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A REPORT TO

HUMBERKING (I) DEVELOPMENTS LIMITED

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

PROPOSED MIXED USE RESIDENTIAL AND COMMERCIAL DEVELOPMENT

PART OF LOT 11 CONCESSION 4 AND 14100, 14166 AND 14196 HUMBER STATION ROAD

TOWN OF CALEDON

Reference No. 2108-E089

August 23, 2024

DISTRIBUTION

3 Copies – Humberking (I) Developments Limited

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It should be noted that the information supplied in this report is not sufficient to obtain approval for disposal of excess soil or materials generated during construction.

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1.0 EXECUTIVE SUMMARY

Soil Engineers Ltd. (SEL) was retained by Humberking (I) Developments Limited to carry out a Phase Two Environmental Site Assessment (Phase Two ESA), as defined by Ontario Regulation (O. Reg.) 153/04, as amended under Environmental Protection Act (EPA). The Phase Two ESA was conducted for the properties located to the northwest of the intersection of Humber Station Road and King Street in the Town of Caledon. The properties include in this assessment are a parcel with legal address as part of Lot 11 and Concession 4 and parcels municipally addressed as 14100, 14166 and 14196 Humber Station Road, in the Town of Caledon, Ontario (hereinafter referred to as the 'subject site').

The purpose of the Phase Two ESA was to assess the soil and groundwater quality at the subject site, as related to the Areas of Potential Environmental Concerns (APECs) identified in the SEL Phase One Environmental Site Assessment (Phase One ESA) for the subject site.

The Phase Two ESA field work was conducted at selected locations on the subject site. Soil and groundwater samples were collected and submitted for chemical analyses for contaminants of concern. The analytical results were compared with the Ministry of the Environment, Conservation and Parks (MECP) Table 8, Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for Residential/ Parkland/ Institutional/ Industrial/ Commercial/ Community property use (Table 8 Standards), as published in the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (EPA), dated April 15, 2011.

A review of the analytical test results of soil and groundwater samples indicated that the tested parameters at the test locations met the Table 8 Standards. Consequently, there are no contaminants identified at the subject site at a concentration above the applicable site condition standards (Table 8 Standards) during the Phase Two ESA.

Based on the findings of the Phase Two ESA, it is our opinion that the property is suitable for the proposed Mixed Use Development. No further environmental investigation is

recommended at this time.

2.0 INTRODUCTION

Soil Engineers Ltd. (SEL) was retained by Humberking (I) Developments Limited to carry out a Phase Two Environmental Site Assessment (Phase Two ESA), as defined by Ontario Regulation (O. Reg.) 153/04, as amended by O. Regs. 366/05, 66/08, 511/09, 245/10, 179/11, 269/11 and 333/13, herein referred to as O. Reg. 153/04 under Environmental Protection Act (EPA). The Phase Two ESA was conducted for the properties located to the northwest of the intersection of Humber Station Road and King Street in the Town of Caledon. The properties includes in this assessment are a parcel with legal address as part of Lot 11 and Concession 4 and parcels municipally addressed as 14100, 14166 and 14196 Humber Station Road, in the Town of Caledon, Ontario (hereinafter referred to as the 'subject site').

The purpose of the Phase Two ESA was to assess the soil and groundwater quality at the subject site, as related to the potential environmental concerns identified in the SEL One Environmental Site Assessment (Phase One ESA) for the subject site.

2.1 Site Description

The subject site, irregular in shape and approximately of 16.38 hectares (ha) (40.47 acres (ac)) in area, is located at Lot 11 Concession 4, and 14100, 14166 and 14196 Humber Station Road, in the Town of Caledon. The subject site is comprised for one (1) Property Identification Number (PIN): 14329-0258 (LT). The legal description of the subject site from the parcel register is: "Part Lot 11, Concession 4 Albion as in R01007868; Part Lot 11, Concession 4 Albion as in VS128916; Part Lot 11, Concession 4 Albion as in R01140923; Part Lot 11, Concession 4 Albion as in R0509275; Town of Caledon".

At the time of this assessment, the subject site has been used for agricultural purpose with residential building, attached and detached garages, barn and shed at the subject site. The neighbouring properties consist of agricultural properties to the north and west, agricultural and commercial properties to the east, and commercial properties to the south. The subject site is adjacent to the roadways (Humber Station Road and King Street to the northeast and

southeast, respectively).

2.2 Property Ownership

This Phase Two ESA was was commissioned to address any potential environmental concerns associated with proposed mixed use development. Our client can be contacted at:

Humberking (I) Developments Limited.
3 Browning Court,
Bolton, ON
L7E 5S6

Attention: Mr. Goffredo Vitullo

2.3 Current and Proposed Future Uses

The subject site is comprised of farm field and residential building. A mixed use residential and commercial development is being proposed for the subject site. It is anticipated that the new development will be provided with municipal services meeting urban standards.

2.4 Applicable Site Condition Standards

SEL has selected the applicable regulatory standards from O. Reg. 153/04, as amended, under the Environmental Protection Act (EPA), to assess the analytical data received from the submitted soil and groundwater samples. The following information was used to select the appropriate standard:

- The subject site is not considered to be sensitive based on the definition set forth in Ontario Regulation 153/04 as amended, as the subject site is not within/adjacent/part of an area of natural significance and the analytical testing indicated the pH of the tested surface soil sample is between 5 and 9 and subsurface soil sample is between 5 and 11.

- The property is not a shallow soil property, as the bedrock was not encountered within 2.0 metres (m) below ground surface (mbgs) during the investigation.
- Watercourses is passing through the subject site.
- Based on the information obtained from the Phase One ESA, there are records of water well at the subject site and neighbouring properties within 250 m from the subject site boundaries.
- Generic site condition standards for use within 30 m of waterbody are to be used in this assessment.
- The intended property use of the subject site is mixed used with residential. Therefore residential standards were applied.
- No grain size analysis was performed on the soil samples retrieved at the subject site.

