: July 12, 2022

Field Supervision: HR

LEGEND

- 51 mm dia Split Spoon Sample
- Auger Sample
- N - Standard Penetration Value
- Gradation Analysis Completed M
- No Split Spoon Recovery NR
- Water Level
- Pocket Penetrometer

Description	Elev. ±m	Depth ±m	Strength and Penetration Resistance (KPa) 0 50 100 150 200 250 / N Blows/300mm 0 20 40 60 80 100	Sample No.	N	Moisture Content %
GROUND SURFACE OF BOREHOLE NO. 4	125.6	0.0				
ASPHALT - 100±mm GRANULAR MATERIALS - 100±mm FILL MATERIALS - compact sand, trace gravels, trace silt, brown, moist						
SAND - trace to some gravels, trace silt, dense to very dense, layering, brown, moist						
bentonite backfill: 0.0m - 2.4m sand backfill: 2.4m - 5.8m screening interval: 2.7m - 5.8m						
ALS Lab No. WT2209423-004 Exceedance of Table 2 SCS: none						
	(July 19, 2022) 120.8 (Aug 08, 2022) 119.9 (July 27, 2022) 119.8	5.0				
END OF BOREHOLE AUGER REFUSAL	119.8	13.7				

NOTES:

1. Elevation datum, referenced to the existing catch basin, El. 125.45±m, located east of 803 Dundas Street East, as per the site survey plan provided by client.
2. Subsoils information is from adjacent Borehole No. 3.
3. Monitoring well MW4 installed on July 12, 2022 with flush mount covering.
   - 0 - 2.7m riser
   - 2.7 - 5.8m screen
   - 0.0 - 2.4m bentonite backfill
   - 2.4 - 5.8m sand backfill
4. Water levels (depth (elevation), m)

July 19, 2022	4.80	(120.8)
July 27, 2022	5.79	(119.8)
August 08, 2022	5.75	(119.9)

HADDAD GEOTECHNICAL INC.

Engineering Data Sheet For Borehole No. 5 and Monitoring Well No. 5

Project No. 22-16145
Drawing No. B6

Project: Proposed Residential Development

Location: 799-805 Dundas Street East, Mississauga

Hole Location: see Drawing No. 1

Hole Elevation & Datum: 129.6±m, see Note 1

Start Date: July 12, 2022 | End Date: July 12, 2022

Field Supervision: HR

LEGEND

- 51 mm dia Split Spoon Sample
- Auger Sample
- N - Standard Penetration Value
- Gradation Analysis Completed (M)
- No Split Spoon Recovery (NR)
- Water Level
- Pocket Penetrometer

GROUND SURFACE OF BOREHOLE NO. 5 — Elev. 124.4 — Depth 0.0

TOPSOIL - 100±mm

FILL MATERIALS - compact silt and sand, trace gravels, crushed rock at tip of spoon, brown, moist

Elev. 122.9

SAND - some gravels, trace silt, dense, layering, brown, moist

becomes very dense at and below 4.5±m depth below grade

Elev. 118.6 (July 19, 2022)

SILTY SAND TILL - trace gravels, trace clay, very dense, grey, moist — Elev. 118.3

WEATHERED SHALE - very dense, grey, moist — Elev. 118.1

Elev. 118.0 (July 27, 2022) (Aug 08, 2022)

bentonite backfill: 0.0m - 8.9m

sand backfill: 8.9m - 12.2m

screening interval: 9.2m - 12.2m

ALS Lab No. WT2209423-005
Exceedance of Table 2 SCS: none

END OF BOREHOLE — Elev. 112.2 — Depth 13.7

Strength and Penetration Resistance (KPa): 0, 50, 100, 150, 200, 250

N Blows/300mm: 0, 20, 40, 60, 80, 100

ALS Lab No. WT2207852-006
Exceedance of Table 2 SCS: none

ALS Lab No. WT2207852-007
Exceedance of Table 2 SCS: none

Sample No.	N	Moisture Content %
SS0	50/4"	3.4
SS1	38	5.8
SS2	30	4.8
SS3 (M)	36	4.7
SS4	45	5.0
SS5	55	24.3
SS6	50/3"	6.1

NOTES:

1. Elevation datum, referenced to the existing catch basin, El. 125.45±m, located east of 803 Dundas Street East, as per the site survey plan provided by client.
2. Monitoring well MW5 installed on July 12, 2022 with flush mount covering.
   - 0 - 9.2m riser
   - 9.2 - 12.2m screen
   - 0.0 - 8.9m bentonite backfill
   - 8.9 - 12.2m sand backfill
3. Water levels (depth (elevation), m)

July 19, 2022	5.79	(118.6)
July 27, 2022	6.36	(118.0)
August 08, 2022	6.41	(118.0)

HADDAD GEOTECHNICAL INC.

Engineering Data Sheet For Borehole No. 6 and Monitoring Well No. 6

Project No. 22-16145
Drawing No. B7

Project: Proposed Residential Development

Location: 799-805 Dundas Street East, Mississauga

Hole Location: see Drawing No. 1

Hole Elevation & Datum: 124.4±m, see Note 1

Start Date: July 11, 2022 | End Date: July 11, 2022

Field Supervision: HR

LEGEND

- 51 mm dia Split Spoon Sample
- Auger Sample
- N - Standard Penetration Value
- Gradation Analysis Completed — M
- No Split Spoon Recovery — NR
- Water Level
- Pocket Penetrometer

Description	Elev. ±m	Depth ±m
GROUND SURFACE OF BOREHOLE NO. 6	124.4	0.0
TOPSOIL - 100±mm FILL MATERIALS - compact silt and sand, trace gravels, crushed rock at tip of spoon, brown, moist		
SAND - some gravels, trace silt, dense, layering, brown, moist bentonite backfill: 0.0m - 2.4m sand backfill: 2.4m - 5.8m screening interval: 2.7m - 5.8m		
becomes very dense at and below 4.5±m depth below grade		
END OF BOREHOLE AUGER REFUSAL	118.6	6.0
		13.7

Strength and Penetration Resistance (KPa): 0 | 50 | 100 | 150 | 200 | 250

N Blows/300mm: 0 | 20 | 40 | 60 | 80 | 100

Depth ±m: 0.0, 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0

Sample No.	N	Moisture Content %

NOTES:

1. Elevation datum, referenced to the existing catch basin, El. 125.45±m, located east of 803 Dundas Street East, as per the site survey plan provided by client.
2. Subsoils information is from adjacent Borehole No. 5.
3. Monitoring well MW6 installed on July 12, 2022 with flush mount covering.
   - 0 - 2.7m riser
   - 2.7 - 5.8m screen
   - 0.0 - 2.4m bentonite backfill
   - 2.4 - 5.8m sand backfill
4. Water levels (depth (elevation), m)
   - July 19, 2022 - (dry)
   - July 27, 2022 - (dry)
   - August 08, 2022 - (dry)

HADDAD GEOTECHNICAL INC.

Engineering Data Sheet For Borehole No. 7 and Monitoring Well No. 7

Project No. 22-16145
Drawing No. B8

Project: Proposed Residential Development
Location: 799-805 Dundas Street East, Mississauga
Hole Location: see Drawing No. 1
Hole Elevation & Datum: 125.8±m, see Note 1
Start Date: July 11, 2022 | End Date: July 11, 2022
Field Supervision: HR

LEGEND
51 mm dia Split Spoon Sample
Auger Sample
N - Standard Penetration Value
Gradation Analysis Completed M
No Split Spoon Recovery NR
Water Level
Pocket Penetrometer

GROUND SURFACE OF BOREHOLE NO. 7 — 125.8

ASPHALT - 100±mm
GRANULAR MATERIALS - 250±mm
FILL MATERIALS - compact sandy silt, trace gravels, brown, slight green colouring, moist

124.3

SAND - some gravels, trace silt, dense, layering, brown, slight green colouring, moist

123.5

SILTY SAND TILL - some gravels, trace clay, medium dense to dense, slight green colouring, moist

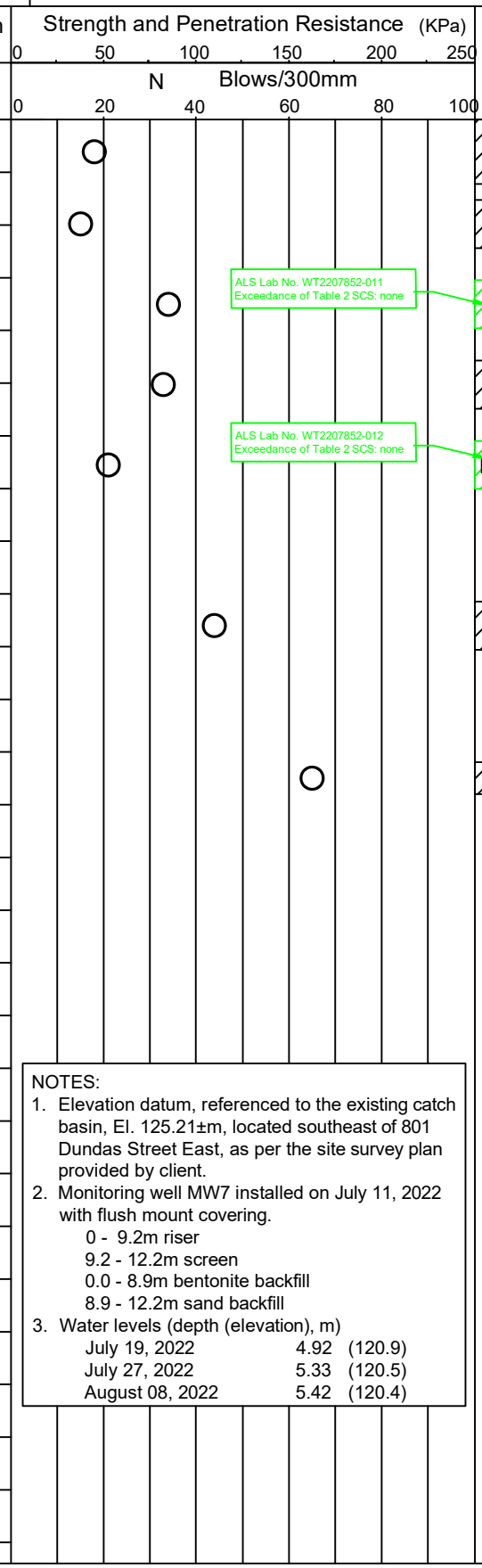
120.9 (July 19, 2022)
120.6
120.5 (July 27, 2022)
120.4 (Aug 08, 2022)

WEATHERED SHALE - very dense, grey, moist

bentonite backfill: 0.0m - 8.9m
sand backfill: 8.9m - 12.2m
screening interval: 9.2m - 12.2m

ALS Lab No. WT2209423-006
Exceedance of Table 2 SCS: none

END OF BOREHOLE — 113.6



Sample No.	N	Moisture Content %
SS0	18	9.7
SS1	15	10.6
SS2	34	7.7
SS3	33	12.2
SS4	21	15.3
SS5	44	8.8
SS6	65	8.6

NOTES:
1. Elevation datum, referenced to the existing catch basin, El. 125.21±m, located southeast of 801 Dundas Street East, as per the site survey plan provided by client.
2. Monitoring well MW7 installed on July 11, 2022 with flush mount covering.
   - 0 - 9.2m riser
   - 9.2 - 12.2m screen
   - 0.0 - 8.9m bentonite backfill
   - 8.9 - 12.2m sand backfill
3. Water levels (depth (elevation), m)

July 19, 2022	4.92	(120.9)
July 27, 2022	5.33	(120.5)
August 08, 2022	5.42	(120.4)

HADDAD GEOTECHNICAL INC.

Engineering Data Sheet For Borehole No. 8 and Monitoring Well No. 8

Project No. 22-16145
Drawing No. B9

Project: Proposed Residential Development

Location: 799-805 Dundas Street East, Mississauga

Hole Location: see Drawing No. 1

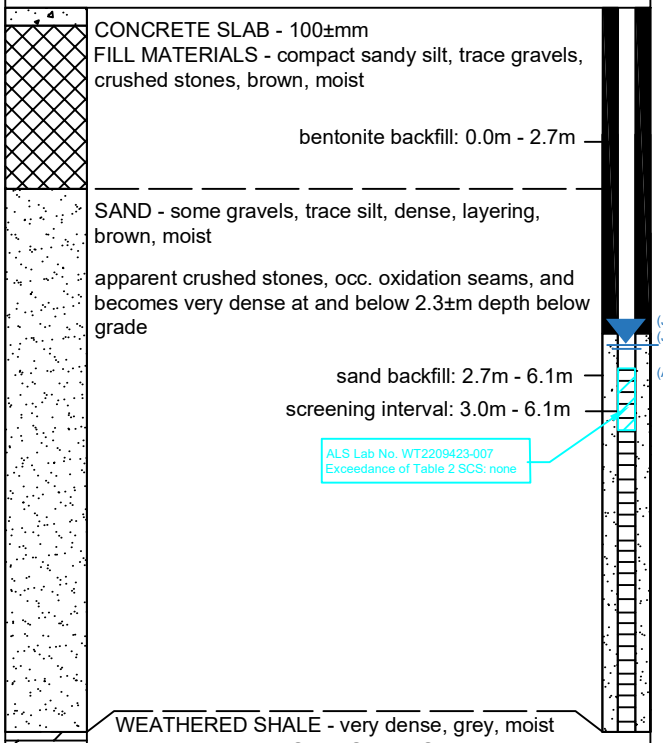
Hole Elevation & Datum: 126.4±m, see Note 1

Start Date: July 15, 2022 | End Date: July 15, 2022

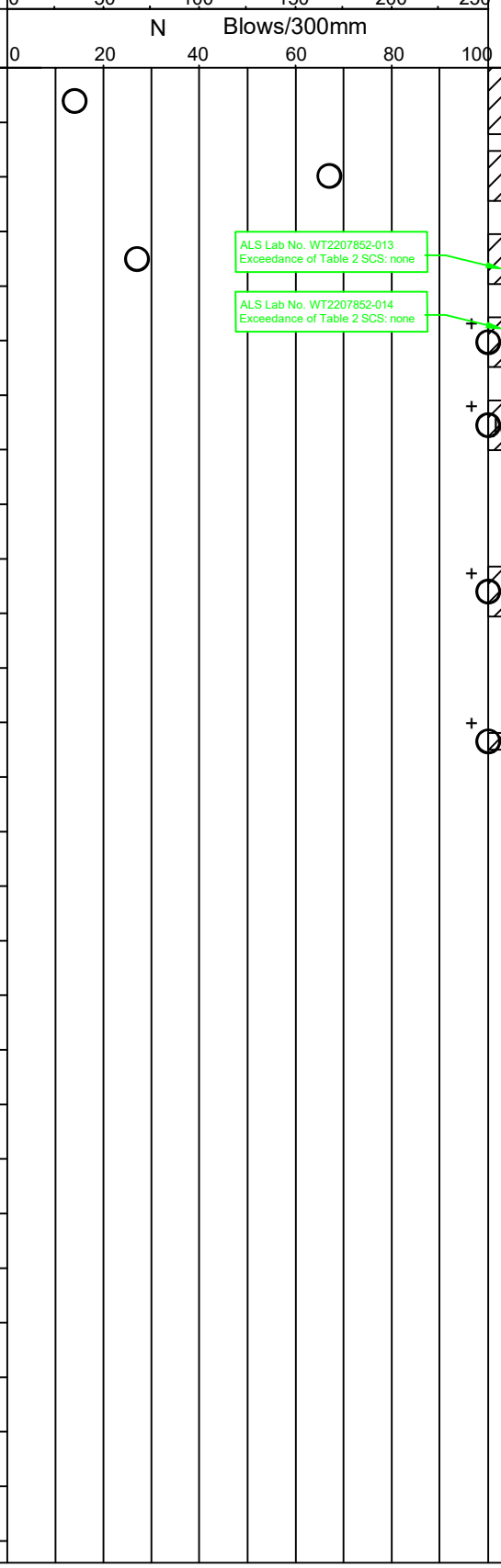
Field Supervision: HR

LEGEND

- 51 mm dia Split Spoon Sample
- Auger Sample
- N - Standard Penetration Value
- Gradation Analysis Completed M
- No Split Spoon Recovery NR
- Water Level
- Pocket Penetrometer



Description	Elev. ±m	Depth ±m
GROUND SURFACE OF BOREHOLE NO. 8	126.4	0.0
	124.9	
	123.6 (July 19, 2022) (July 27, 2022)	
	123.5 (Aug 08, 2022)	
	120.3	6.0
END OF BOREHOLE	120.1	



Sample No.	N	Moisture Content %
SS0	14	9.0
SS1	67	4.9
SS2	27	6.0
SS3	50/4"	5.5
SS4	50/4"	3.6
SS5	50/4"	6.6
SS6	50/2"	6.6

NOTES:

1. Elevation datum, referenced to the existing catch basin, El. 126.36±m, located west of 801 Dundas Street East, as per the site survey plan provided by client.
2. Monitoring well MW8 installed on July 15, 2022 with flush mount covering.
   - 0 - 3.0m riser
   - 3.0 - 6.1m screen
   - 0.0 - 2.7m bentonite backfill
   - 2.7 - 6.1m sand backfill
3. Water levels (depth (elevation), m)

July 19, 2022	2.84	(123.6)
July 27, 2022	2.84	(123.6)
August 08, 2022	2.89	(123.5)

Appendix “C”

Certificates of Analysis

1. ALS Environmental, Order No WT2207852. Chemical analysis of soil samples obtained from boreholes,
2. ALS Environmental, Lab Work Order No. WT2209423. Chemical analysis of groundwater samples obtained from monitoring wells,

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **WT2207852**	Page	: 1 of 17
Client	: **Haddad Geotechnical Inc.**	Laboratory	: Waterloo - Environmental
Contact	: Rico Van	Account Manager	: Emily Hansen
Address	: 151 Amber Street Markham ON Canada L3R 3J7	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	: 905 475 0951 x 230	Telephone	: +1 519 886 6910
Project	: 16145	Date Samples Received	: 19-Jul-2022 10:30
PO	: ----	Date Analysis Commenced	: 19-Jul-2022
C-O-C number	: ----	Issue Date	: 26-Jul-2022 17:45
Sampler	: RV		
Site	: ----		
Quote number	: Standing Offer 2022		
No. of samples received	: 14		
No. of samples analysed	: 14		

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*
Jeremy Gingras	Team Leader - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
Jon Fisher	Department Manager - Inorganics	Inorganics, Waterloo, Ontario
Jon Fisher	Department Manager - Inorganics	Metals, Waterloo, Ontario
Joseph Scharbach		Centralized Prep, Waterloo, Ontario
Sarah Birch	Team Leader - Volatiles	Organics, 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 Unit
%	percent
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
mS/cm	millisiemens per centimetre
pH units	pH units

<: 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: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH1SS2	16145-BH1SS2-FD	16145-BH1SS6	16145-BH3SS2	16145-BH3SS5
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022
						WT2207852-001	WT2207852-002	WT2207852-003	WT2207852-004	WT2207852-005
						Result	Result	Result	Result	Result
Physical Tests										
conductivity (1:2 leachate)	----	E100-L	0.00500	mS/cm		1.30	1.30	0.457	0.235	0.302
moisture	----	E144	0.25	%		7.48	7.16	6.32	6.36	7.92
pH (1:2 soil:CaCl2-aq)	----	E108A	0.10	pH units		7.65	7.73	7.85	7.91	7.74
Cyanides										
cyanide, weak acid dissociable	----	E336A	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Saturated Paste Extractables										
calcium, soluble ion content	7440-70-2	E484	0.50	mg/L		73.5	77.3	26.3	<0.50	5.26
magnesium, soluble ion content	7439-95-4	E484	0.50	mg/L		5.25	5.57	5.51	<0.50	<0.50
sodium, soluble ion content	17341-25-2	E484	0.50	mg/L		157	159	27.6	51.9	56.1
sodium adsorption ratio [SAR]	----	E484	0.1	-		----	----	----	12.42	----
sodium adsorption ratio [SAR]	----	E484	0.10	-		4.77	4.71	1.28	----	6.74
Metals										
antimony	7440-36-0	E440	0.10	mg/kg		<0.10	<0.10	0.28	<0.10	<0.10
arsenic	7440-38-2	E440	0.10	mg/kg		2.74	2.78	11.8	2.28	3.80
barium	7440-39-3	E440	0.50	mg/kg		20.1	19.5	36.0	17.8	26.7
beryllium	7440-41-7	E440	0.10	mg/kg		0.26	0.28	1.20	0.18	0.30
boron	7440-42-8	E440	5.0	mg/kg		<5.0	<5.0	20.3	<5.0	<5.0
boron, hot water soluble	7440-42-8	E487	0.10	mg/kg		0.13	0.14	1.39	0.16	0.11
cadmium	7440-43-9	E440	0.020	mg/kg		0.083	0.077	0.023	0.041	0.067
chromium	7440-47-3	E440	0.50	mg/kg		9.09	9.23	31.4	5.78	10.6
cobalt	7440-48-4	E440	0.10	mg/kg		4.57	4.59	19.7	3.11	5.37
copper	7440-50-8	E440	0.50	mg/kg		16.6	16.6	32.3	8.98	22.4
lead	7439-92-1	E440	0.50	mg/kg		10.5	10.0	3.70	5.84	9.79
mercury	7439-97-6	E510	0.0050	mg/kg		0.0153	0.0135	0.0142	0.0054	0.0113
molybdenum	7439-98-7	E440	0.10	mg/kg		0.35	0.35	0.40	0.19	0.45
nickel	7440-02-0	E440	0.50	mg/kg		10.2	10.2	40.3	6.51	11.2
selenium	7782-49-2	E440	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
silver	7440-22-4	E440	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
thallium	7440-28-0	E440	0.050	mg/kg		0.070	0.070	0.111	0.053	0.072
uranium	7440-61-1	E440	0.050	mg/kg		0.329	0.358	0.697	0.235	0.357
vanadium	7440-62-2	E440	0.20	mg/kg		16.8	16.8	38.9	11.9	19.9

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH1SS2	16145-BH1SS2-FD	16145-BH1SS6	16145-BH3SS2	16145-BH3SS5
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022
						WT2207852-001	WT2207852-002	WT2207852-003	WT2207852-004	WT2207852-005
						Result	Result	Result	Result	Result
Metals										
zinc	7440-66-6	E440	2.0	mg/kg		39.2	40.2	78.2	20.4	42.5
Speciated Metals										
chromium, hexavalent [Cr VI]	18540-29-9	E532	0.10	mg/kg		0.21	0.15	<0.10	<0.10	0.13
Volatile Organic Compounds										
acetone	67-64-1	E611D	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
benzene	71-43-2	E611D	0.0050	mg/kg		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
bromodichloromethane	75-27-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
bromoform	75-25-2	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
bromomethane	74-83-9	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
carbon tetrachloride	56-23-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
chlorobenzene	108-90-7	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
chloroform	67-66-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dibromochloromethane	124-48-1	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dibromoethane, 1,2-	106-93-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichlorobenzene, 1,2-	95-50-1	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichlorobenzene, 1,3-	541-73-1	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichlorobenzene, 1,4-	106-46-7	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichlorodifluoromethane	75-71-8	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethane, 1,1-	75-34-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethane, 1,2-	107-06-2	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethylene, 1,1-	75-35-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethylene, cis-1,2-	156-59-2	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethylene, trans-1,2-	156-60-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloromethane	75-09-2	E611D	0.045	mg/kg		<0.045	<0.045	<0.045	<0.045	<0.045
dichloropropane, 1,2-	78-87-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloropropylene, cis+trans-1,3-	542-75-6	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	<0.030
dichloropropylene, trans-1,3-	10061-02-6	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	<0.030
ethylbenzene	100-41-4	E611D	0.015	mg/kg		<0.015	<0.015	<0.015	<0.015	<0.015
hexane, n-	110-54-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
methyl ethyl ketone [MEK]	78-93-3	E611D	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
methyl isobutyl ketone [MIBK]	108-10-1	E611D	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH1SS2	16145-BH1SS2-FD	16145-BH1SS6	16145-BH3SS2	16145-BH3SS5
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022
						WT2207852-001	WT2207852-002	WT2207852-003	WT2207852-004	WT2207852-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.040	mg/kg		<0.040	<0.040	<0.040	<0.040	<0.040
styrene	100-42-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
tetrachloroethylene	127-18-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
toluene	108-88-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
trichloroethane, 1,1,1-	71-55-6	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
trichloroethane, 1,1,2-	79-00-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
trichloroethylene	79-01-6	E611D	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
trichlorofluoromethane	75-69-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
vinyl chloride	75-01-4	E611D	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
xylene, m+p-	179601-23-1	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	<0.030
xylene, o-	95-47-6	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	<0.030
xylenes, total	1330-20-7	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
BTEX, total	----	E611D	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
Volatile Organic Compounds Surrogates										
bromofluorobenzene, 4-	460-00-4	E611D	0.10	%		84.1	77.4	79.8	79.5	77.1
difluorobenzene, 1,4-	540-36-3	E611D	0.10	%		114	107	110	109	107
Hydrocarbons										
F1 (C6-C10)	----	E581.F1	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	----	E601.SG-L	10	mg/kg		<10	<10	<10	<10	<10
F3 (C16-C34)	----	E601.SG-L	50	mg/kg		<50	<50	<50	<50	<50
F4 (C34-C50)	----	E601.SG-L	50	mg/kg		<50	<50	<50	<50	<50
F1-BTEX	----	EC580	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
hydrocarbons, total (C6-C50)	----	EC581	80	mg/kg		<80	<80	<80	<80	<80
chromatogram to baseline at nC50	n/a	E601.SG-L	-	-		YES	YES	YES	YES	YES
Hydrocarbons Surrogates										
bromobenzotrifluoride, 2- (F2-F4 surr)	392-83-6	E601.SG-L	1.0	%		85.1	79.7	76.8	73.6	75.9
dichlorotoluene, 3,4-	97-75-0	E581.F1	1.0	%		102	85.8	89.9	94.0	88.6
Polycyclic Aromatic Hydrocarbons										
acenaphthene	83-32-9	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
acenaphthylene	208-96-8	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH1SS2	16145-BH1SS2-FD	16145-BH1SS6	16145-BH3SS2	16145-BH3SS5
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022
						WT2207852-001	WT2207852-002	WT2207852-003	WT2207852-004	WT2207852-005
						Result	Result	Result	Result	Result
Polycyclic Aromatic Hydrocarbons										
anthracene	120-12-7	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
benz(a)anthracene	56-55-3	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
benzo(a)pyrene	50-32-8	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
benzo(b+j)fluoranthene	n/a	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
benzo(g,h,i)perylene	191-24-2	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
benzo(k)fluoranthene	207-08-9	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
chrysene	218-01-9	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
dibenz(a,h)anthracene	53-70-3	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
fluoranthene	206-44-0	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
fluorene	86-73-7	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
methylnaphthalene, 1-	90-12-0	E642F	0.030	mg/kg		<0.030	<0.030	----	<0.030	----
methylnaphthalene, 1+2-	----	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
methylnaphthalene, 2-	91-57-6	E642F	0.030	mg/kg		<0.030	<0.030	----	<0.030	----
naphthalene	91-20-3	E642F	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
phenanthrene	85-01-8	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
pyrene	129-00-0	E642F	0.050	mg/kg		<0.050	<0.050	----	<0.050	----
Polycyclic Aromatic Hydrocarbons Surrogates										
fluorobiphenyl, 2-	321-60-8	E642F	0.1	%		80.0	80.4	----	82.0	----
terphenyl-d14, p-	1718-51-0	E642F	0.1	%		78.5	77.8	----	85.7	----
Polychlorinated Biphenyls										
Aroclor 1016	12674-11-2	E687	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Aroclor 1221	11104-28-2	E687	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Aroclor 1232	11141-16-5	E687	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Aroclor 1242	53469-21-9	E687	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Aroclor 1248	12672-29-6	E687	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Aroclor 1254	11097-69-1	E687	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Aroclor 1260	11096-82-5	E687	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Aroclor 1262	37324-23-5	E687	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
Aroclor 1268	11100-14-4	E687	0.010	mg/kg		<0.010	<0.010	----	<0.010	----
polychlorinated biphenyls [PCBs], total	----	E687	0.030	mg/kg		<0.030	<0.030	----	<0.030	----
Polychlorinated Biphenyls Surrogates										

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH1SS2	16145-BH1SS2-FD	16145-BH1SS6	16145-BH3SS2	16145-BH3SS5
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022
						WT2207852-001	WT2207852-002	WT2207852-003	WT2207852-004	WT2207852-005
						Result	Result	Result	Result	Result
Polychlorinated Biphenyls Surrogates										
decachlorobiphenyl	2051-24-3	E687	0.1	%		128	131	----	128	----
fluorobiphenyl, 2-	321-60-8	E687	0.1	%		Not Authorised	Not Authorised	----	Not Authorised	----
terphenyl-d14, p-	1718-51-0	E687	0.01	%		Not Authorised	Not Authorised	----	Not Authorised	----
tetrachloro-m-xylene	877-09-8	E687	0.1	%		88.2	85.1	----	83.0	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH5SS3	16145-BH5SS6	16145-BH2SS1	16145-BH2SS2	16145-BH2SS4
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022
						WT2207852-006	WT2207852-007	WT2207852-008	WT2207852-009	WT2207852-010
						Result	Result	Result	Result	Result
Physical Tests										
conductivity (1:2 leachate)	----	E100-L	0.00500	mS/cm		0.410	0.208	0.666	0.422	0.707
moisture	----	E144	0.25	%		6.03	16.6	4.46	3.60	4.43
pH (1:2 soil:CaCl2-aq)	----	E108A	0.10	pH units		7.96	7.81	8.08	8.05	8.06
Cyanides										
cyanide, weak acid dissociable	----	E336A	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
Saturated Paste Extractables										
calcium, soluble ion content	7440-70-2	E484	0.50	mg/L		<0.50	2.58	<0.50	<0.50	<0.50
magnesium, soluble ion content	7439-95-4	E484	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
sodium, soluble ion content	17341-25-2	E484	0.50	mg/L		86.8	39.4	131	84.4	139
sodium adsorption ratio [SAR]	----	E484	0.1	-		20.77	----	31.35	20.20	33.26
sodium adsorption ratio [SAR]	----	E484	0.10	-		----	6.75	----	----	----
Metals										
antimony	7440-36-0	E440	0.10	mg/kg		<0.10	<0.10	0.10	<0.10	<0.10
arsenic	7440-38-2	E440	0.10	mg/kg		4.03	1.28	4.48	1.72	2.57
barium	7440-39-3	E440	0.50	mg/kg		21.3	13.2	31.5	12.8	35.9
beryllium	7440-41-7	E440	0.10	mg/kg		0.36	0.14	0.44	0.16	0.24
boron	7440-42-8	E440	5.0	mg/kg		5.8	<5.0	6.9	<5.0	<5.0
boron, hot water soluble	7440-42-8	E487	0.10	mg/kg		0.11	<0.10	<0.10	<0.10	<0.10
cadmium	7440-43-9	E440	0.020	mg/kg		0.106	0.020	0.124	0.042	0.061
chromium	7440-47-3	E440	0.50	mg/kg		11.5	4.74	12.2	5.92	10.5
cobalt	7440-48-4	E440	0.10	mg/kg		7.20	2.49	7.46	2.74	4.65
copper	7440-50-8	E440	0.50	mg/kg		28.3	6.63	28.4	8.30	14.8
lead	7439-92-1	E440	0.50	mg/kg		11.7	3.08	13.2	4.62	6.10
mercury	7439-97-6	E510	0.0050	mg/kg		0.0112	<0.0050	0.0143	<0.0050	0.0067
molybdenum	7439-98-7	E440	0.10	mg/kg		0.59	0.16	0.59	0.25	0.44
nickel	7440-02-0	E440	0.50	mg/kg		15.2	5.01	17.0	5.74	9.38
selenium	7782-49-2	E440	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	<0.20
silver	7440-22-4	E440	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
thallium	7440-28-0	E440	0.050	mg/kg		0.109	<0.050	0.119	<0.050	0.066
uranium	7440-61-1	E440	0.050	mg/kg		0.436	0.194	0.513	0.314	0.319
vanadium	7440-62-2	E440	0.20	mg/kg		19.3	7.84	20.3	10.9	14.2
zinc	7440-66-6	E440	2.0	mg/kg		58.7	15.8	68.5	20.3	33.2

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH5SS3	16145-BH5SS6	16145-BH2SS1	16145-BH2SS2	16145-BH2SS4
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022
						WT2207852-006	WT2207852-007	WT2207852-008	WT2207852-009	WT2207852-010
						Result	Result	Result	Result	Result
Speciated Metals										
chromium, hexavalent [Cr VI]	18540-29-9	E532	0.10	mg/kg		0.13	<0.10	<0.10	0.13	0.20
Volatile Organic Compounds										
acetone	67-64-1	E611D	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
benzene	71-43-2	E611D	0.0050	mg/kg		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
bromodichloromethane	75-27-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
bromoform	75-25-2	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
bromomethane	74-83-9	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
carbon tetrachloride	56-23-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
chlorobenzene	108-90-7	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
chloroform	67-66-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dibromochloromethane	124-48-1	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dibromoethane, 1,2-	106-93-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichlorobenzene, 1,2-	95-50-1	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichlorobenzene, 1,3-	541-73-1	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichlorobenzene, 1,4-	106-46-7	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichlorodifluoromethane	75-71-8	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethane, 1,1-	75-34-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethane, 1,2-	107-06-2	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethylene, 1,1-	75-35-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethylene, cis-1,2-	156-59-2	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloroethylene, trans-1,2-	156-60-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloromethane	75-09-2	E611D	0.045	mg/kg		<0.045	<0.045	<0.045	<0.045	<0.045
dichloropropane, 1,2-	78-87-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloropropylene, cis+trans-1,3-	542-75-6	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	<0.030
dichloropropylene, trans-1,3-	10061-02-6	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	<0.030
ethylbenzene	100-41-4	E611D	0.015	mg/kg		<0.015	<0.015	<0.015	<0.015	<0.015
hexane, n-	110-54-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
methyl ethyl ketone [MEK]	78-93-3	E611D	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
methyl isobutyl ketone [MIBK]	108-10-1	E611D	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	<0.50
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.040	mg/kg		<0.040	<0.040	<0.040	<0.040	<0.040
styrene	100-42-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH5SS3	16145-BH5SS6	16145-BH2SS1	16145-BH2SS2	16145-BH2SS4
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022
						WT2207852-006	WT2207852-007	WT2207852-008	WT2207852-009	WT2207852-010
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
tetrachloroethylene	127-18-4	E611D	0.050	mg/kg		0.064	0.065	<0.050	<0.050	<0.050
toluene	108-88-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
trichloroethane, 1,1,1-	71-55-6	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
trichloroethane, 1,1,2-	79-00-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
trichloroethylene	79-01-6	E611D	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	<0.010
trichlorofluoromethane	75-69-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
vinyl chloride	75-01-4	E611D	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	<0.020
xylene, m+p-	179601-23-1	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	<0.030
xylene, o-	95-47-6	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	<0.030
xylenes, total	1330-20-7	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	<0.050
BTEX, total	----	E611D	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	<0.10
Volatile Organic Compounds Surrogates										
bromofluorobenzene, 4-	460-00-4	E611D	0.10	%		77.7	73.3	78.8	66.3	66.5
difluorobenzene, 1,4-	540-36-3	E611D	0.10	%		106	101	109	105	107
Hydrocarbons										
F1 (C6-C10)	----	E581.F1	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	----	E601.SG-L	10	mg/kg		<10	<10	<10	<10	<10
F3 (C16-C34)	----	E601.SG-L	50	mg/kg		<50	<50	<50	<50	<50
F4 (C34-C50)	----	E601.SG-L	50	mg/kg		81	<50	<50	<50	<50
F1-BTEX	----	EC580	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	<5.0
hydrocarbons, total (C6-C50)	----	EC581	80	mg/kg		81	<80	<80	<80	<80
chromatogram to baseline at nC50	n/a	E601.SG-L	-	-		YES	YES	YES	YES	YES
Hydrocarbons Surrogates										
bromobenzotrifluoride, 2- (F2-F4 surr)	392-83-6	E601.SG-L	1.0	%		75.2	79.5	71.7	76.1	70.8
dichlorotoluene, 3,4-	97-75-0	E581.F1	1.0	%		87.1	83.6	81.9	103	97.5
Polycyclic Aromatic Hydrocarbons										
acenaphthene	83-32-9	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
acenaphthylene	208-96-8	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
anthracene	120-12-7	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
benz(a)anthracene	56-55-3	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH5SS3	16145-BH5SS6	16145-BH2SS1	16145-BH2SS2	16145-BH2SS4
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022
						WT2207852-006	WT2207852-007	WT2207852-008	WT2207852-009	WT2207852-010
						Result	Result	Result	Result	Result
Polycyclic Aromatic Hydrocarbons										
benzo(a)pyrene	50-32-8	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
benzo(b+j)fluoranthene	n/a	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
benzo(g,h,i)perylene	191-24-2	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
benzo(k)fluoranthene	207-08-9	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
chrysene	218-01-9	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
dibenz(a,h)anthracene	53-70-3	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
fluoranthene	206-44-0	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
fluorene	86-73-7	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
methylnaphthalene, 1-	90-12-0	E642F	0.030	mg/kg		<0.030	----	<0.030	----	----
methylnaphthalene, 1+2-	----	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
methylnaphthalene, 2-	91-57-6	E642F	0.030	mg/kg		<0.030	----	<0.030	----	----
naphthalene	91-20-3	E642F	0.010	mg/kg		<0.010	----	<0.010	----	----
phenanthrene	85-01-8	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
pyrene	129-00-0	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
Polycyclic Aromatic Hydrocarbons Surrogates										
fluorobiphenyl, 2-	321-60-8	E642F	0.1	%		86.5	----	81.2	----	----
terphenyl-d14, p-	1718-51-0	E642F	0.1	%		81.9	----	74.4	----	----
Polychlorinated Biphenyls										
Aroclor 1016	12674-11-2	E687	0.010	mg/kg		<0.010	----	<0.010	----	----
Aroclor 1221	11104-28-2	E687	0.010	mg/kg		<0.010	----	<0.010	----	----
Aroclor 1232	11141-16-5	E687	0.010	mg/kg		<0.010	----	<0.010	----	----
Aroclor 1242	53469-21-9	E687	0.010	mg/kg		<0.010	----	<0.010	----	----
Aroclor 1248	12672-29-6	E687	0.010	mg/kg		<0.010	----	<0.010	----	----
Aroclor 1254	11097-69-1	E687	0.010	mg/kg		<0.010	----	<0.010	----	----
Aroclor 1260	11096-82-5	E687	0.010	mg/kg		<0.010	----	<0.010	----	----
Aroclor 1262	37324-23-5	E687	0.010	mg/kg		<0.010	----	<0.010	----	----
Aroclor 1268	11100-14-4	E687	0.010	mg/kg		<0.010	----	<0.010	----	----
polychlorinated biphenyls [PCBs], total	----	E687	0.030	mg/kg		<0.030	----	<0.030	----	----
Polychlorinated Biphenyls Surrogates										
decachlorobiphenyl	2051-24-3	E687	0.1	%		139	----	136	----	----

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH5SS3	16145-BH5SS6	16145-BH2SS1	16145-BH2SS2	16145-BH2SS4
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022
						WT2207852-006	WT2207852-007	WT2207852-008	WT2207852-009	WT2207852-010
						Result	Result	Result	Result	Result
Polychlorinated Biphenyls Surrogates										
fluorobiphenyl, 2-	321-60-8	E687	0.1	%		Not Authorised	----	Not Authorised	----	----
terphenyl-d14, p-	1718-51-0	E687	0.01	%		Not Authorised	----	Not Authorised	----	----
tetrachloro-m-xylene	877-09-8	E687	0.1	%		92.2	----	89.6	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH7SS2	16145-BH7SS4	16145-BH8SS2	16145-BH8SS3	----
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	----
						WT2207852-011	WT2207852-012	WT2207852-013	WT2207852-014	--------
						Result	Result	Result	Result	----
Physical Tests										
conductivity (1:2 leachate)	----	E100-L	0.00500	mS/cm		1.23	1.10	0.569	0.413	----
moisture	----	E144	0.25	%		10.5	11.6	5.08	5.95	----
pH (1:2 soil:CaCl2-aq)	----	E108A	0.10	pH units		7.85	7.97	9.81	8.54	----
Cyanides										
cyanide, weak acid dissociable	----	E336A	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
Saturated Paste Extractables										
calcium, soluble ion content	7440-70-2	E484	0.50	mg/L		1.19	0.99	1.81	7.40	----
magnesium, soluble ion content	7439-95-4	E484	0.50	mg/L		<0.50	<0.50	<0.50	<0.50	----
sodium, soluble ion content	17341-25-2	E484	0.50	mg/L		237	210	107	73.1	----
sodium adsorption ratio [SAR]	----	E484	0.10	-		59.8	58.1	21.9	7.40	----
Metals										
antimony	7440-36-0	E440	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	----
arsenic	7440-38-2	E440	0.10	mg/kg		3.45	1.65	1.82	3.49	----
barium	7440-39-3	E440	0.50	mg/kg		14.2	10.9	19.1	29.6	----
beryllium	7440-41-7	E440	0.10	mg/kg		0.22	0.20	0.18	0.29	----
boron	7440-42-8	E440	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	----
boron, hot water soluble	7440-42-8	E487	0.10	mg/kg		<0.10	0.11	<0.10	0.17	----
cadmium	7440-43-9	E440	0.020	mg/kg		0.040	0.026	0.036	0.041	----
chromium	7440-47-3	E440	0.50	mg/kg		7.15	6.29	8.98	18.4	----
cobalt	7440-48-4	E440	0.10	mg/kg		3.21	2.88	3.88	5.44	----
copper	7440-50-8	E440	0.50	mg/kg		7.98	7.20	7.42	13.5	----
lead	7439-92-1	E440	0.50	mg/kg		4.80	3.74	3.02	4.01	----
mercury	7439-97-6	E510	0.0050	mg/kg		0.0052	0.0075	<0.0050	0.0064	----
molybdenum	7439-98-7	E440	0.10	mg/kg		0.18	0.13	0.44	0.64	----
nickel	7440-02-0	E440	0.50	mg/kg		6.79	5.83	6.68	10.6	----
selenium	7782-49-2	E440	0.20	mg/kg		<0.20	<0.20	<0.20	<0.20	----
silver	7440-22-4	E440	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	----
thallium	7440-28-0	E440	0.050	mg/kg		<0.050	<0.050	<0.050	0.061	----
uranium	7440-61-1	E440	0.050	mg/kg		0.232	0.224	0.320	0.357	----
vanadium	7440-62-2	E440	0.20	mg/kg		15.1	12.5	18.7	20.6	----
zinc	7440-66-6	E440	2.0	mg/kg		20.5	17.4	16.1	25.7	----
Speciated Metals										

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH7SS2	16145-BH7SS4	16145-BH8SS2	16145-BH8SS3	----
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	----
						WT2207852-011	WT2207852-012	WT2207852-013	WT2207852-014	--------
						Result	Result	Result	Result	----
Speciated Metals										
chromium, hexavalent [Cr VI]	18540-29-9	E532	0.10	mg/kg		<0.10	<0.10	<0.10	0.26	----
Volatile Organic Compounds										
acetone	67-64-1	E611D	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
benzene	71-43-2	E611D	0.0050	mg/kg		<0.0050	<0.0050	<0.0050	<0.0050	----
bromodichloromethane	75-27-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
bromoform	75-25-2	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
bromomethane	74-83-9	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
carbon tetrachloride	56-23-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
chlorobenzene	108-90-7	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
chloroform	67-66-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dibromochloromethane	124-48-1	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dibromoethane, 1,2-	106-93-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichlorobenzene, 1,2-	95-50-1	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichlorobenzene, 1,3-	541-73-1	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichlorobenzene, 1,4-	106-46-7	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichlorodifluoromethane	75-71-8	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichloroethane, 1,1-	75-34-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichloroethane, 1,2-	107-06-2	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichloroethylene, 1,1-	75-35-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichloroethylene, cis-1,2-	156-59-2	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichloroethylene, trans-1,2-	156-60-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichloromethane	75-09-2	E611D	0.045	mg/kg		<0.045	<0.045	<0.045	<0.045	----
dichloropropane, 1,2-	78-87-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichloropropylene, cis+trans-1,3-	542-75-6	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	----
dichloropropylene, trans-1,3-	10061-02-6	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	----
ethylbenzene	100-41-4	E611D	0.015	mg/kg		<0.015	<0.015	<0.015	<0.015	----
hexane, n-	110-54-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
methyl ethyl ketone [MEK]	78-93-3	E611D	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
methyl isobutyl ketone [MIBK]	108-10-1	E611D	0.50	mg/kg		<0.50	<0.50	<0.50	<0.50	----
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.040	mg/kg		<0.040	<0.040	<0.040	<0.040	----
styrene	100-42-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH7SS2	16145-BH7SS4	16145-BH8SS2	16145-BH8SS3	----
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	----
						WT2207852-011	WT2207852-012	WT2207852-013	WT2207852-014	--------
						Result	Result	Result	Result	----
Volatile Organic Compounds										
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
tetrachloroethylene	127-18-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	0.151	----
toluene	108-88-3	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
trichloroethane, 1,1,1-	71-55-6	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
trichloroethane, 1,1,2-	79-00-5	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
trichloroethylene	79-01-6	E611D	0.010	mg/kg		<0.010	<0.010	<0.010	<0.010	----
trichlorofluoromethane	75-69-4	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
vinyl chloride	75-01-4	E611D	0.020	mg/kg		<0.020	<0.020	<0.020	<0.020	----
xylene, m+p-	179601-23-1	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	----
xylene, o-	95-47-6	E611D	0.030	mg/kg		<0.030	<0.030	<0.030	<0.030	----
xylenes, total	1330-20-7	E611D	0.050	mg/kg		<0.050	<0.050	<0.050	<0.050	----
BTEX, total	----	E611D	0.10	mg/kg		<0.10	<0.10	<0.10	<0.10	----
Volatile Organic Compounds Surrogates										
bromofluorobenzene, 4-	460-00-4	E611D	0.10	%		65.9	67.1	66.8	65.8	----
difluorobenzene, 1,4-	540-36-3	E611D	0.10	%		104	108	106	105	----
Hydrocarbons										
F1 (C6-C10)	----	E581.F1	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	----
F2 (C10-C16)	----	E601.SG-L	10	mg/kg		<10	<10	<10	<10	----
F3 (C16-C34)	----	E601.SG-L	50	mg/kg		<50	<50	<50	<50	----
F4 (C34-C50)	----	E601.SG-L	50	mg/kg		<50	<50	<50	<50	----
F1-BTEX	----	EC580	5.0	mg/kg		<5.0	<5.0	<5.0	<5.0	----
hydrocarbons, total (C6-C50)	----	EC581	80	mg/kg		<80	<80	<80	<80	----
chromatogram to baseline at nC50	n/a	E601.SG-L	-	-		YES	YES	YES	YES	----
Hydrocarbons Surrogates										
bromobenzotrifluoride, 2- (F2-F4 surr)	392-83-6	E601.SG-L	1.0	%		79.0	72.5	79.3	72.3	----
dichlorotoluene, 3,4-	97-75-0	E581.F1	1.0	%		103	98.6	101	98.7	----
Polycyclic Aromatic Hydrocarbons										
acenaphthene	83-32-9	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
acenaphthylene	208-96-8	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
anthracene	120-12-7	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
benz(a)anthracene	56-55-3	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----

Analytical Results

Sub-Matrix: **Soil**
(Matrix: **Soil/Solid**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145-BH7SS2	16145-BH7SS4	16145-BH8SS2	16145-BH8SS3	----
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	----
						WT2207852-011	WT2207852-012	WT2207852-013	WT2207852-014	--------
						Result	Result	Result	Result	----
Polycyclic Aromatic Hydrocarbons										
benzo(a)pyrene	50-32-8	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
benzo(b+j)fluoranthene	n/a	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
benzo(g,h,i)perylene	191-24-2	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
benzo(k)fluoranthene	207-08-9	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
chrysene	218-01-9	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
dibenz(a,h)anthracene	53-70-3	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
fluoranthene	206-44-0	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
fluorene	86-73-7	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
methylnaphthalene, 1-	90-12-0	E642F	0.030	mg/kg		<0.030	----	<0.030	----	----
methylnaphthalene, 1+2-	----	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
methylnaphthalene, 2-	91-57-6	E642F	0.030	mg/kg		<0.030	----	<0.030	----	----
naphthalene	91-20-3	E642F	0.010	mg/kg		<0.010	----	<0.010	----	----
phenanthrene	85-01-8	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
pyrene	129-00-0	E642F	0.050	mg/kg		<0.050	----	<0.050	----	----
Polycyclic Aromatic Hydrocarbons Surrogates										
fluorobiphenyl, 2-	321-60-8	E642F	0.1	%		86.2	----	86.2	----	----
terphenyl-d14, p-	1718-51-0	E642F	0.1	%		80.6	----	87.3	----	----
Polychlorinated Biphenyls										
Aroclor 1016	12674-11-2	E687	0.010	mg/kg		<0.010	----	----	----	----
Aroclor 1221	11104-28-2	E687	0.010	mg/kg		<0.010	----	----	----	----
Aroclor 1232	11141-16-5	E687	0.010	mg/kg		<0.010	----	----	----	----
Aroclor 1242	53469-21-9	E687	0.010	mg/kg		<0.010	----	----	----	----
Aroclor 1248	12672-29-6	E687	0.010	mg/kg		<0.010	----	----	----	----
Aroclor 1254	11097-69-1	E687	0.010	mg/kg		<0.010	----	----	----	----
Aroclor 1260	11096-82-5	E687	0.010	mg/kg		<0.010	----	----	----	----
Aroclor 1262	37324-23-5	E687	0.010	mg/kg		<0.010	----	----	----	----
Aroclor 1268	11100-14-4	E687	0.010	mg/kg		<0.010	----	----	----	----
polychlorinated biphenyls [PCBs], total	----	E687	0.030	mg/kg		<0.030	----	----	----	----
Polychlorinated Biphenyls Surrogates										
decachlorobiphenyl	2051-24-3	E687	0.1	%		124	----	----	----	----

Analytical Results

Sub-Matrix: Soil (Matrix: Soil/Solid)					Client sample ID	16145-BH7SS2	16145-BH7SS4	16145-BH8SS2	16145-BH8SS3	----
					Client sampling date / time	19-Jul-2022	19-Jul-2022	19-Jul-2022	19-Jul-2022	----
Analyte	CAS Number	Method	LOR	Unit		WT2207852-011	WT2207852-012	WT2207852-013	WT2207852-014	--------
						Result	Result	Result	Result	----
Polychlorinated Biphenyls Surrogates										
fluorobiphenyl, 2-	321-60-8	E687	0.1	%		Not Authorised	----	----	----	----
terphenyl-d14, p-	1718-51-0	E687	0.01	%		Not Authorised	----	----	----	----
tetrachloro-m-xylene	877-09-8	E687	0.1	%		80.4	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2207852**	Page	: 1 of 29
Client	: **Haddad Geotechnical Inc.**	Laboratory	: Waterloo - Environmental
Contact	: Rico Van	Account Manager	: Emily Hansen
Address	: 151 Amber Street Markham ON Canada L3R 3J7	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: 905 475 0951 x 230	Telephone	: +1 519 886 6910
Project	: 16145	Date Samples Received	: 19-Jul-2022 10:30
PO	: ----	Issue Date	: 26-Jul-2022 17:45
C-O-C number	: ----		
Sampler	: RV		
Site	: ----		
Quote number	: Standing Offer 2022		
No. of samples received	: 14		
No. of samples analysed	: 14		

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: **Soil/Solid**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Laboratory Control Sample (LCS) Recoveries								
Volatile Organic Compounds	QC-MRG2-569455002	----	acetone	67-64-1	E611D	145 % LCS-ND	60.0-140%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
LCS-ND	*Lab Control Sample recovery was slightly outside ALS DQO. Reported non-detect results for associated samples were unaffected.*

Matrix Spike (MS) Recoveries								
Volatile Organic Compounds	WT2207852-009	16145-BH2SS2	acetone	67-64-1	E611D	148 % MES	50.0-140%	Recovery greater than upper 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: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH1SS6	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH3SS5	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH5SS6	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH2SS2	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH2SS4	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH7SS4	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Cyanides : WAD Cyanide (0.01M NaOH Extraction)										
Glass soil jar/Teflon lined cap										
16145-BH8SS3	E336A	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	14 days	2 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH1SS2	E581.F1	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH1SS2-FD	E581.F1	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH1SS6	E581.F1	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH3SS2	E581.F1	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH3SS5	E581.F1	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH5SS3	E581.F1	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH5SS6	E581.F1	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH2SS1	E581.F1	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH2SS2	E581.F1	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH2SS4	E581.F1	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial										
16145-BH7SS2	E581.F1	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial 16145-BH7SS4	E581.F1	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial 16145-BH8SS2	E581.F1	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID										
Glass soil methanol vial 16145-BH8SS3	E581.F1	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap 16145-BH1SS6	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap 16145-BH3SS2	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap 16145-BH3SS5	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap 16145-BH5SS3	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap 16145-BH5SS6	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap 16145-BH2SS1	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH2SS2	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH2SS4	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH7SS4	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH8SS3	E601.SG-L	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	25-Jul-2022	40 days	5 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E601.SG-L	19-Jul-2022	22-Jul-2022	14 days	3 days	✓	26-Jul-2022	40 days	4 days	✓
Hydrocarbons : CCME PHCs - F2-F4 by GC-FID (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E601.SG-L	19-Jul-2022	21-Jul-2022	14 days	3 days	✓	25-Jul-2022	40 days	4 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH1SS6	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH3SS5	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH5SS6	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH2SS2	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH2SS4	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH7SS4	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Boron-Hot Water Extractable by ICPOES										
Glass soil jar/Teflon lined cap										
16145-BH8SS3	E487	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH1SS6	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH3SS5	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH5SS6	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH2SS2	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH2SS4	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH7SS4	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓
Metals : Mercury in Soil/Solid by CVAAS										
Glass soil jar/Teflon lined cap										
16145-BH8SS3	E510	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	28 days	2 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH1SS6	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH3SS5	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH5SS6	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH2SS2	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH2SS4	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH7SS4	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap										
16145-BH8SS3	E440	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	180 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH1SS6	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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 Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH3SS5	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH5SS6	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH2SS2	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH2SS4	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH7SS4	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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 Soil (1:2 Soil:Water Extraction) (Low Level)										
Glass soil jar/Teflon lined cap										
16145-BH8SS3	E100-L	19-Jul-2022	20-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH1SS6	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH3SS5	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH5SS6	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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 : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH2SS2	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH2SS4	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH7SS4	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : Moisture Content by Gravimetry										
Glass soil jar/Teflon lined cap										
16145-BH8SS3	E144	19-Jul-2022	----	----	----		19-Jul-2022	----	----	
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH1SS6	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH3SS5	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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 (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH5SS6	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH2SS2	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH2SS4	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH7SS4	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH8SS3	E108A	19-Jul-2022	19-Jul-2022	----	----		21-Jul-2022	30 days	3 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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 (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E108A	19-Jul-2022	19-Jul-2022	----	----		22-Jul-2022	30 days	4 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E108A	19-Jul-2022	19-Jul-2022	----	----		22-Jul-2022	30 days	4 days	✓
Polychlorinated Biphenyls : PCB Aroclors by GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E687	19-Jul-2022	22-Jul-2022	----	----		22-Jul-2022	40 days	0 days	✓
Polychlorinated Biphenyls : PCB Aroclors by GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E687	19-Jul-2022	22-Jul-2022	----	----		22-Jul-2022	40 days	0 days	✓
Polychlorinated Biphenyls : PCB Aroclors by GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E687	19-Jul-2022	22-Jul-2022	----	----		22-Jul-2022	40 days	0 days	✓
Polychlorinated Biphenyls : PCB Aroclors by GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E687	19-Jul-2022	22-Jul-2022	----	----		22-Jul-2022	40 days	0 days	✓
Polychlorinated Biphenyls : PCB Aroclors by GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E687	19-Jul-2022	22-Jul-2022	----	----		22-Jul-2022	40 days	0 days	✓
Polychlorinated Biphenyls : PCB Aroclors by GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E687	19-Jul-2022	22-Jul-2022	----	----		22-Jul-2022	40 days	0 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs by MeOH:Tol GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E642F	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	40 days	1 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Polycyclic Aromatic Hydrocarbons : PAHs by MeOH:Tol GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E642F	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	21-Jul-2022	40 days	1 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs by MeOH:Tol GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E642F	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	20-Jul-2022	40 days	1 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs by MeOH:Tol GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E642F	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	20-Jul-2022	40 days	1 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs by MeOH:Tol GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E642F	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	20-Jul-2022	40 days	1 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs by MeOH:Tol GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E642F	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	20-Jul-2022	40 days	1 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs by MeOH:Tol GC-MS										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E642F	19-Jul-2022	19-Jul-2022	14 days	1 days	✓	20-Jul-2022	40 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH1SS6	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH3SS5	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH5SS6	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH2SS2	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH2SS4	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH7SS4	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Saturated Paste Extractables : Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)										
Glass soil jar/Teflon lined cap										
16145-BH8SS3	E484	19-Jul-2022	20-Jul-2022	180 days	1 days	✓	21-Jul-2022	180 days	1 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH1SS2	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH1SS2-FD	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH1SS6	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH3SS2	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH3SS5	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH5SS3	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH5SS6	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH2SS1	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH2SS2	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH2SS4	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH7SS2	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH7SS4	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH8SS2	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Speciated Metals : Hexavalent Chromium (Cr VI) by IC										
Glass soil jar/Teflon lined cap										
16145-BH8SS3	E532	19-Jul-2022	19-Jul-2022	30 days	1 days	✓	21-Jul-2022	7 days	2 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH1SS2	E611D	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH1SS2-FD	E611D	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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 (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH1SS6	E611D	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH3SS2	E611D	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH3SS5	E611D	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH5SS3	E611D	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH5SS6	E611D	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH2SS1	E611D	19-Jul-2022	19-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH2SS2	E611D	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH2SS4	E611D	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH7SS2	E611D	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓

Matrix: **Soil/Solid**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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 (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH7SS4	E611D	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH8SS2	E611D	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass soil methanol vial										
16145-BH8SS3	E611D	19-Jul-2022	20-Jul-2022	----	----		20-Jul-2022	40 days	1 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: **Soil/Solid**

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)							
Boron-Hot Water Extractable by ICPOES	E487	569222	1	14	7.1	5.0	✓
CCME PHC - F1 by Headspace GC-FID	E581.F1	569211	2	27	7.4	5.0	✓
CCME PHCs - F2-F4 by GC-FID (Low Level)	E601.SG-L	568805	3	51	5.8	5.0	✓
Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)	E100-L	569221	1	14	7.1	5.0	✓
Hexavalent Chromium (Cr VI) by IC	E532	569219	1	14	7.1	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	569217	1	14	7.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	569218	1	14	7.1	5.0	✓
Moisture Content by Gravimetry	E144	568808	2	32	6.2	5.0	✓
PAHs by MeOH:Tol GC-MS	E642F	568806	2	25	8.0	5.0	✓
PCB Aroclors by GC-MS	E687	572973	1	6	16.6	5.0	✓
pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received	E108A	568807	2	32	6.2	5.0	✓
Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)	E484	569220	1	14	7.1	5.0	✓
VOCs (ON List) by Headspace GC-MS	E611D	569210	2	27	7.4	5.0	✓
WAD Cyanide (0.01M NaOH Extraction)	E336A	569137	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Boron-Hot Water Extractable by ICPOES	E487	569222	2	14	14.2	10.0	✓
CCME PHC - F1 by Headspace GC-FID	E581.F1	569211	2	27	7.4	5.0	✓
CCME PHCs - F2-F4 by GC-FID (Low Level)	E601.SG-L	568805	3	51	5.8	5.0	✓
Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)	E100-L	569221	2	14	14.2	10.0	✓
Hexavalent Chromium (Cr VI) by IC	E532	569219	2	14	14.2	10.0	✓
Mercury in Soil/Solid by CVAAS	E510	569217	2	14	14.2	10.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	569218	2	14	14.2	10.0	✓
Moisture Content by Gravimetry	E144	568808	2	32	6.2	5.0	✓
PAHs by MeOH:Tol GC-MS	E642F	568806	2	25	8.0	5.0	✓
PCB Aroclors by GC-MS	E687	572973	1	6	16.6	5.0	✓
pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received	E108A	568807	2	32	6.2	5.0	✓
Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)	E484	569220	2	14	14.2	10.0	✓
VOCs (ON List) by Headspace GC-MS	E611D	569210	2	27	7.4	5.0	✓
WAD Cyanide (0.01M NaOH Extraction)	E336A	569137	1	20	5.0	5.0	✓
Method Blanks (MB)							
Boron-Hot Water Extractable by ICPOES	E487	569222	1	14	7.1	5.0	✓
CCME PHC - F1 by Headspace GC-FID	E581.F1	569211	2	27	7.4	5.0	✓
CCME PHCs - F2-F4 by GC-FID (Low Level)	E601.SG-L	568805	3	51	5.8	5.0	✓
Conductivity in Soil (1:2 Soil:Water Extraction) (Low Level)	E100-L	569221	1	14	7.1	5.0	✓
Hexavalent Chromium (Cr VI) by IC	E532	569219	1	14	7.1	5.0	✓
Mercury in Soil/Solid by CVAAS	E510	569217	1	14	7.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	569218	1	14	7.1	5.0	✓

Matrix: **Soil/Solid**

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*
Method Blanks (MB) - Continued							
Moisture Content by Gravimetry	E144	568808	2	32	6.2	5.0	✓
PAHs by MeOH:Tol GC-MS	E642F	568806	2	25	8.0	5.0	✓
PCB Aroclors by GC-MS	E687	572973	1	6	16.6	5.0	✓
Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)	E484	569220	1	14	7.1	5.0	✓
VOCs (ON List) by Headspace GC-MS	E611D	569210	2	27	7.4	5.0	✓
WAD Cyanide (0.01M NaOH Extraction)	E336A	569137	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
CCME PHC - F1 by Headspace GC-FID	E581.F1	569211	2	27	7.4	5.0	✓
CCME PHCs - F2-F4 by GC-FID (Low Level)	E601.SG-L	568805	3	51	5.8	5.0	✓
PAHs by MeOH:Tol GC-MS	E642F	568806	2	25	8.0	5.0	✓
PCB Aroclors by GC-MS	E687	572973	1	6	16.6	5.0	✓
VOCs (ON List) by Headspace GC-MS	E611D	569210	2	27	7.4	5.0	✓
WAD Cyanide (0.01M NaOH Extraction)	E336A	569137	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 Soil (1:2 Soil:Water Extraction) (Low Level)	E100-L Waterloo - Environmental	Soil/Solid	CSSS Ch. 15 (mod)/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 soil sample that has been added in a defined ratio of soil to deionized water, then shaken well and allowed to settle. Conductance is measured in the fluid that is observed in the upper layer.
pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received	E108A Waterloo - Environmental	Soil/Solid	MOEE E3137A	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C) and is carried out in accordance with procedures described in the Analytical Protocol (prescriptive method). A minimum 10g portion of the sample, as received, is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil by centrifuging, settling, or decanting and then analyzed using a pH meter and electrode.
Moisture Content by Gravimetry	E144 Waterloo - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1	Moisture is measured gravimetrically by drying the sample at 105°C. Moisture content is calculated as the weight loss (due to water) divided by the wet weight of the sample, expressed as a percentage.
WAD Cyanide (0.01M NaOH Extraction)	E336A Waterloo - Environmental	Soil/Solid	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined after extraction by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Metals in Soil/Solid by CRC ICPMS	E440 Waterloo - Environmental	Soil/Solid	EPA 6020B (mod)	This method is intended to liberate metals that may be environmentally available. Samples are dried, then sieved through a 2 mm sieve, and digested with HNO3 and HCl. Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, Tl, V, W, and Zr. Silicate minerals are not solubilized. Volatile forms of sulfur (including sulfide) may not be captured, as they may be lost during sampling, storage, or digestion. This method does not adequately recover elemental sulfur, and is unsuitable for assessment of elemental sulfur standards or guidelines. Analysis is by Collision/Reaction Cell ICPMS.
Sodium Adsorption Ratio (SAR) - 1:2 Soil:Water (Dry)	E484 Waterloo - Environmental	Soil/Solid	SW846 6010C	A dried, disaggregated solid sample is extracted with deionized water, the aqueous extract is separated from the solid, acidified and then analyzed using a ICP/OES. The concentrations of Na, Ca and Mg are reported as per CALA requirements for calculated parameters. These individual parameters are not for comparison to any guideline.
Boron-Hot Water Extractable by ICPOES	E487 Waterloo - Environmental	Soil/Solid	HW EXTR, EPA 6010B	A dried solid sample is extracted with calcium chloride, the sample undergoes a heating process. After cooling the sample is filtered and analyzed by ICP/OES. Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Mercury in Soil/Solid by CVAAS	E510 Waterloo - Environmental	Soil/Solid	EPA 200.2/1631 Appendix (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO3 and HCl, followed by CVAAS analysis.
Hexavalent Chromium (Cr VI) by IC	E532 Waterloo - Environmental	Soil/Solid	APHA 3500-CR C	Instrumental analysis is performed by ion chromatography with UV detection.
CCME PHC - F1 by Headspace GC-FID	E581.F1 Waterloo - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. 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.
CCME PHCs - F2-F4 by GC-FID (Low Level)	E601.SG-L Waterloo - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1	Sample extracts are subjected to in-situ silica gel treatment prior to analysis by GC-FID for CCME hydrocarbon fractions (F2-F4).
VOCs (ON List) by Headspace GC-MS	E611D Waterloo - Environmental	Soil/Solid	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.
PAHs by MeOH:Tol GC-MS	E642F Waterloo - Environmental	Soil/Solid	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are extracted with methanol/toluene and analyzed by GC-MS. If reported, IACR (index of additive cancer risk, unitless) and B(a)P toxic potency equivalent (in soil concentration units) are calculated as per CCME PAH Soil Quality Guidelines fact sheet (2010) or ABT1.
PCB Aroclors by GC-MS	E687 Waterloo - Environmental	Soil/Solid	EPA 8270E (mod)	PCB Aroclors are analyzed by GC-MS
F1-BTEX	EC580 Waterloo - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
Sum F1 to F4 (C6-C50)	EC581 Waterloo - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fractions F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50). F4G-sg is not used within this calculation due to overlap with other fractions.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Leach 1:2 Soil:Water for pH/EC	EP108 Waterloo - Environmental	Soil/Solid	BC WLAP METHOD: PH, ELECTROMETRIC, SOIL	The procedure involves mixing the dried (at <60°C) and sieved (No. 10 / 2mm) sample with deionized/distilled water at a 1:2 ratio of sediment to water.
Leach 1:2 Soil : 0.01CaCl2 - As Received for pH	EP108A Waterloo - Environmental	Soil/Solid	MOEE E3137A	A minimum 10g portion of the sample, as received, is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil by centrifuging, settling or decanting and then analyzed using a pH meter and electrode.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Cyanide Extraction for CFA (0.01M NaOH)	EP333A Waterloo - Environmental	Soil/Solid	ON MECP E3015 (mod)	Extraction for various cyanide analysis is by rotary extraction of the soil with 0.01M Sodium Hydroxide.
Digestion for Metals and Mercury	EP440 Waterloo - Environmental	Soil/Solid	EPA 200.2 (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO_3 and HCl. This method is intended to liberate metals that may be environmentally available.
Boron-Hot Water Extractable	EP487 Waterloo - Environmental	Soil/Solid	HW EXTR, EPA 6010B	A dried solid sample is extracted with weak calcium chloride, the sample undergoes a heating process. After cooling the sample is filtered and analyzed by ICP/OES. Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011)
Preparation of Hexavalent Chromium (Cr VI) for IC	EP532 Waterloo - Environmental	Soil/Solid	EPA 3060A	Field moist samples are digested with a sodium hydroxide/sodium carbonate solution as described in EPA 3060A.
VOCs Methanol Extraction for Headspace Analysis	EP581 Waterloo - Environmental	Soil/Solid	EPA 5035A (mod)	VOCs in samples are extracted with methanol. Extracts are then 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.
PHCs and PAHs Hexane-Acetone Tumbler Extraction	EP601 Waterloo - Environmental	Soil/Solid	CCME PHC in Soil - Tier 1 (mod)	Samples are subsampled and Petroleum Hydrocarbons (PHC) and PAHs are extracted with 1:1 hexane:acetone using a rotary extractor.
Pesticides, PCB, PAH, and Neutral Extractable Chlorinated Hydrocarbons Extraction	EP660 Waterloo - Environmental	Soil/Solid	EPA 3570 (mod)	A homogenized subsample is extracted with organic solvents using a mechanical shaker.
Pesticides, PCB, PAH, and Neutral Extractable Chlorinated Hydrocarbons Extraction (High Level)	EP660-H Waterloo - Environmental	Soil/Solid	EPA 3570 (mod)	A homogenized subsample is extracted with organic solvents using a mechanical shaker.

QUALITY CONTROL REPORT

Work Order	: **WT2207852**	Page	: 1 of 27
Client	: Haddad Geotechnical Inc.	Laboratory	: Waterloo - Environmental
Contact	: Rico Van	Account Manager	: Emily Hansen
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Project	: 16145	Date Samples Received	: 19-Jul-2022 10:30
PO	: ----	Date Analysis Commenced	: 19-Jul-2022
C-O-C number	: ----	Issue Date	: 26-Jul-2022 17:45
Sampler	: RV		
Site	: ----		
Quote number	: Standing Offer 2022		
No. of samples received	: 14		
No. of samples analysed	: 14		

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
- Reference Material (RM) 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*
Jeremy Gingras	Team Leader - Semi-Volatile Instrumentation	Waterloo Organics, Waterloo, Ontario
Jon Fisher	Department Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Jon Fisher	Department Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Joseph Scharbach		Waterloo Centralized Prep, Waterloo, Ontario
Sarah Birch	Team Leader - Volatiles	Waterloo Organics, 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: **Soil/Solid**

					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: 568807)											
WT2207849-001	Anonymous	pH (1:2 soil:CaCl2-aq)	----	E108A	0.10	pH units	7.34	7.30	0.04	Diff <2x LOR	----
Physical Tests (QC Lot: 568808)											
WT2207849-001	Anonymous	moisture	----	E144	0.25	%	14.6	14.2	3.31%	20%	----
Physical Tests (QC Lot: 569221)											
WT2207852-012	16145-BH7SS4	conductivity (1:2 leachate)	----	E100-L	5.00	µS/cm	1.10 mS/cm	903	19.8%	20%	----
Physical Tests (QC Lot: 569223)											
WT2207852-003	16145-BH1SS6	pH (1:2 soil:CaCl2-aq)	----	E108A	0.10	pH units	7.85	7.92	0.07	Diff <2x LOR	----
Physical Tests (QC Lot: 569225)											
WT2207852-003	16145-BH1SS6	moisture	----	E144	0.25	%	6.32	6.44	1.94%	20%	----
Cyanides (QC Lot: 569137)											
WT2207851-001	Anonymous	cyanide, weak acid dissociable	----	E336A	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
Metals (QC Lot: 569217)											
WT2207852-001	16145-BH1SS2	mercury	7439-97-6	E510	0.0050	mg/kg	0.0153	0.0138	0.0014	Diff <2x LOR	----
Metals (QC Lot: 569218)											
WT2207852-001	16145-BH1SS2	antimony	7440-36-0	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		arsenic	7440-38-2	E440	0.10	mg/kg	2.74	2.90	5.50%	30%	----
		barium	7440-39-3	E440	0.50	mg/kg	20.1	19.7	1.91%	40%	----
		beryllium	7440-41-7	E440	0.10	mg/kg	0.26	0.28	0.02	Diff <2x LOR	----
		boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		cadmium	7440-43-9	E440	0.020	mg/kg	0.083	0.076	0.006	Diff <2x LOR	----
		chromium	7440-47-3	E440	0.50	mg/kg	9.09	9.38	3.17%	30%	----
		cobalt	7440-48-4	E440	0.10	mg/kg	4.57	4.53	0.884%	30%	----
		copper	7440-50-8	E440	0.50	mg/kg	16.6	16.4	1.18%	30%	----
		lead	7439-92-1	E440	0.50	mg/kg	10.5	10.2	3.02%	40%	----
		molybdenum	7439-98-7	E440	0.10	mg/kg	0.35	0.34	0.008	Diff <2x LOR	----
		nickel	7440-02-0	E440	0.50	mg/kg	10.2	10.0	1.97%	30%	----
		selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		silver	7440-22-4	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		thallium	7440-28-0	E440	0.050	mg/kg	0.070	0.065	0.005	Diff <2x LOR	----
		uranium	7440-61-1	E440	0.050	mg/kg	0.329	0.372	12.2%	30%	----
		vanadium	7440-62-2	E440	0.20	mg/kg	16.8	17.2	2.49%	30%	----

Sub-Matrix: **Soil/Solid**

					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*
Metals (QC Lot: 569218) - continued											
WT2207852-001	16145-BH1SS2	zinc	7440-66-6	E440	2.0	mg/kg	39.2	39.7	1.15%	30%	----
Metals (QC Lot: 569220)											
WT2207852-012	16145-BH7SS4	calcium, soluble ion content	7440-70-2	E484	0.50	mg/L	0.99	0.55	0.44	Diff <2x LOR	----
		magnesium, soluble ion content	7439-95-4	E484	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
		sodium, soluble ion content	17341-25-2	E484	0.50	mg/L	210	167	22.8%	30%	----
Metals (QC Lot: 569222)											
WT2207852-001	16145-BH1SS2	boron, hot water soluble	7440-42-8	E487	0.10	mg/kg	0.13	0.13	0.004	Diff <2x LOR	----
Speciated Metals (QC Lot: 569219)											
WT2207852-001	16145-BH1SS2	chromium, hexavalent [Cr VI]	18540-29-9	E532	0.10	mg/kg	0.21	0.10	0.11	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 569210)											
WT2207657-014	Anonymous	acetone	67-64-1	E611D	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		benzene	71-43-2	E611D	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		bromodichloromethane	75-27-4	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		bromoform	75-25-2	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		bromomethane	74-83-9	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		carbon tetrachloride	56-23-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		chlorobenzene	108-90-7	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		chloroform	67-66-3	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dibromochloromethane	124-48-1	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dibromoethane, 1,2-	106-93-4	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichlorobenzene, 1,2-	95-50-1	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichlorobenzene, 1,3-	541-73-1	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichlorobenzene, 1,4-	106-46-7	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichlorodifluoromethane	75-71-8	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloroethane, 1,1-	75-34-3	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloroethane, 1,2-	107-06-2	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloroethylene, 1,1-	75-35-4	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloroethylene, cis-1,2-	156-59-2	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloroethylene, trans-1,2-	156-60-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloromethane	75-09-2	E611D	0.045	mg/kg	<0.045	<0.045	0	Diff <2x LOR	----
		dichloropropane, 1,2-	78-87-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloropropylene, cis-1,3-	10061-01-5	E611D	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		dichloropropylene, trans-1,3-	10061-02-6	E611D	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		ethylbenzene	100-41-4	E611D	0.015	mg/kg	<0.015	<0.015	0	Diff <2x LOR	----
		hexane, n-	110-54-3	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----

Sub-Matrix: **Soil/Solid**

					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: 569210) - continued											
WT2207657-014	Anonymous	methyl ethyl ketone [MEK]	78-93-3	E611D	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		methyl isobutyl ketone [MIBK]	108-10-1	E611D	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.040	mg/kg	<0.040	<0.040	0	Diff <2x LOR	----
		styrene	100-42-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		tetrachloroethylene	127-18-4	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		toluene	108-88-3	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		trichloroethane, 1,1,1-	71-55-6	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		trichloroethane, 1,1,2-	79-00-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		trichloroethylene	79-01-6	E611D	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		trichlorofluoromethane	75-69-4	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		vinyl chloride	75-01-4	E611D	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		xylene, m+p-	179601-23-1	E611D	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		xylene, o-	95-47-6	E611D	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
Volatile Organic Compounds (QC Lot: 569455)											
WT2207852-009	16145-BH2SS2	acetone	67-64-1	E611D	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		benzene	71-43-2	E611D	0.0050	mg/kg	<0.0050	<0.0050	0	Diff <2x LOR	----
		bromodichloromethane	75-27-4	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		bromoform	75-25-2	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		bromomethane	74-83-9	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		carbon tetrachloride	56-23-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		chlorobenzene	108-90-7	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		chloroform	67-66-3	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dibromochloromethane	124-48-1	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dibromoethane, 1,2-	106-93-4	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichlorobenzene, 1,2-	95-50-1	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichlorobenzene, 1,3-	541-73-1	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichlorobenzene, 1,4-	106-46-7	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichlorodifluoromethane	75-71-8	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloroethane, 1,1-	75-34-3	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloroethane, 1,2-	107-06-2	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloroethylene, 1,1-	75-35-4	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloroethylene, cis-1,2-	156-59-2	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloroethylene, trans-1,2-	156-60-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----

Sub-Matrix: **Soil/Solid**

					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: 569455) - continued											
WT2207852-009	16145-BH2SS2	dichloromethane	75-09-2	E611D	0.045	mg/kg	<0.045	<0.045	0	Diff <2x LOR	----
		dichloropropane, 1,2-	78-87-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dichloropropylene, cis-1,3-	10061-01-5	E611D	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		dichloropropylene, trans-1,3-	10061-02-6	E611D	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		ethylbenzene	100-41-4	E611D	0.015	mg/kg	<0.015	<0.015	0	Diff <2x LOR	----
		hexane, n-	110-54-3	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		methyl ethyl ketone [MEK]	78-93-3	E611D	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		methyl isobutyl ketone [MIBK]	108-10-1	E611D	0.50	mg/kg	<0.50	<0.50	0	Diff <2x LOR	----
		methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.040	mg/kg	<0.040	<0.040	0	Diff <2x LOR	----
		styrene	100-42-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		tetrachloroethylene	127-18-4	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		toluene	108-88-3	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		trichloroethane, 1,1,1-	71-55-6	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		trichloroethane, 1,1,2-	79-00-5	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		trichloroethylene	79-01-6	E611D	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		trichlorofluoromethane	75-69-4	E611D	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		vinyl chloride	75-01-4	E611D	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		xylene, m+p-	179601-23-1	E611D	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		xylene, o-	95-47-6	E611D	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
Hydrocarbons (QC Lot: 568805)											
WT2207849-001	Anonymous	F2 (C10-C16)	----	E601.SG-L	10	mg/kg	<10	<10	0	Diff <2x LOR	----
		F3 (C16-C34)	----	E601.SG-L	50	mg/kg	<50	<50	0	Diff <2x LOR	----
		F4 (C34-C50)	----	E601.SG-L	50	mg/kg	<50	<50	0	Diff <2x LOR	----
Hydrocarbons (QC Lot: 569211)											
WT2207657-014	Anonymous	F1 (C6-C10)	----	E581.F1	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
Hydrocarbons (QC Lot: 569215)											
WT2207852-003	16145-BH1SS6	F2 (C10-C16)	----	E601.SG-L	10	mg/kg	<10	<10	0	Diff <2x LOR	----
		F3 (C16-C34)	----	E601.SG-L	50	mg/kg	<50	<50	0	Diff <2x LOR	----
		F4 (C34-C50)	----	E601.SG-L	50	mg/kg	<50	<50	0	Diff <2x LOR	----
Hydrocarbons (QC Lot: 569456)											
WT2207852-009	16145-BH2SS2	F1 (C6-C10)	----	E581.F1	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
Hydrocarbons (QC Lot: 572800)											
WT2208136-001	Anonymous	F2 (C10-C16)	----	E601.SG-L	10	mg/kg	<10	<10	0	Diff <2x LOR	----