Based on the above information, the Ministry of the Environment, Conservation and Parks (MECP) Table 8, Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for Residential/ Parkland/ Institutional/ Industrial/ Commercial/ Community property use (Table 8 Standards) as published in the "Soil, Groundwater, Sediment Standards for use under Part XV.1 of the Environmental Protection act" (EPA), April 15, 2011 has been selected for evaluating the environmental conditions at the subject site.

3.0 BACKGROUND

3.1 Physical Setting

Based on the information obtained from the SEL Phase One ESA, the general physical setting of the subject site is summarized below:

The subject site is located within rural areas of the Town of Caledon. The neighbouring properties consist of agricultural properties to the north and west, agricultural and commercial properties to the east, and commercial properties to the south. Roadways (i.e. Humber Station Road and King Street) are adjacent to the northeast and southeast, respectively

According to the Surface Geology Map of the Phase One Study Area, the subject site is underlain by Hilton Till Material with predominantly silt to silty clay matrix, high in matrix carbonate content and clast poor. The Bedrock Geology Map shows the subject site is underlain by bedrock of Queenston Formation, Georgian Bay Formation, Blue Mountain Formation, Billings Formation, Collingwood Member, Eastview Member with rock description documented as shale, limestone, dolostone, siltstone. According to the Bedrock Topography Series, depth to bedrock in general vicinity of the subject site is approximately 64 metres below ground surface (mbgs).

The overall grade of the subject site descends towards southeasterly direction. A watershed map obtained from the Land Information Ontario (LIO) shows that the subject site is located within the Humber River- Don River Watershed.

Based on the review of the Ontario Ministry of the Natural Resources and Forestry (OMNRF) and the LIO for listings of various classes of natural areas within the vicinity of the subject sitea watercourse is traversing from northwest to northeast at the subject site. Not-evaluated wetland as per Ontario Wetland Evaluation System (OWES) is located in the central portion of the subject site. A water body surrounded with not-evaluated wetland is located adjacent to the southwest of the subject site. The subject site is not located in a Well-head Protection

Area.

3.2 Past Investigations

The following Past Investigation Report was reviewed as part of this Phase Two ESA:

- Phase One Environmental Site Assessment (Phase One ESA), Proposed Mixed Use Residential and Commerical Development, Part of Lot 11 Concession 4 and 14100, 14166 and 14196 Humber Station Road, Town of Caledon, SEL Reference No. 2108-E089, dated December 12, 2022.

The SEL Phase One ESA identified Potentially Contaminating Activities (PCAs) at the subject site and in the Phase One Study Area that may contribute to Areas of Potential Environmental Concerns (APECs) at the subject site, based on records review, interviews and site reconnaissance. The findings of the SEL Phase One ESA revealed the following APECs:

APEC 1: Potential soil impact due to possible use of pesticide as a part of agricultural activities at the subject site

APEC 2: Potential soil impact due to former coal furnace located in the basement of the house in the eastern portion of the subject site.

APEC 3: Potential soil and groundwater impact due to one (1) fuel oil tank listed in the northern portion of the subject site.

APEC 4: Potential soil and groundwater impact due to presence of freight transportation company associated with records of waste generator including waste oil and photoprocessing waste, adjacent to the east of the subject site.

APEC 5: Potential soil and groundwater impact due to presence of equipment and logistic supply company associated with records of waste generator including waste oil, adjacent to the east of the subject site.

APEC 6: Potential soil and groundwater impact due to presence of construction materials supply company associated with records of waste generator

including waste oil, adjacent to the southeast of the subject site.

APEC 7: Potential soil and groundwater impact due to presence of equipment supply company associated with records of waste generator including waste oil, adjacent to the southeast of the subject site.

The locations of the PCAs and APECs are shown on Drawing Nos. 1 and 2, respectively.

4.0 SCOPE OF THE INVESTIGATION

4.1 Overview of Site Investigation

The purpose of this investigation (Phase Two ESA) was to assess the soil and groundwater quality at the subject site, as related to the potential environmental concerns raised in the findings of SEL Phase One ESA. This Phase Two ESA was conducted in general conformance with the CSA Standard Z769-00 (Reaffirmed in 2018) and O. Reg. 153/04, as amended.

The scope of work for this investigation includes:

- Locate the underground and overhead utilities.
- Advance eight (8) boreholes (designated as BH1 to BH8) to a maximum depth of 7.6 meters below grade surface (mbgs) and carryout eight (8) hand dug test pits (designated as TP1 to TP8) to a depth of 0.3 mbgs.
- Collect representative soil samples from the sampling locations.
- Undertake field examination of the retrieved soil samples for visual and olfactory evidence of potential contamination.
- Undertake soil vapour measurements for the retrieved soil samples using a combustible gas detector (RKI Eagle) in methane elimination mode.
- Install five (5) monitoring wells at boreholes BH1 to BH5 locations (designated as BH/MW1 to BH/MW5) for groundwater sampling, testing and monitoring.
- Carry out an analytical testing program on selected soil and groundwater samples including quality assurance and quality control (QA/QC) samples for one or more of the following parameters: Petroleum Hydrocarbons (PHCs), Volatile Organic Compound (VOCs), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), Metals, Arsenic (As), Antimony (Sb), Selenium (Se), Mercury (Hg), Chromium Hexavalent (Cr (VI)), Cyanides (CN^-), Boron Hot Water Soluble (B-HWS), Electrical

Conductivity (EC), Sodium Adsorption Ratio (SAR) and pH parameters.

- Review analytical testing results of submitted soil and groundwater samples using applicable Site Condition Standards.
- Prepare a Phase Two ESA report containing the findings of the investigation.

The rationale for the selection of sampling locations is presented in the Sampling and Analysis Plan, Appendix 'A'.

4.2 Media Investigated

Based on the findings of the Phase One ESA, soil and groundwater media were investigated during the Phase Two ESA in accordance with the Sampling and Analysis Plan provided in Appendix 'A'. Sediment was not identified as potentially contaminated medium in the Phase One ESA. Consequently, no sediment investigation was conducted as part of this Phase Two ESA.

Boreholes were advanced using a direct push (Geoprobe) drill rig equipped with shelby tube and split spoon sampler and the hand-dug test pits using a steel spade and soil samples were retrieved continuously. Soil samples were logged in the field and headspace vapour screening was conducted for all retrieved soil samples using a combustible gas detector (RKI Eagle) in methane elimination mode, calibrated with hexane and having a minimum detection level of 2 parts per million by volume (ppmv).