Sub-Matrix: **Soil/Solid**

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Laboratory sample ID	*Client sample ID*	*Analyte*	*CAS Number*	*Method*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD(%) or Difference*	*Duplicate Limits*	*Qualifier*
Hydrocarbons (QC Lot: 572800) - continued											
WT2208136-001	Anonymous	F3 (C16-C34)	----	E601.SG-L	50	mg/kg	<50	<50	0	Diff <2x LOR	----
		F4 (C34-C50)	----	E601.SG-L	50	mg/kg	<50	<50	0	Diff <2x LOR	----
Polycyclic Aromatic Hydrocarbons (QC Lot: 568806)											
WT2207849-001	Anonymous	acenaphthene	83-32-9	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		acenaphthylene	208-96-8	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		anthracene	120-12-7	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benz(a)anthracene	56-55-3	E642F	0.050	mg/kg	0.060	<0.050	0.010	Diff <2x LOR	----
		benzo(a)pyrene	50-32-8	E642F	0.050	mg/kg	0.076	<0.050	0.026	Diff <2x LOR	----
		benzo(b+j)fluoranthene	n/a	E642F	0.050	mg/kg	0.109	<0.050	0.059	Diff <2x LOR	----
		benzo(g,h,i)perylene	191-24-2	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(k)fluoranthene	207-08-9	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		chrysene	218-01-9	E642F	0.050	mg/kg	0.073	<0.050	0.023	Diff <2x LOR	----
		dibenz(a,h)anthracene	53-70-3	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		fluoranthene	206-44-0	E642F	0.050	mg/kg	0.133	<0.050	0.083	Diff <2x LOR	----
		fluorene	86-73-7	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		methylnaphthalene, 1-	90-12-0	E642F	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		methylnaphthalene, 2-	91-57-6	E642F	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		naphthalene	91-20-3	E642F	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		phenanthrene	85-01-8	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		pyrene	129-00-0	E642F	0.050	mg/kg	0.100	<0.050	0.050	Diff <2x LOR	----
Polycyclic Aromatic Hydrocarbons (QC Lot: 569224)											
WT2207852-004	16145-BH3SS2	acenaphthene	83-32-9	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		acenaphthylene	208-96-8	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		anthracene	120-12-7	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benz(a)anthracene	56-55-3	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(a)pyrene	50-32-8	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(b+j)fluoranthene	n/a	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(g,h,i)perylene	191-24-2	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		benzo(k)fluoranthene	207-08-9	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		chrysene	218-01-9	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		dibenz(a,h)anthracene	53-70-3	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		fluoranthene	206-44-0	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		fluorene	86-73-7	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----

Sub-Matrix: **Soil/Solid**

					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*
Polycyclic Aromatic Hydrocarbons (QC Lot: 569224) - continued											
WT2207852-004	16145-BH3SS2	methylnaphthalene, 1-	90-12-0	E642F	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		methylnaphthalene, 2-	91-57-6	E642F	0.030	mg/kg	<0.030	<0.030	0	Diff <2x LOR	----
		naphthalene	91-20-3	E642F	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		phenanthrene	85-01-8	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
		pyrene	129-00-0	E642F	0.050	mg/kg	<0.050	<0.050	0	Diff <2x LOR	----
Polychlorinated Biphenyls (QC Lot: 572973)											
WT2207852-001	16145-BH1SS2	Aroclor 1016	12674-11-2	E687	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Aroclor 1221	11104-28-2	E687	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Aroclor 1232	11141-16-5	E687	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Aroclor 1242	53469-21-9	E687	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Aroclor 1248	12672-29-6	E687	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Aroclor 1254	11097-69-1	E687	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Aroclor 1260	11096-82-5	E687	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Aroclor 1262	37324-23-5	E687	0.010	mg/kg	<0.010	<0.010	0	Diff <2x LOR	----
		Aroclor 1268	11100-14-4	E687	0.010	mg/kg	<0.010	<0.010	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: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 568808)						
moisture	----	E144	0.25	%	<0.25	----
Physical Tests (QCLot: 569221)						
conductivity (1:2 leachate)	----	E100-L	5	µS/cm	<5.00	----
Physical Tests (QCLot: 569225)						
moisture	----	E144	0.25	%	<0.25	----
Cyanides (QCLot: 569137)						
cyanide, weak acid dissociable	----	E336A	0.05	mg/kg	<0.050	----
Metals (QCLot: 569217)						
mercury	7439-97-6	E510	0.005	mg/kg	<0.0050	----
Metals (QCLot: 569218)						
antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----
arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
boron	7440-42-8	E440	5	mg/kg	<5.0	----
cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
thallium	7440-28-0	E440	0.05	mg/kg	<0.050	----
uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Metals (QCLot: 569220)						
calcium, soluble ion content	7440-70-2	E484	0.5	mg/L	<0.50	----
magnesium, soluble ion content	7439-95-4	E484	0.5	mg/L	<0.50	----
sodium, soluble ion content	17341-25-2	E484	0.5	mg/L	<0.50	----
Metals (QCLot: 569222)						

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 569222) - continued						
boron, hot water soluble	7440-42-8	E487	0.1	mg/kg	<0.10	----
Speciated Metals (QCLot: 569219)						
chromium, hexavalent [Cr VI]	18540-29-9	E532	0.1	mg/kg	<0.10	----
Volatile Organic Compounds (QCLot: 569210)						
acetone	67-64-1	E611D	0.5	mg/kg	<0.50	----
benzene	71-43-2	E611D	0.005	mg/kg	<0.0050	----
bromodichloromethane	75-27-4	E611D	0.05	mg/kg	<0.050	----
bromoform	75-25-2	E611D	0.05	mg/kg	<0.050	----
bromomethane	74-83-9	E611D	0.05	mg/kg	<0.050	----
carbon tetrachloride	56-23-5	E611D	0.05	mg/kg	<0.050	----
chlorobenzene	108-90-7	E611D	0.05	mg/kg	<0.050	----
chloroform	67-66-3	E611D	0.05	mg/kg	<0.050	----
dibromochloromethane	124-48-1	E611D	0.05	mg/kg	<0.050	----
dibromoethane, 1,2-	106-93-4	E611D	0.05	mg/kg	<0.050	----
dichlorobenzene, 1,2-	95-50-1	E611D	0.05	mg/kg	<0.050	----
dichlorobenzene, 1,3-	541-73-1	E611D	0.05	mg/kg	<0.050	----
dichlorobenzene, 1,4-	106-46-7	E611D	0.05	mg/kg	<0.050	----
dichlorodifluoromethane	75-71-8	E611D	0.05	mg/kg	<0.050	----
dichloroethane, 1,1-	75-34-3	E611D	0.05	mg/kg	<0.050	----
dichloroethane, 1,2-	107-06-2	E611D	0.05	mg/kg	<0.050	----
dichloroethylene, 1,1-	75-35-4	E611D	0.05	mg/kg	<0.050	----
dichloroethylene, cis-1,2-	156-59-2	E611D	0.05	mg/kg	<0.050	----
dichloroethylene, trans-1,2-	156-60-5	E611D	0.05	mg/kg	<0.050	----
dichloromethane	75-09-2	E611D	0.045	mg/kg	<0.045	----
dichloropropane, 1,2-	78-87-5	E611D	0.05	mg/kg	<0.050	----
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.03	mg/kg	<0.030	----
dichloropropylene, trans-1,3-	10061-02-6	E611D	0.03	mg/kg	<0.030	----
ethylbenzene	100-41-4	E611D	0.015	mg/kg	<0.015	----
hexane, n-	110-54-3	E611D	0.05	mg/kg	<0.050	----
methyl ethyl ketone [MEK]	78-93-3	E611D	0.5	mg/kg	<0.50	----
methyl isobutyl ketone [MIBK]	108-10-1	E611D	0.5	mg/kg	<0.50	----
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.04	mg/kg	<0.040	----
styrene	100-42-5	E611D	0.05	mg/kg	<0.050	----
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.05	mg/kg	<0.050	----
tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.05	mg/kg	<0.050	----
tetrachloroethylene	127-18-4	E611D	0.05	mg/kg	<0.050	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 569210) - continued						
toluene	108-88-3	E611D	0.05	mg/kg	<0.050	----
trichloroethane, 1,1,1-	71-55-6	E611D	0.05	mg/kg	<0.050	----
trichloroethane, 1,1,2-	79-00-5	E611D	0.05	mg/kg	<0.050	----
trichloroethylene	79-01-6	E611D	0.01	mg/kg	<0.010	----
trichlorofluoromethane	75-69-4	E611D	0.05	mg/kg	<0.050	----
vinyl chloride	75-01-4	E611D	0.02	mg/kg	<0.020	----
xylene, m+p-	179601-23-1	E611D	0.03	mg/kg	<0.030	----
xylene, o-	95-47-6	E611D	0.03	mg/kg	<0.030	----
Volatile Organic Compounds (QCLot: 569455)						
acetone	67-64-1	E611D	0.5	mg/kg	<0.50	----
benzene	71-43-2	E611D	0.005	mg/kg	<0.0050	----
bromodichloromethane	75-27-4	E611D	0.05	mg/kg	<0.050	----
bromoform	75-25-2	E611D	0.05	mg/kg	<0.050	----
bromomethane	74-83-9	E611D	0.05	mg/kg	<0.050	----
carbon tetrachloride	56-23-5	E611D	0.05	mg/kg	<0.050	----
chlorobenzene	108-90-7	E611D	0.05	mg/kg	<0.050	----
chloroform	67-66-3	E611D	0.05	mg/kg	<0.050	----
dibromochloromethane	124-48-1	E611D	0.05	mg/kg	<0.050	----
dibromoethane, 1,2-	106-93-4	E611D	0.05	mg/kg	<0.050	----
dichlorobenzene, 1,2-	95-50-1	E611D	0.05	mg/kg	<0.050	----
dichlorobenzene, 1,3-	541-73-1	E611D	0.05	mg/kg	<0.050	----
dichlorobenzene, 1,4-	106-46-7	E611D	0.05	mg/kg	<0.050	----
dichlorodifluoromethane	75-71-8	E611D	0.05	mg/kg	<0.050	----
dichloroethane, 1,1-	75-34-3	E611D	0.05	mg/kg	<0.050	----
dichloroethane, 1,2-	107-06-2	E611D	0.05	mg/kg	<0.050	----
dichloroethylene, 1,1-	75-35-4	E611D	0.05	mg/kg	<0.050	----
dichloroethylene, cis-1,2-	156-59-2	E611D	0.05	mg/kg	<0.050	----
dichloroethylene, trans-1,2-	156-60-5	E611D	0.05	mg/kg	<0.050	----
dichloromethane	75-09-2	E611D	0.045	mg/kg	<0.045	----
dichloropropane, 1,2-	78-87-5	E611D	0.05	mg/kg	<0.050	----
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.03	mg/kg	<0.030	----
dichloropropylene, trans-1,3-	10061-02-6	E611D	0.03	mg/kg	<0.030	----
ethylbenzene	100-41-4	E611D	0.015	mg/kg	<0.015	----
hexane, n-	110-54-3	E611D	0.05	mg/kg	<0.050	----
methyl ethyl ketone [MEK]	78-93-3	E611D	0.5	mg/kg	<0.50	----
methyl isobutyl ketone [MIBK]	108-10-1	E611D	0.5	mg/kg	<0.50	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 569455) - continued						
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.04	mg/kg	<0.040	----
styrene	100-42-5	E611D	0.05	mg/kg	<0.050	----
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.05	mg/kg	<0.050	----
tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.05	mg/kg	<0.050	----
tetrachloroethylene	127-18-4	E611D	0.05	mg/kg	<0.050	----
toluene	108-88-3	E611D	0.05	mg/kg	<0.050	----
trichloroethane, 1,1,1-	71-55-6	E611D	0.05	mg/kg	<0.050	----
trichloroethane, 1,1,2-	79-00-5	E611D	0.05	mg/kg	<0.050	----
trichloroethylene	79-01-6	E611D	0.01	mg/kg	<0.010	----
trichlorofluoromethane	75-69-4	E611D	0.05	mg/kg	<0.050	----
vinyl chloride	75-01-4	E611D	0.02	mg/kg	<0.020	----
xylene, m+p-	179601-23-1	E611D	0.03	mg/kg	<0.030	----
xylene, o-	95-47-6	E611D	0.03	mg/kg	<0.030	----
Hydrocarbons (QCLot: 568805)						
F2 (C10-C16)	----	E601.SG-L	10	mg/kg	<10	----
F3 (C16-C34)	----	E601.SG-L	50	mg/kg	<50	----
F4 (C34-C50)	----	E601.SG-L	50	mg/kg	<50	----
Hydrocarbons (QCLot: 569211)						
F1 (C6-C10)	----	E581.F1	5	mg/kg	<5.0	----
Hydrocarbons (QCLot: 569215)						
F2 (C10-C16)	----	E601.SG-L	10	mg/kg	<10	----
F3 (C16-C34)	----	E601.SG-L	50	mg/kg	<50	----
F4 (C34-C50)	----	E601.SG-L	50	mg/kg	<50	----
Hydrocarbons (QCLot: 569456)						
F1 (C6-C10)	----	E581.F1	5	mg/kg	<5.0	----
Hydrocarbons (QCLot: 572800)						
F2 (C10-C16)	----	E601.SG-L	10	mg/kg	<10	----
F3 (C16-C34)	----	E601.SG-L	50	mg/kg	<50	----
F4 (C34-C50)	----	E601.SG-L	50	mg/kg	<50	----
Polycyclic Aromatic Hydrocarbons (QCLot: 568806)						
acenaphthene	83-32-9	E642F	0.05	mg/kg	<0.050	----
acenaphthylene	208-96-8	E642F	0.05	mg/kg	<0.050	----
anthracene	120-12-7	E642F	0.05	mg/kg	<0.050	----
benz(a)anthracene	56-55-3	E642F	0.05	mg/kg	<0.050	----
benzo(a)pyrene	50-32-8	E642F	0.05	mg/kg	<0.050	----
benzo(b+j)fluoranthene	n/a	E642F	0.05	mg/kg	<0.050	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 568806) - continued						
benzo(g,h,i)perylene	191-24-2	E642F	0.05	mg/kg	<0.050	----
benzo(k)fluoranthene	207-08-9	E642F	0.05	mg/kg	<0.050	----
chrysene	218-01-9	E642F	0.05	mg/kg	<0.050	----
dibenz(a,h)anthracene	53-70-3	E642F	0.05	mg/kg	<0.050	----
fluoranthene	206-44-0	E642F	0.05	mg/kg	<0.050	----
fluorene	86-73-7	E642F	0.05	mg/kg	<0.050	----
indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.05	mg/kg	<0.050	----
methylnaphthalene, 1-	90-12-0	E642F	0.03	mg/kg	<0.030	----
methylnaphthalene, 2-	91-57-6	E642F	0.03	mg/kg	<0.030	----
naphthalene	91-20-3	E642F	0.01	mg/kg	<0.010	----
phenanthrene	85-01-8	E642F	0.05	mg/kg	<0.050	----
pyrene	129-00-0	E642F	0.05	mg/kg	<0.050	----
Polycyclic Aromatic Hydrocarbons (QCLot: 569224)						
acenaphthene	83-32-9	E642F	0.05	mg/kg	<0.050	----
acenaphthylene	208-96-8	E642F	0.05	mg/kg	<0.050	----
anthracene	120-12-7	E642F	0.05	mg/kg	<0.050	----
benz(a)anthracene	56-55-3	E642F	0.05	mg/kg	<0.050	----
benzo(a)pyrene	50-32-8	E642F	0.05	mg/kg	<0.050	----
benzo(b+j)fluoranthene	n/a	E642F	0.05	mg/kg	<0.050	----
benzo(g,h,i)perylene	191-24-2	E642F	0.05	mg/kg	<0.050	----
benzo(k)fluoranthene	207-08-9	E642F	0.05	mg/kg	<0.050	----
chrysene	218-01-9	E642F	0.05	mg/kg	<0.050	----
dibenz(a,h)anthracene	53-70-3	E642F	0.05	mg/kg	<0.050	----
fluoranthene	206-44-0	E642F	0.05	mg/kg	<0.050	----
fluorene	86-73-7	E642F	0.05	mg/kg	<0.050	----
indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.05	mg/kg	<0.050	----
methylnaphthalene, 1-	90-12-0	E642F	0.03	mg/kg	<0.030	----
methylnaphthalene, 2-	91-57-6	E642F	0.03	mg/kg	<0.030	----
naphthalene	91-20-3	E642F	0.01	mg/kg	<0.010	----
phenanthrene	85-01-8	E642F	0.05	mg/kg	<0.050	----
pyrene	129-00-0	E642F	0.05	mg/kg	<0.050	----
Polychlorinated Biphenyls (QCLot: 572973)						
Aroclor 1016	12674-11-2	E687	0.01	mg/kg	<0.010	----
Aroclor 1221	11104-28-2	E687	0.01	mg/kg	<0.010	----
Aroclor 1232	11141-16-5	E687	0.01	mg/kg	<0.010	----
Aroclor 1242	53469-21-9	E687	0.01	mg/kg	<0.010	----

Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Polychlorinated Biphenyls (QCLot: 572973) - continued						
Aroclor 1248	12672-29-6	E687	0.01	mg/kg	<0.010	----
Aroclor 1254	11097-69-1	E687	0.01	mg/kg	<0.010	----
Aroclor 1260	11096-82-5	E687	0.01	mg/kg	<0.010	----
Aroclor 1262	37324-23-5	E687	0.01	mg/kg	<0.010	----
Aroclor 1268	11100-14-4	E687	0.01	mg/kg	<0.010	----

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: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 568807)									
pH (1:2 soil:CaCl2-aq)	----	E108A	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 568808)									
moisture	----	E144	0.25	%	50 %	99.7	90.0	110	----
Physical Tests (QCLot: 569221)									
conductivity (1:2 leachate)	----	E100-L	5	µS/cm	1409 µS/cm	96.7	90.0	110	----
Physical Tests (QCLot: 569223)									
pH (1:2 soil:CaCl2-aq)	----	E108A	----	pH units	7 pH units	99.6	98.0	102	----
Physical Tests (QCLot: 569225)									
moisture	----	E144	0.25	%	50 %	101	90.0	110	----
Cyanides (QCLot: 569137)									
cyanide, weak acid dissociable	----	E336A	0.05	mg/kg	2.5 mg/kg	97.3	80.0	125	----
Metals (QCLot: 569217)									
mercury	7439-97-6	E510	0.005	mg/kg	0.1 mg/kg	102	80.0	120	----
Metals (QCLot: 569218)									
antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	106	80.0	120	----
arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	102	80.0	120	----
barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	103	80.0	120	----
boron	7440-42-8	E440	5	mg/kg	100 mg/kg	101	80.0	120	----
cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	100	80.0	120	----
chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	101	80.0	120	----
cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	98.8	80.0	120	----
copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	96.1	80.0	120	----
lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	101	80.0	120	----
molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	102	80.0	120	----
nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	98.0	80.0	120	----
selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	95.9	80.0	120	----
silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	88.6	80.0	120	----
thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	104	80.0	120	----
uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	102	80.0	120	----
vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	104	80.0	120	----
zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	97.6	80.0	120	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 569220)									
calcium, soluble ion content	7440-70-2	E484	0.5	mg/L	300 mg/L	108	70.0	130	----
magnesium, soluble ion content	7439-95-4	E484	0.5	mg/L	50 mg/L	102	70.0	130	----
sodium, soluble ion content	17341-25-2	E484	0.5	mg/L	50 mg/L	101	70.0	130	----
Metals (QCLot: 569222)									
boron, hot water soluble	7440-42-8	E487	0.1	mg/kg	1.33333 mg/kg	101	70.0	130	----
Speciated Metals (QCLot: 569219)									
chromium, hexavalent [Cr VI]	18540-29-9	E532	0.1	mg/kg	0.8 mg/kg	91.4	80.0	120	----
Volatile Organic Compounds (QCLot: 569210)									
acetone	67-64-1	E611D	0.5	mg/kg	3.475 mg/kg	113	60.0	140	----
benzene	71-43-2	E611D	0.005	mg/kg	3.475 mg/kg	114	70.0	130	----
bromodichloromethane	75-27-4	E611D	0.05	mg/kg	3.475 mg/kg	124	50.0	140	----
bromoform	75-25-2	E611D	0.05	mg/kg	3.475 mg/kg	101	70.0	130	----
bromomethane	74-83-9	E611D	0.05	mg/kg	3.475 mg/kg	105	50.0	140	----
carbon tetrachloride	56-23-5	E611D	0.05	mg/kg	3.475 mg/kg	115	70.0	130	----
chlorobenzene	108-90-7	E611D	0.05	mg/kg	3.475 mg/kg	108	70.0	130	----
chloroform	67-66-3	E611D	0.05	mg/kg	3.475 mg/kg	116	70.0	130	----
dibromochloromethane	124-48-1	E611D	0.05	mg/kg	3.475 mg/kg	107	60.0	130	----
dibromoethane, 1,2-	106-93-4	E611D	0.05	mg/kg	3.475 mg/kg	104	70.0	130	----
dichlorobenzene, 1,2-	95-50-1	E611D	0.05	mg/kg	3.475 mg/kg	108	70.0	130	----
dichlorobenzene, 1,3-	541-73-1	E611D	0.05	mg/kg	3.475 mg/kg	110	70.0	130	----
dichlorobenzene, 1,4-	106-46-7	E611D	0.05	mg/kg	3.475 mg/kg	112	70.0	130	----
dichlorodifluoromethane	75-71-8	E611D	0.05	mg/kg	3.475 mg/kg	71.0	50.0	140	----
dichloroethane, 1,1-	75-34-3	E611D	0.05	mg/kg	3.475 mg/kg	101	60.0	130	----
dichloroethane, 1,2-	107-06-2	E611D	0.05	mg/kg	3.475 mg/kg	106	60.0	130	----
dichloroethylene, 1,1-	75-35-4	E611D	0.05	mg/kg	3.475 mg/kg	106	60.0	130	----
dichloroethylene, cis-1,2-	156-59-2	E611D	0.05	mg/kg	3.475 mg/kg	108	70.0	130	----
dichloroethylene, trans-1,2-	156-60-5	E611D	0.05	mg/kg	3.475 mg/kg	116	60.0	130	----
dichloromethane	75-09-2	E611D	0.045	mg/kg	3.475 mg/kg	112	70.0	130	----
dichloropropane, 1,2-	78-87-5	E611D	0.05	mg/kg	3.475 mg/kg	106	70.0	130	----
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.03	mg/kg	3.475 mg/kg	114	70.0	130	----
dichloropropylene, trans-1,3-	10061-02-6	E611D	0.03	mg/kg	3.475 mg/kg	95.6	70.0	130	----
ethylbenzene	100-41-4	E611D	0.015	mg/kg	3.475 mg/kg	102	70.0	130	----
hexane, n-	110-54-3	E611D	0.05	mg/kg	3.475 mg/kg	107	70.0	130	----
methyl ethyl ketone [MEK]	78-93-3	E611D	0.5	mg/kg	3.475 mg/kg	97.9	60.0	140	----
methyl isobutyl ketone [MIBK]	108-10-1	E611D	0.5	mg/kg	3.475 mg/kg	110	60.0	140	----
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.04	mg/kg	3.475 mg/kg	106	70.0	130	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 569210) - continued									
styrene	100-42-5	E611D	0.05	mg/kg	3.475 mg/kg	105	70.0	130	----
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.05	mg/kg	3.475 mg/kg	104	60.0	130	----
tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.05	mg/kg	3.475 mg/kg	104	60.0	130	----
tetrachloroethylene	127-18-4	E611D	0.05	mg/kg	3.475 mg/kg	97.0	60.0	130	----
toluene	108-88-3	E611D	0.05	mg/kg	3.475 mg/kg	102	70.0	130	----
trichloroethane, 1,1,1-	71-55-6	E611D	0.05	mg/kg	3.475 mg/kg	116	60.0	130	----
trichloroethane, 1,1,2-	79-00-5	E611D	0.05	mg/kg	3.475 mg/kg	106	60.0	130	----
trichloroethylene	79-01-6	E611D	0.01	mg/kg	3.475 mg/kg	112	60.0	130	----
trichlorofluoromethane	75-69-4	E611D	0.05	mg/kg	3.475 mg/kg	109	50.0	140	----
vinyl chloride	75-01-4	E611D	0.02	mg/kg	3.475 mg/kg	85.4	60.0	140	----
xylene, m+p-	179601-23-1	E611D	0.03	mg/kg	6.95 mg/kg	105	70.0	130	----
xylene, o-	95-47-6	E611D	0.03	mg/kg	3.475 mg/kg	93.6	70.0	130	----
Volatile Organic Compounds (QCLot: 569455)									
acetone	67-64-1	E611D	0.5	mg/kg	3.475 mg/kg	# 145	60.0	140	LCS-ND
benzene	71-43-2	E611D	0.005	mg/kg	3.475 mg/kg	114	70.0	130	----
bromodichloromethane	75-27-4	E611D	0.05	mg/kg	3.475 mg/kg	111	50.0	140	----
bromoform	75-25-2	E611D	0.05	mg/kg	3.475 mg/kg	88.5	70.0	130	----
bromomethane	74-83-9	E611D	0.05	mg/kg	3.475 mg/kg	83.3	50.0	140	----
carbon tetrachloride	56-23-5	E611D	0.05	mg/kg	3.475 mg/kg	98.2	70.0	130	----
chlorobenzene	108-90-7	E611D	0.05	mg/kg	3.475 mg/kg	103	70.0	130	----
chloroform	67-66-3	E611D	0.05	mg/kg	3.475 mg/kg	103	70.0	130	----
dibromochloromethane	124-48-1	E611D	0.05	mg/kg	3.475 mg/kg	98.1	60.0	130	----
dibromoethane, 1,2-	106-93-4	E611D	0.05	mg/kg	3.475 mg/kg	91.0	70.0	130	----
dichlorobenzene, 1,2-	95-50-1	E611D	0.05	mg/kg	3.475 mg/kg	98.8	70.0	130	----
dichlorobenzene, 1,3-	541-73-1	E611D	0.05	mg/kg	3.475 mg/kg	94.7	70.0	130	----
dichlorobenzene, 1,4-	106-46-7	E611D	0.05	mg/kg	3.475 mg/kg	96.2	70.0	130	----
dichlorodifluoromethane	75-71-8	E611D	0.05	mg/kg	3.475 mg/kg	52.6	50.0	140	----
dichloroethane, 1,1-	75-34-3	E611D	0.05	mg/kg	3.475 mg/kg	99.4	60.0	130	----
dichloroethane, 1,2-	107-06-2	E611D	0.05	mg/kg	3.475 mg/kg	123	60.0	130	----
dichloroethylene, 1,1-	75-35-4	E611D	0.05	mg/kg	3.475 mg/kg	98.7	60.0	130	----
dichloroethylene, cis-1,2-	156-59-2	E611D	0.05	mg/kg	3.475 mg/kg	85.9	70.0	130	----
dichloroethylene, trans-1,2-	156-60-5	E611D	0.05	mg/kg	3.475 mg/kg	104	60.0	130	----
dichloromethane	75-09-2	E611D	0.045	mg/kg	3.475 mg/kg	101	70.0	130	----
dichloropropane, 1,2-	78-87-5	E611D	0.05	mg/kg	3.475 mg/kg	110	70.0	130	----
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.03	mg/kg	3.475 mg/kg	116	70.0	130	----
dichloropropylene, trans-1,3-	10061-02-6	E611D	0.03	mg/kg	3.475 mg/kg	114	70.0	130	----
ethylbenzene	100-41-4	E611D	0.015	mg/kg	3.475 mg/kg	95.1	70.0	130	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 569455) - continued									
hexane, n-	110-54-3	E611D	0.05	mg/kg	3.475 mg/kg	103	70.0	130	----
methyl ethyl ketone [MEK]	78-93-3	E611D	0.5	mg/kg	3.475 mg/kg	134	60.0	140	----
methyl isobutyl ketone [MIBK]	108-10-1	E611D	0.5	mg/kg	3.475 mg/kg	137	60.0	140	----
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.04	mg/kg	3.475 mg/kg	106	70.0	130	----
styrene	100-42-5	E611D	0.05	mg/kg	3.475 mg/kg	98.4	70.0	130	----
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.05	mg/kg	3.475 mg/kg	92.8	60.0	130	----
tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.05	mg/kg	3.475 mg/kg	111	60.0	130	----
tetrachloroethylene	127-18-4	E611D	0.05	mg/kg	3.475 mg/kg	80.2	60.0	130	----
toluene	108-88-3	E611D	0.05	mg/kg	3.475 mg/kg	97.6	70.0	130	----
trichloroethane, 1,1,1-	71-55-6	E611D	0.05	mg/kg	3.475 mg/kg	87.4	60.0	130	----
trichloroethane, 1,1,2-	79-00-5	E611D	0.05	mg/kg	3.475 mg/kg	95.2	60.0	130	----
trichloroethylene	79-01-6	E611D	0.01	mg/kg	3.475 mg/kg	99.1	60.0	130	----
trichlorofluoromethane	75-69-4	E611D	0.05	mg/kg	3.475 mg/kg	79.5	50.0	140	----
vinyl chloride	75-01-4	E611D	0.02	mg/kg	3.475 mg/kg	79.3	60.0	140	----
xylene, m+p-	179601-23-1	E611D	0.03	mg/kg	6.95 mg/kg	98.2	70.0	130	----
xylene, o-	95-47-6	E611D	0.03	mg/kg	3.475 mg/kg	97.3	70.0	130	----
Hydrocarbons (QCLot: 568805)									
F2 (C10-C16)	----	E601.SG-L	10	mg/kg	1783.45 mg/kg	75.4	70.0	130	----
F3 (C16-C34)	----	E601.SG-L	50	mg/kg	2214.15 mg/kg	75.1	70.0	130	----
F4 (C34-C50)	----	E601.SG-L	50	mg/kg	1978.5 mg/kg	74.1	70.0	130	----
Hydrocarbons (QCLot: 569211)									
F1 (C6-C10)	----	E581.F1	5	mg/kg	69.1875 mg/kg	106	80.0	120	----
Hydrocarbons (QCLot: 569215)									
F2 (C10-C16)	----	E601.SG-L	10	mg/kg	891.725 mg/kg	79.8	70.0	130	----
F3 (C16-C34)	----	E601.SG-L	50	mg/kg	1107.075 mg/kg	78.9	70.0	130	----
F4 (C34-C50)	----	E601.SG-L	50	mg/kg	989.25 mg/kg	79.1	70.0	130	----
Hydrocarbons (QCLot: 569456)									
F1 (C6-C10)	----	E581.F1	5	mg/kg	69.1875 mg/kg	108	80.0	120	----
Hydrocarbons (QCLot: 572800)									
F2 (C10-C16)	----	E601.SG-L	10	mg/kg	891.725 mg/kg	83.8	70.0	130	----
F3 (C16-C34)	----	E601.SG-L	50	mg/kg	1107.075 mg/kg	83.6	70.0	130	----
F4 (C34-C50)	----	E601.SG-L	50	mg/kg	989.25 mg/kg	70.1	70.0	130	----
Polycyclic Aromatic Hydrocarbons (QCLot: 568806)									
acenaphthene	83-32-9	E642F	0.05	mg/kg	0.8 mg/kg	90.3	60.0	130	----
acenaphthylene	208-96-8	E642F	0.05	mg/kg	0.8 mg/kg	92.2	60.0	130	----

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 568806) - continued									
anthracene	120-12-7	E642F	0.05	mg/kg	0.8 mg/kg	99.5	60.0	130	----
benz(a)anthracene	56-55-3	E642F	0.05	mg/kg	0.8 mg/kg	92.4	60.0	130	----
benzo(a)pyrene	50-32-8	E642F	0.05	mg/kg	0.8 mg/kg	105	60.0	130	----
benzo(b+j)fluoranthene	n/a	E642F	0.05	mg/kg	0.8 mg/kg	94.9	60.0	130	----
benzo(g,h,i)perylene	191-24-2	E642F	0.05	mg/kg	0.8 mg/kg	82.7	60.0	130	----
benzo(k)fluoranthene	207-08-9	E642F	0.05	mg/kg	0.8 mg/kg	102	60.0	130	----
chrysene	218-01-9	E642F	0.05	mg/kg	0.8 mg/kg	98.4	60.0	130	----
dibenz(a,h)anthracene	53-70-3	E642F	0.05	mg/kg	0.8 mg/kg	78.0	60.0	130	----
fluoranthene	206-44-0	E642F	0.05	mg/kg	0.8 mg/kg	92.1	60.0	130	----
fluorene	86-73-7	E642F	0.05	mg/kg	0.8 mg/kg	89.3	60.0	130	----
indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.05	mg/kg	0.8 mg/kg	78.6	60.0	130	----
methylnaphthalene, 1-	90-12-0	E642F	0.03	mg/kg	0.8 mg/kg	88.8	60.0	130	----
methylnaphthalene, 2-	91-57-6	E642F	0.03	mg/kg	0.8 mg/kg	87.5	60.0	130	----
naphthalene	91-20-3	E642F	0.01	mg/kg	0.8 mg/kg	92.3	60.0	130	----
phenanthrene	85-01-8	E642F	0.05	mg/kg	0.8 mg/kg	92.2	60.0	130	----
pyrene	129-00-0	E642F	0.05	mg/kg	0.8 mg/kg	90.7	60.0	130	----
Polycyclic Aromatic Hydrocarbons (QCLot: 569224)									
acenaphthene	83-32-9	E642F	0.05	mg/kg	0.8 mg/kg	97.3	60.0	130	----
acenaphthylene	208-96-8	E642F	0.05	mg/kg	0.8 mg/kg	102	60.0	130	----
anthracene	120-12-7	E642F	0.05	mg/kg	0.8 mg/kg	102	60.0	130	----
benz(a)anthracene	56-55-3	E642F	0.05	mg/kg	0.8 mg/kg	96.5	60.0	130	----
benzo(a)pyrene	50-32-8	E642F	0.05	mg/kg	0.8 mg/kg	110	60.0	130	----
benzo(b+j)fluoranthene	n/a	E642F	0.05	mg/kg	0.8 mg/kg	109	60.0	130	----
benzo(g,h,i)perylene	191-24-2	E642F	0.05	mg/kg	0.8 mg/kg	82.4	60.0	130	----
benzo(k)fluoranthene	207-08-9	E642F	0.05	mg/kg	0.8 mg/kg	108	60.0	130	----
chrysene	218-01-9	E642F	0.05	mg/kg	0.8 mg/kg	98.4	60.0	130	----
dibenz(a,h)anthracene	53-70-3	E642F	0.05	mg/kg	0.8 mg/kg	79.5	60.0	130	----
fluoranthene	206-44-0	E642F	0.05	mg/kg	0.8 mg/kg	94.4	60.0	130	----
fluorene	86-73-7	E642F	0.05	mg/kg	0.8 mg/kg	98.9	60.0	130	----
indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.05	mg/kg	0.8 mg/kg	82.6	60.0	130	----
methylnaphthalene, 1-	90-12-0	E642F	0.03	mg/kg	0.8 mg/kg	97.4	60.0	130	----
methylnaphthalene, 2-	91-57-6	E642F	0.03	mg/kg	0.8 mg/kg	92.6	60.0	130	----
naphthalene	91-20-3	E642F	0.01	mg/kg	0.8 mg/kg	95.9	60.0	130	----
phenanthrene	85-01-8	E642F	0.05	mg/kg	0.8 mg/kg	95.3	60.0	130	----
pyrene	129-00-0	E642F	0.05	mg/kg	0.8 mg/kg	94.2	60.0	130	----
Polychlorinated Biphenyls (QCLot: 572973)									

Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Polychlorinated Biphenyls (QCLot: 572973) - continued									
Aroclor 1016	12674-11-2	E687	0.01	mg/kg	0.01 mg/kg	96.9	60.0	140	----
Aroclor 1221	11104-28-2	E687	0.01	mg/kg	0.01 mg/kg	96.9	60.0	140	----
Aroclor 1232	11141-16-5	E687	0.01	mg/kg	0.01 mg/kg	96.9	60.0	140	----
Aroclor 1242	53469-21-9	E687	0.01	mg/kg	0.01 mg/kg	96.9	60.0	140	----
Aroclor 1248	12672-29-6	E687	0.01	mg/kg	0.01 mg/kg	91.0	60.0	140	----
Aroclor 1254	11097-69-1	E687	0.01	mg/kg	0.01 mg/kg	102	60.0	140	----
Aroclor 1260	11096-82-5	E687	0.01	mg/kg	0.01 mg/kg	90.7	60.0	140	----
Aroclor 1262	37324-23-5	E687	0.01	mg/kg	0.01 mg/kg	90.7	60.0	140	----
Aroclor 1268	11100-14-4	E687	0.01	mg/kg	0.01 mg/kg	90.7	60.0	140	----

Qualifiers

Qualifier	Description
LCS-ND	*Lab Control Sample recovery was slightly outside ALS DQO. Reported non-detect results for associated samples were unaffected.*

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: **Soil/Solid**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Cyanides (QCLot: 569137)										
WT2207851-001	Anonymous	cyanide, weak acid dissociable	----	E336A	1.32 mg/kg	2.5 mg/kg	107	70.0	130	----
Volatile Organic Compounds (QCLot: 569210)										
WT2207657-014	Anonymous	acetone	67-64-1	E611D	2.52 mg/kg	3.125 mg/kg	109	50.0	140	----
		benzene	71-43-2	E611D	2.45 mg/kg	3.125 mg/kg	106	50.0	140	----
		bromodichloromethane	75-27-4	E611D	2.65 mg/kg	3.125 mg/kg	115	50.0	140	----
		bromoform	75-25-2	E611D	2.14 mg/kg	3.125 mg/kg	92.3	50.0	140	----
		bromomethane	74-83-9	E611D	2.35 mg/kg	3.125 mg/kg	101	50.0	140	----
		carbon tetrachloride	56-23-5	E611D	2.50 mg/kg	3.125 mg/kg	108	50.0	140	----
		chlorobenzene	108-90-7	E611D	2.33 mg/kg	3.125 mg/kg	100	50.0	140	----
		chloroform	67-66-3	E611D	2.48 mg/kg	3.125 mg/kg	107	50.0	140	----
		dibromochloromethane	124-48-1	E611D	2.30 mg/kg	3.125 mg/kg	99.1	50.0	140	----
		dibromoethane, 1,2-	106-93-4	E611D	2.24 mg/kg	3.125 mg/kg	96.6	50.0	140	----
		dichlorobenzene, 1,2-	95-50-1	E611D	2.36 mg/kg	3.125 mg/kg	102	50.0	140	----
		dichlorobenzene, 1,3-	541-73-1	E611D	2.43 mg/kg	3.125 mg/kg	105	50.0	140	----
		dichlorobenzene, 1,4-	106-46-7	E611D	2.48 mg/kg	3.125 mg/kg	107	50.0	140	----
		dichlorodifluoromethane	75-71-8	E611D	2.10 mg/kg	3.125 mg/kg	90.5	50.0	140	----
		dichloroethane, 1,1-	75-34-3	E611D	2.21 mg/kg	3.125 mg/kg	95.3	50.0	140	----
		dichloroethane, 1,2-	107-06-2	E611D	2.26 mg/kg	3.125 mg/kg	97.7	50.0	140	----
		dichloroethylene, 1,1-	75-35-4	E611D	2.36 mg/kg	3.125 mg/kg	102	50.0	140	----
		dichloroethylene, cis-1,2-	156-59-2	E611D	2.31 mg/kg	3.125 mg/kg	99.7	50.0	140	----
		dichloroethylene, trans-1,2-	156-60-5	E611D	2.52 mg/kg	3.125 mg/kg	109	50.0	140	----
		dichloromethane	75-09-2	E611D	2.41 mg/kg	3.125 mg/kg	104	50.0	140	----
		dichloropropane, 1,2-	78-87-5	E611D	2.28 mg/kg	3.125 mg/kg	98.6	50.0	140	----
		dichloropropylene, cis-1,3-	10061-01-5	E611D	2.40 mg/kg	3.125 mg/kg	104	50.0	140	----
		dichloropropylene, trans-1,3-	10061-02-6	E611D	2.03 mg/kg	3.125 mg/kg	87.7	50.0	140	----
		ethylbenzene	100-41-4	E611D	2.21 mg/kg	3.125 mg/kg	95.6	50.0	140	----
		hexane, n-	110-54-3	E611D	2.43 mg/kg	3.125 mg/kg	105	50.0	140	----
		methyl ethyl ketone [MEK]	78-93-3	E611D	2.13 mg/kg	3.125 mg/kg	91.9	50.0	140	----
		methyl isobutyl ketone [MIBK]	108-10-1	E611D	2.33 mg/kg	3.125 mg/kg	101	50.0	140	----
		methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	2.35 mg/kg	3.125 mg/kg	102	50.0	140	----
		styrene	100-42-5	E611D	2.25 mg/kg	3.125 mg/kg	97.2	50.0	140	----
		tetrachloroethane, 1,1,1,2-	630-20-6	E611D	2.26 mg/kg	3.125 mg/kg	97.4	50.0	140	----