Groundwater monitoring wells were installed at five (5) borehole locations (designated as BH/MW1 to BH/MW5). The monitoring wells were constructed using 50 millimeter (mm) diameter flush-joint threaded PVC monitoring well supplies. The wells were completed with 3.0 m in length water intake screens. Groundwater sampling was conducted using dedicated low-density polyethylene tubing and laboratory-supplied containers (prepared with preservative for the analyses that are being conducted).

4.3 Phase One Conceptual Site Model

A plan, illustrating the features of the subject site and surrounding areas within 250 m from the subject site boundaries including the locations of PCAs, is presented in Drawing No. 1 and APECs are presented on Drawing No. 2.

4.4 Deviations From Sampling and Analysis Plan

No deviations from the sampling and analysis plan were encountered.

4.5 Impediments

No impediments were encountered during the investigation for the Phase Two ESA.

5.0 INVESTIGATION METHOD

5.1 General

The Phase Two ESA was carried out in accordance with the Sampling and Analysis Plan provided in Appendix 'A' and in accordance with the SEL Standard Operating Procedures (SOPs).

The investigation of the Phase Two ESA consisted of advancing eight (8) boreholes and carrying out eight (8) hand-dug test pits, installation of five (5) monitoring wells at the selected borehole locations, field measurements, monitoring, and collection of soil samples from the boreholes and test pit, and groundwater samples from installed monitoring wells for chemical analyses. The soil and groundwater samples were assessed for potential contamination with respect to the APECs identified by the SEL Phase One ESA and Phase Two ESA.

The sampling and decontamination procedures were conducted in accordance with the "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario", May 1996, revised December 1996, as amended by O. Reg. 511/09.

Laboratory analytical methods, protocols and procedures were carried out in accordance with the "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act", dated March 9, 2004, amended as of July 1, 2011, in accordance with O. Reg. 511/09 and O. Reg. 269/11.

5.2 Drilling and Excavating

Prior to the field work, the underground and overhead utilities were located and marked out by the representatives of the major utility companies as per Ontario One Call Program and a private locator (SL Sonic Soil).

The field work for the Phase Two ESA was conducted during June 26 and 27, 2024 for boreholes up to maximum depths of 7.6 mbgs. Borehole drilling and installation of monitoring wells were completed by SL Sonic Soil, MECP approved licensed well contractors for groundwater observation, sampling and testing at the subject site. Eight (8) hand dug test pit samples were also collected on June 27, 2024. The locations of the boreholes and test pits are shown in Drawing No. 2.

All boreholes were advanced with Geoprobe direct push (Thin-walled Open (TO)) method equipped with shelby tube for soil sampling, supplied by drilling contractor. Soil samples retrieved from boreholes were recovered continuously for soil vapour measurement, soil classification and visual and olfactory observations for potential contamination.

Drilling and sampling equipment such as drill rigs, augers, drill pipes, drilling rods, split-spoons and spade were decontaminated prior to initial use, between borehole locations and at the completion of drilling activities. The drilling equipment was manually scrubbed with a brush using a phosphate-free solution, and power washed to remove any adhered soils, foreign material and potential contaminants. In addition, all sampling equipment were decontaminated prior to each usage.

The field work was monitored by SEL environmental personnel who recorded the findings and observations.

5.3 **Soil: Sampling**

Soil samples from the boreholes were retrieved at regular intervals, using shelby tube and the hand-dug test pits using a steel spade. Prior to recovering a sample, the sampling equipment was brushed clean using a solution of phosphate-free detergent and distilled water, and each discrete sample was handled by the sampler with new disposable gloves in order to avoid the risk of cross-contamination between the samples. Each soil sample was split with part of the sample sealed in a laboratory-prepared sampling media and stored in a cooler with ice, and the remainder of the sample sealed in a double sealable bag for vapour measurement and soil

classification. A small amount of the soil sample was retrieved by a disposable 'T' shaped Terracore sampler and the soil samples from the Terracore sampler were stored in methanol vials for PHC Fraction F1 and VOCs analyses.

The subsoil conditions at the borehole locations indicated that beneath the layer of topsoil, or asphalt, the subject site is generally underlain by deposits of silty clay, silt, sand and sandy silt at various depths and locations. Bedrock was not encountered during the Phase Two ESA investigation. Detailed descriptions of the encountered subsurface conditions are presented on the Borehole Logs provided in Appendix 'B'.

Generally the representative 'worst case' soil samples from each borehole to determine the maximum concentrations were selected and sent to the laboratory for chemical analyses, based on the soil vapour measurements and visual and olfactory observations. However, in absence of any evidence of elevated vapor or contamination/unusual observation, the soil samples were selected according to the contaminant of concerns (COCs) behavior (i.e. near the potential source for metals and PAHs, at the zone of water bearing for PHCs, and below the water table for VOCs).

5.4 Field Screening Measurements

The headspace vapour concentrations were measured using a portable RKI Eagle gas detector, TYPE 101 (Serial Number: E091011) set to include combustible gases with the exception of methane (methane elimination mode), and having a minimum detection level of 2 ppmv. Prior to taking the measurements, the instrument was calibrated to hexane standards for both ppm and lower explosive limit (LEL) according to the instruction manual for the instrument. Our field personnel are trained by the supplier for the proper calibration procedure. The instrument is calibrated or tuned up by the supplier (Pine Environmental Services Inc.), seasonally.

The results of the soil vapour measurement are presented in the Borehole Logs attached in Appendix 'B'.

It is to be noted that that the soil vapour measurements alongside with the visual and olfactory observations and contaminant of concerns (COCs) behavior were used to select the representative 'worst case' soil samples from each sampling location for chemical analyses.