Sub-Matrix: **Soil/Solid**

					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: 569210) - continued										
WT2207657-014	Anonymous	tetrachloroethane, 1,1,2,2-	79-34-5	E611D	2.20 mg/kg	3.125 mg/kg	94.9	50.0	140	----
		tetrachloroethylene	127-18-4	E611D	2.11 mg/kg	3.125 mg/kg	91.3	50.0	140	----
		toluene	108-88-3	E611D	2.22 mg/kg	3.125 mg/kg	95.8	50.0	140	----
		trichloroethane, 1,1,1-	71-55-6	E611D	2.50 mg/kg	3.125 mg/kg	108	50.0	140	----
		trichloroethane, 1,1,2-	79-00-5	E611D	2.28 mg/kg	3.125 mg/kg	98.5	50.0	140	----
		trichloroethylene	79-01-6	E611D	2.41 mg/kg	3.125 mg/kg	104	50.0	140	----
		trichlorofluoromethane	75-69-4	E611D	2.50 mg/kg	3.125 mg/kg	108	50.0	140	----
		vinyl chloride	75-01-4	E611D	2.03 mg/kg	3.125 mg/kg	87.8	50.0	140	----
		xylene, m+p-	179601-23-1	E611D	4.58 mg/kg	6.25 mg/kg	98.9	50.0	140	----
		xylene, o-	95-47-6	E611D	2.03 mg/kg	3.125 mg/kg	87.6	50.0	140	----
Volatile Organic Compounds (QCLot: 569455)										
WT2207852-009	16145-BH2SS2	acetone	67-64-1	E611D	3.32 mg/kg	3.125 mg/kg	148	50.0	140	MES
		benzene	71-43-2	E611D	2.31 mg/kg	3.125 mg/kg	103	50.0	140	----
		bromodichloromethane	75-27-4	E611D	2.30 mg/kg	3.125 mg/kg	103	50.0	140	----
		bromoform	75-25-2	E611D	1.87 mg/kg	3.125 mg/kg	83.2	50.0	140	----
		bromomethane	74-83-9	E611D	1.75 mg/kg	3.125 mg/kg	78.1	50.0	140	----
		carbon tetrachloride	56-23-5	E611D	1.96 mg/kg	3.125 mg/kg	87.3	50.0	140	----
		chlorobenzene	108-90-7	E611D	2.13 mg/kg	3.125 mg/kg	94.9	50.0	140	----
		chloroform	67-66-3	E611D	2.12 mg/kg	3.125 mg/kg	94.5	50.0	140	----
		dibromochloromethane	124-48-1	E611D	2.07 mg/kg	3.125 mg/kg	92.3	50.0	140	----
		dibromoethane, 1,2-	106-93-4	E611D	1.93 mg/kg	3.125 mg/kg	86.1	50.0	140	----
		dichlorobenzene, 1,2-	95-50-1	E611D	2.10 mg/kg	3.125 mg/kg	93.7	50.0	140	----
		dichlorobenzene, 1,3-	541-73-1	E611D	2.00 mg/kg	3.125 mg/kg	89.0	50.0	140	----
		dichlorobenzene, 1,4-	106-46-7	E611D	2.03 mg/kg	3.125 mg/kg	90.4	50.0	140	----
		dichlorodifluoromethane	75-71-8	E611D	1.40 mg/kg	3.125 mg/kg	62.5	50.0	140	----
		dichloroethane, 1,1-	75-34-3	E611D	2.02 mg/kg	3.125 mg/kg	90.0	50.0	140	----
		dichloroethane, 1,2-	107-06-2	E611D	2.60 mg/kg	3.125 mg/kg	116	50.0	140	----
		dichloroethylene, 1,1-	75-35-4	E611D	2.02 mg/kg	3.125 mg/kg	89.9	50.0	140	----
		dichloroethylene, cis-1,2-	156-59-2	E611D	1.76 mg/kg	3.125 mg/kg	78.5	50.0	140	----
		dichloroethylene, trans-1,2-	156-60-5	E611D	2.09 mg/kg	3.125 mg/kg	93.0	50.0	140	----
		dichloromethane	75-09-2	E611D	2.11 mg/kg	3.125 mg/kg	94.1	50.0	140	----
		dichloropropane, 1,2-	78-87-5	E611D	2.28 mg/kg	3.125 mg/kg	102	50.0	140	----
		dichloropropylene, cis-1,3-	10061-01-5	E611D	2.36 mg/kg	3.125 mg/kg	105	50.0	140	----
		dichloropropylene, trans-1,3-	10061-02-6	E611D	2.38 mg/kg	3.125 mg/kg	106	50.0	140	----
		ethylbenzene	100-41-4	E611D	1.97 mg/kg	3.125 mg/kg	88.0	50.0	140	----
		hexane, n-	110-54-3	E611D	2.15 mg/kg	3.125 mg/kg	95.7	50.0	140	----

Sub-Matrix: **Soil/Solid**

					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: 569455) - continued										
WT2207852-009	16145-BH2SS2	methyl ethyl ketone [MEK]	78-93-3	E611D	2.94 mg/kg	3.125 mg/kg	131	50.0	140	----
		methyl isobutyl ketone [MIBK]	108-10-1	E611D	2.96 mg/kg	3.125 mg/kg	132	50.0	140	----
		methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	2.25 mg/kg	3.125 mg/kg	100	50.0	140	----
		styrene	100-42-5	E611D	2.04 mg/kg	3.125 mg/kg	91.1	50.0	140	----
		tetrachloroethane, 1,1,1,2-	630-20-6	E611D	1.94 mg/kg	3.125 mg/kg	86.6	50.0	140	----
		tetrachloroethane, 1,1,2,2-	79-34-5	E611D	2.34 mg/kg	3.125 mg/kg	104	50.0	140	----
		tetrachloroethylene	127-18-4	E611D	1.61 mg/kg	3.125 mg/kg	71.8	50.0	140	----
		toluene	108-88-3	E611D	2.02 mg/kg	3.125 mg/kg	90.1	50.0	140	----
		trichloroethane, 1,1,1-	71-55-6	E611D	1.77 mg/kg	3.125 mg/kg	78.7	50.0	140	----
		trichloroethane, 1,1,2-	79-00-5	E611D	2.04 mg/kg	3.125 mg/kg	90.8	50.0	140	----
		trichloroethylene	79-01-6	E611D	1.99 mg/kg	3.125 mg/kg	88.8	50.0	140	----
		trichlorofluoromethane	75-69-4	E611D	1.67 mg/kg	3.125 mg/kg	74.6	50.0	140	----
		vinyl chloride	75-01-4	E611D	1.72 mg/kg	3.125 mg/kg	76.7	50.0	140	----
		xylene, m+p-	179601-23-1	E611D	4.06 mg/kg	6.25 mg/kg	90.6	50.0	140	----
		xylene, o-	95-47-6	E611D	2.04 mg/kg	3.125 mg/kg	91.0	50.0	140	----
Hydrocarbons (QCLot: 568805)										
WT2207849-001	Anonymous	F2 (C10-C16)	----	E601.SG-L	613 mg/kg	891.725 mg/kg	86.4	60.0	140	----
		F3 (C16-C34)	----	E601.SG-L	817 mg/kg	1107.075 mg/kg	92.7	60.0	140	----
		F4 (C34-C50)	----	E601.SG-L	740 mg/kg	989.25 mg/kg	93.9	60.0	140	----
Hydrocarbons (QCLot: 569211)										
WT2207657-014	Anonymous	F1 (C6-C10)	----	E581.F1	45.2 mg/kg	62.5 mg/kg	97.6	60.0	140	----
Hydrocarbons (QCLot: 569215)										
WT2207852-003	16145-BH1SS6	F2 (C10-C16)	----	E601.SG-L	594 mg/kg	891.725 mg/kg	83.3	60.0	140	----
		F3 (C16-C34)	----	E601.SG-L	739 mg/kg	1107.075 mg/kg	83.5	60.0	140	----
		F4 (C34-C50)	----	E601.SG-L	677 mg/kg	989.25 mg/kg	85.6	60.0	140	----
Hydrocarbons (QCLot: 569456)										
WT2207852-009	16145-BH2SS2	F1 (C6-C10)	----	E581.F1	36.8 mg/kg	62.5 mg/kg	82.0	60.0	140	----
Hydrocarbons (QCLot: 572800)										
WT2208136-001	Anonymous	F2 (C10-C16)	----	E601.SG-L	637 mg/kg	891.725 mg/kg	82.8	60.0	140	----
		F3 (C16-C34)	----	E601.SG-L	829 mg/kg	1107.075 mg/kg	86.8	60.0	140	----
		F4 (C34-C50)	----	E601.SG-L	796 mg/kg	989.25 mg/kg	93.2	60.0	140	----
Polycyclic Aromatic Hydrocarbons (QCLot: 568806)										
WT2207849-001	Anonymous	acenaphthene	83-32-9	E642F	0.690 mg/kg	0.8 mg/kg	87.0	50.0	140	----
		acenaphthylene	208-96-8	E642F	0.707 mg/kg	0.8 mg/kg	89.2	50.0	140	----
		anthracene	120-12-7	E642F	0.765 mg/kg	0.8 mg/kg	96.6	50.0	140	----

Sub-Matrix: **Soil/Solid**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Polycyclic Aromatic Hydrocarbons (QCLot: 568806) - continued										
WT2207849-001	Anonymous	benz(a)anthracene	56-55-3	E642F	0.740 mg/kg	0.8 mg/kg	93.3	50.0	140	----
		benzo(a)pyrene	50-32-8	E642F	0.794 mg/kg	0.8 mg/kg	100	50.0	140	----
		benzo(b+j)fluoranthene	n/a	E642F	0.676 mg/kg	0.8 mg/kg	85.2	50.0	140	----
		benzo(g,h,i)perylene	191-24-2	E642F	0.568 mg/kg	0.8 mg/kg	71.6	50.0	140	----
		benzo(k)fluoranthene	207-08-9	E642F	0.743 mg/kg	0.8 mg/kg	93.7	50.0	140	----
		chrysene	218-01-9	E642F	0.675 mg/kg	0.8 mg/kg	85.1	50.0	140	----
		dibenz(a,h)anthracene	53-70-3	E642F	0.585 mg/kg	0.8 mg/kg	73.8	50.0	140	----
		fluoranthene	206-44-0	E642F	0.644 mg/kg	0.8 mg/kg	81.3	50.0	140	----
		fluorene	86-73-7	E642F	0.686 mg/kg	0.8 mg/kg	86.5	50.0	140	----
		indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.599 mg/kg	0.8 mg/kg	75.5	50.0	140	----
		methylnaphthalene, 1-	90-12-0	E642F	0.691 mg/kg	0.8 mg/kg	87.2	50.0	140	----
		methylnaphthalene, 2-	91-57-6	E642F	0.670 mg/kg	0.8 mg/kg	84.5	50.0	140	----
		naphthalene	91-20-3	E642F	0.699 mg/kg	0.8 mg/kg	88.2	50.0	140	----
		phenanthrene	85-01-8	E642F	0.681 mg/kg	0.8 mg/kg	85.9	50.0	140	----
		pyrene	129-00-0	E642F	0.625 mg/kg	0.8 mg/kg	78.8	50.0	140	----
Polycyclic Aromatic Hydrocarbons (QCLot: 569224)										
WT2207852-004	16145-BH3SS2	acenaphthene	83-32-9	E642F	0.776 mg/kg	0.8 mg/kg	97.5	50.0	140	----
		acenaphthylene	208-96-8	E642F	0.812 mg/kg	0.8 mg/kg	102	50.0	140	----
		anthracene	120-12-7	E642F	0.812 mg/kg	0.8 mg/kg	102	50.0	140	----
		benz(a)anthracene	56-55-3	E642F	0.791 mg/kg	0.8 mg/kg	99.3	50.0	140	----
		benzo(a)pyrene	50-32-8	E642F	0.872 mg/kg	0.8 mg/kg	109	50.0	140	----
		benzo(b+j)fluoranthene	n/a	E642F	0.861 mg/kg	0.8 mg/kg	108	50.0	140	----
		benzo(g,h,i)perylene	191-24-2	E642F	0.565 mg/kg	0.8 mg/kg	70.9	50.0	140	----
		benzo(k)fluoranthene	207-08-9	E642F	0.859 mg/kg	0.8 mg/kg	108	50.0	140	----
		chrysene	218-01-9	E642F	0.771 mg/kg	0.8 mg/kg	96.8	50.0	140	----
		dibenz(a,h)anthracene	53-70-3	E642F	0.577 mg/kg	0.8 mg/kg	72.4	50.0	140	----
		fluoranthene	206-44-0	E642F	0.741 mg/kg	0.8 mg/kg	93.0	50.0	140	----
		fluorene	86-73-7	E642F	0.797 mg/kg	0.8 mg/kg	100	50.0	140	----
		indeno(1,2,3-c,d)pyrene	193-39-5	E642F	0.561 mg/kg	0.8 mg/kg	70.5	50.0	140	----
		methylnaphthalene, 1-	90-12-0	E642F	0.758 mg/kg	0.8 mg/kg	95.2	50.0	140	----
		methylnaphthalene, 2-	91-57-6	E642F	0.732 mg/kg	0.8 mg/kg	91.8	50.0	140	----
		naphthalene	91-20-3	E642F	0.753 mg/kg	0.8 mg/kg	94.6	50.0	140	----
		phenanthrene	85-01-8	E642F	0.743 mg/kg	0.8 mg/kg	93.3	50.0	140	----
		pyrene	129-00-0	E642F	0.730 mg/kg	0.8 mg/kg	91.6	50.0	140	----
Polychlorinated Biphenyls (QCLot: 572973)										
WT2207852-001	16145-BH1SS2	Aroclor 1016	12674-11-2	E687	0.009 mg/kg	0.01 mg/kg	95.8	50.0	150	----

Sub-Matrix: **Soil/Solid**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Polychlorinated Biphenyls (QCLot: 572973) - continued										
WT2207852-001	16145-BH1SS2	Aroclor 1221	11104-28-2	E687	0.009 mg/kg	0.01 mg/kg	95.8	50.0	150	----
		Aroclor 1232	11141-16-5	E687	0.009 mg/kg	0.01 mg/kg	95.8	50.0	150	----
		Aroclor 1242	53469-21-9	E687	0.009 mg/kg	0.01 mg/kg	95.0	50.0	150	----
		Aroclor 1248	12672-29-6	E687	0.009 mg/kg	0.01 mg/kg	95.8	50.0	150	----
		Aroclor 1254	11097-69-1	E687	0.009 mg/kg	0.01 mg/kg	93.7	50.0	150	----
		Aroclor 1260	11096-82-5	E687	0.009 mg/kg	0.01 mg/kg	91.6	50.0	150	----
		Aroclor 1262	37324-23-5	E687	0.009 mg/kg	0.01 mg/kg	92.1	50.0	150	----
		Aroclor 1268	11100-14-4	E687	0.009 mg/kg	0.01 mg/kg	92.1	50.0	150	----

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).*

Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

					Reference Material (RM) Report				
					RM Target	Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Concentration	RM	Low	High	Qualifier
Physical Tests (QCLot: 569221)									
	RM	conductivity (1:2 leachate)	----	E100-L	3239 µS/cm	102	70.0	130	----
Metals (QCLot: 569217)									
	RM	mercury	7439-97-6	E510	0.0585 mg/kg	99.8	70.0	130	----
Metals (QCLot: 569218)									
	RM	antimony	7440-36-0	E440	3.99 mg/kg	93.8	70.0	130	----
	RM	arsenic	7440-38-2	E440	3.73 mg/kg	101	70.0	130	----
	RM	barium	7440-39-3	E440	105 mg/kg	106	70.0	130	----
	RM	beryllium	7440-41-7	E440	0.349 mg/kg	102	70.0	130	----
	RM	boron	7440-42-8	E440	8.5 mg/kg	103	40.0	160	----
	RM	cadmium	7440-43-9	E440	0.91 mg/kg	96.1	70.0	130	----
	RM	chromium	7440-47-3	E440	101 mg/kg	93.9	70.0	130	----
	RM	cobalt	7440-48-4	E440	6.9 mg/kg	97.0	70.0	130	----
	RM	copper	7440-50-8	E440	123 mg/kg	95.5	70.0	130	----
	RM	lead	7439-92-1	E440	267 mg/kg	103	70.0	130	----
	RM	molybdenum	7439-98-7	E440	1.03 mg/kg	99.0	70.0	130	----
	RM	nickel	7440-02-0	E440	26.7 mg/kg	99.8	70.0	130	----
	RM	silver	7440-22-4	E440	4.06 mg/kg	99.4	70.0	130	----
	RM	thallium	7440-28-0	E440	0.0786 mg/kg	91.8	40.0	160	----
	RM	uranium	7440-61-1	E440	0.52 mg/kg	102	70.0	130	----
	RM	vanadium	7440-62-2	E440	32.7 mg/kg	97.0	70.0	130	----
	RM	zinc	7440-66-6	E440	297 mg/kg	96.2	70.0	130	----
Metals (QCLot: 569220)									
	RM	calcium, soluble ion content	7440-70-2	E484	162.9 mg/L	109	70.0	130	----
	RM	magnesium, soluble ion content	7439-95-4	E484	50.1 mg/L	103	70.0	130	----
	RM	sodium, soluble ion content	17341-25-2	E484	207.1 mg/L	95.6	70.0	130	----
Metals (QCLot: 569222)									
	RM	boron, hot water soluble	7440-42-8	E487	6.8184 mg/kg	93.0	70.0	130	----
Speciated Metals (QCLot: 569219)									
	RM	chromium, hexavalent [Cr VI]	18540-29-9	E532	131 mg/kg	97.7	70.0	130	----

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

COC Number: 22 -

Page 1 of 2

Environmental Division Waterloo

Work Order Reference

WT2207852

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	Haddad Geotechincal Inc
Contact:	Rico Van
Phone:	905-475-0951
	Company address below will appear on the final report
Street:	151 Amber St, Unit 17
City/Province:	Markham, Ontario
Postal Code:	L3R3B3
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	info@haddadgeo.com
Email 2	
Email 3	

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accounts@haddadgeo.com
Email 2	

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 r
☐ 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 surc
Additional fees may apply to rush requests on weel
Date and Time Required for all E&P TATs:
For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	16145	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	

ALS Lab Work Order # (ALS use only): WT2207852 | ALS Contact: | Sampler: RV

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS 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	Metal and Inorgainics	PHCs	VOCs, BTEX, F1	PAHs	PCBs	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	16145-BH1SS2	18-007-18	10:00	Soil	4	R	R	R	R	R			
	16145-BH1SS2-FD	18-007-18	10:00	Soil	4	R	R	R	R	R			
	16145-BH1SS6	18-007-18	10:00	Soil	4	R	R	R					
	16145-BH3SS2	18-007-18	10:00	Soil	4	R	R	R	R	R			
	16145-BH3SS5	18-007-18	10:00	Soil	4	R	R	R					
	16145-BH5SS3	18-007-18	10:00	Soil	4	R	R	R	R	R			
	16145-BH5SS6	18-007-18	10:00	Soil	4	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 (ALS 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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
							7/19/22	1030

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

FEB 2022 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: 22 -

Page 2 of 2

Report To	Contact and company name below will appear on the final report
Company:	Haddad Geotechincal Inc
Contact:	Rico Van
Phone:	905-475-0951
	Company address below will appear on the final report
Street:	151 Amber St, Unit 17
City/Province:	Markham, Ontario
Postal Code:	L3R3B3
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	info@haddadgeo.com
Email 2	
Email 3	

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accounts@haddadgeo.com
Email 2	

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 requests on weekends, statutory holidays and for non-routine tests.
Date and Time Required for all E&P TATs:
For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	16145	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):	LUT220785 2	ALS Contact:	Sampler: RV

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS 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	Metal and Inorgainics	PHCs	VOCs, BTEX, F1	PAHs	PCBs	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	16145-BH2SS1	18-007-18	10:00	Soil	4	R	R	R	R	R			
	16145-BH2SS2	18-007-18	10:00	Soil	4	R	R	R					
	16145-BH2SS4	18-007-18	10:00	Soil	4	R	R	R					
	16145-BH7SS2	18-007-18	10:00	Soil	4	R	R	R	R	R			
	16145-BH7SS4	18-007-18	10:00	Soil	4	R	R	R					
	16145-BH8SS2	18-007-18	10:00	Soil	4	R	R	R	R				
	16145-BH8SS3	18-007-18	10:00	Soil	4	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 (ALS 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			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date: 7/19/22	Time: 1030

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**.

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **WT2209423**	Page	: 1 of 10
Client	: **Haddad Geotechnical Inc.**	Laboratory	: Waterloo - Environmental
Contact	: Rico Van	Account Manager	: Emily Hansen
Address	: 151 Amber Street Markham ON Canada L3R 3J7	Address	: 60 Northland Road, Unit 1 Waterloo ON Canada N2V 2B8
Telephone	: 905 475 0951 x 230	Telephone	: +1 519 886 6910
Project	: 16145	Date Samples Received	: 03-Aug-2022 14:00
PO	: ----	Date Analysis Commenced	: 05-Aug-2022
C-O-C number	: ----	Issue Date	: 10-Aug-2022 16:56
Sampler	: CLIENT		
Site	: ----		
Quote number	: Standing Offer 2022		
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*
Andrea Armstrong	Department Manager - Air Quality and Volatiles	Organics, Waterloo, Ontario
Greg Pokocky	Supervisor - Inorganic	Metals, Waterloo, Ontario
Jeremy Gingras	Team Leader - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
Jon Fisher	Department Manager - Inorganics	Inorganics, Waterloo, Ontario
Jon Fisher	Department Manager - Inorganics	Metals, Waterloo, Ontario
Sarah Birch	Team Leader - Volatiles	Organics, 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 Unit
µg/L	micrograms per litre
mg/L	milligrams per litre
mS/cm	millisiemens per centimetre
pH units	pH units

<: 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*
DLHC	*Detection Limit Raised: Dilution required due to high concentration of test analyte(s).*
DLQ	*Detection Limit raised due to co-eluting interference. GCMS qualifier ion ratio did not meet acceptance criteria.*
SUR-ND	*Surrogate recovery marginally exceeded ALS DQO. Reported non-detect results for associated samples were deemed to be unaffected.*

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145- MW1	16145- MW2	16145- MW3	16145- MW4	16145- MW5
					Client sampling date / time	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00
						WT2209423-001	WT2209423-002	WT2209423-003	WT2209423-004	WT2209423-005
						Result	Result	Result	Result	Result
Physical Tests										
conductivity	----	E100	0.0010	mS/cm		0.590	0.752	0.628	0.850	0.661
pH	----	E108	0.10	pH units		7.92	8.00	7.89	7.90	7.87
Anions and Nutrients										
chloride	16887-00-6	E235.Cl	0.50	mg/L		97.4	142	108	166	117
Cyanides										
cyanide, weak acid dissociable	----	E336	2.0	µg/L		<2.0	4.4	2.7	<2.0	2.8
Dissolved Metals										
antimony, dissolved	7440-36-0	E421	0.10	µg/L		0.26	0.29	0.30	0.31	0.30
arsenic, dissolved	7440-38-2	E421	0.10	µg/L		0.87	0.92	0.98	0.99	1.01
barium, dissolved	7440-39-3	E421	0.10	µg/L		39.0	44.3	45.2	45.9	45.6
beryllium, dissolved	7440-41-7	E421	0.020	µg/L		<0.020	<0.020	<0.020	<0.020	<0.020
boron, dissolved	7440-42-8	E421	10	µg/L		80	94	95	94	94
cadmium, dissolved	7440-43-9	E421	0.0050	µg/L		0.0233	0.0241	0.0243	0.0306	0.0247
chromium, dissolved	7440-47-3	E421	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
cobalt, dissolved	7440-48-4	E421	0.10	µg/L		<0.10	<0.10	<0.10	<0.10	<0.10
copper, dissolved	7440-50-8	E421	0.20	µg/L		13.1	21.9	22.3	19.2	21.5
lead, dissolved	7439-92-1	E421	0.050	µg/L		0.163	<0.050	<0.050	0.060	<0.050
mercury, dissolved	7439-97-6	E509	0.0050	µg/L		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
molybdenum, dissolved	7439-98-7	E421	0.050	µg/L		2.24	2.52	2.59	2.70	2.56
nickel, dissolved	7440-02-0	E421	0.50	µg/L		1.59	0.92	1.00	1.10	0.88
selenium, dissolved	7782-49-2	E421	0.050	µg/L		0.129	0.146	0.142	0.135	0.162
silver, dissolved	7440-22-4	E421	0.010	µg/L		<0.010	<0.010	<0.010	<0.010	<0.010
sodium, dissolved	7440-23-5	E421	50	µg/L		46000	49500	51000	52400	51400
thallium, dissolved	7440-28-0	E421	0.010	µg/L		<0.010	<0.010	0.011	<0.010	<0.010
uranium, dissolved	7440-61-1	E421	0.010	µg/L		0.320	0.373	0.367	0.376	0.363
vanadium, dissolved	7440-62-2	E421	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
zinc, dissolved	7440-66-6	E421	1.0	µg/L		6.2	3.4	3.8	3.9	3.0
dissolved mercury filtration location	----	EP509	-	-		Field	Field	Field	Field	Field
dissolved metals filtration location	----	EP421	-	-		Field	Field	Field	Field	Field
Speciated Metals										

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145- MW1	16145- MW2	16145- MW3	16145- MW4	16145- MW5
					Client sampling date / time	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00
						WT2209423-001	WT2209423-002	WT2209423-003	WT2209423-004	WT2209423-005
						Result	Result	Result	Result	Result
Speciated Metals										
chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Volatile Organic Compounds										
acetone	67-64-1	E611D	20	µg/L		<20	<20	<20	<20	<20
benzene	71-43-2	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
bromodichloromethane	75-27-4	E611D	0.50	µg/L		2.81	2.44	2.71	2.41	2.61
bromoform	75-25-2	E611D	0.50	µg/L		0.54	<0.50	<0.50	<0.50	<0.50
bromomethane	74-83-9	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
carbon tetrachloride	56-23-5	E611D	0.20	µg/L		<0.20	<0.20	<0.20	<0.20	<0.20
chlorobenzene	108-90-7	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
chloroform	67-66-3	E611D	0.50	µg/L		2.23	1.98	2.28	2.10	2.16
dibromochloromethane	124-48-1	E611D	0.50	µg/L		1.94	1.78	1.95	1.65	1.90
dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L		<0.20	<0.20	<0.20	<0.20	<0.20
dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichloromethane	75-09-2	E611D	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichloropropylene, cis+trans-1,3-	542-75-6	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L		<0.30	<0.30	<0.30	<0.30	<0.30
dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L		<0.30	<0.30	<0.30	<0.30	<0.30
ethylbenzene	100-41-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
hexane, n-	110-54-3	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L		<20	<20	<20	<20	<20
methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L		<20	<20	<20	<20	<20
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145- MW1	16145- MW2	16145- MW3	16145- MW4	16145- MW5
					Client sampling date / time	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00
						WT2209423-001	WT2209423-002	WT2209423-003	WT2209423-004	WT2209423-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
styrene	100-42-5	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
tetrachloroethylene	127-18-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
toluene	108-88-3	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
trichloroethylene	79-01-6	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
trichlorofluoromethane	75-69-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
vinyl chloride	75-01-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
xylene, m+p-	179601-23-1	E611D	0.40	µg/L		<0.40	<0.40	<0.40	<0.40	<0.40
xylene, o-	95-47-6	E611D	0.30	µg/L		<0.30	<0.30	<0.30	<0.30	<0.30
xylenes, total	1330-20-7	E611D	0.50	µg/L		<0.50	<0.50	<0.50	<0.50	<0.50
BTEX, total	----	E611D	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Volatile Organic Compounds Surrogates										
bromofluorobenzene, 4-	460-00-4	E611D	1.0	%		80.5	81.2	79.1	79.1	79.7
difluorobenzene, 1,4-	540-36-3	E611D	1.0	%		98.7	98.4	98.4	98.2	98.0
Hydrocarbons										
F1 (C6-C10)	----	E581.F1-L	25	µg/L		<25	<25	<25	<25	<25
F2 (C10-C16)	----	E601.SG	100	µg/L		<100	<100	<100	<100	<100
F3 (C16-C34)	----	E601.SG	250	µg/L		<250	<250	<250	<250	<250
F4 (C34-C50)	----	E601.SG	250	µg/L		<250	<250	<250	<250	<250
F1-BTEX	----	EC580	25	µg/L		<25	<25	<25	<25	<25
hydrocarbons, total (C6-C50)	----	EC581SG	240	µg/L		<370	<370	<370	<370	<370
chromatogram to baseline at nC50	n/a	E601.SG	-	-		YES	YES	YES	YES	YES
Hydrocarbons Surrogates										
bromobenzotrifluoride, 2- (F2-F4 surr)	392-83-6	E601.SG	1.0	%		87.9	94.9	85.9	89.2	98.8
dichlorotoluene, 3,4-	97-75-0	E581.F1-L	1.0	%		79.2	80.9	81.6	77.8	78.5
Polycyclic Aromatic Hydrocarbons										
acenaphthene	83-32-9	E641A	0.010	µg/L		----	<0.016 DLQ	<0.010	<0.010	----
acenaphthylene	208-96-8	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145- MW1	16145- MW2	16145- MW3	16145- MW4	16145- MW5
					Client sampling date / time	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00
						WT2209423-001	WT2209423-002	WT2209423-003	WT2209423-004	WT2209423-005
						Result	Result	Result	Result	Result
Polycyclic Aromatic Hydrocarbons										
anthracene	120-12-7	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
benz(a)anthracene	56-55-3	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
benzo(a)pyrene	50-32-8	E641A	0.0050	µg/L		----	<0.0050	<0.0050	<0.0050	----
benzo(b+j)fluoranthene	n/a	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
benzo(g,h,i)perylene	191-24-2	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
benzo(k)fluoranthene	207-08-9	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
chrysene	218-01-9	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
dibenz(a,h)anthracene	53-70-3	E641A	0.0050	µg/L		----	<0.0050	<0.0050	<0.0050	----
fluoranthene	206-44-0	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
fluorene	86-73-7	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
methylnaphthalene, 1-	90-12-0	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
methylnaphthalene, 1+2-	----	E641A	0.015	µg/L		----	<0.015	<0.015	<0.015	----
methylnaphthalene, 2-	91-57-6	E641A	0.010	µg/L		----	<0.010	<0.010	0.013	----
naphthalene	91-20-3	E641A	0.050	µg/L		----	<0.050	<0.050	<0.050	----
phenanthrene	85-01-8	E641A	0.020	µg/L		----	<0.020	<0.020	<0.020	----
pyrene	129-00-0	E641A	0.010	µg/L		----	<0.010	<0.010	<0.010	----
Polycyclic Aromatic Hydrocarbons Surrogates										
chrysene-d12	1719-03-5	E641A	0.1	%		----	99.8	98.8	102	----
naphthalene-d8	1146-65-2	E641A	0.1	%		----	118	106	118	----
phenanthrene-d10	1517-22-2	E641A	0.1	%		----	112	106	108	----

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	LOR	Unit	Client sample ID	16145- MW7	16145- MW8	TRIP BLANK	----	----
					Client sampling date / time	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	----	----
						WT2209423-006	WT2209423-007	WT2209423-008	--------	--------
						Result	Result	Result	----	----
Physical Tests										
conductivity	----	E100	0.0010	mS/cm		1.11	1.11	----	----	----
pH	----	E108	0.10	pH units		7.88	7.97	----	----	----
Anions and Nutrients										
chloride	16887-00-6	E235.Cl	0.50	mg/L		238	237	----	----	----
Cyanides										
cyanide, weak acid dissociable	----	E336	2.0	µg/L		<2.0	<2.0	----	----	----
Dissolved Metals										
antimony, dissolved	7440-36-0	E421	0.10	µg/L		0.64	0.65	----	----	----
arsenic, dissolved	7440-38-2	E421	0.10	µg/L		1.13	1.11	----	----	----
barium, dissolved	7440-39-3	E421	0.10	µg/L		95.6	94.2	----	----	----
beryllium, dissolved	7440-41-7	E421	0.020	µg/L		<0.020	<0.020	----	----	----
boron, dissolved	7440-42-8	E421	10	µg/L		285	272	----	----	----
cadmium, dissolved	7440-43-9	E421	0.0050	µg/L		0.0550	0.0511	----	----	----
chromium, dissolved	7440-47-3	E421	0.50	µg/L		<0.50	<0.50	----	----	----
cobalt, dissolved	7440-48-4	E421	0.10	µg/L		<0.10	<0.10	----	----	----
copper, dissolved	7440-50-8	E421	0.20	µg/L		4.33	4.38	----	----	----
lead, dissolved	7439-92-1	E421	0.050	µg/L		<0.050	<0.050	----	----	----
mercury, dissolved	7439-97-6	E509	0.0050	µg/L		<0.0050	<0.0050	----	----	----
molybdenum, dissolved	7439-98-7	E421	0.050	µg/L		5.74	5.80	----	----	----
nickel, dissolved	7440-02-0	E421	0.50	µg/L		0.72	0.71	----	----	----
selenium, dissolved	7782-49-2	E421	0.050	µg/L		0.155	0.145	----	----	----
silver, dissolved	7440-22-4	E421	0.010	µg/L		<0.010	<0.010	----	----	----
sodium, dissolved	7440-23-5	E421	50	µg/L		127000 DLHC	132000 DLHC	----	----	----
thallium, dissolved	7440-28-0	E421	0.010	µg/L		<0.010	<0.010	----	----	----
uranium, dissolved	7440-61-1	E421	0.010	µg/L		0.468	0.442	----	----	----
vanadium, dissolved	7440-62-2	E421	0.50	µg/L		<0.50	<0.50	----	----	----
zinc, dissolved	7440-66-6	E421	1.0	µg/L		1.0	<1.0	----	----	----
dissolved mercury filtration location	----	EP509	-	-		Field	Field	----	----	----
dissolved metals filtration location	----	EP421	-	-		Field	Field	----	----	----
Speciated Metals										
chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.50	µg/L		<0.50	<0.50	----	----	----

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145- MW7	16145- MW8	TRIP BLANK	----	----
					Client sampling date / time	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	----	----
						WT2209423-006	WT2209423-007	WT2209423-008	--------	--------
						Result	Result	Result	----	----
Volatile Organic Compounds										
acetone	67-64-1	E611D	20	µg/L		<20	<20	<20	----	----
benzene	71-43-2	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
bromodichloromethane	75-27-4	E611D	0.50	µg/L		1.93	0.75	<0.50	----	----
bromoform	75-25-2	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
bromomethane	74-83-9	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
carbon tetrachloride	56-23-5	E611D	0.20	µg/L		<0.20	<0.20	<0.20	----	----
chlorobenzene	108-90-7	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
chloroform	67-66-3	E611D	0.50	µg/L		1.67	0.79	<0.50	----	----
dibromochloromethane	124-48-1	E611D	0.50	µg/L		1.38	<0.50	<0.50	----	----
dibromoethane, 1,2-	106-93-4	E611D	0.20	µg/L		<0.20	<0.20	<0.20	----	----
dichlorobenzene, 1,2-	95-50-1	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
dichlorobenzene, 1,3-	541-73-1	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
dichlorobenzene, 1,4-	106-46-7	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
dichlorodifluoromethane	75-71-8	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
dichloroethane, 1,1-	75-34-3	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
dichloroethane, 1,2-	107-06-2	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
dichloroethylene, 1,1-	75-35-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
dichloroethylene, cis-1,2-	156-59-2	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
dichloroethylene, trans-1,2-	156-60-5	E611D	0.50	µg/L		<0.50	0.60	<0.50	----	----
dichloromethane	75-09-2	E611D	1.0	µg/L		<1.0	<1.0	<1.0	----	----
dichloropropane, 1,2-	78-87-5	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
dichloropropylene, cis+trans-1,3-	542-75-6	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.30	µg/L		<0.30	<0.30	<0.30	----	----
dichloropropylene, trans-1,3-	10061-02-6	E611D	0.30	µg/L		<0.30	<0.30	<0.30	----	----
ethylbenzene	100-41-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
hexane, n-	110-54-3	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L		<20	<20	<20	----	----
methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L		<20	<20	<20	----	----
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
styrene	100-42-5	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID	16145- MW7	16145- MW8	TRIP BLANK	----	----
					Client sampling date / time	03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	----	----
						WT2209423-006	WT2209423-007	WT2209423-008	--------	--------
						Result	Result	Result	----	----
Volatile Organic Compounds										
tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
tetrachloroethylene	127-18-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
toluene	108-88-3	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
trichloroethane, 1,1,1-	71-55-6	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
trichloroethane, 1,1,2-	79-00-5	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
trichloroethylene	79-01-6	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
trichlorofluoromethane	75-69-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
vinyl chloride	75-01-4	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
xylene, m+p-	179601-23-1	E611D	0.40	µg/L		<0.40	<0.40	<0.40	----	----
xylene, o-	95-47-6	E611D	0.30	µg/L		<0.30	<0.30	<0.30	----	----
xylenes, total	1330-20-7	E611D	0.50	µg/L		<0.50	<0.50	<0.50	----	----
BTEX, total	----	E611D	1.0	µg/L		<1.0	<1.0	<1.0	----	----
Volatile Organic Compounds Surrogates										
bromofluorobenzene, 4-	460-00-4	E611D	1.0	%		80.4	70.1	69.4 SUR-ND	----	----
difluorobenzene, 1,4-	540-36-3	E611D	1.0	%		98.0	105	103	----	----
Hydrocarbons										
F1 (C6-C10)	----	E581.F1-L	25	µg/L		<25	<25	----	----	----
F2 (C10-C16)	----	E601.SG	100	µg/L		<100	<100	----	----	----
F3 (C16-C34)	----	E601.SG	250	µg/L		<250	<250	----	----	----
F4 (C34-C50)	----	E601.SG	250	µg/L		<250	<250	----	----	----
F1-BTEX	----	EC580	25	µg/L		<25	<25	----	----	----
hydrocarbons, total (C6-C50)	----	EC581SG	240	µg/L		<370	<370	----	----	----
chromatogram to baseline at nC50	n/a	E601.SG	-	-		YES	YES	----	----	----
Hydrocarbons Surrogates										
bromobenzotrifluoride, 2- (F2-F4 surr)	392-83-6	E601.SG	1.0	%		87.4	88.2	----	----	----
dichlorotoluene, 3,4-	97-75-0	E581.F1-L	1.0	%		81.4	92.3	----	----	----
Polycyclic Aromatic Hydrocarbons										
acenaphthene	83-32-9	E641A	0.010	µg/L		----	<0.015 DLQ	----	----	----
acenaphthylene	208-96-8	E641A	0.010	µg/L		----	<0.010	----	----	----
anthracene	120-12-7	E641A	0.010	µg/L		----	<0.010	----	----	----
benz(a)anthracene	56-55-3	E641A	0.010	µg/L		----	<0.010	----	----	----

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method	LOR	Unit	Client sample ID: 16145- MW7	16145- MW8	TRIP BLANK	----	----
Client sampling date / time					03-Aug-2022 08:00	03-Aug-2022 08:00	03-Aug-2022 08:00	----	----
					WT2209423-006	WT2209423-007	WT2209423-008	--------	--------
					Result	Result	Result	----	----
Polycyclic Aromatic Hydrocarbons									
benzo(a)pyrene	50-32-8	E641A	0.0050	µg/L	----	<0.0050	----	----	----
benzo(b+j)fluoranthene	n/a	E641A	0.010	µg/L	----	<0.010	----	----	----
benzo(g,h,i)perylene	191-24-2	E641A	0.010	µg/L	----	<0.010	----	----	----
benzo(k)fluoranthene	207-08-9	E641A	0.010	µg/L	----	<0.010	----	----	----
chrysene	218-01-9	E641A	0.010	µg/L	----	<0.010	----	----	----
dibenz(a,h)anthracene	53-70-3	E641A	0.0050	µg/L	----	<0.0050	----	----	----
fluoranthene	206-44-0	E641A	0.010	µg/L	----	<0.010	----	----	----
fluorene	86-73-7	E641A	0.010	µg/L	----	<0.010	----	----	----
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.010	µg/L	----	<0.010	----	----	----
methylnaphthalene, 1-	90-12-0	E641A	0.010	µg/L	----	<0.010	----	----	----
methylnaphthalene, 1+2-	----	E641A	0.015	µg/L	----	<0.015	----	----	----
methylnaphthalene, 2-	91-57-6	E641A	0.010	µg/L	----	<0.010	----	----	----
naphthalene	91-20-3	E641A	0.050	µg/L	----	<0.050	----	----	----
phenanthrene	85-01-8	E641A	0.020	µg/L	----	<0.020	----	----	----
pyrene	129-00-0	E641A	0.010	µg/L	----	<0.010	----	----	----
Polycyclic Aromatic Hydrocarbons Surrogates									
chrysene-d12	1719-03-5	E641A	0.1	%	----	102	----	----	----
naphthalene-d8	1146-65-2	E641A	0.1	%	----	118	----	----	----
phenanthrene-d10	1517-22-2	E641A	0.1	%	----	112	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **WT2209423**	Page	: 1 of 17
Client	: **Haddad Geotechnical Inc.**	Laboratory	: Waterloo - Environmental
Contact	: Rico Van	Account Manager	: Emily Hansen
Address	: 151 Amber Street Markham ON Canada L3R 3J7	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: 905 475 0951 x 230	Telephone	: +1 519 886 6910
Project	: 16145	Date Samples Received	: 03-Aug-2022 14:00
PO	: ----	Issue Date	: 10-Aug-2022 16:56
C-O-C number	: ----		
Sampler	: CLIENT		
Site	: ----		
Quote number	: Standing Offer 2022		
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 Duplicate outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- Laboratory Control Sample (LCS) outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- Test sample Surrogate recovery outliers exist for all regular sample matrices - please see following pages for full details.

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								
Volatile Organic Compounds	QC-MRG2-590564001	----	dichloromethane	75-09-2	E611D	1.7 µg/L B	1 µg/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.*

Laboratory Control Sample (LCS) Recoveries								
Volatile Organic Compounds	QC-590565-002	----	dichlorodifluoromethane	75-71-8	E611D	42.6 % LCS-L	60.0-140%	Recovery less than lower control limit
Hydrocarbons	QC-MRG2-590687002	----	F3 (C16-C34)	----	E601.SG	139 % LCS-H	70.0-130%	Recovery greater than upper control limit
Polycyclic Aromatic Hydrocarbons	QC-MRG2-590687002	----	dibenz(a,h)anthracene	53-70-3	E641A	142 % LCS-H	50.0-140%	Recovery greater than upper control limit
Polycyclic Aromatic Hydrocarbons	QC-MRG2-590687002	----	indeno(1,2,3-c,d)pyrene	193-39-5	E641A	144 % LCS-H	50.0-140%	Recovery greater than upper control limit

Result Qualifiers

Qualifier	Description
LCS-H	*Lab Control Sample recovery was above ALS DQO. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.*
LCS-L	*Lab Control Sample recovery was below ALS DQO. Reference Material and/or Matrix Spike results were acceptable. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.*

Matrix Spike (MS) Recoveries								
Volatile Organic Compounds	Anonymous	Anonymous	dichlorodifluoromethane	75-71-8	E611D	41.8 % K	60.0-140%	Recovery less than lower data quality objective

Result Qualifiers

Qualifier	Description
K	*Matrix Spike recovery outside ALS DQO due to sample matrix effects.*

Regular Sample Surrogates

Sub-Matrix: **Groundwater**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Result	Limits	Comment
Samples Submitted							
Volatile Organic Compounds Surrogates	WT2209423-008	TRIP BLANK	bromofluorobenzene, 4-	460-00-4	69.4 %	70.0-130 %	Recovery less than lower data quality objective

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 / 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]										
16145- MW1	E235.Cl	03-Aug-2022	05-Aug-2022	----	----		08-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
16145- MW2	E235.Cl	03-Aug-2022	05-Aug-2022	----	----		08-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
16145- MW3	E235.Cl	03-Aug-2022	05-Aug-2022	----	----		08-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
16145- MW4	E235.Cl	03-Aug-2022	05-Aug-2022	----	----		08-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
16145- MW5	E235.Cl	03-Aug-2022	05-Aug-2022	----	----		08-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
16145- MW7	E235.Cl	03-Aug-2022	05-Aug-2022	----	----		08-Aug-2022	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE [ON MECP]										
16145- MW8	E235.Cl	03-Aug-2022	05-Aug-2022	----	----		08-Aug-2022	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Cyanides : WAD Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
16145- MW1	E336	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	2 days	✓
Cyanides : WAD Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
16145- MW2	E336	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	2 days	✓
Cyanides : WAD Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
16145- MW3	E336	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	2 days	✓
Cyanides : WAD Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
16145- MW4	E336	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	2 days	✓
Cyanides : WAD Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
16145- MW5	E336	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	2 days	✓
Cyanides : WAD Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
16145- MW7	E336	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	2 days	✓
Cyanides : WAD Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
16145- MW8	E336	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	2 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
16145- MW1	E509	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	28 days	2 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
16145- MW2	E509	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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 Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) 16145- MW3	E509	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	28 days	2 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) 16145- MW4	E509	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	28 days	2 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) 16145- MW5	E509	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	28 days	2 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) 16145- MW7	E509	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	28 days	2 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) 16145- MW8	E509	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	28 days	2 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) 16145- MW1	E421	03-Aug-2022	08-Aug-2022	----	----		09-Aug-2022	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) 16145- MW2	E421	03-Aug-2022	08-Aug-2022	----	----		09-Aug-2022	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) 16145- MW3	E421	03-Aug-2022	08-Aug-2022	----	----		09-Aug-2022	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) 16145- MW4	E421	03-Aug-2022	08-Aug-2022	----	----		09-Aug-2022	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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)										
16145- MW5	E421	03-Aug-2022	08-Aug-2022	----	----		09-Aug-2022	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
16145- MW7	E421	03-Aug-2022	08-Aug-2022	----	----		09-Aug-2022	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
16145- MW8	E421	03-Aug-2022	08-Aug-2022	----	----		09-Aug-2022	180 days	6 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate)										
16145- MW1	E581.F1-L	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate)										
16145- MW2	E581.F1-L	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate)										
16145- MW3	E581.F1-L	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate)										
16145- MW4	E581.F1-L	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate)										
16145- MW5	E581.F1-L	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate)										
16145- MW7	E581.F1-L	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate)										
16145- MW8	E581.F1-L	03-Aug-2022	08-Aug-2022	----	----		08-Aug-2022	14 days	5 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW1	E601.SG	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	10-Aug-2022	40 days	5 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW2	E601.SG	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	10-Aug-2022	40 days	5 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW3	E601.SG	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	10-Aug-2022	40 days	5 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW4	E601.SG	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	10-Aug-2022	40 days	5 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW5	E601.SG	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	10-Aug-2022	40 days	5 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW7	E601.SG	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	10-Aug-2022	40 days	5 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW8	E601.SG	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	10-Aug-2022	40 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
16145- MW1	E100	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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] 16145- MW2	E100	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] 16145- MW3	E100	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] 16145- MW4	E100	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] 16145- MW5	E100	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] 16145- MW7	E100	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] 16145- MW8	E100	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] 16145- MW1	E108	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] 16145- MW2	E108	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] 16145- MW3	E108	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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]										
16145- MW4	E108	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
16145- MW5	E108	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
16145- MW7	E108	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
16145- MW8	E108	03-Aug-2022	05-Aug-2022	----	----		06-Aug-2022	14 days	3 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW2	E641A	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	08-Aug-2022	40 days	3 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW3	E641A	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	08-Aug-2022	40 days	3 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW4	E641A	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	08-Aug-2022	40 days	3 days	✓
Polycyclic Aromatic Hydrocarbons : PAHs by Hexane LVI GC-MS										
Amber glass/Teflon lined cap (sodium bisulfate)										
16145- MW8	E641A	03-Aug-2022	05-Aug-2022	14 days	2 days	✓	08-Aug-2022	40 days	3 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
HDPE - dissolved (NaOH+Buf) [ON MECP]										
16145- MW1	E532A	03-Aug-2022	----	----	----		08-Aug-2022	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
HDPE - dissolved (NaOH+Buf) [ON MECP]										
16145- MW2	E532A	03-Aug-2022	----	----	----		08-Aug-2022	28 days	5 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
HDPE - dissolved (NaOH+Buf) [ON MECP]										
16145- MW3	E532A	03-Aug-2022	----	----	----		08-Aug-2022	28 days	5 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
HDPE - dissolved (NaOH+Buf) [ON MECP]										
16145- MW4	E532A	03-Aug-2022	----	----	----		08-Aug-2022	28 days	5 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
HDPE - dissolved (NaOH+Buf) [ON MECP]										
16145- MW5	E532A	03-Aug-2022	----	----	----		08-Aug-2022	28 days	5 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
HDPE - dissolved (NaOH+Buf) [ON MECP]										
16145- MW7	E532A	03-Aug-2022	----	----	----		08-Aug-2022	28 days	5 days	✓
Speciated Metals : Dissolved Hexavalent Chromium (Cr VI) by IC										
HDPE - dissolved (NaOH+Buf) [ON MECP]										
16145- MW8	E532A	03-Aug-2022	----	----	----		08-Aug-2022	28 days	5 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
16145- MW4	E611D	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	2 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
16145- MW1	E611D	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
16145- MW2	E611D	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group / 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 (ON List) by Headspace GC-MS										
Glass vial (sodium bisulfate) 16145- MW3	E611D	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass vial (sodium bisulfate) 16145- MW5	E611D	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass vial (sodium bisulfate) 16145- MW7	E611D	03-Aug-2022	05-Aug-2022	----	----		05-Aug-2022	14 days	3 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass vial (sodium bisulfate) 16145- MW8	E611D	03-Aug-2022	08-Aug-2022	----	----		08-Aug-2022	14 days	5 days	✓
Volatile Organic Compounds : VOCs (ON List) by Headspace GC-MS										
Glass vial (sodium bisulfate) TRIP BLANK	E611D	03-Aug-2022	08-Aug-2022	----	----		08-Aug-2022	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)							
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	590564	2	29	6.9	5.0	✓
Chloride in Water by IC	E235.Cl	590348	1	11	9.0	5.0	✓
Conductivity in Water	E100	590359	1	7	14.2	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	592770	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	589991	1	7	14.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	592610	1	20	5.0	5.0	✓
pH by Meter	E108	590358	1	20	5.0	5.0	✓
VOCs (ON List) by Headspace GC-MS	E611D	590565	3	37	8.1	5.0	✓
WAD Cyanide	E336	590023	1	7	14.2	5.0	✓
Laboratory Control Samples (LCS)							
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	590564	2	29	6.9	5.0	✓
Chloride in Water by IC	E235.Cl	590348	1	11	9.0	5.0	✓
Conductivity in Water	E100	590359	1	7	14.2	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	592770	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	589991	1	7	14.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	592610	1	20	5.0	5.0	✓
PAHs by Hexane LVI GC-MS	E641A	590687	1	7	14.2	5.0	✓
pH by Meter	E108	590358	1	20	5.0	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	590688	1	17	5.8	5.0	✓
VOCs (ON List) by Headspace GC-MS	E611D	590565	2	37	5.4	5.0	✓
WAD Cyanide	E336	590023	1	7	14.2	5.0	✓
Method Blanks (MB)							
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	590564	2	29	6.9	5.0	✓
Chloride in Water by IC	E235.Cl	590348	1	11	9.0	5.0	✓
Conductivity in Water	E100	590359	1	7	14.2	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	592770	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	589991	1	7	14.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	592610	1	20	5.0	5.0	✓
PAHs by Hexane LVI GC-MS	E641A	590687	1	7	14.2	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	590688	1	17	5.8	5.0	✓
VOCs (ON List) by Headspace GC-MS	E611D	590565	2	37	5.4	5.0	✓
WAD Cyanide	E336	590023	1	7	14.2	5.0	✓
Matrix Spikes (MS)							
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	590564	2	29	6.9	5.0	✓
Chloride in Water by IC	E235.Cl	590348	1	11	9.0	5.0	✓
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A	592770	1	20	5.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	589991	1	7	14.2	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 Metals in Water by CRC ICPMS	E421	592610	1	20	5.0	5.0	✓
VOCs (ON List) by Headspace GC-MS	E611D	590565	2	37	5.4	5.0	✓
WAD Cyanide	E336	590023	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 Waterloo - Environmental	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 Waterloo - Environmental	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 Waterloo - Environmental	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
WAD Cyanide	E336 Waterloo - Environmental	Water	APHA 4500-CN I (mod)	Weak Acid Dissociable (WAD) cyanide is determined by Continuous Flow Analyzer (CFA) with in-line distillation followed by colourmetric analysis.
Dissolved Metals in Water by CRC ICPMS	E421 Waterloo - Environmental	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.
Dissolved Mercury in Water by CVAAS	E509 Waterloo - Environmental	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hexavalent Chromium (Cr VI) by IC	E532A Waterloo - Environmental	Water	APHA 3500-Cr C (Ion Chromatography)	Hexavalent Chromium is measured by Ion chromatography-Post column reaction and UV detection. sample pretreatment involved field or lab filtration following by sample preservation.
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L Waterloo - Environmental	Water	CCME PHC in Soil - Tier 1	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. 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.
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG Waterloo - Environmental	Water	CCME PHC in Soil - Tier 1	Sample extracts are subjected to in-situ silica gel treatment prior to analysis by GC-FID for CCME hydrocarbon fractions (F2-F4).
VOCs (ON List) by Headspace GC-MS	E611D Waterloo - Environmental	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.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
PAHs by Hexane LVI GC-MS	E641A Waterloo - Environmental	Water	EPA 8270E (mod)	Polycyclic Aromatic Hydrocarbons (PAHs) are analyzed by large volume injection (LVI) GC-MS.
F1-BTEX	EC580 Waterloo - Environmental	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
SUM F1 to F4 where F2-F4 is SG treated	EC581SG Waterloo - Environmental	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fraction F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50), where F2-F4 have been treated with silica gel. F4G-sg is not used within this calculation due to overlap with other fractions.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals Water Filtration	EP421 Waterloo - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 Waterloo - Environmental	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 Waterloo - Environmental	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 the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601 Waterloo - Environmental	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.

QUALITY CONTROL REPORT

Work Order	: **WT2209423**	Page	: 1 of 20
Client	: Haddad Geotechnical Inc.	Laboratory	: Waterloo - Environmental
Contact	: Rico Van	Account Manager	: Emily Hansen
Address	: 151 Amber Street Markham ON Canada L3R 3J7	Address	: 60 Northland Road, Unit 1 Waterloo, Ontario Canada N2V 2B8
Telephone	: 905 475 0951 x 230	Telephone	: +1 519 886 6910
Project	: 16145	Date Samples Received	: 03-Aug-2022 14:00
PO	: ----	Date Analysis Commenced	: 05-Aug-2022
C-O-C number	: ----	Issue Date	: 10-Aug-2022 16:57
Sampler	: CLIENT		
Site	: ----		
Quote number	: Standing Offer 2022		
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*
Andrea Armstrong	Department Manager - Air Quality and Volatiles	Waterloo Organics, Waterloo, Ontario
Greg Pokocky	Supervisor - Inorganic	Waterloo Metals, Waterloo, Ontario
Jeremy Gingras	Team Leader - Semi-Volatile Instrumentation	Waterloo Organics, Waterloo, Ontario
Jon Fisher	Department Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Jon Fisher	Department Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Sarah Birch	Team Leader - Volatiles	Waterloo Organics, 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: 590358)											
WT2209423-002	16145- MW2	pH	----	E108	0.10	pH units	8.00	7.89	0.11	Diff <2x LOR	----
Physical Tests (QC Lot: 590359)											
WT2209423-002	16145- MW2	conductivity	----	E100	1.0	µS/cm	0.752 mS/cm	751	0.133%	10%	----
Anions and Nutrients (QC Lot: 590348)											
WT2209423-001	16145- MW1	chloride	16887-00-6	E235.Cl	0.50	mg/L	97.4	97.2	0.145%	20%	----
Cyanides (QC Lot: 590023)											
WT2209423-001	16145- MW1	cyanide, weak acid dissociable	----	E336	0.0020	mg/L	<2.0 µg/L	<0.0020	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 589991)											
WT2209423-001	16145- MW1	mercury, dissolved	7439-97-6	E509	0.0000050	mg/L	<0.0050 µg/L	<0.0000050	0	Diff <2x LOR	----
Dissolved Metals (QC Lot: 592610)											
WT2209423-001	16145- MW1	antimony, dissolved	7440-36-0	E421	0.00010	mg/L	0.26 µg/L	0.00027	0.00001	Diff <2x LOR	----
		arsenic, dissolved	7440-38-2	E421	0.00010	mg/L	0.87 µg/L	0.00089	0.00003	Diff <2x LOR	----
		barium, dissolved	7440-39-3	E421	0.00010	mg/L	39.0 µg/L	0.0394	0.934%	20%	----
		beryllium, dissolved	7440-41-7	E421	0.000020	mg/L	<0.020 µg/L	<0.000020	0	Diff <2x LOR	----
		boron, dissolved	7440-42-8	E421	0.010	mg/L	80 µg/L	0.080	0.0004	Diff <2x LOR	----
		cadmium, dissolved	7440-43-9	E421	0.0000050	mg/L	0.0233 µg/L	0.0000222	0.0000011	Diff <2x LOR	----
		chromium, dissolved	7440-47-3	E421	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		cobalt, dissolved	7440-48-4	E421	0.00010	mg/L	<0.10 µg/L	<0.00010	0	Diff <2x LOR	----
		copper, dissolved	7440-50-8	E421	0.00020	mg/L	13.1 µg/L	0.0132	0.524%	20%	----
		lead, dissolved	7439-92-1	E421	0.000050	mg/L	0.163 µg/L	0.000170	0.000007	Diff <2x LOR	----
		molybdenum, dissolved	7439-98-7	E421	0.000050	mg/L	2.24 µg/L	0.00241	7.17%	20%	----
		nickel, dissolved	7440-02-0	E421	0.00050	mg/L	1.59 µg/L	0.00160	0.00001	Diff <2x LOR	----
		selenium, dissolved	7782-49-2	E421	0.000050	mg/L	0.129 µg/L	0.000154	0.000025	Diff <2x LOR	----
		silver, dissolved	7440-22-4	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		sodium, dissolved	7440-23-5	E421	0.050	mg/L	46000 µg/L	46.3	0.630%	20%	----
		thallium, dissolved	7440-28-0	E421	0.000010	mg/L	<0.010 µg/L	<0.000010	0	Diff <2x LOR	----
		uranium, dissolved	7440-61-1	E421	0.000010	mg/L	0.320 µg/L	0.000320	0.250%	20%	----
		vanadium, dissolved	7440-62-2	E421	0.00050	mg/L	<0.50 µg/L	<0.00050	0	Diff <2x LOR	----
		zinc, dissolved	7440-66-6	E421	0.0010	mg/L	6.2 µg/L	0.0061	0.00004	Diff <2x LOR	----
Speciated Metals (QC Lot: 592770)											
WT2209423-001	16145- MW1	chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.00050	mg/L	<0.50 µg/L	<0.00050	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: 590565)											
WT2209620-001	Anonymous	dichloromethane	75-09-2	E611D	1.0	µg/L	<1.0	<1.0	0	Diff <2x LOR	----
WT2209620-001	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 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	----
		chloroform	67-66-3	E611D	0.50	µg/L	<0.50	<0.50	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	----
		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	----
		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	----

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: 590565) - continued											
WT2209620-001	Anonymous	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	0.50	µg/L	<0.50	<0.50	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: 592382)											
WT2209423-007	16145- MW8	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	0.75	0.72	0.03	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 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	----
		chloroform	67-66-3	E611D	0.50	µg/L	0.79	0.72	0.07	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	0.60	0.51	0.09	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	----
		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	----

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: 592382) - continued											
WT2209423-007	16145- MW8	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	0.50	µg/L	<0.50	<0.50	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	----
Hydrocarbons (QC Lot: 590564)											
WT2209620-001	Anonymous	F1 (C6-C10)	----	E581.F1-L	25	µg/L	167	136	31	Diff <2x LOR	----
Hydrocarbons (QC Lot: 592383)											
WT2209423-007	16145- MW8	F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	<25	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: 590359)						
conductivity	----	E100	1	µS/cm	<1.0	----
Anions and Nutrients (QCLot: 590348)						
chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	----
Cyanides (QCLot: 590023)						
cyanide, weak acid dissociable	----	E336	0.002	mg/L	<0.0020	----
Dissolved Metals (QCLot: 589991)						
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	<0.0000050	----
Dissolved Metals (QCLot: 592610)						
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	----
boron, dissolved	7440-42-8	E421	0.01	mg/L	<0.010	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	<0.0000050	----
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	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	<0.000050	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	<0.000050	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	<0.00050	----
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	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	<0.000010	----
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	----
Speciated Metals (QCLot: 592770)						
chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.0005	mg/L	<0.00050	----
Volatile Organic Compounds (QCLot: 590565)						
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: 590565) - continued						
bromoform	75-25-2	E611D	0.5	µg/L	<0.50	----
bromomethane	74-83-9	E611D	0.5	µg/L	<0.50	----
carbon tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
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	# 1.7	B
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	----
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	0.5	µg/L	<0.50	----
xylene, m+p-	179601-23-1	E611D	0.4	µg/L	<0.40	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Volatile Organic Compounds (QCLot: 590565) - continued						
xylene, o-	95-47-6	E611D	0.3	µg/L	<0.30	----
Volatile Organic Compounds (QCLot: 592382)						
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 tetrachloride	56-23-5	E611D	0.2	µg/L	<0.20	----
chlorobenzene	108-90-7	E611D	0.5	µg/L	<0.50	----
chloroform	67-66-3	E611D	0.5	µg/L	<0.50	----
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	----
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: 592382) - 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	0.5	µg/L	<0.50	----
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	----
Hydrocarbons (QCLot: 590564)						
F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	----
Hydrocarbons (QCLot: 590688)						
F2 (C10-C16)	----	E601.SG	100	µg/L	<100	----
F3 (C16-C34)	----	E601.SG	250	µg/L	<250	----
F4 (C34-C50)	----	E601.SG	250	µg/L	<250	----
Hydrocarbons (QCLot: 592383)						
F1 (C6-C10)	----	E581.F1-L	25	µg/L	<25	----
Polycyclic Aromatic Hydrocarbons (QCLot: 590687)						
acenaphthene	83-32-9	E641A	0.01	µg/L	<0.010	----
acenaphthylene	208-96-8	E641A	0.01	µg/L	<0.010	----
anthracene	120-12-7	E641A	0.01	µg/L	<0.010	----
benz(a)anthracene	56-55-3	E641A	0.01	µg/L	<0.010	----
benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	<0.0050	----
benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	<0.010	----
benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	<0.010	----
benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	<0.010	----
chrysene	218-01-9	E641A	0.01	µg/L	<0.010	----
dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	<0.0050	----
fluoranthene	206-44-0	E641A	0.01	µg/L	<0.010	----
fluorene	86-73-7	E641A	0.01	µg/L	<0.010	----
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	<0.010	----
methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	<0.010	----
methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	<0.010	----
naphthalene	91-20-3	E641A	0.05	µg/L	<0.050	----
phenanthrene	85-01-8	E641A	0.02	µg/L	<0.020	----
pyrene	129-00-0	E641A	0.01	µg/L	<0.010	----

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	Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 590358)									
pH	----	E108	----	pH units	7 pH units	100	98.0	102	----
Physical Tests (QCLot: 590359)									
conductivity	----	E100	1	µS/cm	1409 µS/cm	102	90.0	110	----
Anions and Nutrients (QCLot: 590348)									
chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	101	90.0	110	----
Cyanides (QCLot: 590023)									
cyanide, weak acid dissociable	----	E336	0.002	mg/L	0.125 mg/L	95.7	80.0	120	----
mercury, dissolved	7439-97-6	E509	0.000005	mg/L	0.0001 mg/L	102	80.0	120	----
Dissolved Metals (QCLot: 592610)									
antimony, dissolved	7440-36-0	E421	0.0001	mg/L	0.05 mg/L	106	80.0	120	----
arsenic, dissolved	7440-38-2	E421	0.0001	mg/L	0.05 mg/L	105	80.0	120	----
barium, dissolved	7440-39-3	E421	0.0001	mg/L	0.0125 mg/L	108	80.0	120	----
beryllium, dissolved	7440-41-7	E421	0.00002	mg/L	0.005 mg/L	110	80.0	120	----
boron, dissolved	7440-42-8	E421	0.01	mg/L	0.05 mg/L	108	80.0	120	----
cadmium, dissolved	7440-43-9	E421	0.000005	mg/L	0.005 mg/L	106	80.0	120	----
chromium, dissolved	7440-47-3	E421	0.0005	mg/L	0.0125 mg/L	106	80.0	120	----
cobalt, dissolved	7440-48-4	E421	0.0001	mg/L	0.0125 mg/L	106	80.0	120	----
copper, dissolved	7440-50-8	E421	0.0002	mg/L	0.0125 mg/L	105	80.0	120	----
lead, dissolved	7439-92-1	E421	0.00005	mg/L	0.025 mg/L	107	80.0	120	----
molybdenum, dissolved	7439-98-7	E421	0.00005	mg/L	0.0125 mg/L	104	80.0	120	----
nickel, dissolved	7440-02-0	E421	0.0005	mg/L	0.025 mg/L	108	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	102	80.0	120	----
sodium, dissolved	7440-23-5	E421	0.05	mg/L	2.5 mg/L	113	80.0	120	----
thallium, dissolved	7440-28-0	E421	0.00001	mg/L	0.05 mg/L	106	80.0	120	----
uranium, dissolved	7440-61-1	E421	0.00001	mg/L	0.00025 mg/L	112	80.0	120	----
vanadium, dissolved	7440-62-2	E421	0.0005	mg/L	0.025 mg/L	107	80.0	120	----
zinc, dissolved	7440-66-6	E421	0.001	mg/L	0.025 mg/L	110	80.0	120	----
Speciated Metals (QCLot: 592770)									
chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.0005	mg/L	0.025 mg/L	101	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 590565)									
acetone	67-64-1	E611D	20	µg/L	100 µg/L	110	70.0	130	----
benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	89.2	70.0	130	----
bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	80.4	60.0	140	----
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	94.1	70.0	130	----
chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	99.3	70.0	130	----
dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	97.4	70.0	130	----
dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	94.1	70.0	130	----
dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	97.7	70.0	130	----
dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	98.1	70.0	130	----
dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	95.6	70.0	130	----
dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	# 42.6	60.0	140	LCS-L
dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	95.8	70.0	130	----
dichloroethylene, 1,1-	75-35-4	E611D	0.5	µg/L	100 µg/L	90.5	70.0	130	----
dichloroethylene, cis-1,2-	156-59-2	E611D	0.5	µg/L	100 µg/L	90.3	70.0	130	----
dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	92.6	70.0	130	----
dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	98.6	70.0	130	----
dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	99.2	70.0	130	----
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	82.2	70.0	130	----
dichloropropylene, trans-1,3-	10061-02-6	E611D	0.3	µg/L	100 µg/L	78.7	70.0	130	----
ethylbenzene	100-41-4	E611D	0.5	µg/L	100 µg/L	95.7	70.0	130	----
hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	95.3	70.0	130	----
methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	95.7	70.0	130	----
methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	91.8	70.0	130	----
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	95.4	70.0	130	----
styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	88.5	70.0	130	----
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
tetrachloroethane, 1,1,2,2-	79-34-5	E611D	0.5	µg/L	100 µg/L	93.9	70.0	130	----
tetrachloroethylene	127-18-4	E611D	0.5	µg/L	100 µg/L	96.2	70.0	130	----
toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	99.2	70.0	130	----
trichloroethane, 1,1,1-	71-55-6	E611D	0.5	µg/L	100 µg/L	101	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	95.8	70.0	130	----
trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	92.3	60.0	140	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Laboratory Control Sample (LCS) Report: Spike Concentration	Recovery (%): LCS	Recovery Limits (%): Low	Recovery Limits (%): High	Qualifier
Volatile Organic Compounds (QCLot: 590565) - continued									
vinyl chloride	75-01-4	E611D	0.5	µg/L	100 µg/L	67.6	60.0	140	----
xylene, m+p-	179601-23-1	E611D	0.4	µg/L	200 µg/L	96.7	70.0	130	----
xylene, o-	95-47-6	E611D	0.3	µg/L	100 µg/L	93.4	70.0	130	----
Volatile Organic Compounds (QCLot: 592382)									
acetone	67-64-1	E611D	20	µg/L	100 µg/L	110	70.0	130	----
benzene	71-43-2	E611D	0.5	µg/L	100 µg/L	102	70.0	130	----
bromodichloromethane	75-27-4	E611D	0.5	µg/L	100 µg/L	107	70.0	130	----
bromoform	75-25-2	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
bromomethane	74-83-9	E611D	0.5	µg/L	100 µg/L	110	60.0	140	----
carbon tetrachloride	56-23-5	E611D	0.2	µg/L	100 µg/L	102	70.0	130	----
chlorobenzene	108-90-7	E611D	0.5	µg/L	100 µg/L	94.4	70.0	130	----
chloroform	67-66-3	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
dibromochloromethane	124-48-1	E611D	0.5	µg/L	100 µg/L	104	70.0	130	----
dibromoethane, 1,2-	106-93-4	E611D	0.2	µg/L	100 µg/L	97.5	70.0	130	----
dichlorobenzene, 1,2-	95-50-1	E611D	0.5	µg/L	100 µg/L	93.0	70.0	130	----
dichlorobenzene, 1,3-	541-73-1	E611D	0.5	µg/L	100 µg/L	93.0	70.0	130	----
dichlorobenzene, 1,4-	106-46-7	E611D	0.5	µg/L	100 µg/L	93.6	70.0	130	----
dichlorodifluoromethane	75-71-8	E611D	0.5	µg/L	100 µg/L	127	60.0	140	----
dichloroethane, 1,1-	75-34-3	E611D	0.5	µg/L	100 µg/L	96.6	70.0	130	----
dichloroethane, 1,2-	107-06-2	E611D	0.5	µg/L	100 µg/L	103	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	102	70.0	130	----
dichloroethylene, trans-1,2-	156-60-5	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
dichloromethane	75-09-2	E611D	1	µg/L	100 µg/L	102	70.0	130	----
dichloropropane, 1,2-	78-87-5	E611D	0.5	µg/L	100 µg/L	103	70.0	130	----
dichloropropylene, cis-1,3-	10061-01-5	E611D	0.3	µg/L	100 µg/L	103	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	95.8	70.0	130	----
hexane, n-	110-54-3	E611D	0.5	µg/L	100 µg/L	101	70.0	130	----
methyl ethyl ketone [MEK]	78-93-3	E611D	20	µg/L	100 µg/L	108	70.0	130	----
methyl isobutyl ketone [MIBK]	108-10-1	E611D	20	µg/L	100 µg/L	115	70.0	130	----
methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	0.5	µg/L	100 µg/L	100.0	70.0	130	----
styrene	100-42-5	E611D	0.5	µg/L	100 µg/L	100	70.0	130	----
tetrachloroethane, 1,1,1,2-	630-20-6	E611D	0.5	µg/L	100 µg/L	96.8	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	90.0	70.0	130	----
toluene	108-88-3	E611D	0.5	µg/L	100 µg/L	97.5	70.0	130	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Concentration	LCS	Low	High	Qualifier
Volatile Organic Compounds (QCLot: 592382) - continued									
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	98.1	70.0	130	----
trichloroethylene	79-01-6	E611D	0.5	µg/L	100 µg/L	99.4	70.0	130	----
trichlorofluoromethane	75-69-4	E611D	0.5	µg/L	100 µg/L	109	60.0	140	----
vinyl chloride	75-01-4	E611D	0.5	µg/L	100 µg/L	103	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	95.2	70.0	130	----
Hydrocarbons (QCLot: 590564)									
F1 (C6-C10)	----	E581.F1-L	25	µg/L	2000 µg/L	102	80.0	120	----
Hydrocarbons (QCLot: 590688)									
F2 (C10-C16)	----	E601.SG	100	µg/L	5006.18 µg/L	129	70.0	130	----
F3 (C16-C34)	----	E601.SG	250	µg/L	6215.16 µg/L	# 139	70.0	130	LCS-H
F4 (C34-C50)	----	E601.SG	250	µg/L	5553.68 µg/L	96.4	70.0	130	----
Hydrocarbons (QCLot: 592383)									
F1 (C6-C10)	----	E581.F1-L	25	µg/L	2000 µg/L	105	80.0	120	----
Polycyclic Aromatic Hydrocarbons (QCLot: 590687)									
acenaphthene	83-32-9	E641A	0.01	µg/L	0.5263 µg/L	116	50.0	140	----
acenaphthylene	208-96-8	E641A	0.01	µg/L	0.5263 µg/L	107	50.0	140	----
anthracene	120-12-7	E641A	0.01	µg/L	0.5263 µg/L	111	50.0	140	----
benz(a)anthracene	56-55-3	E641A	0.01	µg/L	0.5263 µg/L	120	50.0	140	----
benzo(a)pyrene	50-32-8	E641A	0.005	µg/L	0.5263 µg/L	108	50.0	140	----
benzo(b+j)fluoranthene	n/a	E641A	0.01	µg/L	0.5263 µg/L	113	50.0	140	----
benzo(g,h,i)perylene	191-24-2	E641A	0.01	µg/L	0.5263 µg/L	135	50.0	140	----
benzo(k)fluoranthene	207-08-9	E641A	0.01	µg/L	0.5263 µg/L	124	50.0	140	----
chrysene	218-01-9	E641A	0.01	µg/L	0.5263 µg/L	122	50.0	140	----
dibenz(a,h)anthracene	53-70-3	E641A	0.005	µg/L	0.5263 µg/L	# 142	50.0	140	LCS-H
fluoranthene	206-44-0	E641A	0.01	µg/L	0.5263 µg/L	124	50.0	140	----
fluorene	86-73-7	E641A	0.01	µg/L	0.5263 µg/L	117	50.0	140	----
indeno(1,2,3-c,d)pyrene	193-39-5	E641A	0.01	µg/L	0.5263 µg/L	# 144	50.0	140	LCS-H
methylnaphthalene, 1-	90-12-0	E641A	0.01	µg/L	0.5263 µg/L	112	50.0	140	----
methylnaphthalene, 2-	91-57-6	E641A	0.01	µg/L	0.5263 µg/L	103	50.0	140	----
naphthalene	91-20-3	E641A	0.05	µg/L	0.5263 µg/L	103	50.0	140	----
phenanthrene	85-01-8	E641A	0.02	µg/L	0.5263 µg/L	121	50.0	140	----
pyrene	129-00-0	E641A	0.01	µg/L	0.5263 µg/L	124	50.0	140	----

Qualifiers

Qualifier	Description
LCS-H	Lab Control Sample recovery was above ALS DQO. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.
LCS-L	Lab Control Sample recovery was below ALS DQO. Reference Material and/or Matrix Spike results were acceptable. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.