5.5 Groundwater: Monitoring Well Installation

During the Phase Two ESA, a total of five (5) monitoring wells were installed at the subject site by SL Sonic Soil, an MECP approved licensed well contractor. The monitoring wells were constructed using 50 mm diameter PVC screen, 3.0 m in length screens in the boreholes. A PVC riser, capped at the top, was installed from the screen section above the top grade. A sand pack, consisting of clean silica sand, was placed around the screened zone with a bentonite seal placed above the sand pack. At each monitoring well location, the above ground risers were protected by steel monument casings or flushmount covering that have been sealed into the ground with concrete. The monitoring well construction details are provided on the Borehole Logs in Appendix 'B' and in Table I.

The monitoring wells installed at the subject site were instrumented with dedicated low-density polyethylene tubing to facilitate well development, purging and sampling requirements.

Well development was performed following the advancement of wells on July 3, 2024. The monitoring wells were developed to remove any fluids that may have been introduced into the wells during drilling and to remove particles that may have become entrained in the wells and filter pack. Purging of three (3) well casing volumes of groundwater from each well was used for each well development. Purged water was collected and stored at the subject site for future disposal.

5.6 Groundwater: Field Measurement of Water Quality Parameters

Groundwater monitoring was conducted at the subject site on July 5, 2024. Water level measurements were taken using a water level meter (Dipper-T) equipped with a thermometer.

Groundwater observations were recorded for colour, clarity, the presence or absence of any free product/surface sheen and any odours present during the development the wells and monitoring events. The water level measuring device was cleaned after each measurement using Alconox solution and water, followed by a distilled water rinse and a methanol rinse, in order to prevent cross-contamination between monitoring wells.

The records of water level measurements recorded on July 5, 2024 are presented in Table II.

5.7 Groundwater: Sampling

Groundwater sampling was conducted on July 5, 2024, after purging and allows water at the wells to stabilize. The groundwater purging and sampling activities were carried out using dedicated low-density polyethylene tubing. Groundwater samples were collected into laboratory-supplied containers, prepared with preservative for the analysis being conducted.

The samples scheduled for analysis of metals were passed through a 0.45 micron filter as part of the groundwater sampling process.

5.8 Sediment: Sampling

Sediment was not assessed as part of this investigation.

5.9 Analytical Testing

The soil and groundwater samples were analysed by Bureau Veritas Laboratories (BV Labs) in Mississauga, Ontario. BV Labs are accredited by the Canadian Association for Laboratory Accreditation (CALA) in accordance with ISO/IEC 17025:2005 as amended – "General Requirements for the Competence of Testing and Calibration Laboratories" for all the parameters analysed during this investigation.

5.10 Residue Management Procedures

There was no significant volume of excess soil generated from the field investigation. Groundwater purged from the monitoring wells was stored in containers, using a separate container for each well. The containers were clearly marked and stored temporarily at the subject site for later disposal.

5.11 Elevation Surveying

The ground elevations of the borehole locations were surveyed using hand-held (Trimble Geoexplorer 7000 series) Global Navigation Satellite System (GNSS) measurement equipment. The equipment is capable of having vertical and horizontal accuracy of 0.1± m.

The elevations at the borehole and monitoring well locations are presented in Table II and the borehole/monitoring well logs in Appendix 'B'.

5.12 Quality Assurance/Quality Control (QA/QC) Measures

The soil and groundwater Sampling and Analysis Plan provided in Appendix 'A' was prepared and executed based on the findings of the Phase One ESA.

The Phase Two ESA was carried out in accordance with the Sampling and Analysis Plan and in accordance with the SEL Standard Operating Procedures (SOPs).

The sampling and decontamination procedures were conducted in accordance with the "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario", May 1996, revised December 1996, as amended by O. Reg. 511/09.

Laboratory analytical methods, protocols and procedures were carried out in accordance with the "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act", dated March 9, 2004, amended as of July 1, 2011, in

accordance with O. Reg. 511/09 and O. Reg. 269/11.

Field observations were made and documented in a field book in accordance with generally accepted practices and with the procedures developed and utilized by SEL.

SEL field sampling QA/QC protocols, applied to the investigation, are as follows:

- The collection of at least one field duplicate sample per 10 samples for every sampling media.
- Where volatile organic chemical analysis is required, the collection of discrete samples directly into laboratory-prepared sample vials and immediate placement into a cooler with ice to maintain the temperature at less than 10 °C for transport to the laboratory.
- The use of dedicated equipment (Bailers, Waterra tubing, etc.) for groundwater sampling at different monitors and the thorough cleaning of soil sampling equipment between sample sites.
- If trace organics in the collected samples are anticipated (organic chemicals with a concentration of less than 1 µg/g), precautions are made to avoid any possible cross-contamination (eliminating bare hand or latex glove contacts with the soil or water); soil sampling equipment used for the collection of trace organics are cleaned using a phosphate-free detergent and water, followed by a distilled water rinse and a methanol rinse between sampling sites.
- The inclusion of one trip blank for water samples per site (where three or more samples are collected) for VOC parameters; the bottles containing the trip blank are prepared by the laboratory; QA/QC samples are kept in the cooler on ice for the duration of the sampling event, and returned to the laboratory for analyses.

The results of the field duplicate and trip blank samples are discussed later in Section 6.9 of this report.

6.0 REVIEW AND EVALUATION

6.1 Geology

Detailed descriptions of the encountered subsoil conditions are presented on the Borehole Logs provided in Appendix 'B'. The subsoil conditions at the borehole locations indicated that beneath the layer of topsoil or asphalt, the subject site is generally underlain by deposits of silty clay, silt, sand and sandy silt at various depths and locations. No bedrock was encountered during the Phase Two ESA. The locations of cross sections for soil stratigraphy at the subject site are presented on Drawing No. 3. Geological Cross Sections, A-A', B-B' and C-C' are presented on Drawing No. 4.

The descriptions of the strata, encountered at the borehole locations, are briefly discussed below.

Topsoil

Topsoil, approximately 0.18 m to 0.33 m thickness, was encountered at borehole BH1 to BH4, BH7 and BH8 locations.

Asphalt and Granular

A thin layer of asphalt (approximately 0.03 m), followed by granular layer to the depth of 0.15 mbgs was encountered at borehole BH5 location.

Silty Clay

Silty clay deposits were encountered at all the boreholes underneath topsoil or bear ground (at BH6) and extended to the depth of 1.5 to 7.6 mbgs. Additional deposit of silty clay was encountered at borehole BH4 location between the depth of 2.6 to 4.0 mbgs.

Sandy Silt

Sandy silt deposit was encountered at borehole BH3 location between the depth of 1.5 to 2.3 mbgs.

Sand

Deposits of sand were encountered at boreholes BH2 to BH4 locations between the depth of 0.3 to 4.6 mbgs, 2.3 to 4.6 mbgs and 2.3 to 2.6 mbgs respectively.

Hydrogeology

Upon completion of drilling, groundwater were observed at forehole BH1 location. This hydrogeologic unit at the subject site was investigated for the Phase Two ESA.

6.2 Groundwater: Elevations and Flow Direction

Five (5) monitoring wells (designated as BH/MW1 to BH/MW5) were installed at borehole locations BH1 to BH5 during the field investigation for the Phase Two ESA during June 26 and 27, 2024. The monitoring wells were installed at depths ranging from 3.5 to 7.6 mbgs.

On July 5, 2024, during the groundwater monitoring event, water levels were recorded at depths of 1.5, 2.0, 2.1, 0.8 and 5.7 mbgs in the monitoring wells BH/MW1 to BH/MW5, respectively. The corresponding water level elevations were recorded 264.2, 263.9, 263.8, 265.5 and 262.9 meters above sea level (masl) in BH/MW1 to BH/MW5, respectively.

The ground elevations of the borehole locations were surveyed using hand-held (Trimble Geoexplorer 7000 series) Global Navigation Satellite System measurement equipment. The equipment is capable of having vertical and horizontal accuracy of 0.1± m. Water level measurements were taken using a water level meter (Dipper-T). The top of the well casings were used as a reference point to determine the groundwater elevation in the monitoring wells.

The groundwater level measurements were considered as static elevations based on the monitoring well survey data. Shallow aquifer groundwater levels were used to determine the groundwater flow direction. Based on the groundwater monitoring records, the groundwater flow direction appears to be to the northwesterly direction in northwest portion and southeasterly in southeastern portion of the subject site. No free product or surface sheen was observed in any of the monitoring wells during the monitoring events.

The groundwater elevations measured in the monitoring wells are summarized in Table II. The shallow aquifer groundwater contours and interpreted ground water flow direction are shown on Drawing No. 5.

6.3 Groundwater: Hydraulic Gradients

Based on the groundwater records of the investigation, the horizontal hydraulic gradient for the investigated aquifer at the subject site is between 0.0015 and 0.0086 m/m (average 0.0039 m/m).

6.4 Fine-Medium Soil Texture

No grain size analysis was conducted as part of this investigation.

6.5 Soil: Field Screening

Headspace vapour screening was conducted for all retrieved soil samples using a combustible gas detector (RKI Eagle) in methane elimination mode, calibrated with hexane and having a minimum detection level of 2 ppmv.

Soil vapour readings ranging from non-detect to 25 ppm were recorded for the soil samples collected at the subject site.

6.6 Soil Quality

A representative "worst case" soil sample from each sampling location was selected based on the soil vapour measurements and visual and olfactory observations. The selected soil samples were submitted to the laboratory for chemical analyses of OCs, PHCs, BTEX, VOCs, PAHs, Metals, As, Sb, Se, Hg, Cr (VI), B-HWS, CN^- , EC, SAR and pH parameters.

The soil test results were reviewed using the MECP Table 8 Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for Residential/ Parkland/ Institutional/ Industrial/ Commercial/ Community property use (Table 8 Standards), as published in the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (EPA), dated April 15, 2011.

Soil quality data containing results of the chemical analyses for the tested soil samples are presented in Table III. Maximum concentrations of the tested parameters in soil are presented in Table V.

A copy of the Certificate of Analysis for the soil samples is presented in Appendix 'C'. The findings of the soil test results are summarized below.

Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, CN^-, EC, SAR, pH

Eighteen (18) original soil samples and two (2) field duplicate samples were submitted for analyses of Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, CN^-, EC, SAR, and/or pH parameters. The test results indicate that the tested parameters in the soil samples at the tested locations met the Table 8 Standards.

Organochlorine Pesticides (OCs)

Nine (9) original soil samples and one (1) field duplicate sample were submitted for analyses of OCs. The test results indicated that the tested parameters in the soil samples at tested

locations met the Table 8 Standards.

Volatile Organic Compounds (VOCs)

Five (5) original soil samples and one (1) field duplicate sample were submitted for analyses of VOCs. The test results indicated that the tested parameters in the soils at the tested locations met the Table 8 Standards.

Petroleum Hydrocarbons (PHCs) and Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

Seven (7) original soil samples and one (1) field duplicate sample were submitted for analyses of PHCs and/or BTEX. The test results indicated that the tested parameters in the soils at the tested locations met the Table 8 Standards.

Polycyclic Aromatic Hydrocarbons (PAHs)

Seven (7) original soil samples were submitted for analyses of PAHs. The test results indicate that the tested parameters in the soils at tested locations met the Table 8 Standards.

6.7 Groundwater Quality

Groundwater samples were collected from five (5) monitoring wells at the subject site. The groundwater samples were submitted to the laboratory for chemical analyses of PHCs, VOCs, PAHs, Metals, As, Sb, Se and pH parameters.

The groundwater test results were reviewed using Table 8, Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for all types of Property Use (Table 8 Standards), as published the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (EPA), April 15, 2011.

Groundwater quality data containing results of the chemical analyses for the tested groundwater samples is presented in Table IV. Maximum concentrations of the tested parameters in groundwater are presented in Table VI.

The Certificates of Analyses for the groundwater samples are presented in Appendix 'D'.

The findings of the groundwater test results are summarized below:

Metals, As, Sb, Se, pH

Five (5) sets of original groundwater samples were submitted for analyses of Metals, As, Sb, Se and pH parameters. The test results indicate the tested groundwater samples at tested locations met the Table 8 Standards.

Volatile Organic Compounds (VOCs)

Four (4) sets of original groundwater samples, one (1) field duplicate sample and one (1) trip blank were submitted for analyses of VOCs. The test results indicate the tested groundwater samples at tested locations met the Table 8 Standards.