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: 590348)										
WT2209423-001	16145- MW1	chloride	16887-00-6	E235.Cl	97.1 mg/L	100 mg/L	97.1	75.0	125	----
Cyanides (QCLot: 590023)										
WT2209423-001	16145- MW1	cyanide, weak acid dissociable	----	E336	0.118 mg/L	0.125 mg/L	94.9	75.0	125	----
Dissolved Metals (QCLot: 589991)										
WT2209423-002	16145- MW2	mercury, dissolved	7439-97-6	E509	0.0000902 mg/L	0.0001 mg/L	90.2	70.0	130	----
Dissolved Metals (QCLot: 592610)										
WT2209423-002	16145- MW2	antimony, dissolved	7440-36-0	E421	0.0541 mg/L	0.05 mg/L	108	70.0	130	----
		arsenic, dissolved	7440-38-2	E421	0.0569 mg/L	0.05 mg/L	114	70.0	130	----
		barium, dissolved	7440-39-3	E421	ND mg/L	0.0125 mg/L	ND	70.0	130	----
		beryllium, dissolved	7440-41-7	E421	0.00550 mg/L	0.005 mg/L	110	70.0	130	----
		boron, dissolved	7440-42-8	E421	ND mg/L	0.05 mg/L	ND	70.0	130	----
		cadmium, dissolved	7440-43-9	E421	0.00532 mg/L	0.005 mg/L	106	70.0	130	----
		chromium, dissolved	7440-47-3	E421	0.0134 mg/L	0.0125 mg/L	107	70.0	130	----
		cobalt, dissolved	7440-48-4	E421	0.0129 mg/L	0.0125 mg/L	103	70.0	130	----
		copper, dissolved	7440-50-8	E421	ND mg/L	0.0125 mg/L	ND	70.0	130	----
		lead, dissolved	7439-92-1	E421	0.0251 mg/L	0.025 mg/L	100	70.0	130	----
		molybdenum, dissolved	7439-98-7	E421	0.0134 mg/L	0.0125 mg/L	108	70.0	130	----
		nickel, dissolved	7440-02-0	E421	0.0254 mg/L	0.025 mg/L	102	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	0.00471 mg/L	0.005 mg/L	94.2	70.0	130	----
		sodium, dissolved	7440-23-5	E421	ND mg/L	2.5 mg/L	ND	70.0	130	----
		thallium, dissolved	7440-28-0	E421	0.0498 mg/L	0.05 mg/L	99.7	70.0	130	----
		uranium, dissolved	7440-61-1	E421	ND mg/L	0.00025 mg/L	ND	70.0	130	----
		vanadium, dissolved	7440-62-2	E421	0.0274 mg/L	0.025 mg/L	109	70.0	130	----
		zinc, dissolved	7440-66-6	E421	0.0270 mg/L	0.025 mg/L	108	70.0	130	----
Speciated Metals (QCLot: 592770)										
WT2209423-001	16145- MW1	chromium, hexavalent [Cr VI], dissolved	18540-29-9	E532A	0.0398 mg/L	0.04 mg/L	99.6	70.0	130	----
Volatile Organic Compounds (QCLot: 590565)										
WT2209620-001	Anonymous	acetone	67-64-1	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		benzene	71-43-2	E611D	107 µg/L	100 µg/L	107	60.0	140	----
		bromodichloromethane	75-27-4	E611D	107 µg/L	100 µg/L	107	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: 590565) - continued										
WT2209620-001	Anonymous	bromoform	75-25-2	E611D	94.2 µg/L	100 µg/L	94.2	60.0	140	----
		bromomethane	74-83-9	E611D	81.6 µg/L	100 µg/L	81.6	60.0	140	----
		carbon tetrachloride	56-23-5	E611D	110 µg/L	100 µg/L	110	60.0	140	----
		chlorobenzene	108-90-7	E611D	98.6 µg/L	100 µg/L	98.6	60.0	140	----
		chloroform	67-66-3	E611D	107 µg/L	100 µg/L	107	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	99.1 µg/L	100 µg/L	99.1	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	100 µg/L	100 µg/L	100	60.0	140	----
		dichlorobenzene, 1,4-	106-46-7	E611D	97.1 µg/L	100 µg/L	97.1	60.0	140	----
		dichlorodifluoromethane	75-71-8	E611D	41.8 µg/L	100 µg/L	41.8	60.0	140	K
		dichloroethane, 1,1-	75-34-3	E611D	110 µg/L	100 µg/L	110	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	93.9 µg/L	100 µg/L	93.9	60.0	140	----
		dichloroethylene, cis-1,2-	156-59-2	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		dichloroethylene, trans-1,2-	156-60-5	E611D	93.1 µg/L	100 µg/L	93.1	60.0	140	----
		dichloropropane, 1,2-	78-87-5	E611D	106 µg/L	100 µg/L	106	60.0	140	----
		dichloropropylene, cis-1,3-	10061-01-5	E611D	82.6 µg/L	100 µg/L	82.6	60.0	140	----
		dichloropropylene, trans-1,3-	10061-02-6	E611D	78.3 µg/L	100 µg/L	78.3	60.0	140	----
		ethylbenzene	100-41-4	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		hexane, n-	110-54-3	E611D	98.0 µg/L	100 µg/L	98.0	60.0	140	----
		methyl ethyl ketone [MEK]	78-93-3	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		methyl isobutyl ketone [MIBK]	108-10-1	E611D	96 µg/L	100 µg/L	95.7	60.0	140	----
		methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	101 µg/L	100 µg/L	101	60.0	140	----
		styrene	100-42-5	E611D	91.6 µg/L	100 µg/L	91.6	60.0	140	----
		tetrachloroethane, 1,1,1,2-	630-20-6	E611D	108 µg/L	100 µg/L	108	60.0	140	----
		tetrachloroethane, 1,1,2,2-	79-34-5	E611D	97.8 µg/L	100 µg/L	97.8	60.0	140	----
		tetrachloroethylene	127-18-4	E611D	98.6 µg/L	100 µg/L	98.6	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	107 µg/L	100 µg/L	107	60.0	140	----
		trichloroethane, 1,1,2-	79-00-5	E611D	105 µg/L	100 µg/L	105	60.0	140	----
		trichloroethylene	79-01-6	E611D	99.3 µg/L	100 µg/L	99.3	60.0	140	----
		trichlorofluoromethane	75-69-4	E611D	96.5 µg/L	100 µg/L	96.5	60.0	140	----
		vinyl chloride	75-01-4	E611D	68.4 µg/L	100 µg/L	68.4	60.0	140	----
		xylene, m+p-	179601-23-1	E611D	201 µg/L	200 µg/L	100	60.0	140	----
		xylene, o-	95-47-6	E611D	98.2 µg/L	100 µg/L	98.2	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: 592382)										
WT2209423-007	16145- MW8	acetone	67-64-1	E611D	99 µg/L	100 µg/L	99.3	60.0	140	----
		benzene	71-43-2	E611D	98.6 µg/L	100 µg/L	98.6	60.0	140	----
		bromodichloromethane	75-27-4	E611D	103 µg/L	100 µg/L	103	60.0	140	----
		bromoform	75-25-2	E611D	91.6 µg/L	100 µg/L	91.6	60.0	140	----
		bromomethane	74-83-9	E611D	89.1 µg/L	100 µg/L	89.1	60.0	140	----
		carbon tetrachloride	56-23-5	E611D	99.2 µg/L	100 µg/L	99.2	60.0	140	----
		chlorobenzene	108-90-7	E611D	90.5 µg/L	100 µg/L	90.5	60.0	140	----
		chloroform	67-66-3	E611D	97.0 µg/L	100 µg/L	97.0	60.0	140	----
		dibromochloromethane	124-48-1	E611D	97.1 µg/L	100 µg/L	97.1	60.0	140	----
		dibromoethane, 1,2-	106-93-4	E611D	90.0 µg/L	100 µg/L	90.0	60.0	140	----
		dichlorobenzene, 1,2-	95-50-1	E611D	91.8 µg/L	100 µg/L	91.8	60.0	140	----
		dichlorobenzene, 1,3-	541-73-1	E611D	91.7 µg/L	100 µg/L	91.7	60.0	140	----
		dichlorobenzene, 1,4-	106-46-7	E611D	91.2 µg/L	100 µg/L	91.2	60.0	140	----
		dichlorodifluoromethane	75-71-8	E611D	64.6 µg/L	100 µg/L	64.6	60.0	140	----
		dichloroethane, 1,1-	75-34-3	E611D	135 µg/L	100 µg/L	135	60.0	140	----
		dichloroethane, 1,2-	107-06-2	E611D	96.7 µg/L	100 µg/L	96.7	60.0	140	----
		dichloroethylene, 1,1-	75-35-4	E611D	94.8 µg/L	100 µg/L	94.8	60.0	140	----
		dichloroethylene, cis-1,2-	156-59-2	E611D	96.3 µg/L	100 µg/L	96.3	60.0	140	----
		dichloroethylene, trans-1,2-	156-60-5	E611D	93.0 µg/L	100 µg/L	93.0	60.0	140	----
		dichloromethane	75-09-2	E611D	94.9 µg/L	100 µg/L	94.9	60.0	140	----
		dichloropropane, 1,2-	78-87-5	E611D	99.3 µg/L	100 µg/L	99.3	60.0	140	----
		dichloropropylene, cis-1,3-	10061-01-5	E611D	94.4 µg/L	100 µg/L	94.4	60.0	140	----
		dichloropropylene, trans-1,3-	10061-02-6	E611D	88.8 µg/L	100 µg/L	88.8	60.0	140	----
		ethylbenzene	100-41-4	E611D	94.1 µg/L	100 µg/L	94.1	60.0	140	----
		hexane, n-	110-54-3	E611D	91.9 µg/L	100 µg/L	91.9	60.0	140	----
		methyl ethyl ketone [MEK]	78-93-3	E611D	89 µg/L	100 µg/L	88.9	60.0	140	----
		methyl isobutyl ketone [MIBK]	108-10-1	E611D	102 µg/L	100 µg/L	102	60.0	140	----
		methyl-tert-butyl ether [MTBE]	1634-04-4	E611D	97.0 µg/L	100 µg/L	97.0	60.0	140	----
		styrene	100-42-5	E611D	95.2 µg/L	100 µg/L	95.2	60.0	140	----
		tetrachloroethane, 1,1,1,2-	630-20-6	E611D	92.3 µg/L	100 µg/L	92.3	60.0	140	----
		tetrachloroethane, 1,1,2,2-	79-34-5	E611D	90.9 µg/L	100 µg/L	90.9	60.0	140	----
		tetrachloroethylene	127-18-4	E611D	85.2 µg/L	100 µg/L	85.2	60.0	140	----
		toluene	108-88-3	E611D	96.0 µg/L	100 µg/L	96.0	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	91.6 µg/L	100 µg/L	91.6	60.0	140	----
		trichloroethylene	79-01-6	E611D	95.5 µg/L	100 µg/L	95.5	60.0	140	----
		trichlorofluoromethane	75-69-4	E611D	96.4 µg/L	100 µg/L	96.4	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: 592382) - continued										
WT2209423-007	16145- MW8	vinyl chloride	75-01-4	E611D	79.1 µg/L	100 µg/L	79.1	60.0	140	----
		xylene, m+p-	179601-23-1	E611D	194 µg/L	200 µg/L	97.2	60.0	140	----
		xylene, o-	95-47-6	E611D	92.7 µg/L	100 µg/L	92.7	60.0	140	----
Hydrocarbons (QCLot: 590564)										
WT2209620-001	Anonymous	F1 (C6-C10)	----	E581.F1-L	1890 µg/L	2000 µg/L	94.4	60.0	140	----
Hydrocarbons (QCLot: 592383)										
WT2209423-007	16145- MW8	F1 (C6-C10)	----	E581.F1-L	1860 µg/L	2000 µg/L	93.1	60.0	140	----

Qualifiers

Qualifier	Description
K	*Matrix Spike recovery outside ALS DQO due to sample matrix effects.*

Chain of Custody (COC) / Analytical Request Form

COC Numbe

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Environmental Division
Waterloo
Work Order Reference
WT2209423

Telephone : +1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	Haddad Geo
Contact:	Rico Van
Phone:	905 475 0951
	Company address below will appear on the final report
Street:	151 Amber st
City/Province:	Markham Ont
Postal Code:	L3R 3B3
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 info@haddadgeo.com
Email 2
Email 3

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax accounts@haddadgeo.com
Email 2

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
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge
☐ Same day [E2] if received by 10am M-S - 200% rush surcha may apply to rush requests on weekends, statutory holidays a

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:
Job #: 16145
PO / AFE:
LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#
Major/Minor Code: Routing Code:
Requisitioner:
Location:

ALS Lab Work Order # (ALS use only):
ALS Contact: Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS 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	Metal + Inorganics	PHCs	VOCs, BTEX	PAHs	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	16145 - MW1	03-008-22	08:00	GW		x	x	x				
	16145 - MW2					x	x	x	x			
	16145 - MW3					x	x	x	x			
	16145 - MW4					x	x	x	x			
	16145 - MW5					x	x	x				
	16145 - MW7					x	x	x				
	16145 - MW8					x	x	x	x			
	TRIP BLANK							x				

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 (ALS 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				14.6	14.1		

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
BS	Aug 3/22	14:00

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
	08/03/22	5:30 pm

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**.

9-8, 9-6

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

COC Number:

Environmental Division Waterloo

Work Order Reference

WT2209423

Telephone : + 1 519 886 6910

Report To	Contact and company name below will appear on the final report
Company:	Haddad Geo
Contact:	Rico Van
Phone:	905 475 0951
Company address below will appear on the final report	
Street:	151 Amber st
City/Province:	Markham Ont
Postal Code:	L3R 3B3
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: info@haddadgeo.com

Email 2:

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accounts@haddadgeo.com

Email 2:

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

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge

☐ Same day [E2] if received by 10am M-S - 200% rush surcha may apply to rush requests on weekends, statutory holidays al

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information

ALS Account # / Quote #:

Job #: 16145

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#:

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (ALS use only):

ALS Contact: Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (ALS 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 + Inorganics	PHCs	VOCs, BTEX	PAHs	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	16145 - MW1	03-Aug-22	08:00	GW		x	x	x				
	16145 - MW2					x	x	x	x			
	16145 - MW3					x	x	x	x			
	16145 - MW4					x	x	x	x			
	16145 - MW5					x	x	x				
	16145 - MW7					x	x	x				
	16145 - MW8					x	x	x	x			
	TRIP BLANK							x				

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 (ALS 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				14.6	14.1		

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
[illegible]	Aug 3/22	14:00

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
[illegible]	08/03/22	5:30 pm

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.

9-8, 9-6

Appendix “D”

Residue Management

1. Residues, including drill spoils from the drilling operations remained on site, until the commencement of excavation for remediation of the site, at which they will be removed and disposed of.

Appendix “E”

Survey of Phase 2 Property

SURVEYOR'S REAL PROPERTY REPORT

PART 1:

PLAN OF PART OF LOT 10
CONCESSION 1
NORTH OF DUNDAS STREET
CITY OF MISSISSAUGA

REGIONAL MUNICIPALITY OF PEEL

SCALE 1 : 200

0 2 4 6 8 20m

AKSAN PILLER CORPORATION LTD.

PART 2:

PREPARED FOR KJC PROPERTIES INC.

LOCATION OF THE BUILDING:	WHOLLY ON THE PROPERTY,
EAVES:	CLEAR,
UTILITY BUILDINGS:	AS SHOWN ON PART 1,
DECKS:	AS SHOWN ON PART 1,
SWIMMING POOLS:	NONE,
EXISTING FENCES:	GENERALLY ALONG THE PROPERTY LINES, WITH DEVIATIONS AS SHOWN ON PART 1,
EASEMENTS:	AS SHOWN ON PART 1,
DRIVEWAY:	AS SHOWN ON PART 1.

NOTE: SEVERAL PEDESTRIAN WALKWAY ALONG DUNDAS STREET EAST AND HAINES ROAD TRESPASSING ACROSS THE 0.30 RESERVE.

LEGEND:

■	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT PLANTED
IB	DENOTES	IRON BAR
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR
CC	DENOTES	CUT CROSS
CP	DENOTES	CONCRETE PIN
WIT	DENOTES	WITNESS MONUMENT
O/U	DENOTES	ORIGIN UNKNOWN
N	DENOTES	NORTH
S	DENOTES	SOUTH
E	DENOTES	EAST
W	DENOTES	WEST
F.c.	DENOTES	FENCE
CLF	DENOTES	CHAIN LINK FENCE
BF	DENOTES	BOARD FENCE
IF	DENOTES	IRON FENCE
WF	DENOTES	WOOD FENCE
MH	DENOTES	MANHOLE
CB	DENOTES	CATCH BASIN
UP	DENOTES	UTILITY POLE
TS	DENOTES	TRAFFIC SIGN
FH	DENOTES	FIRE HYDRANT
HW	DENOTES	HAND WELL
CKW	DENOTES	CONCRETE KNEE WALL
SRW	DENOTES	STONE RETAINING WALL
CBRW	DENOTES	CONCRETE BLOCK RETAINING WALL
LP	DENOTES	LAMP POST
B	DENOTES	BOLLARD
GW	DENOTES	GUY WIRE
TC	DENOTES	TOP OF CURB
TW	DENOTES	TOP OF WALL
GLB	DENOTES	GROUND LEVEL BOX
UBX	DENOTES	UTILITY BOX
CBX	DENOTES	CABLE BOX
NS	DENOTES	NEWSPAPER STAND
SGN	DENOTES	SIGNAGE
WV	DENOTES	WATER VALVE
CONC	DENOTES	CONCRETE
P1	DENOTES	PLAN 43R-14243
P2	DENOTES	PLAN 43R-32247
P3	DENOTES	PLAN 43R-33383
DBS	DENOTES	DAVID B. SEARLES SURVEYING, O.L.S. (Oct. 3, 1989)
✳	DENOTES	INACCESIBLE AND OBSTRUCTED
⌀0.50	DENOTES	TREE TRUNK DIAMETER
	DENOTES	TRANS NORTHERN PIPELINE EASEMENT AS IN INST. No. RO970404
	DENOTES	SEWER EASEMENT AS IN INST. No. 504675

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2193969
THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR In accordance with Regulation 1026, Section 29(3).

METRIC:
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

BEARING NOTE:
BEARINGS ARE UTM GRID, DERIVED FROM GNSS OBSERVATIONS, USING A REAL TIME KINEMATIC SERVICE, ON MONUMENTS 1 & 2, SHOWN HEREON, HAVING A BEARING OF N38°03'50"E, AND ARE REFERRED TO THE CENTRAL MERIDIAN OF UTM ZONE 17 (81° 00' WEST LONGITUDE) NAD83 (CSRS) (2010).

NOTES:
DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.9996.

POINT ID	NORTHING	EASTING
1 ORP	4828020.72	613154.15
2 ORP	4828143.96	613250.65
3	4828051.50	613232.04
4	4828205.78	613175.60
5	4828096.73	613090.91

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

OBSERVED REFERENCE POINTS (ORPs) ARE DERIVED FROM GPS OBSERVATIONS USING REAL TIME KINEMATIC (RTK) SERVICE, MTM ZONE 10, NAD 83 (CSRS) (1997.0). COORDINATES ARE TO URBAN ACCURACY AS IN SEC. 14 (2), O.REG. 216/10.

ELEVATIONS NOTE:
ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE DERIVED FROM THE CITY OF MISSISSAUGA BENCH MARK 695, ELEVATION = 139.524 m. ON THE EAST FACE OF THE EST PARAPET WALL OF THE EAST STEPS OF THE ST. JOHN THE BAPTIST ANGLICAN CHURCH ON THE NORTH SIDE OF DUNDAS STREET EAST, 61M EAST OF CAWTHRA ROAD.

CAUTION:
TREE CALIPERS ARE NOT TO ARBORIST STANDARDS AND ARE DEFINED AT 1.4m ABOVE GRADE AT TREE FOR ARBORIST CALIPER REFER TO ARBORIST REPORT.

SURVEYOR'S CERTIFICATE:
I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 18th DAY OF MAY, 2022.

MAY 30, 2022
DATE

HELMUT PILLER
Ontario Land Surveyor

AKSAN PILLER CORPORATION LTD
ONTARIO LAND SURVEYORS
943 MT PLEASANT ROAD, TORONTO, ONTARIO, M4P 2L7
(T) 416-488-1174 (F) 416-488-7845 (E) sp@apsurveys.ca www.apsurveys.ca
CALC: MJ DRAWN: LF CHECKED: HP
reference number: 22-24-14617-00

Appendix “F”

Phase Two Conceptual Site Model

Phase Two Conceptual Site Model
805 Dundas Street East
Mississauga, Ontario

1. Introduction

1. The following document is the Phase Two Conceptual Site Model (Phase Two CSM) of the Phase Two Property (the property), identified with the municipal address of 805 Dundas Street East, Mississauga.

2. The site under consideration lies on the north (nominal) side of the Dundas Street East, between Haines Road and Cedar Creek Lane, in the City of Mississauga (see Key Map, Drawing No. 1).

3. The subject property has a total area of 0.28 acres (0.1120 Ha). The subject property was occupied by a retail plaza, with four detached, single-storey buildings. The areas of the property beyond the limits of the above-noted buildings are occupied by asphalt-paved driveways and parking areas. The approximate UTM coordinates for the site are 613180E, 4828115N.

4. The property information is presented as follows:

Municipal Address	799, 801, 803 and 805 Dundas Street East, City of Mississauga, Ontario L4Y 2B7
PIN	13318-0045 (LT)
Assessment Roll No.	2105040068203000000
Area, Ha	0.1120
Property Ownership Information: Registered Owners	KJC Properties Inc. 1940 Ellesmere Road Scarborough, Ontario M1H 2V6

5. The subject property was initially developed in the mid 1980s for commercial use and is currently used as commercial plaza and parking lot for retail, restaurant and service businesses.

6. The Client proposes to redevelop the Phase One property for residential use. The Phase One and Two ESA is required to document site condition and the Record of Site Condition will be required as part of development and change in use of the property. This assessment was conducted in general compliance with the requirements of the Ontario Ministry of Environment (MOE) Regulation 153/04 (amended by 511/09) Record of Site Condition.

7. The proposed and future land use of the Property is to be residential.

8. The Phase One Study area was considered as areas within 250m of the outer property limits of the Property, as shown on Drawing No. 1.

9. Based on review of chain of title of the Phase One property and review of municipal directories as well as Fire Insurance Plans (FIPs) available for the area, it was determined that the Site was initially developed in the mid-1980s for commercial use.

2. Information from Phase One Environmental Site Assessment

2.1 Areas where Potentially Contaminating Activity (PCA) has occurred

1. There were on-site and off-site PCAs identified within the Phase One study area, which may be contributing to area of potential environmental concern (APEC) at the Phase One property, as defined in Table 2 of Schedule D, of Ontario Regulation 153/04 Records of Site Condition – Part XV.1 of The Environmental Protection Act. These PCAs are listed as follows, and summarized in Table No. 1, with locations as shown on Drawing No. 2:

On-site PCAs:

- **PCA1:** Existing and former use of the most easterly unit of the 801 Dundas Street East building as a dry-cleaner operation, with documented waste generation of halogenated solvent including perchloroethylene (also known as trichloroethylene). High potential for migration of contaminants, including volatile organic compounds (VOCs) into soils and groundwater on the Property. It noted that the presence of existing monitoring wells to the south and southeast of the above-noted unit suggest a previous investigation of soils and groundwater may have been conducted but no report was available for our review.
- **PCA2:** Previous ownership of portions of Phase One property by pipeline company and construction companies, potential use of site for storage of construction materials, maintenance of construction equipment, specific location of Phase One property unknown. High potential for migration of contaminants, metals, petroleum hydrocarbons (PHCs), VOCs, polyaromatic hydrocarbons (PAHs) into soils and groundwater below property**.**
- **PCA3:** Use of Phase One property as a vehicle parking lot for retail plaza since 1980s. Potential for leaks of automotive fluids, migration of contaminants including PHCs, VOCs into soils and groundwater below property**.**
- **PCA4:** Use of Phase One property as a vehicle parking lot for retail plaza since 1980s. Potential for use of salt and other substances for de-icing for public and vehicle safety. Potential migration of contaminants including sodium adsorption ratio (SAR), electrical conductivity (EC) into soils, sodium and chlorides into groundwater below property.

Off-site PCAs:

- **PCA5:** Adjacent and up-gradient property to northwest, 3803 Haines Road, records of site condition for property indicates former presence of an underground fuel storage tank, in 2007. Medium potential for contaminants from leaks of fuels (petroleum hydrocarbons, VOCs, metals) from underground storage tank into soil and groundwater in southeast section of Property
- **PCA6:** Gasoline Station at 820 Dundas Street East, 96.9m east-southeast and cross gradient to lower parts of the south portion of the Phase One property. Existing and former underground fuel storage tanks, one record of surface spill of petroleum product and waste generation of petroleum distillates, waste oils/sludges, light fuels. Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from underground storage tanks and surface spill into soil and groundwater in southeast section of Property
- **PCA7:** Automobile repair business (Active Green & Ross) at 844 Dundas Street East, east and cross gradient to lower parts of the south portion of the Phase One property. Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals)

from repair operations into soil and groundwater in southeast section of Property.

Table No. 1
List of Potentially Contaminating Activities (PCAs)

PCA number	Address	Location to RSC Property	Description	Potential APEC on the property (yes/no)	Justification
PCA1	801 Dundas Street East	On-Site, northeast portion	Use of east portion of 801 Dundas building as dry-cleaning businesses, 1980s to 2022	Yes	High potential for migration of contaminants from dry-cleaning operations into soil and groundwater on the Property.
PCA2	799, 801, 803, 805 Dundas Street East	On-Site, entire site	Former ownership of portion of property by pipeline company and construction companies	Yes	High potential for migration of contaminants from storage of construction materials, maintenance of construction vehicles into soil and groundwater on the Property.
PCA3	799, 801, 803, 805 Dundas Street East	On-Site, entire site	Use of Phase One property as a vehicle parking lot for retail plaza since 1980s	Yes	High potential for migration of contaminants from leaks of automotive fluids into soil and groundwater on the Property.
PCA4	799, 801, 803, 805 Dundas Street East	On-Site, entire site	Use of Phase One property as a vehicle parking lot for retail plaza since 1980s	Yes	High potential for migration of contaminants from salt and other substances for de-icing operations, into soil and groundwater on the Property.
PCA5	3803 Haines Road	Off-Site, northwest adjacent property	Historical underground fuel storage tank	Yes	High potential for migration of contaminants from storage of fuel in underground tank on adjacent upgradient property into soil and groundwater on the Property.
PCA6	820 Dundas Street East	Off-Site, east-southeast	Existing and historical gasoline service station	Yes	Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from underground storage tanks and surface spill into soil and groundwater in southeast section of Property
PCA7	844 Dundas Street East	Off-site, east	Automobile repair business	Yes	Medium potential for migration of contaminants (petroleum hydrocarbons, VOCs, metals) from repair operations into soil and groundwater in southeast section of Property
PCA8	2576 Haines Road	Off-site, east-southeast	Automobile repair businesses	No	Low potential for migration of contaminants (PHCs, BTEX, VOCs) into groundwater on the Property, due to distance and down-gradient location.
PCA9	776 Dundas Street East	Off-site, south	Automobile repair business	No	Low potential for migration of contaminants (PHCs, BTEX, VOCs) into groundwater on the Property, due to distance and down-gradient location.

2.2 Areas of Potential Environmental Concern (APECs)

1. Areas of Potential Environmental Concern (APECs) were identified by the Qualified Person in the Phase One ESA, as listed in Table No. 2, below, and as shown on plan view on Drawing No. 3.

Table No. 2
Table of Areas of Potential Environmental Concern
(Refer to Clause 16(2)(a), Schedule D, O.Reg. 153/04)
799, 801, 803, 805 Dundas Street East, Mississauga, PIN 13318-0045 (LT)

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potential Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC-1	Entire Area of Phase One Property	Not applicable-Parking Lot	PCA1 On-site	PHCs BTEX VOCs	Soils and Groundwater
APEC 2	Entire Area of Phase One Property North section of Phase One Property	Not applicable-Parking Lot	PCA2 On-site	SAR, Conductivity Sodium, Chlorides	Soils Groundwater
APEC3	Southeast Section of Phase One Property	37. Operation of Dry-Cleaning Equipment (where chemicals are used)	PCA3 Off-site (southeast)	VOCs	Groundwater
APEC4	Southeast section of Phase One Property	Not Applicable - Funeral Home	PCA4 On-Site (south)	VOCs	Groundwater
APEC5	Southwest Section of Phase One Property	54. Textile Manufacturing and Processing	PCA5 Off-site (southwest)	PHCs BTEX VOCs	Groundwater
APEC6	Southwest Section of Phase One Property	57. Vehicles and Associated Parts Manufacturing	PCA6 Off-site (southwest)	PHCs BTEX VOCs	Groundwater

2.3 Subsurface Structures and Utilities

1. Any subsurface structures and utilities on in or under the Phase Two Property may affect contaminant distribution and migration.

3. Physical Setting of the Phase Two Property

3.1 Site Stratigraphy

1. Details of subsurface information, including soils and groundwater for the Property are summarized below. The locations of boreholes and monitoring wells and orientation of sections are presented on Drawing No. 4. The subsurface information is presented in cross-sections, as labelled on Drawing Nos. 5 and 6.

2. The fieldwork carried out on July 11th and 15th, 2022, consisted of the following:
   - Drilling of eight sampled boreholes at the approximate locations as shown on the Proposed Site Plan, Drawing No. 5.
   - Installation of eight monitoring wells for measurement of groundwater levels and obtaining water samples.
   - Borehole Nos. 1 to 4 were advanced to depths ranging from 5.8±m to 16.8±m below existing grades using a rubber-tracked drilling equipment with 100mm diameter, continuous flight augers. Samples were obtained with a split spoon sampler, driven by a 140-lb hammer, falling 30" (760mm).

3. The soil stratigraphy from the ground surface to the deepest aquifer investigated is summarized as follows:

Surficial Materials:

- The surficial materials at Borehole Nos. 1, 2, 3 and 7 were observed to consist of 100±mm of asphalt, underlain by 100±mm of granular materials. The surficial materials at Borehole No. 5 were observed to consist of 100±mm of grass and topsoil. The surficial materials at Borehole No. 8 were observed to consist of 100±mm of concrete slab.

Natural soils:

- Disturbed native materials consisting of loose to compact sand and/or or sandy silt with trace gravels and trace silt and occasional crushed stone/rock, in moist condition and brown in colour, were observed below the surficial materials at borehole locations 1, 2, 3, 5, 7 and 8 and extended to depths of 2.3±m, 1.5±m, 1.5±m, 1.5±m, 1.5±m and 1.5±m below the existing grades, respectively.
- Natural, medium dense to very dense, sand subsoils with trace to some gravels and trace silt were observed to underlie the fill materials at borehole locations 2, 3, 5, 7 and 8 and extended to 7.3±m, 7.6±m, 6.1±m, 2.3±m, and 6.1±m below existing grades, respectively.
- Natural, medium dense to very dense, silty sand or silty sand till subsoils with trace gravels and trace clay were observed to underlie the fill materials at borehole location 1 and upper natural subsoils at borehole locations 3, 5 and 7 and extended to 7.3±m, 7.8±m, 6.3±m, and 5.2±m below existing grades, respectively.
- The surface of weathered bedrock was encountered at depths of 7.3±m, 7.3±m, 7.6±m, 6.3±m, 5.2±m and 6.1±m depths below existing grades at Borehole Nos. 1, 2, 3, 5, 7 and 8 respectively (elevations ranging from 117.3±m to 120.6±m).

4. The results of gradation analyses carried out on representative samples of the native sand soils, encountered in the boreholes, indicated that samples of the natural sand subsoils contain49% to 93% sand sizes and finer for all of the samples tested. On this basis. The site condition standard for fine to medium textured soil criteria was applied.

3.2 Hydrogeological Characteristics

1. A description of hydrogeological characteristics, including aquifers, aquitards and in each hydro stratigraphic unit where one or more contaminants is present at concentration above the applicable site standards, lateral and vertical gradients, is presented as follows:

2. Topsoil and natural disturbed sandy silt soils were encountered extending to depth of 1.5m to 2.3±m below the existing grades, overlying natural silty sand. Wet seams in natural silty sand till represent an aquifer.

3. A lower stratum of lower permeability, which would present an aquitard was silty sand till encountered at depth of 5.2m to 7.8m, and the weathered shale bedrock encountered at 5.2m to 7.6m depth below grade.

4. Eight monitoring wells were installed on the Phase Two property to depths of 5.8m to 16.8m below existing grades. The depths to the water table measured in monitoring wells on the Property are presented on Drawing No. 7 and summarized in Table No. 3, below.

Table No. 3
Measured Water Levels

Monitoring Well (BH) No.	Existing Grade Elevation, ±m	Reading on July 19, 2022		Reading on July 27, 2022		Reading on August 08, 2022	
		Depth, ±m	Groundwater Elevation at or below, ±m	Depth, ±m	Groundwater Elevation at or below, ±m	Depth, ±m	Groundwater Elevation at or below, ±m
1	124.6	3.83	120.8	4.91	119.7	4.95	119.7
2	126.0	5.20	120.8	5.16	120.8	5.22	120.8
3	125.6	5.80	119.8	5.84	119.8	5.86	119.7
4	125.6	4.80	120.8	5.79	119.8	5.75	119.9
5	124.4	5.79	118.6	6.36	118.0	6.41	118.0
6	124.4	dry	<118.6	dry	<118.6	dry	<118.6
7	125.8	4.92	120.9	5.33	120.5	5.42	120.4
8	126.4	2.84	123.6	2.84	123.6	2.89	123.5

5. The direction of groundwater flow is from north to south. The gradients in groundwater levels across the site, from north to south, across the area of the subject property are approximately 5.3%. The vertical gradient is downward from the measured water levels to the surface of bedrock which acts as an aquitard.

3.3 Depth to Bedrock

1. The surface of weathered shale bedrock was encountered at depths of 6.1m to 7.6m below existing grade, elevation 117.3m to 120.6m.

3.4 Depth to Water Table

1. The depth to the water table is at depths ranging from 2.84m to 6.41m below existing grades, as per monitoring wells installed on site and may be attributed to wet condition of the natural sand soils, representing a perched groundwater condition above weathered shale bedrock.

3.5 Application of Sections 41 or 43.1 of O.Reg. 153/04

1. Section 41 of O.Reg. 153/04 does not apply to the Phase Two Property based on the following rationale:
    - The Property is not located within an area of natural significance
    - The Property does not include and is not adjacent to an area of natural significance
    - The property does not include land that is within 30m of and an area of natural significance or is part of such an area
    - The property has a pH value of not less than 5 and not greater than 9 in surface soils.
    - The property has a pH value of not less than 5 and not greater than 9 in subsurface soils.

2. Section 43.1 of O.Reg. 153/04 does not apply to the Phase Two property based on the following rationale:
    - The Property is not considered to be a shallow soil property
    - The Property does not include all or part of a water body
    - The Property is not adjacent to a water body
    - The Property does not include lands which are within 30m of a water body.

3.6 Soils Placed In, On or Under the Phase Two Property

1. Based on the findings of the Phase Two ESA, imported soils having been placed on the Phase Two property are limited to basecourses below asphalt pavement which extends over the entire area of the Phase Two property.

2. No additional soils were imported to the Phase Two property during the current investigation.

3.7 Proposed Buildings and other Structures

1. The proposed development concept plans for the project, prepared by Kirkor Architects and Planners, and presented in Appendix “A”, indicate that the proposed redevelopment of the subject site consisting of:
    - the construction of a new, twelve (12) storey, mixed-use, residential building (Building A), which will be occupied southern (nominal) portion of the site along Dundas Street.
    - the construction of three separate three-storey buildings (Building B, C and D) with total of 20 conventional townhouses, which will be occupied northern (nominal) portion of the site.
    - the construction of hard and soft landscaping, driveway, and access road network.

2. The proposed concept plans for the project, prepared by Kirkor Architects and Planners, and presented in Appendix “A”, also indicate that all proposed buildings at the subject site, will be constructed over two (2) underground parking levels. The elevations of the underground levels were not available at the time of writing this letter.

4. Contamination in or Under the Phase Two Property

4.1 Applicable Site Condition Standard

1. The applicable assessment criteria from Ontario Regulation 153/04 (as amended), for the assessment of analysis data of testing of soil and groundwater samples was made on the following basis:
    - The site is not considered to be sensitive, based on the definition set in O.Reg. 153/04;
    - Groundwater in the vicinity of the subject property in the City of Mississauga is considered to be potable;
    - Full depth restoration is to be used;
    - The proposed land use is residential.
    - The findings of the gradation analyses indicate that samples of the natural subsoils contain more than 50% silt sizes and finer, so may be considered to be fine to medium-grained soils.

2. In light of the above, the criteria originally selected for the project is Ontario Ministry of the Environment (MECP), "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 15, 2011, Table 2, "Full Depth Generic Condition Standards in Potable Water Condition", for sites in residential/parkland property uses for fine to medium grained soils.

4.2 Media Investigated

1. Based on the potentially contaminating activities identified in the Phase One ESA for the Property, it was determined that sampling and analysis was required for the soil and groundwater on the Property. Sample Locations were selected to investigate all APECs as identified in the Phase One ESA. As surface water was not present on the Property, sampling of sediment was not conducted.

4.3 Sampling Rationale and Areas where Contaminants are Present

1. The list of all APECs that were identified in the Phase One ESA is presented in Table 2, above.

2. A sampling and analysis plan was prepared and implemented in accordance with the requirement of Section 3 of Schedule E. The sampling plan indicated assurance and quality control (QA/QC) sampling. Field duplicate samples were obtained and evaluated at rate of one duplicate for every ten or less of the number of samples submitted, for each contaminant group evaluated. Trip blanks for VOCs and BTEX analysis were submitted for soils and groundwater sampling events.

3. Soil samples were obtained and analyzed for sodium adsorption ratio, conductivity, metals petroleum hydrocarbons (PHCs) (F1 to F4 phases), BTEX parameters (benzene, toluene, ethylbenzene, and xylenes), volatile organic compounds (VOCs), Polychlorinated Biphenyls (PCBs) and Polycyclic Aromatic Hydrocarbons (PAHs).

4. Samples of groundwater were obtained and analyzed for sodium, chloride, metals petroleum hydrocarbons (PHCs) (F1 to F4 phases), BTEX parameters (benzene, toluene, ethylbenzene, and xylenes), volatile organic compounds (VOCs), Polycyclic Aromatic Hydrocarbons (PAHs)

5. The sampling locations and depths for sampling of soils are shown on plan view on Drawing No. 9, and 12, and in section view on Drawing Nos. 10, 11, 13, and 14. A summary of plans and sections of soil samples are presented in Table No. 4, below.

Table No. 4
List of Plan and Section Views Showing Distribution of Contaminants in Soils

Drawing No.	Plan or Section View	Media	Contaminant Group
9	Plan View	Soil	Metals, PHCs, VOCs, PAHs and PCBs
10	Section A-A'	Soil	Metals, PHCs, VOCs, PAHs and PCBs
11	Section B-B'	Soil	Metals, PHCs, VOCs, PAHs and PCBs
12	Plan View	Soil	Other Regulated Parameters (ORP)
13	Section A-A'	Soil	Other Regulated Parameters (ORP)
14	Section B-B'	Soil	Other Regulated Parameters (ORP)

6. The sampling locations and depths for sampling of groundwater are shown on plan view on Drawing No. 15, and in section view on Drawing Nos. 16 and 17. A summary of plans and sections of groundwater samples are presented in Table No. 5, below.

Table No. 5
List of Plan and Section Views Showing
Distribution of Contaminants in Groundwater

Drawing No.	Plan or Section View	Media	Contaminant Group
17	Plan View	Groundwater	Metals, Inorganic, PHCs, VOCs, PAHs
18	Section A-A'	Groundwater	Metals, Inorganic, PHCs, VOCs, PAHs
19	Section B-B'	Groundwater	Metals, Inorganic, PHCs, VOCs, PAHs

7. The results of chemical analysis of soil samples indicated that the measured concentrations of the parameters tested are within the criteria of Ontario Ministry of the Environment (MECP), "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 15, 2011, Table No. 2, "Full Depth Generic Condition Standards in Potable Water Condition", for sites in residential/parkland property uses (Table 2 SCS), with the exception of SAR and conductivity in the upper disturbed native soil.

8. The use of salts for de-icing operations on the parking areas on the Phase Two property presents a potential of contamination of soil and groundwater below the subject property. The above measured concentrations can be attributed to uses of salt on the applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, on the parking lot and driveways within the limits of Phase Two property. The site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act, as it has been determined that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, as per Ontario Reg. 153/04, as amended December 4, 2019, Clause 49.1.1.

9. The results of the chemical analysis of groundwater samples obtained from the wells, indicated that the measured values and concentrations of all tested parameters were within the criteria of Table 2 SCS for sites in residential use.

4.4 Contaminants Associated with each APEC

1. The results of analysis of soil samples showed over exceedance of SAR and conductivity. The above results may be attributed to use of salts for de-icing operations on the sidewalks and parking areas on the Phase Two property. This is associated with APEC 2. The site condition standard is deemed not to be exceeded, as the measured concentrations are attributed to a substance applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, as per Ontario Reg. 153/04, as amended December 4, 2019, Clause 49.1.1.

2. The contaminants of concern associated with the following areas of potential environmental concentration have not impacted soils or groundwater on the Phase Two Property: APEC1, APEC3, APEC4, APEC5 and APEC6.

4.5 Media in Which Contaminants are Associated

1. The results of analysis showed the presence of contamination SAR and conductivity in soils. This may be attributed to the use of salts for de-icing operations on the parking lots and driveways on the Phase Two property. However, based on Section 49.1.1 from O.Reg. 153/04, as amended December 4, 2019, since the exceedance is solely because of a substance that had been for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the property can be considered to meet the applicable site condition standard.

2. The results of the chemical analysis of soils samples from other locations on the Phase Two property indicated that the measured values and concentrations of all tested parameters were below Table 2 SCS criteria for sites in residential use.

3. The results of the chemical analysis of groundwater samples obtained from the wells, indicated that the measured values and concentrations of all tested parameters were below limit of Table 2 SCS criteria for sites in residential use.

4.6 Information Known about Each Contaminated Area

1. The presence of SAR and conductivity in soils and chloride in groundwater may be attributed to the use of salts for de-icing operations on parking lots and driveways on the Phase Two property.

2. No other contaminants in soils were found at concentration greater that the applicable site condition standard (Table 2, residential).

3. No contaminants in groundwater were found at concentration greater that the applicable site condition standard (Table 2, residential).

4.6 Distribution of Contaminants

1. The sampling locations and depths for sampling of soils are shown on plan view on Drawing No. 9, and 12, and in section view on Drawing Nos. 10, 11, 13, and 14. The sampling locations and depths for sampling of groundwater are shown on plan view on Drawing No. 15, and in section view on Drawing Nos. 16 and 17.

2. The extent of contaminants SAR and conductivity in soils that were found in excess of the Table 2 SCS on the Phase Two property is shown in plan and section views noted above. Based on Section 49.1.1, O.Reg. 153/04, as amended December 4, 2019, since the exceedance is solely because of a substance that had been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the property can be considered to meet the applicable site condition standard.

3. No other contaminants in soils were found at concentration greater than the applicable site condition standard (Table 2, residential).

4. No contaminants in groundwater were found at concentration greater than the applicable site condition standard (Table 2, residential).

4.8 Reason for Discharge of Contaminants

1. The presence of SAR and conductivity in soils may be attributed to migration of salt that is applied to parking lots and driveways for de-icing operations.

2. Based on Section 49.1.1, O.Reg. 153/04 as amended December 4, 2019, since the exceedance is solely because of a substance that had been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the property can be considered to meet the applicable site condition standard.

4.9 Migration of Contaminants

1. The method of migration of contaminants in soils on the Property would be by leaching from surface only.

2. The presence of natural sand soil would tend to promote transport of contaminants from the upper disturbed native soil into underlying natural soils. The presence of weathered soil bedrock would tend to inhibit transport of contaminants from the upper natural sandy silt soil into underlying levels.

4.10 Climatic or Meteorological Influences on Migration

1. Periods of increased precipitation in areas upstream from the site may impact groundwater levels below the Phase Two Property.

2. Periods of below freezing temperature and snow fall may include the frequency of use of salt on adjacent municipal roadway which may impact groundwater below the Phase Two property.

4.11 Soil Vapours Intrusion into Building

1. Soil vapours intrusion is not applicable to subject property, as potentially volatile contaminants were found to be within the site conditions standards for both soils and groundwater.

4.12 Subsurface Structures and Utilities

1. Any subsurface structures and utilities on in or under the Phase Two Property may affect contaminant distribution and migration.

5. Potential Exposure Pathways and Receptors

5.1 Description of All Components

1. A list of risk-based components of the potential exposure pathways and receptor is presented as follows and are presented in graphical format in Drawing Nos. 18 and 19 and in Table No. 6, below.