Petroleum Hydrocarbons (PHCs) and Benzene, Toluene, Ethylbenzene, Xylene (BTEX)

Five (5) set of original groundwater sample and one (1) field duplicate sample were submitted for analyses of PHCs and/or BTEX. The test results indicate the tested groundwater samples at tested locations met the Table 8 Standards.

Polycyclic Aromatic Hydrocarbons (PAHs)

Five (5) sets of original groundwater samples and one (1) set of duplicate sample were submitted for analyses of PAHs. The test results indicate the tested groundwater samples at tested locations met the Table 8 Standards.

6.8 Sediment Quality

Sediment was not assessed as part of this investigation.

6.9 Quality Assurance and Quality Control (QA/QC) Results

The Phase Two ESA was carried out in accordance with the Sampling and Analysis Plan and in accordance with the SEL SOPs.

The sampling and decontamination procedures were conducted in accordance with the "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario", May 1996, revised December 1996, as amended by O. Reg. 511/09.

Laboratory analytical methods, protocols and procedures were carried out in accordance with the "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act", dated March 9, 2004, amended as of July 1, 2011, in accordance with O. Reg. 511/09 and O. Reg. 269/11 (herein referred to as Analytical Protocol).

6.9.1 Field Quality Assurance and Quality Control (QA/QC) Samples

As part of the QA/QC program for the Phase Two ESA, QC samples in the form of field duplicate samples and trip blank sample were analysed. Field duplicate samples were collected in the field for Metals, OCs, VOCs and PHCs for soil, and VOCs, PHCs and PAHs for groundwater. One (1) trip blank for VOCs was shipped with the batch of the groundwater samples submitted for analysis. Details of QC samples are presented in the table below.

Field Duplicate

A total of five (5) sets of field duplicate soil samples and three (3) set of field duplicates for

groundwater sample were collected and submitted for chemical analyses. Details of the duplicate sampling and analysis are presented in the table below:

Duplicate Sample ID	Original Sample ID	Media	Test Conducted
DUPS1	TP1	Soil	Metals
DUPS2	TP4	Soil	OCs
DUPS3	TP8	Soil	Metals
DUPS4	BH1/3	Soil	VOCs, PHCs
DUPW1	MW1	Groundwater	VOCs, PHCs and PAHs

The results of the analyses of the field duplicate samples are similar to the results for the original sample and relative percent differences (RPDs) for the detectable tested parameters are within the acceptable range. RPDs could not be calculated between the original and duplicate samples in the situation where the average of the original and/or duplicate samples were below the reported laboratory detection limits (RDLs).

The Certificates of Analysis for the QA/QC samples are included in Appendices 'C' and 'D'.

Trip Blank

One (1) trip blank sample set was submitted to the laboratory for analysis of VOCs. The trip blank sample was found to be below the reported laboratory detection limits.

There was no issue with the trip blank that was shipped with the batch of the groundwater samples submitted for analysis.

The Certificates of Analysis for the QA/QC samples are included in Appendices 'C' and 'D'.

6.9.2 Sample Handling in Accordance with the Analytical Protocol

The samples analyzed as part of the Phase Two ESA were handled in accordance with the Analytical Protocol as per O. Reg. 153/04 with respect to holding time, preservation method, storage requirement and sample container type.

6.9.3 Certification of Results

Based on the review of the QA/QC sample results for the soil and groundwater samples in this investigation, the Chain of Custody forms and the laboratory Certificates of Analysis, it is certified that:

- All Certificates of Analysis or Analytical Reports were received pursuant to Section 47(2) of O. Reg. 153/04, as amended, comply with Section 47(3) of O. Reg. 153/04, as amended.
- A Certificate of Analysis or Analytical Report was received for each sample submitted for analysis.
- Copies of all Certificates of Analysis are included in Appendices 'C' and 'D'.

6.9.4 Data Validation

The Analytical Protocol establishes Acceptance Limits for use when assessing the reliability of data reported by analytical laboratories including maximum holding times for the storage of samples/sample extracts between collection and analysis, analytical methods, field and/or laboratory quality assurance samples, recovery ranges for spiked samples and surrogates, Reporting Detection Limits (RDLs, mandatory maximum method detection limits) and precision required when analyzing laboratory replicate and spiked samples.

The review of the data in the Certificate of Analysis indicates:

- All samples/sample extracts were analyzed within their applicable holding times using approved analytical methods.
- No tested parameters were detected in any laboratory blank samples.
- The RDLs were met for all tested parameters.
- The results of the laboratory duplicate samples are similar to the results for the original samples and relative percent differences for the detectable tested parameters are within

the acceptable range.

6.9.5 **Data Quality Objectives**

In conclusion, the overall quality of field data did not affect decision making and the overall objectives of the investigation were met.

6.10 **Phase Two Conceptual Site Model**

The Phase Two Conceptual Site Model was prepared based on the findings of the Phase One Environmental Site Assessment (Phase One ESA) and this Phase Two Environmental site Assessment (Phase Two ESA).

6.10.1 **Description and Assessment**

The subject site, irregular in shape and approximately of 16.38 hectares (ha) (40.47 acres (ac)) in area, is located at Lot 11 Concession 4, and 14100, 14166 and 14196 Humber Station Road, in the Town of Caledon. The subject site is comprised for one (1) Property Identification Number (PIN): 14329-0258 (LT). The legal description of the subject site from the parcel register is: "Part Lot 11, Concession 4 Albion as in R01007868; Part Lot 11, Concession 4 Albion as in VS128916; Part Lot 11, Concession 4 Albion as in R01140923; Part Lot 11, Concession 4 Albion as in R0509275; Town of Caledon".

6.10.1.1 Areas where Potentially Contaminating Activity Has Occurred

The Phase One ESA identified Potentially Contaminating Activities (PCAs) at the subject site and in the Phase One Study Area based on records review, interview and site reconnaissance.