2. SAR and conductivity in soils and chloride in groundwater are the only exceedance parameters found. Based on Section 49.1.1 from O/Reg. 153/04, as amended December 4, 2019, since the exceedances are solely because of a substance that had been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the property can be considered to meet the applicable site condition standard.

3. It is concluded that there are no potential risks associated with the Property in relation to human receptors, the terrestrial or aquatic environments.

Table No. 6

Potential Exposure Pathways and Receptors

Potential Pathway	Description	Potential Risk Source	Contaminants of Concern	Potential Risk
GW1	Groundwater for drinking water purposes	Contamination not present in groundwater	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
GW2	Groundwater, direct contact with receptors	Contamination not present in groundwater	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
GW3	Groundwater discharge to water bodies, protection of aquatic life	Contamination not present in groundwater	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
S1	Direct Contact with surface soil by humans (residential occupants), animals and birds	Contamination formerly present in soils	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
S2	Direct contact with subsurface soils by humans (e.g., workers in excavations)	Contamination formerly present in soils	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
S-IA	Movement of contaminants from soils to indoor air and human exposure	Contamination formerly present in soils	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
S-OA	Movement of contaminants from soil to outdoor air and human exposure	Contamination formerly present in soils	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
S-Odours	protection from excessive odours from soil	Contamination formerly present in soils	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
S-GW1	Soil leaching to groundwater	Contamination formerly present in soils	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
S-GW2	Soil leaching to surface water	Contamination formerly present in soils	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
S-PSO	contaminants from soil to plants and soil dwelling organisms	Contamination formerly present in soils	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source
S-AB	contaminants from soil to animals and birds, direct exposure, and ingestion	Contamination formerly present in soils	PHCs, VOCs, BTEX, Other Regulated Parameters	No Risk – No Source

LIMITS OF PHASE ONE PROPERTY

LIMITS OF PHASE ONE STUDY AREA

N

SCALE

0 50 100 150 200m

Site Plan is excerpt from Surveyor's Real Property Report, Aksan Piller Corporation, May 30 2022

HADDAD GEOTECHNICAL INC.
151 Amber Street, Unit 17
Markham, Ontario, Canada, L3R 3B3
905-475-0951, fax: 905-475-8338
info@haddadgeo.com

799-805 DUNDAS ST. E., MISSISSAUGA

PHASE ONE STUDY AREA

SCALE AS NOTED
DRAWN BY: GF

PROJECT: 22-16145
DRAWING No. 1
DATE: JUNE 16, 2022

LOCATION OF POTENTIALLY CONTAMINATING ACTIVITY (PCA)

LOCATION OF HISTORICAL UNDERGROUND STORAGE TANK

LIMITS OF PHASE ONE PROPERTY

LIMITS OF PHASE ONE STUDY AREA

INFERRED DIRECTION OF GROUNDWATER FLOW

N

SCALE

0 50 100 150 200m

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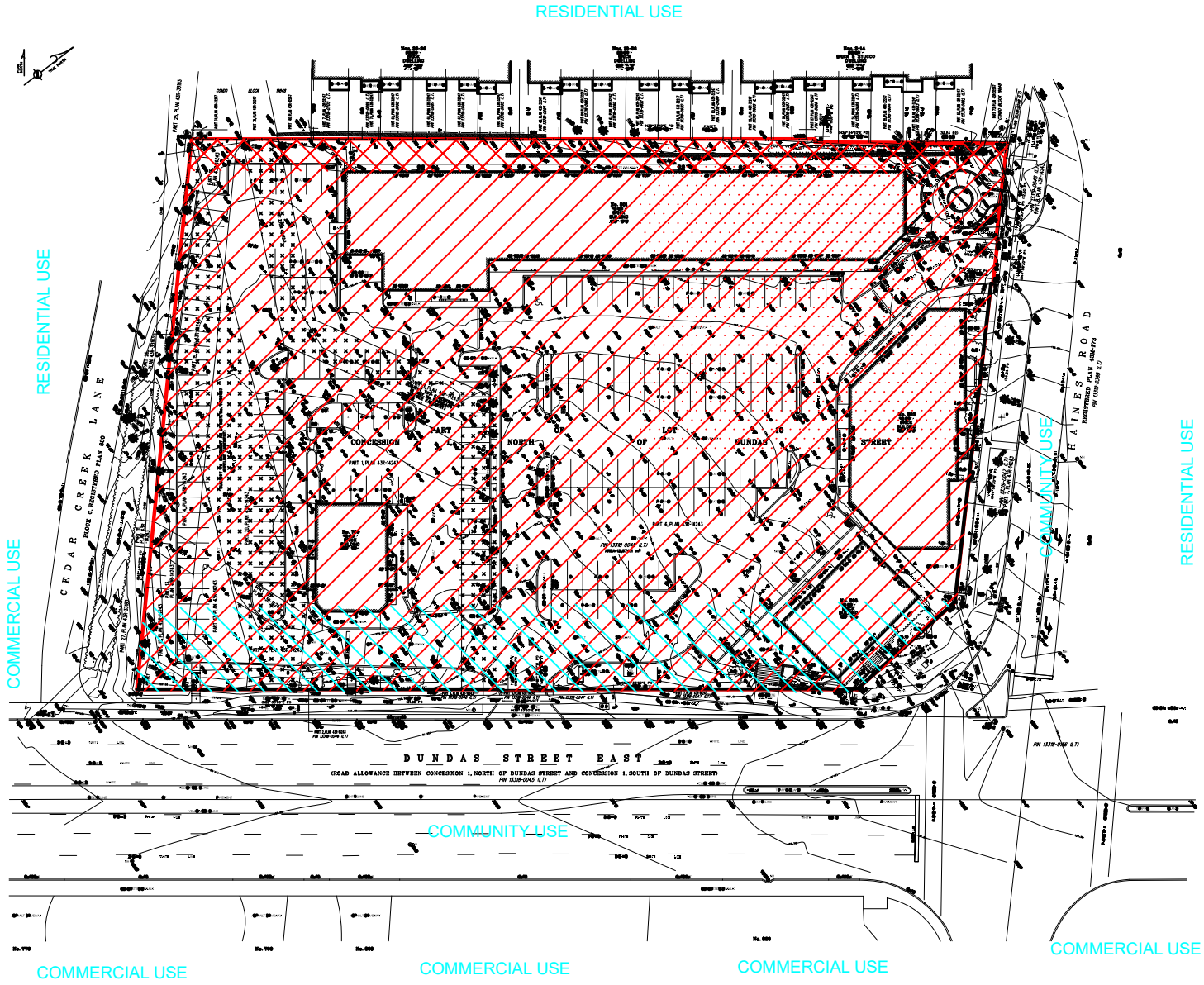
799-805 DUNDAS ST. E., MISSISSAUGA

PLAN SHOWING LOCATIONS OF POTENTIAL CONTAMINATING ACTIVITIES (PCAs)

SCALE AS NOTED
DRAWN BY: GF

PROJECT: 22-16145
DRAWING No. 2
DATE: JUNE 16, 2022



Subject Property

Phase One Property

Existing Easements (Trans Northern Pipeline, City of Mississauga)

APEC 1- Northeast portionof of property. PCA1: (on-site) 801 Dundas St E., dry cleaner business

APEC 2- Entire area of property. PCA2: 799-801,803,805 Dundas St E. (on-site), construction businesses on site

APEC 3- Entire area of property. PCA3 (on-site) automobile parking lot. Contaminants from automobile leaks

APEC 4- Entire area of property. PCA4 (on-site) automobile parking lot Use of substances for de-icing

APEC 5- Northwest portion of corner of property, PCA5 (off-site), historical underground fuel tank on adjacent upgradient property

APEC 6 - southeast area of site. PCA6 (off-site, east southeast) gasoline station with underground fuel storage tanks

APEC 7 - southeast area of site. PCA7 (off-site, east) automobile repairs

N

SCALE
0 10 20 30 40m

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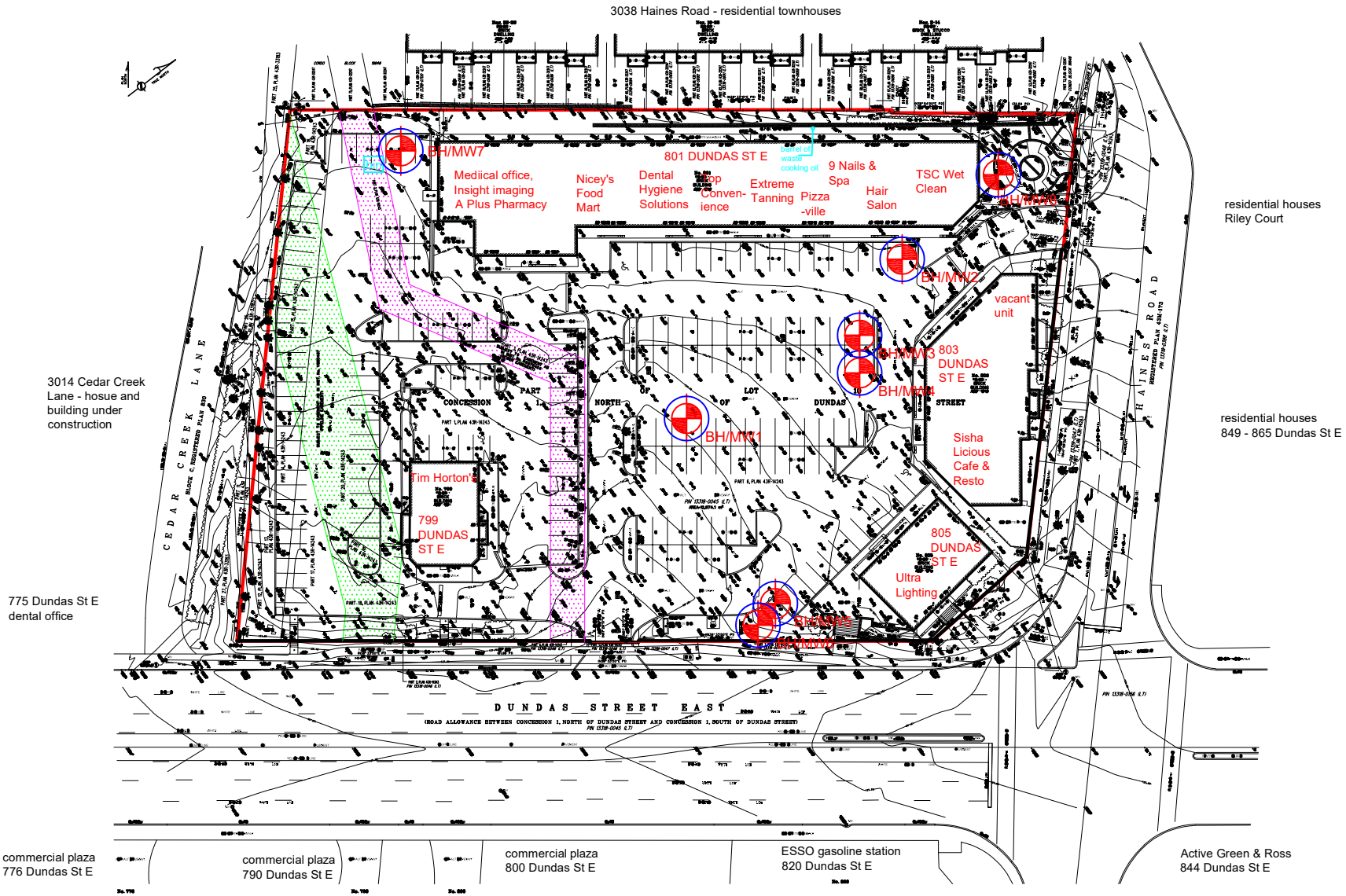
799,801,803 AND 805 DUNDAS STREET EAST, MISSISSAUGA

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN (APECs)

SCALE AS NOTED
DRAWN BY: GF

PROJECT:22-16145
DRAWING No. 3
DATE: JUNE 17, 2022



LIMITS OF PHASE ONE PROPERTY

LIMITS OF EASEMENT- TRANS-NORTH PIPELINES (high pressure gas pipeline)

LIMITS OF EASEMENT- CITY OF MISSISSAUGA (sewer)

MONITORING WELL (approximate location)

Site Plan is excerpt from Surveyor's Real Property Report, Aksan Piller Corporation, May 30 2022

SCALE

0 10 20 30 40m

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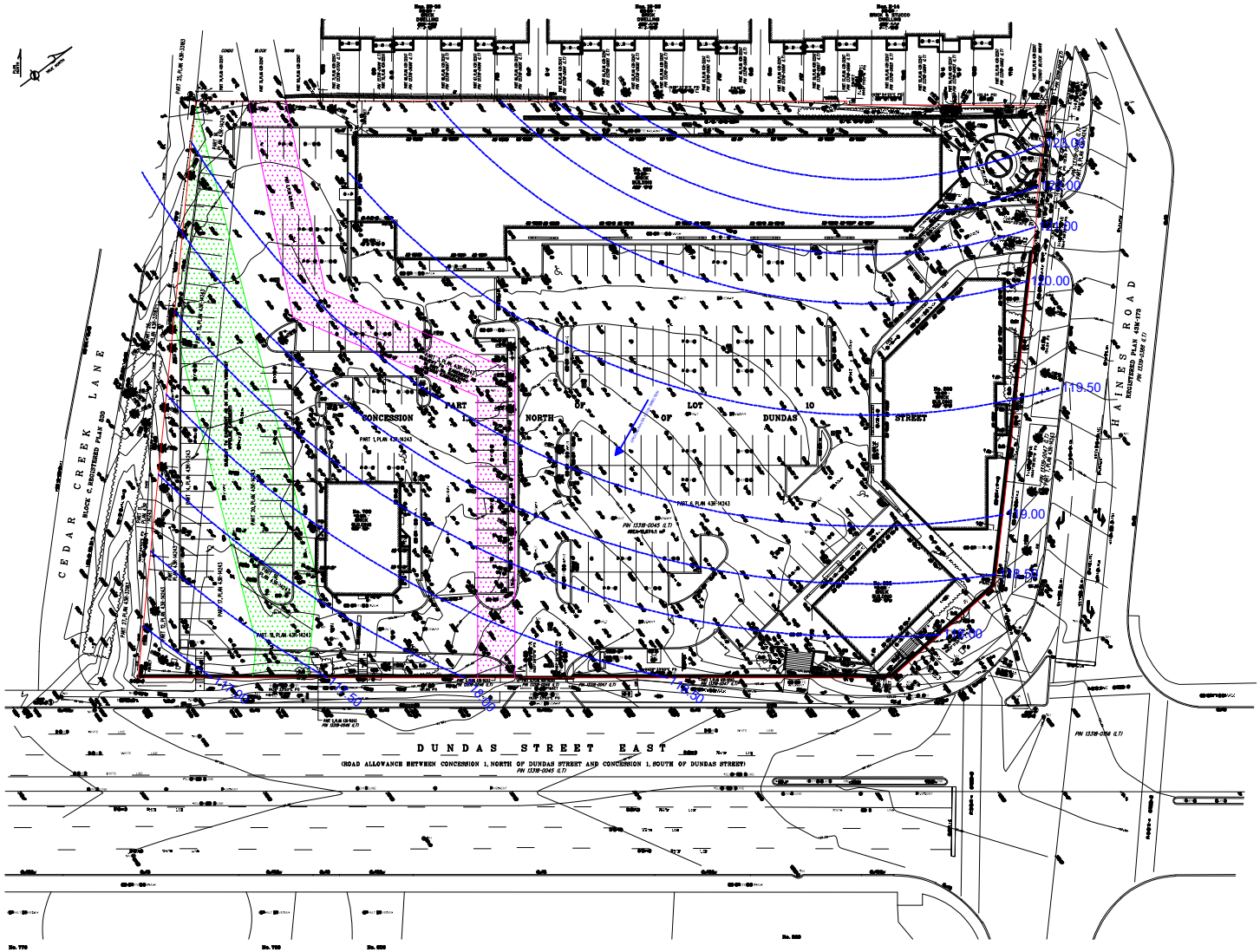
799-805 DUNDAS ST. E., MISSISSAUGA

SITE PLAN SHOWING BOREHOLE/MONITORING WELL LOCATION

SCALE AS NOTED
DRAWN BY: GF

PROJECT: 22-16145
DRAWING No. 4
DATE: JUNE 16, 2022



LIMITS OF PHASE ONE PROPERTY

LIMITS OF EASEMENT- TRANS-NORTH PIPELINES (high pressure gas pipeline)

LIMITS OF EASEMENT- CITY OF MISSISSAUGA (sewer)

SCALE

0 10 20 30 40m

Site Plan is excerpt from Surveyor's Real Property Report, Aksan Piller Corporation, May 30 2022

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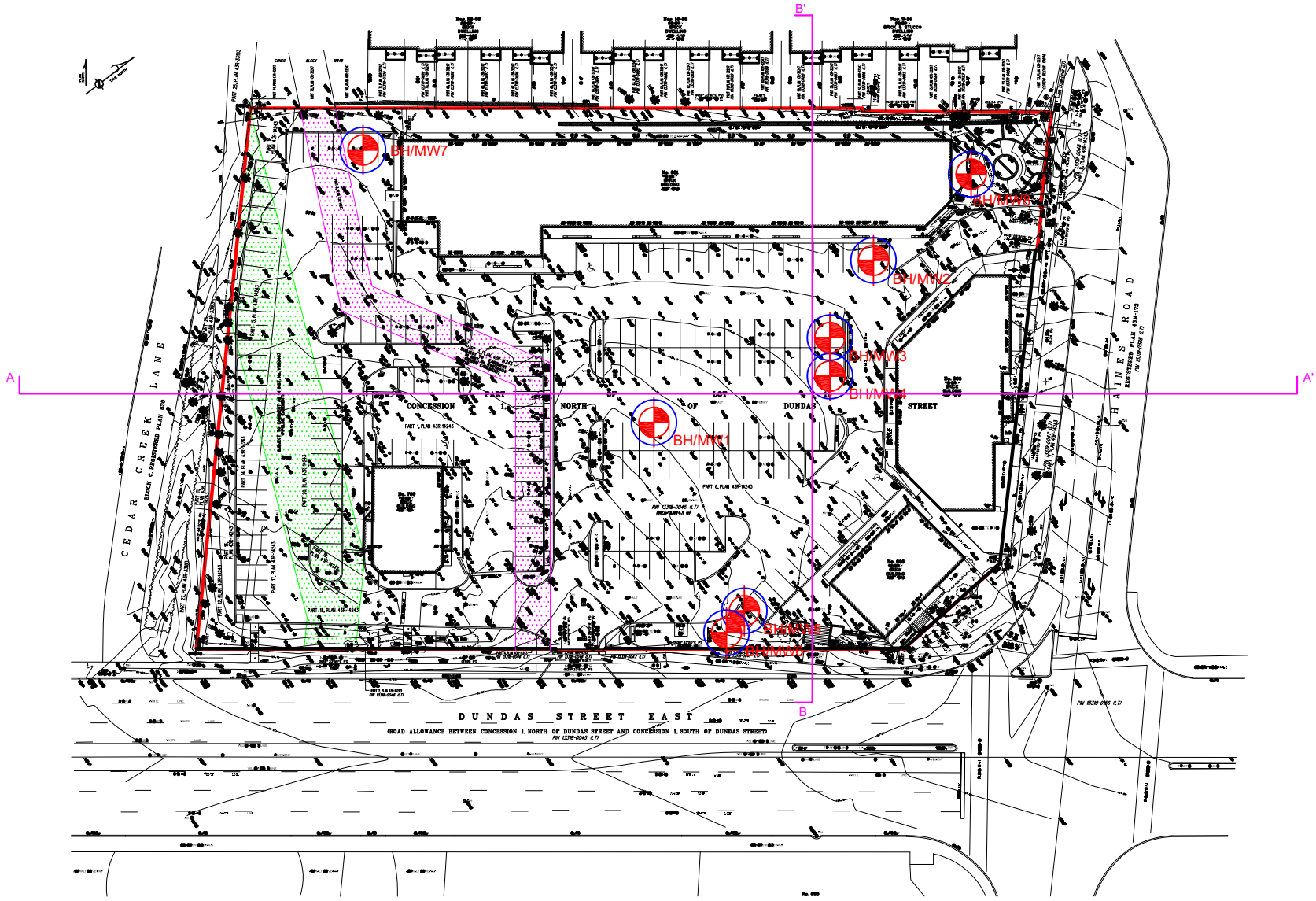
799-805 DUNDAS ST. E., MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL
PLAN VIEW: GROUNDWATER CONTOURS

SCALE AS NOTED
DRAWN BY: GF

PROJECT: 22-16145
DRAWING No. 5
DATE: JUNE 16, 2022



LIMITS OF PHASE ONE PROPERTY

LIMITS OF EASEMENT- TRANS-NORTH PIPELINES (high pressure gas pipeline)

LIMITS OF EASEMENT- CITY OF MISSISSAUGA (sewer)

MONITORING WELL (approximate location)

Site Plan is excerpt from Surveyor's Real Property Report, Aksan Piller Corporation, May 30 2022

SCALE

0 10 20 30 40m

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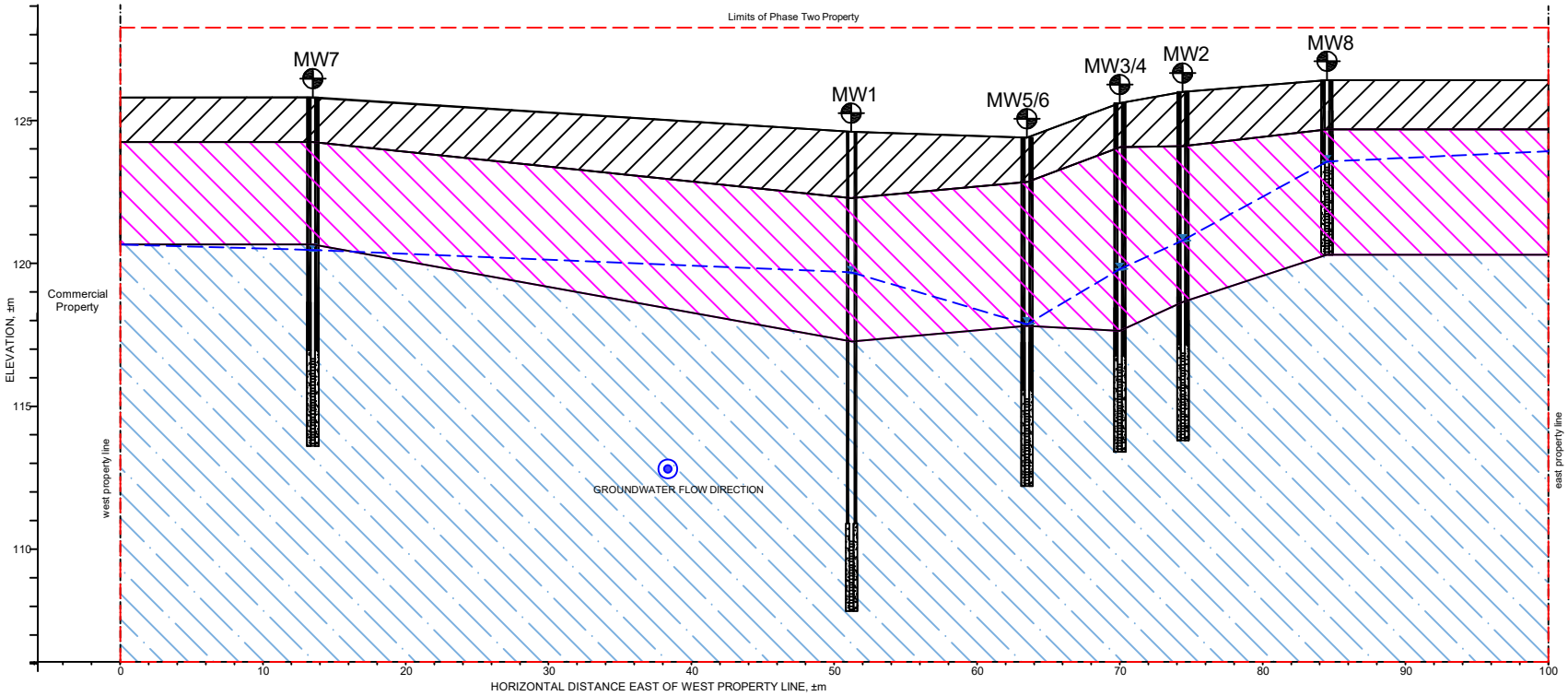
799-805 DUNDAS ST. E., MISSISSAUGA

SITE PLAN SHOWING CROSS SECTIONS

SCALE AS NOTED
DRAWN BY: GF

PROJECT: 22-16145
DRAWING No. 6
DATE: JUNE 16, 2022



Legend:

- Limits of Phase Two Property
- Groundwater Flow Direction
- Brown Sandy Silt Fill
- Red-Brown Silty Sand
- Grey Weathered Shale
- Depth (m) — Elevation (m) (Depth from Grade) (mbgs)
- Material Boundary
- Groundwater
- 2020, Top of Grade
- Samples where measured concentrations of labelled parameters did not exceed MOE (2011) Table 2 criteria
- < — Parameters within MOE Table 2 (2011) Residential criteria

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805 DUNDAS STREET EAST,MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL
SOIL STRATIGRAPHY: SECTION A - A'

SCALE AS NOTED
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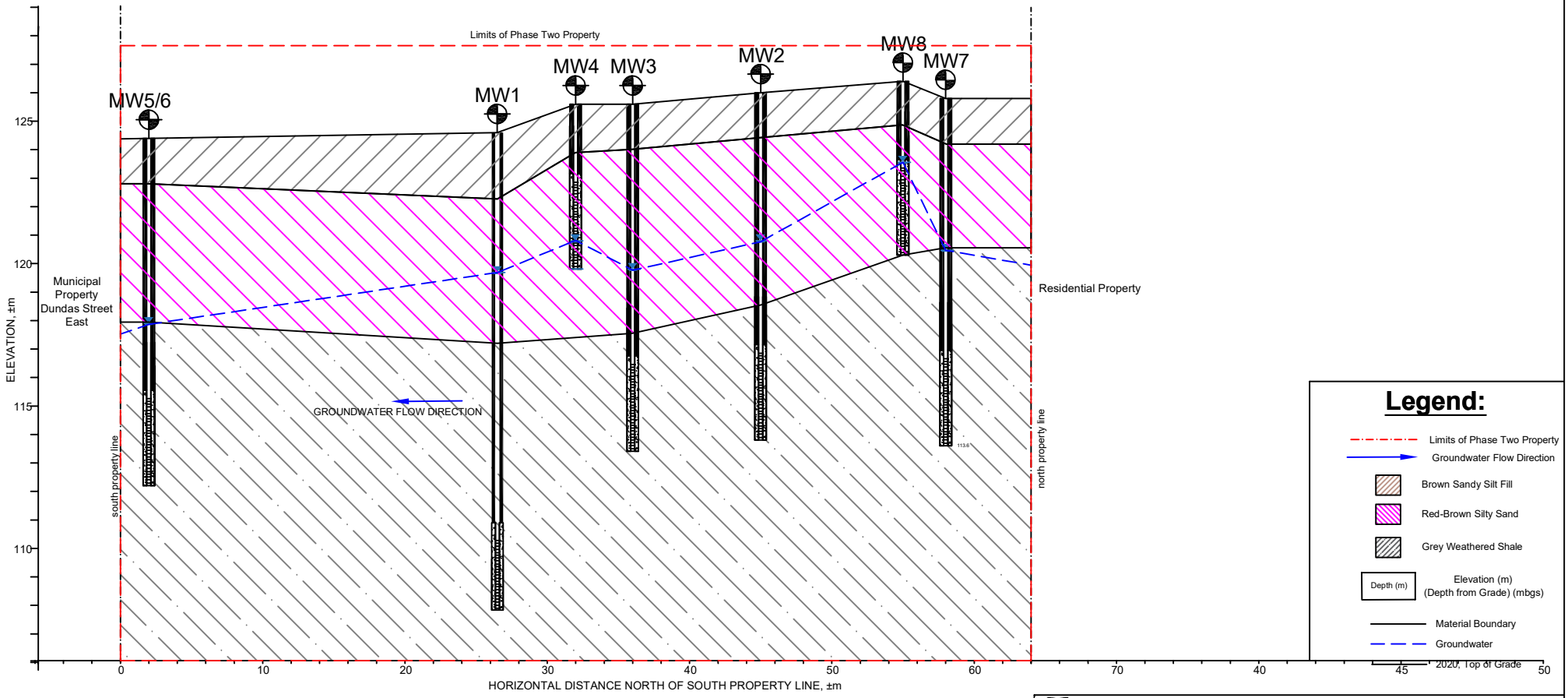
PROJECT: 22-16145
DRAWING No. 7
DATE: AUGUST 31, 2022



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805 DUNDAS STREET EAST,MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL
SOIL STRATIGRAPHY: SECTION B - B'

SCALE AS NOTED
DRAWN BY: RV

PROJECT: 22-16145
DRAWING No. 8
DATE: AUGUST 31, 2022

BH7/MW7 Chemical Analysis June 18th, 2022			
Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-011	METALS PHCs VOCs PAHs PCBs	< < < < <
(3.0- 3.5)	WT2207852-012	METALS PHCs VOCs	< < <

BH8/MW8 Chemical Analysis June 18th, 2022			
Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-013	METALS PHCs VOCs PAHs	< < < <
(3.0- 3.5)	WT2207852-014	METALS PHCs VOCs	< < <

BH2/MW2 Chemical Analysis June 18th, 2022			
Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(0.7-1.2)	WT2207852-008	METALS PHCs VOCs PAHs PCBs	< < < < <
(1.5-1.9)	WT2207852-009	METALS PHCs VOCs	< < <
(3.0- 3.5)	WT2207852-010	METALS PHCs VOCs	< < <

BH1/MW1 Chemical Analysis June 18th, 2022			
Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-001	METALS PHCs VOCs PAHs PCBs	< < < < <
FD (1.5-1.9)	WT2207852-002	METALS PHCs VOCs PAHs PCBs	< < < < <
(6.1- 6.6)	WT2207852-003	METALS PHCs VOCs	< < <

BH3/MW3 Chemical Analysis June 18th, 2022			
Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-004	METALS PHCs VOCs PAHs PCBs	< < < < <
(4.5- 5.0)	WT2207852-005	METALS PHCs VOCs	< < <

BH5/MW5 Chemical Analysis June 18th, 2022			
Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(2.2- 2.7)	WT2207852-006	METALS PHCs VOCs PAHs PCBs	< < < < <
(6.1- 6.6)	WT2207852-007	METALS PHCs VOCs	< < <

Legend:

- A — Section Line
- Limits of Phase Two Property
- Borehole/Monitoring Well
- Depth (m) — Elevation (m) (Depth from Grade) (mbgs)
- METALS — Metals
- PHCS — Petroleum Hydrocarbons
- VOCS — Volatile Organic Compounds
- PAHS — Polycyclic Aromatic Hydrocarbons
- PCBS — Polychlorinated Biphenyls
- Soil samples within Table 2 (2011) criteria, MOE Table 2 Residential
- Samples where measured concentrations of labelled parameters did not exceed MOE (2011) Table 2 criteria
- Parameters within MOE Table 2 (2011) Residential criteria
- LIMITS OF EASEMENT- TRANS-NORTH PIPELINES (high pressure gas pipeline)
- LIMITS OF EASEMENT- CITY OF MISSISSAUGA (sewer)

Site Plan is excerpt from Surveyor's Real Property Report, Aksan Piller Corporation, May 30 2022

SCALE
0 10 20 30 40m

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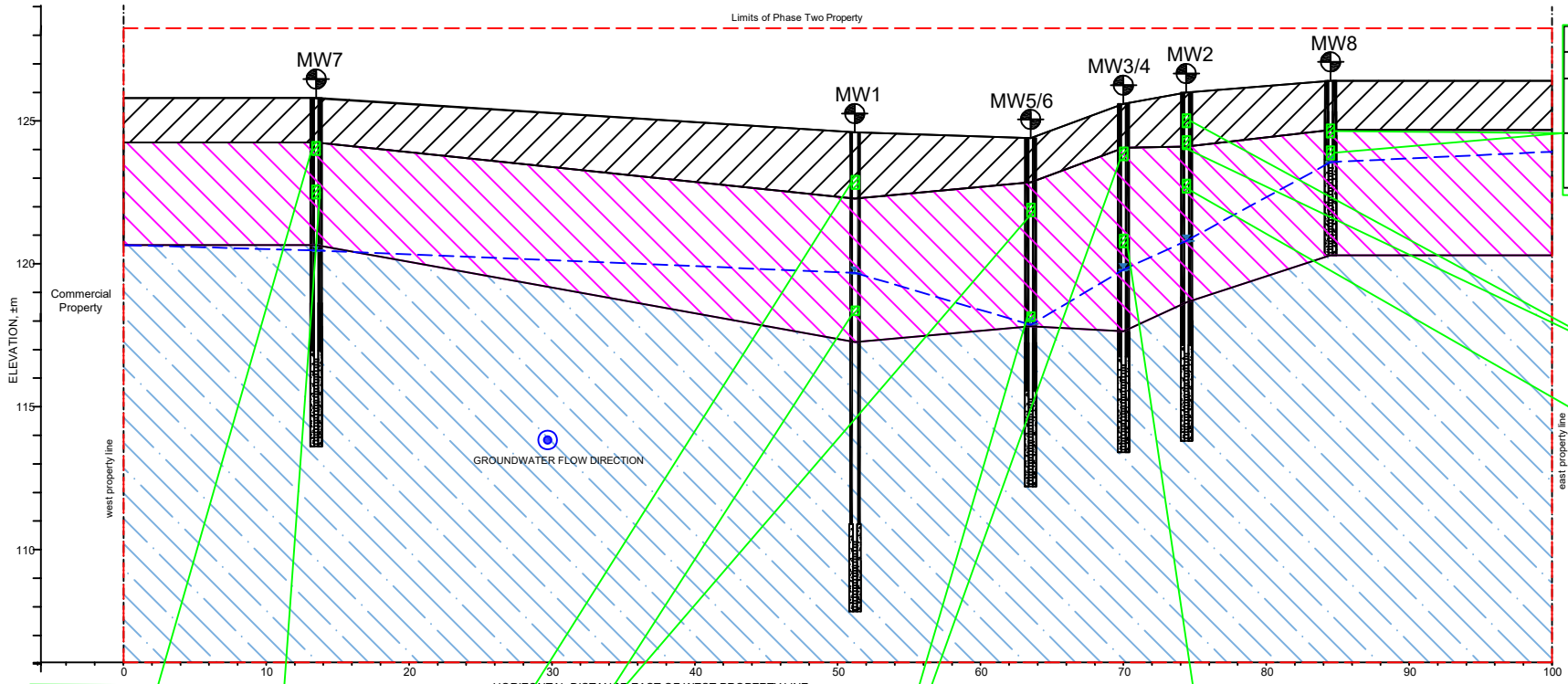
799-805 DUNDAS ST. E., MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL PLAN VIEW: METALS, PHCs, VOCs, PAHs, & PCBs

SCALE AS NOTED
DRAWN BY: RV

PROJECT: 22-16145
DRAWING No. 9
DATE: JUNE 16, 2022



BH8/MW8 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-013	METALS PHCs VOCs PAHs	< < < <
(3.0- 3.5)	WT2207852-014	METALS PHCs VOCs	< < <

BH2/MW2 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(0.7-1.2)	WT2207852-008	METALS PHCs VOCs PAHs PCBs	< < < < <
(1.5-1.9)	WT2207852-009	METALS PHCs VOCs	< < <
(3.0- 3.5)	WT2207852-010	METALS PHCs VOCs	< < <

Legend:

- Limits of Phase Two Property
- Groundwater Flow Direction
- Brown Sandy Silt Fill
- Red-Brown Silty Sand
- Grey Weathered Shale
- Depth (m) — Elevation (m) (Depth from Grade) (mbgs)
- Material Boundary
- Groundwater
- 2020, Top of Grade
- Samples where measured concentrations of labelled parameters did not exceed MOE (2011) Table 2 criteria
- < — Parameters within MOE Table 2 (2011) Residential criteria

BH7/MW7 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-011	METALS PHCs VOCs PAHs PCBs	< < < < <
(3.0- 3.5)	WT2207852-012	METALS PHCs VOCs	< < <

BH1/MW1 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-001	METALS PHCs VOCs PAHs PCBs	< < < < <
FD (1.5-1.9)	WT2207852-002	METALS PHCs VOCs PAHs PCBs	< < < < <
(6.1- 6.6)	WT2207852-003	METALS PHCs VOCs	< < <

BH5/MW5 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(2.2- 2.7)	WT2207852-006	METALS PHCs VOCs PAHs PCBs	< < < < <
(6.1- 6.6)	WT2207852-007	METALS PHCs VOCs	< < <

BH3/MW3 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-004	METALS PHCs VOCs PAHs PCBs	< < < < <
(4.5- 5.0)	WT2207852-005	METALS PHCs VOCs	< < <

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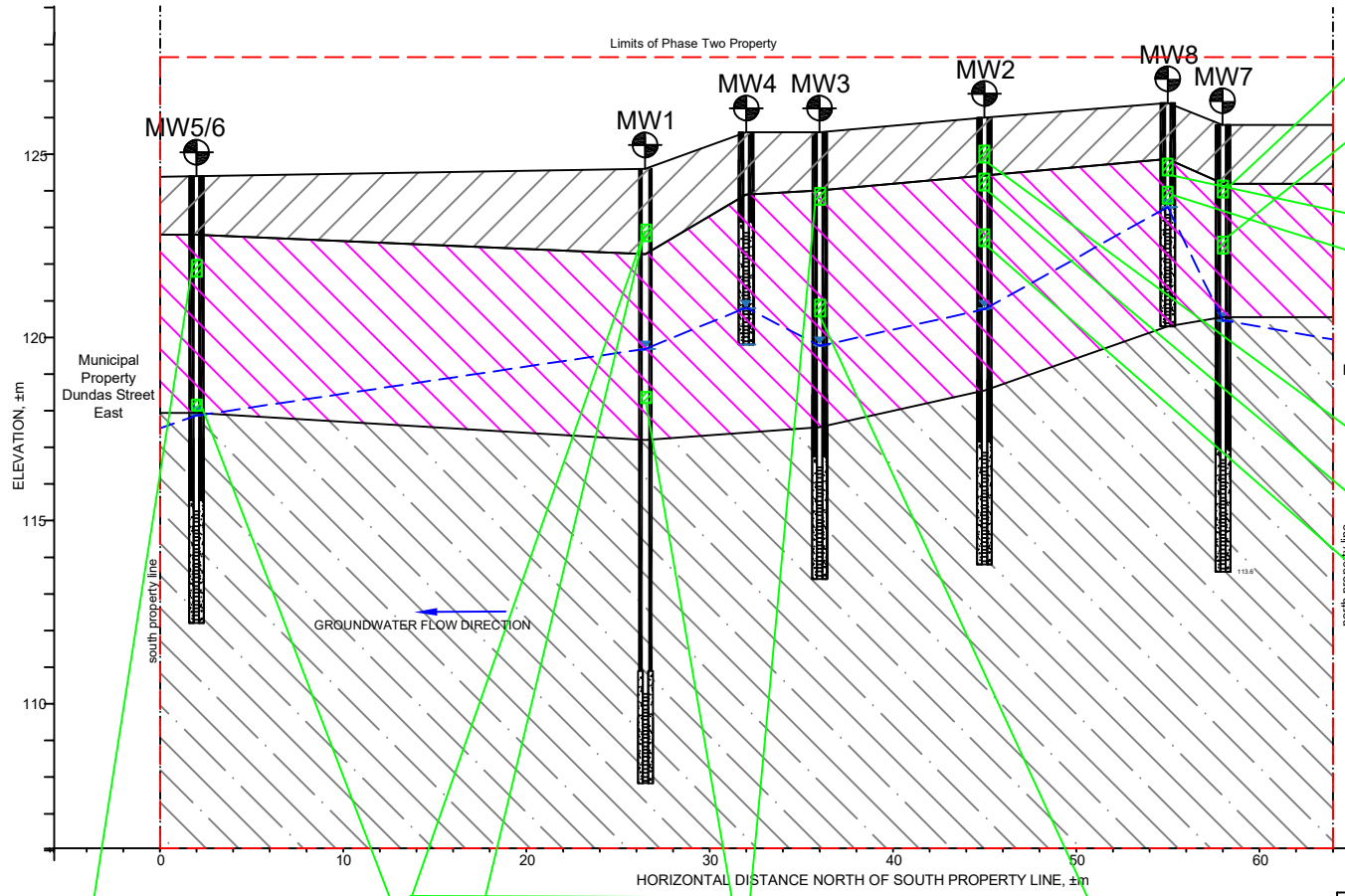
805 DUNDAS STREET EAST,MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL
SECTION A - A': METALS, PHCs, VOCs, PAHs, & PCBs

SCALE AS NOTED
DRAWN BY: RV

PROJECT: 22-16145
DRAWING No. 10
DATE: AUGUST 31, 2022



BH7/MW7 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-011	METALS PHCs VOCs PAHs PCBs	< < < < <
(3.0- 3.5)	WT2207852-012	METALS PHCs VOCs	< < <

BH8/MW8 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-013	METALS PHCs VOCs PAHs	< < < <
(3.0- 3.5)	WT2207852-014	METALS PHCs VOCs	< < <

BH2/MW2 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(0.7-1.2)	WT2207852-008	METALS PHCs VOCs PAHs PCBs	< < < < <
(1.5-1.9)	WT2207852-009	METALS PHCs VOCs	< < <
(3.0- 3.5)	WT2207852-010	METALS PHCs VOCs	< < <

Legend:

- Limits of Phase Two Property
- Groundwater Flow Direction
- Brown Sandy Silt Fill
- Red-Brown Silty Sand
- Grey Weathered Shale
- Depth (m) — Elevation (m) (Depth from Grade) (mbgs)
- Material Boundary
- Groundwater
- 2020, Top of Grade
- Samples where measured concentrations of labelled parameters did not exceed MOE (2011) Table 2 criteria
- < — Parameters within MOE Table 2 (2011) Residential criteria

BH5/MW5 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(2.2- 2.7)	WT2207852-006	METALS PHCs VOCs PAHs PCBs	< < < < <
(6.1- 6.6)	WT2207852-007	METALS PHCs VOCs	< < <

BH1/MW1 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-001	METALS PHCs VOCs PAHs PCBs	< < < < <
FD (1.5-1.9)	WT2207852-002	METALS PHCs VOCs PAHs PCBs	< < < < <
(6.1- 6.6)	WT2207852-003	METALS PHCs VOCs	< < <

BH3/MW3 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-004	METALS PHCs VOCs PAHs PCBs	< < < < <
(4.5- 5.0)	WT2207852-005	METALS PHCs VOCs	< < <

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PHASE TWO CONCEPTUAL SITE MODEL
SECTION B - B': METALS, PHCs, VOCs, PAHs, & PCBs

SCALE AS NOTED
DRAWN BY: RV

PROJECT: 22-16145
DRAWING No. 11
DATE: AUGUST 31, 2022

BH7/MW7 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-011	SAR EC (mS/cm)	59.8 1.23
(3.0- 3.5)	WT2207852-012	SAR EC (mS/cm)	58.1 1.10

BH8/MW8 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-013	SAR EC (mS/cm)	21.9 <
(3.0- 3.5)	WT2207852-014	SAR EC (mS/cm)	7.40 <

BH2/MW2 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(0.7-1.2)	WT2207852-008	SAR EC (mS/cm)	31.35 <
(1.5-1.9)	WT2207852-009	SAR EC (mS/cm)	20.20 <
(3.0- 3.5)	WT2207852-010	SAR EC (mS/cm)	33.26 0.707

BH1/MW1 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-001	SAR EC (mS/cm)	< 1.30
FD (1.5-1.9)	WT2207852-002	SAR EC (mS/cm)	< 1.30
(6.1- 6.6)	WT2207852-003	SAR EC (mS/cm)	< <

BH3/MW3 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-004	SAR EC (mS/cm)	12.42 <
(4.5- 5.0)	WT2207852-005	SAR EC (mS/cm)	6.74 <

BH5/MW5 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(2.2- 2.7)	WT2207852-006	SAR EC (mS/cm)	20.77 <
(6.1- 6.6)	WT2207852-007	SAR EC (mS/cm)	6.75 <

Legend:

- A — Section Line
- Limits of Phase Two Property
- Borehole/Monitoring Well
- Depth (m) — Elevation (m) (Depth from Grade) (mbgs)
- SAR / EC (mS/cm) — Sodium Adsorption Rate Electroconductivity
- Soil samples within Table 2 (2011) criteria, subject to exemption for sodium adsorption ratio (SAR) and conductivity as per Reg. 153/04 (amended 2011), Clause 49.1.1
- Parameters within MOE Table 2 (2011) Residential criteria
- LIMITS OF EASEMENT- TRANS-NORTH PIPELINES (high pressure gas pipeline)
- LIMITS OF EASEMENT- CITY OF MISSISSAUGA (sewer)

SCALE
0 10 20 30 40m

Site Plan is excerpt from Surveyor's Real Property Report,
Aksan Piller Corporation, May 30 2022

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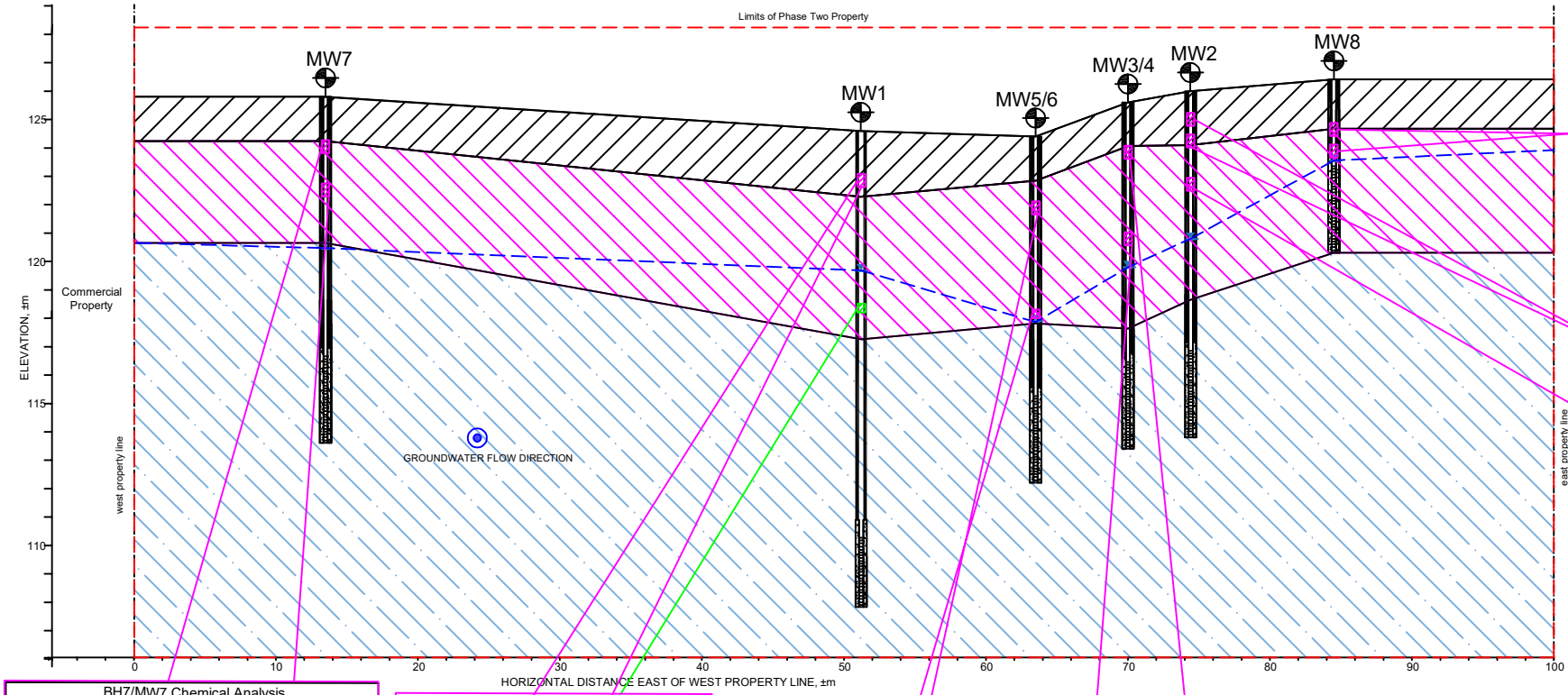
799-805 DUNDAS ST. E., MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL PLAN
VIEW: OTHER REGULATED PARAMETERS

SCALE AS NOTED
DRAWN BY: RV

PROJECT: 22-16145
DRAWING No. 12
DATE: JUNE 16, 2022



BH8/MW8 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-013	SAR	21.9
		EC (mS/cm)	<
(3.0- 3.5)	WT2207852-014	SAR	7.40
		EC (mS/cm)	<

BH2/MW2 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(0.7-1.2)	WT2207852-008	SAR	31.35
		EC (mS/cm)	<
(1.5-1.9)	WT2207852-009	SAR	20.20
		EC (mS/cm)	<
(3.0- 3.5)	WT2207852-010	SAR	33.26
		EC (mS/cm)	0.707

Legend:

- Limits of Phase Two Property
- Groundwater Flow Direction
- Brown Sandy Silt Fill
- Red-Brown Silty Sand
- Grey Weathered Shale
- Depth (m) — Elevation (m) (Depth from Grade) (mbgs)
- Material Boundary
- Groundwater
- 2020, Top of Grade
- Soil samples within Table 2 (2011) criteria, subject to exemption for sodium adsorption ratio (SAR) and conductivity as per Reg. 153/04 (amended 2011), Clause 49.1.1
- < Parameters within MOE Table 2 (2011) Residential criteria

BH7/MW7 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-011	SAR	59.8
		EC (mS/cm)	1.23
(3.0- 3.5)	WT2207852-012	SAR	58.1
		EC (mS/cm)	1.10

BH1/MW1 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-001	SAR	<
		EC (mS/cm)	1.30
FD (1.5-1.9)	WT2207852-002	SAR	<
		EC (mS/cm)	1.30
(6.1- 6.6)	WT2207852-003	SAR	<
		EC (mS/cm)	<

BH5/MW5 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(2.2- 2.7)	WT2207852-006	SAR	20.77
		EC (mS/cm)	<
(6.1- 6.6)	WT2207852-007	SAR	6.75
		EC (mS/cm)	<

BH3/MW3 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-004	SAR	12.42
		EC (mS/cm)	<
(4.5- 5.0)	WT2207852-005	SAR	6.74
		EC (mS/cm)	<

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805 DUNDAS STREET EAST,MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL
SECTION A - A': OTHER REGULATED PARAMETERS

SCALE AS NOTED
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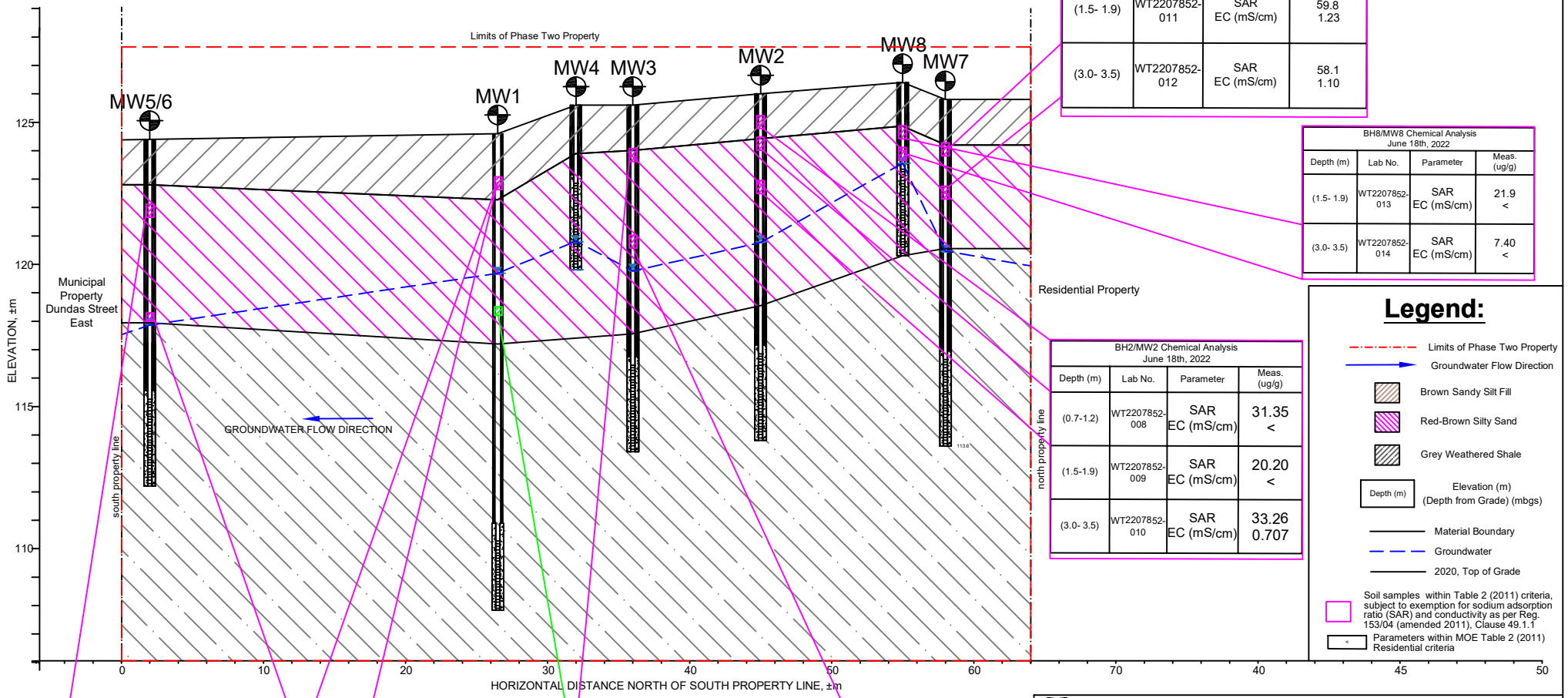
PROJECT: 22-16145
DRAWING No. 13
DATE: AUGUST 31, 2022



BH7/MW7 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-011	SAR EC (mS/cm)	59.8 1.23
(3.0- 3.5)	WT2207852-012	SAR EC (mS/cm)	58.1 1.10

BH8/MW8 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5- 1.9)	WT2207852-013	SAR EC (mS/cm)	21.9 <
(3.0- 3.5)	WT2207852-014	SAR EC (mS/cm)	7.40 <

BH2/MW2 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(0.7-1.2)	WT2207852-008	SAR EC (mS/cm)	31.35 <
(1.5-1.9)	WT2207852-009	SAR EC (mS/cm)	20.20 <
(3.0- 3.5)	WT2207852-010	SAR EC (mS/cm)	33.26 0.707

Legend:

- Limits of Phase Two Property
- Groundwater Flow Direction
- Brown Sandy Silt Fill
- Red-Brown Silty Sand
- Grey Weathered Shale
- Depth (m) — Elevation (m) (Depth from Grade) (mbgs)
- Material Boundary
- Groundwater
- 2020, Top of Grade
- Soil samples within Table 2 (2011) criteria, subject to exemption for sodium adsorption ratio (SAR) and conductivity as per Reg. 153/04 (amended 2011), Clause 49.1.1
- < Parameters within MOE Table 2 (2011) Residential criteria

BH5/MW5 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(2.2- 2.7)	WT2207852-006	SAR EC (mS/cm)	20.77 <
(6.1- 6.6)	WT2207852-007	SAR EC (mS/cm)	6.75 <

BH1/MW1 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-001	SAR EC (mS/cm)	< 1.30
FD (1.5-1.9)	WT2207852-002	SAR EC (mS/cm)	< 1.30
(6.1- 6.6)	WT2207852-003	SAR EC (mS/cm)	< <

BH3/MW3 Chemical Analysis
June 18th, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(1.5-1.9)	WT2207852-004	SAR EC (mS/cm)	12.42 <
(4.5- 5.0)	WT2207852-005	SAR EC (mS/cm)	6.74 <

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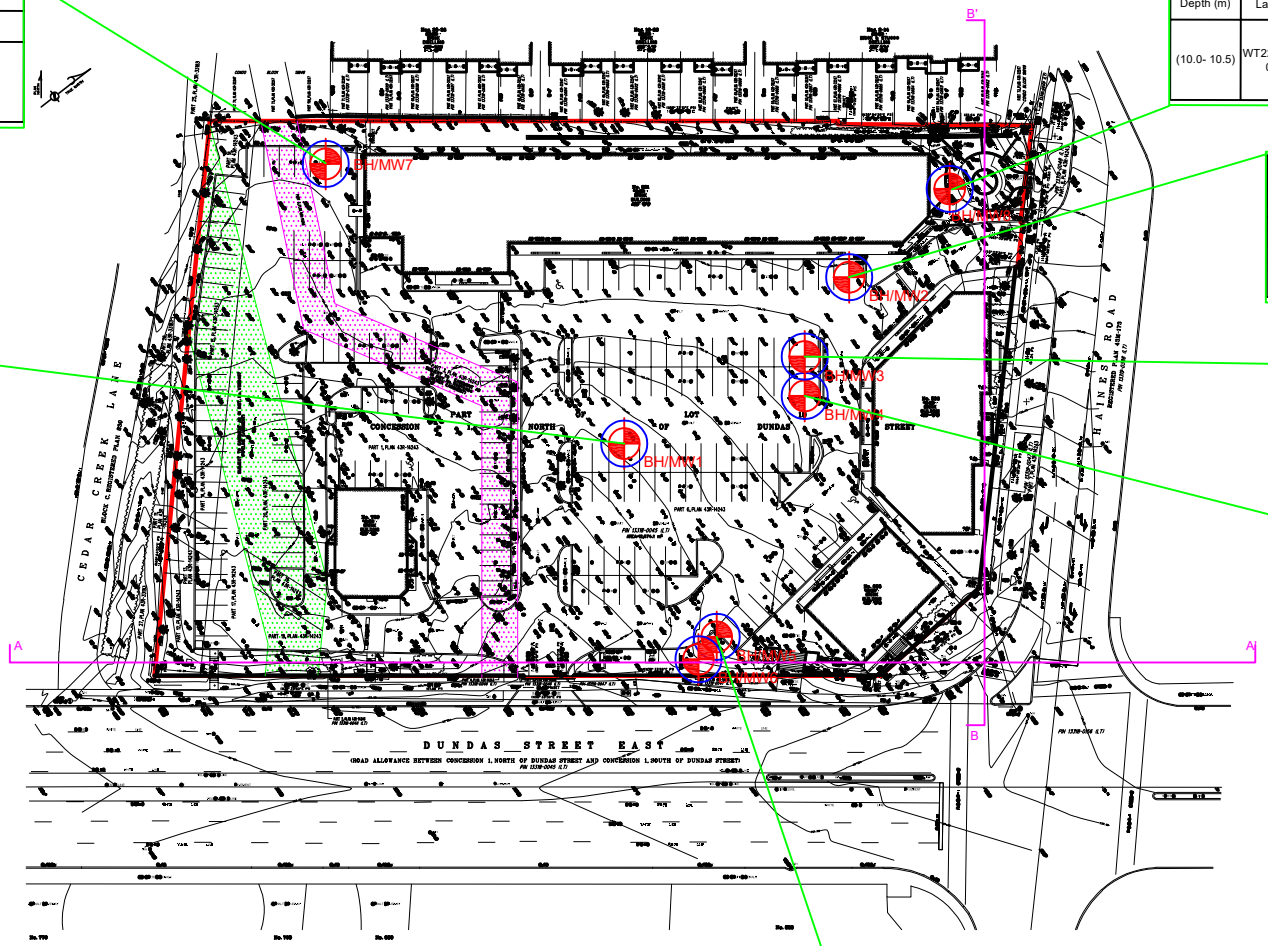
805 DUNDAS STREET EAST,MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL
SECTION B - B': OTHER REGULATED PARAMETERS

SCALE AS NOTED
DRAWN BY: RV

PROJECT: 22-16145
DRAWING No. 14
DATE: AUGUST 31, 2022



BH7/MW7 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(5.0- 5.5)	WT2209423-006	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH8/MW8 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0- 10.5)	WT2209423-007	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH2/MW2 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0-10.5)	WT2209423-002	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH1/MW1 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(14.0-14.5)	WT2209423-001	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH3/MW3 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0-10.5)	WT2209423-003	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH4/MW4 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(5.0- 5.5)	WT2209423-004	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH5/MW5 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0- 10.5)	WT2209423-005	METALS INORGANIC PHCs VOCs PAHs	< < < < <

Legend:

- A — Section Line
- Limits of Phase Two Property
- Borehole/Monitoring Well
- Depth (m) — Elevation (m) (Depth from Grade) (mbgs)
- SAR / EC (m S/cm) — Sodium Adsorption Rate / Electroconductivity
- Soil samples within Table 2 (2011) criteria, subject to exemption for sodium adsorption ratio (SAR) and conductivity as per Reg. 153/04 (amended 2011), Clause 49.1.1
- Parameters within MOE Table 2 (2011) Residential criteria
- LIMITS OF EASEMENT- TRANS-NORTH PIPELINES (high pressure gas pipeline)
- LIMITS OF EASEMENT- CITY OF MISSISSAUGA (sewer)

SCALE
0 10 20 30 40m

Site Plan is excerpt from Surveyor's Real Property Report,
Aksan Piller Corporation, May 30 2022

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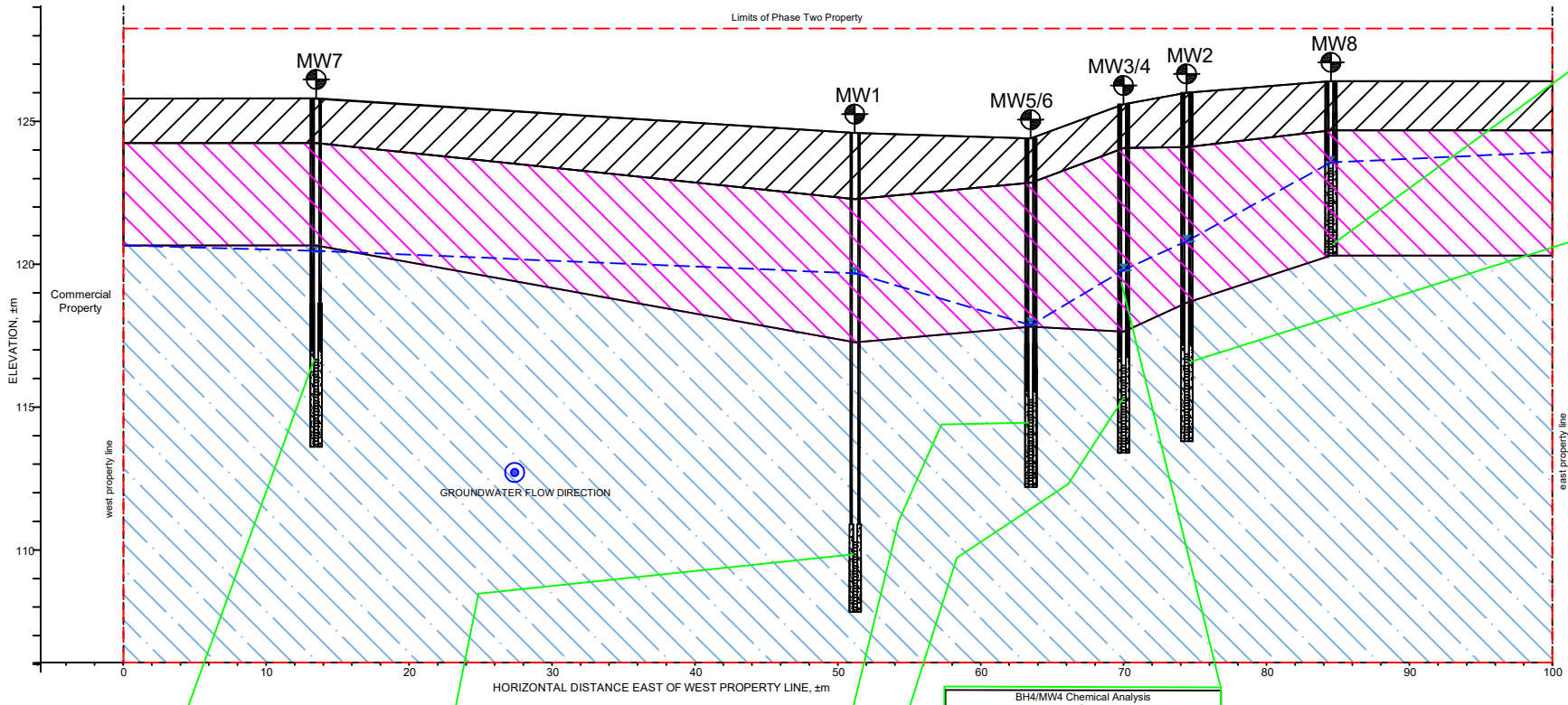
799-805 DUNDAS ST. E., MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL PLAN
VIEW: GROUNDWATER

SCALE AS NOTED
DRAWN BY: RV

PROJECT: 22-16145
DRAWING No. 15
DATE: JUNE 16, 2022



BH8/MW8 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0- 10.5)	WT2209423-007	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH2/MW2 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0-10.5)	WT2209423-002	METALS INORGANIC PHCs VOCs PAHs	< < < < <

Legend:

- Limits of Phase Two Property
- Groundwater Flow Direction
- Brown Sandy Silt Fill
- Red-Brown Silty Sand
- Grey Weathered Shale
- Depth (m) — Elevation (m) (Depth from Grade) (mbgs)
- Material Boundary
- Groundwater
- 2020, Top of Grade
- Samples where measured concentrations of labelled parameters did not exceed MOE (2011) Table 2 criteria
- < — Parameters within MOE Table 2 (2011) Residential criteria

BH7/MW7 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(5.0- 5.5)	WT2209423-006	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH5/MW5 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0- 10.5)	WT2209423-005	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH4/MW4 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(5.0- 5.5)	WT2209423-004	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH3/MW3 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0-10.5)	WT2209423-003	METALS INORGANIC PHCs VOCs PAHs	< < < < <

BH1/MW1 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(14.0-14.5)	WT2209423-001	METALS INORGANIC PHCs VOCs PAHs	< < < < <

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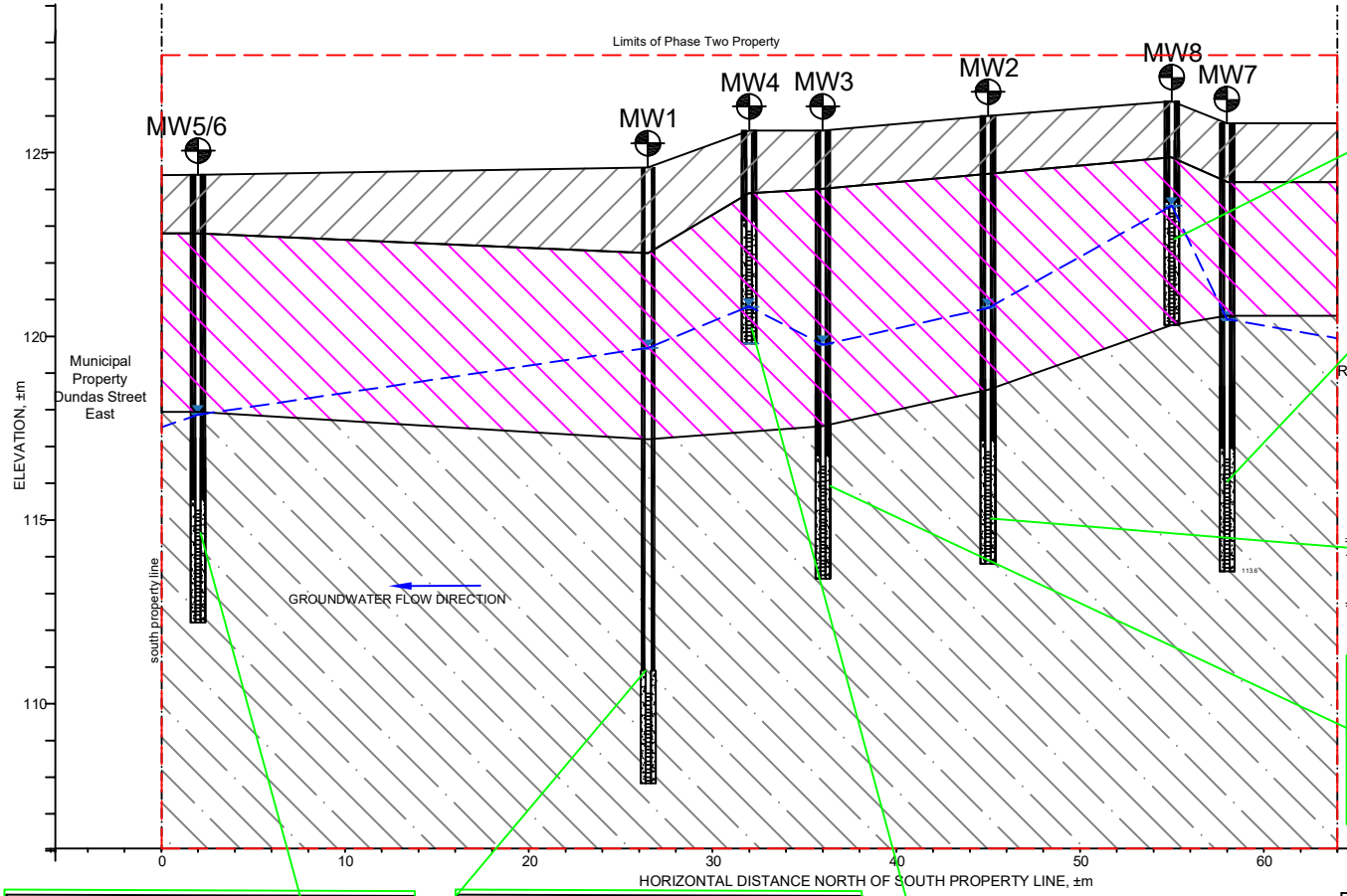
805 DUNDAS STREET EAST,MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL
SECTION A - A': GROUNDWATER

SCALE AS NOTED
DRAWN BY: RV

PROJECT: 22-16145
DRAWING No. 16
DATE: AUGUST 31, 2022



BH8/MW8 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0- 10.5)	WT2209423-007	METALS	<
		INORGANIC	<
		PHCs	<
		VOCs	<
		PAHs	<

BH7/MW7 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(5.0- 5.5)	WT2209423-006	METALS	<
		INORGANIC	<
		PHCs	<
		VOCs	<
		PAHs	<

BH2/MW2 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0-10.5)	WT2209423-002	METALS	<
		INORGANIC	<
		PHCs	<
		VOCs	<
		PAHs	<

BH3/MW3 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0-10.5)	WT2209423-003	METALS	<
		INORGANIC	<
		PHCs	<
		VOCs	<
		PAHs	<

Legend:

- Limits of Phase Two Property
- Groundwater Flow Direction
- Brown Sandy Silt Fill
- Red-Brown Silty Sand
- Grey Weathered Shale
- Depth (m) — Elevation (m) (Depth from Grade) (mbgs)
- Material Boundary
- Groundwater
- 2020, Top of Grade
- Samples where measured concentrations of labelled parameters did not exceed MOE (2011) Table 2 criteria
- < — Parameters within MOE Table 2 (2011) Residential criteria

BH5/MW5 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(10.0- 10.5)	WT2209423-005	METALS	<
		INORGANIC	<
		PHCs	<
		VOCs	<
		PAHs	<

BH1/MW1 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(14.0-14.5)	WT2209423-001	METALS	<
		INORGANIC	<
		PHCs	<
		VOCs	<
		PAHs	<

BH4/MW4 Chemical Analysis
August 3rd, 2022

Depth (m)	Lab No.	Parameter	Meas. (ug/g)
(5.0- 5.5)	WT2209423-004	METALS	<
		INORGANIC	<
		PHCs	<
		VOCs	<
		PAHs	<

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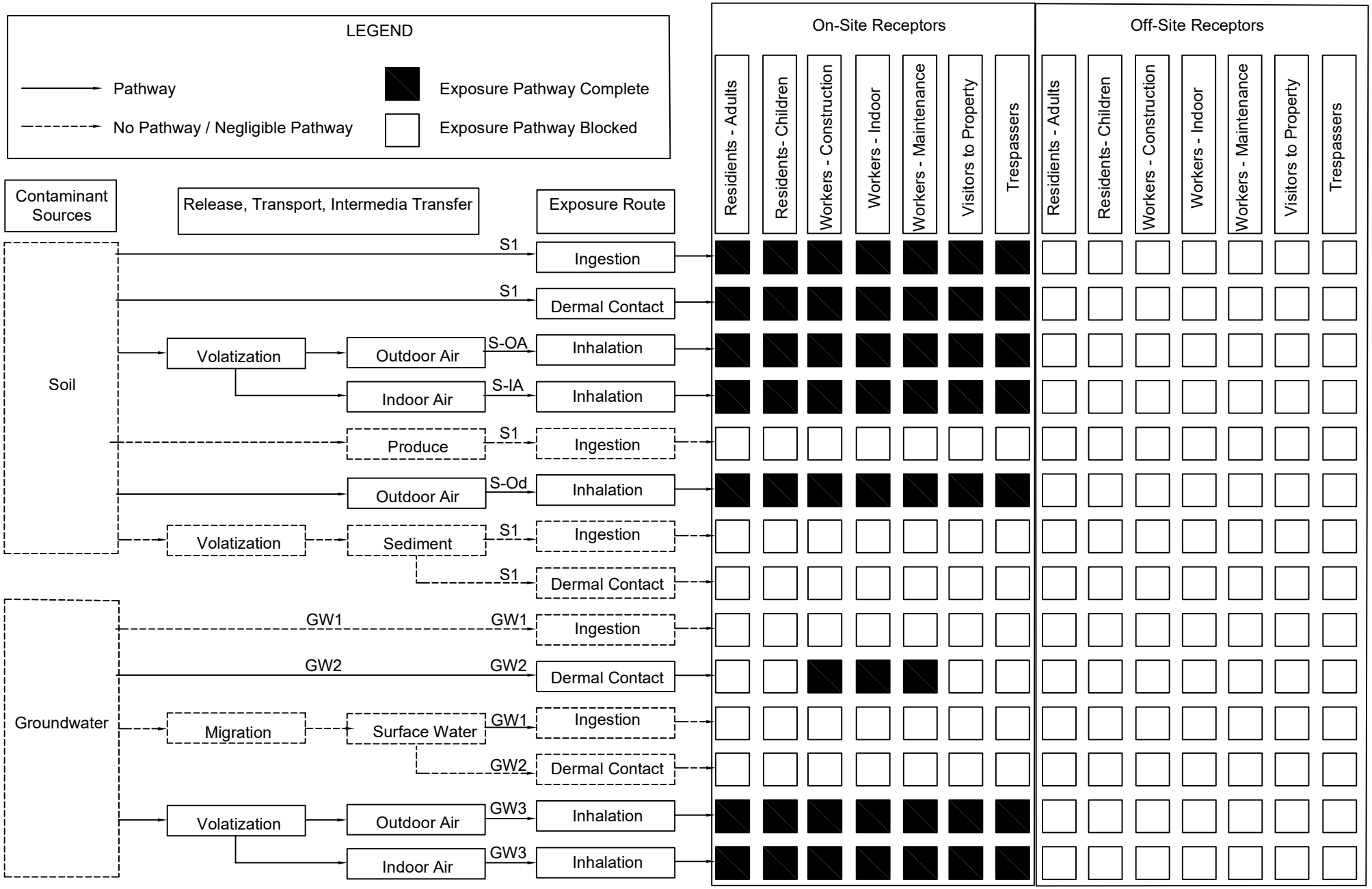
805 DUNDAS STREET EAST,MISSISSAUGA

PHASE TWO CONCEPTUAL SITE MODEL
SECTION B - B': GROUNDWATER

SCALE AS NOTED
DRAWN BY: RV

PROJECT: 22-16145
DRAWING No. 17
DATE: AUGUST 31, 2022



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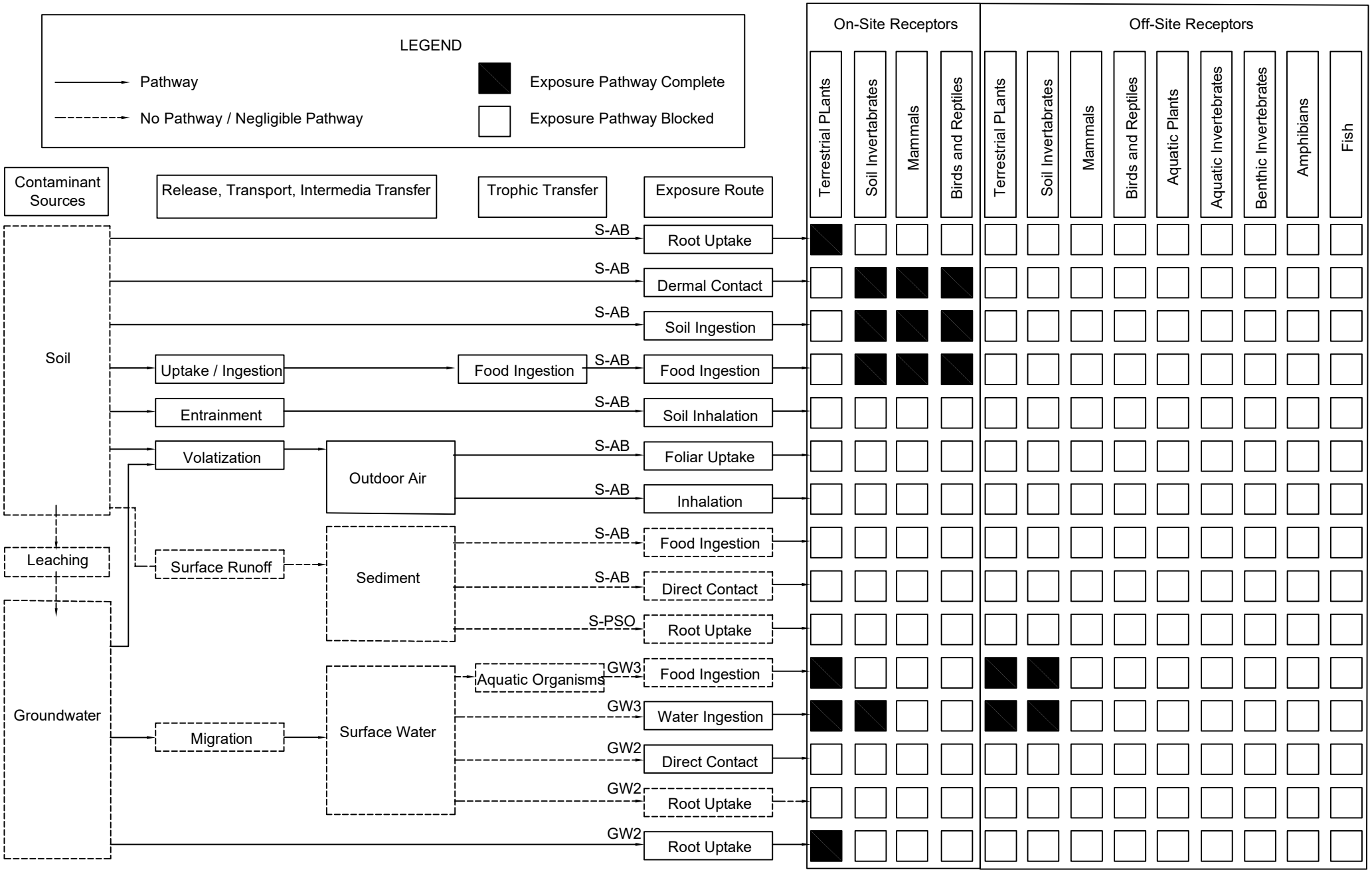
HUMAN HEALTH CONCEPTUAL SITE MODEL

805 DUNDAS ST. E. MISSISSAUGA

SCALE: AS NOTED
DRAWN BY: GF

PROJECT:22-16145
DRAWING No. 18
DATE:August 30, 2022



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ECOLOGICAL CONCEPTUAL SITE MODEL

805 DUNDAS ST. E., MISSISSAUGA

SCALE: AS NOTED
DRAWN BY: GF

PROJECT:22-16145
DRAWING No. 19
DATE: August 30, 2022