The locations of PCAs along with the corresponding list in Table 2 Schedule D of O. Reg. 153/04 are summarized below:

On-Site PCA

- Possible use of pesticides as a part of agricultural activities at majority of the subject site. #40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications.
- Historical presence of a fuel oil tank at residential property (14196 Humber Station Road) at the northern portion of the subject site. #28 – Gasoline and Associated Products Storage in Fixed Tanks

Following On-site PCA is not listed in the Table 2 Schedule D of O. Reg. 153/04:

- Historical presence of coal furnace at basement of residential building (14100 Humber Station Road) at eastern portion of the subject site. #Other - Former Coal Furnace

Off-site PCAs

- Presence of Wood product manufacturing businesses (i.e., Coventry Forest Products Inc. and Brite Manufacturing Inc.) associated with waste generator including waste oil (at 13930 Humber Station Road), approximately 198 m southeast and trans-gradient of the subject site. #59 – Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products
- Presence of railway tracks approximately 185 m south and trans-gradient of the subject site. #46 – Rail Yards, Tracks and Spurs
- Presence of railway tracks approximately 230 m east and down-gradient of the subject site. #46 – Rail Yards, Tracks and Spurs.

Off-site PCAs that are not listed in Table 2 Schedule D of O. Reg. 153/04 includes:

- Presence of Freight Transport Companies (i.e., Georbon and Cavalier Transportation Services Inc.) associated with waste generator including waste oil

and photo processing waste (at 14091 Humber Station Road) east of the subject site. #Other – Waste Oil Generator – Frieght Company.

- Presence of Equipment and Logistic Company (i.e., SMS Equipment Inc. and Magcrete Logistics) associated with waste generator including waste oil (at 14025 Humber Station Road) east of the subject site. #Other – Waste Oil Generator - Equipment and Logistic.
- Presence of construction material Supply Company (i.e., Axim Concrete Technologies Inc. and James Dick Construction Ltd.) associated with waste generator including waste oil (at 13975 Humber Station Road) east of the subject site. #Other – Waste Oil Generator – Construction Material
- Presence of Equipment Supply Company (i.e., Equipment North Inc.) associated with waste generator including waste oil (at 13970 Humber Station Road). #Other – Waste Oil Generator – Equipment Supply
- Presence of Utility Company (i.e., Hydro One Networks Inc.) associated with waste generator including waste oil (at 13973 Humber Station Road), approximately 90 m southeast and trans-gradient of the subject site. #Other – Waste Oil Generator.
- Presence of Equipment and tool shop (i.e., JC Sani Care Inc.) associated with waste generator including waste oil (at 7865 King Street West), approximately 142 m south and trans-gradient of the subject site. #Other – Waste Oil Generator.
- Record of engine oil spill incident (at 7865 King Street West), approximately 142 m south and trans-gradient of the subject site. #Other – Fuel Spill
- Record of gasoline fuel spill incident (at 7800 King Street West) approximately 240 m south and trans-gradient of the subject site. #Other – Fuel Spill
- Record of diesel fuel spill incident (at 1 Betomat Court) approximately 240 m southeast and trans-gradient of the subject site. #Other – Fuel Spill

The on-site PCAs and off-site PCAs (freight trasport company, equipment and logistic company, construction mmterial supply company and equipment supply company) are considered to have contributed to the Areas of Potential Environmental Concerns (APECs) at the subject site. However, taking account of relative distance of the off-site PCAs (i.e. various

waste generators, railway tracks (#46), wood treatment (#59) and various spill incidents), were not considered to have contributed to the Areas of Potential Environmental Concerns (APECs) at the subject site.

The locations of PCAs are shown on Drawing No. 1.

6.10.1.2 Areas of Potential Environmental Concern

The following Areas of Potential Environmental Concern were identified at the subject site.

APEC 1: Potential soil impact due to possible use of pesticide as a part of agricultural activities at the subject site.

APEC 2: Potential soil impact due to former coal furnace located in the basement of the house in the eastern portion of the subject site.

APEC 3: Potential soil and groundwater impact due to one (1) fuel oil tank listed in the northern portion of the subject site.

APEC 4: Potential soil and groundwater impact due to presence of freight transportation company associated with records of waste generator including waste oil and photoprocessing waste, adjacent to the east of the subject site.

APEC 5: Potential soil and groundwater impact due to presence of equipment and logistic supply company associated with records of waste generator including waste oil, adjacent to the east of the subject site.

APEC 6: Potential soil and groundwater impact due to presence of construction materials supply company associated with records of waste generator including waste oil, adjacent to the southeast of the subject site.

APEC 7: Potential soil and groundwater impact due to presence of equipment supply company associated with records of waste generator including waste oil, adjacent to the southeast of the subject site.

The locations of the APECs are shown on Drawing No. 2.

6.10.1.3 Subsurface Structures and Utilities

At the time of the assessment, the subject site is comprised of farm fields and residential buildings. Since no contaminants were identified at the subject site at a concentration above the applicable site condition standard, no subsurface structures or utilities with the potential to affect contaminants distribution or transport are identified at the subject site.

6.10.2 **Physical Setting**

6.10.2.1 Stratigraphy

According to the Surface Geology Map of the Phase One Study Area, the subject site is underlain by Hilton Till Material with predominantly silt to silty clay matrix, high in matrix carbonate content and clast poor. The Bedrock Geology Map shows the subject site is underlain by bedrock of Queenston Formation, Georgian Bay Formation, Blue Mountain Formation, Billings Formation, Collingwood Member, Eastview Member with rock description documented as shale, limestone, dolostone, siltstone.

The field investigation for the Phase Two ESA consisted of advancing eight (8) boreholes (designated as BH1 to BH8) to depths ranging from 3.0 to 7.6 mbgs and carrying out eight (8) hand dug test pits (designated as TP1 to TP8) to maximum depth of 0.3 mbgs. The subsoil conditions at the borehole locations indicated that beneath the layer of topsoil or asphals, the subject site is generally underlain by deposits of silty clay, silt, sand and sandy silt at various depths and locations. No bedrock was encountered during the Phase Two ESA.

The Sampling Location Plan is shown in Drawing No. 2. The locations of cross-sections for soil stratigraphy at the subject site are presented in Drawing No. 3. Geological Cross-sections A-A', B-B' and C-C' are presented in Drawing No. 4.

6.10.2.2 Hydrogeological Characteristics

The subject site is located in a larger hydrogeological region known as the Southern Ontario Lowlands. A Watershed Map provided by the Land Information Ontario (LIO), shows the subject site is located within the Humber River - Don River Watershed.

A total of five (5) monitoring wells were installed at the subject site during the field investigation for the Phase Two ESA. The monitoring wells BH/MW1 to BH/MW5 were installed at the depths of 3.5, 3.7, 4.6, 4.0 and 7.6 mbgs, respectively. Based on the groundwater records of Phase Two ESA monitoring wells, the groundwater flow direction appears to be to the northwesterly direction in northwest portion and southeasterly in southeastern portion of the subject site. The shallow aquifer groundwater contours and interpreted groundwater flow direction are shown on Drawing No. 5.

Based on the groundwater records of the investigation, the horizontal hydraulic gradient for the investigated aquifer at the subject site is between 0.0015 and 0.0086 m/m (average 0.0039 m/m).

6.10.2.3 Approximate Depth to Bedrock

No bedrock was encountered at the subject site during the Phase Two ESA.

6.10.2.4 Approximate Depth to Water Table

Based on the groundwater records encountered during the site investigation, depths to the water level in the monitoring wells at the subject site ranged from 0.8 to 5.2 mbgs on July 5, 2024.

6.10.2.5 Section 35 and Section 41 or 43.1 of the Regulation

There are records of water wells at the subject site and neighbouring properties within Phase

One Study Area. Therefore, Section 35 of the Regulation (Non-Potable Site Condition Standards) does not apply to the subject site.

The subject site is not within/adjacent/part of an area of natural significance. The analytical testing indicated the pH of the tested surface soil sample is between 5 and 9 and subsurface soil sample is between 5 and 11. Section 41 of the regulation (Site Condition Standards, Environmental Sensitive Areas) does not apply to the subject site.

The property is not a shallow soil property, as the bedrock was not encountered within 2.0 mbgs during the investigation. A watercourse is passing through the subject site. Therefore, Section 43.1 of the O. Reg. 153/04 (Site Condition Standards, Shallow Soil Property or Water Body) does apply to the subject site.

6.10.2.6 Areas On, In or Under the Phase Two Property Where Excess Soil Is Finally Placed

The findings of Phase One ESA did not indicate presence of fill materials at the subject site. No soil material was brought to the subject site as part of the Phase Two ESA.

6.10.2.7 Proposed Building and Other Structures

A Mixed Use Residential and Commerical Development is being proposed for the subject site. It is anticipated that the new development will be provided with municipal services meeting urban standards. The locations of proposed buildings or any other structures are not known at the time of preparation of this Phase Two Conceptual Site Model.

6.10.3 Contamination In or Under the Phase Two Property

Based on the findings of the Phase One ESA, contaminants of potential concern (COPCs) in soil and groundwater with respect to the identified Areas of Potential Environmental Concern (APECs) at the subject site were assessed during the Phase Two ESA. The samples were

selected from the locations and depths, where potentially the maximum concentration is expected, and to be representative of the full extents of the APECs at the subject site.

Based on the information obtained from the Phase One ESA, the Ministry of the Environment, Conservation and Parks (MECP) Table 8, Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for Residential/ Parkland/ Institutional/ Industrial/ Commercial/ Community property use (Table 8 Standards) as published the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (EPA), April 15, 2011, was selected for evaluating the environmental condition at the subject site.

6.10.3.1 Area Where Contaminants are Present

Soil and groundwater samples were collected during the Phase Two ESA and submitted for chemical analyses of one or more of the following parameters:

APEC 1: Soil samples were submitted for chemical analyses of OCs, Metals, As, Se, Sb, Hg, Cr (VI), CN^- and pH parameters. Surface soil samples to the depth of 0.3 mbgs were submitted for chemical analysis.

APEC 2: Soil samples were submitted for chemical analyses of Metals, Cr(VI), Hg, CN^- and PAHs. The soil samples were submitted from the ground surface to 0.8 mbgs.

APEC 3: Soil and groundwater samples were submitted for chemical analyses of Metals, PHCs and BTEX parameters. The soil samples were submitted from the depth of 3.8 to 4.3 mbgs.

APEC 4: Soil and groundwater samples were submitted for chemical analyses of PHCs, VOCs, PAHs and Metal parameters. The soil samples were submitted from the depth of 2.3 to 2.6 mbgs.

APEC 5: Soil and groundwater samples were submitted for chemical analyses of PHCs, VOCs, PAHs and Metal parameters. The soil samples were submitted from the depth of 2.3 to 3.0 mbgs.

APEC 6: Soil and groundwater samples were submitted for chemical analyses of PHCs, VOCs, PAHs and Metal parameters. The soil samples were submitted from the depth of 2.3 to 3.0 mbgs.

APEC 7: Soil and groundwater samples were submitted for chemical analyses of PHCs, VOCs, PAHs and Metal parameters. The soil samples were submitted from the depth of 1.5 to 2.3 and 2.3 to 3.0 mbgs.

A review of the analytical test results of soil and groundwater samples indicated that the tested samples for the tested parameters met the Table 8 Standards.

Consequently, there are no contaminants identified at the test locations at a concentration above the applicable site condition standards (Table 8 Standards) during the Phase Two ESA.

6.10.3.2 Distribution of Contaminants

No contaminants were identified at the subject site at a concentration above applicable site condition standards.

6.10.3.3 Contaminant Medium

No contaminants were identified at the subject site at a concentration above applicable site condition standards.

6.10.3.4 Reasons for Discharge

No contaminants were identified at the subject site at a concentration above applicable site condition standards.

6.10.3.5 Migration of Contaminants

No contaminants were identified at the subject site at a concentration above applicable site

condition standards.

6.10.4 Potential Exposure Pathways and Receptors

Since no contaminants were identified at the subject site at a concentration above the applicable site condition standards (Table 8 Standards), no potential exposure pathways and receptors are identified.

7.0 CONCLUSIONS

The purpose of the Phase Two Environmental Site Assessment (Phase Two ESA) was to assess the soil and groundwater quality at the subject site, as related to the following Areas of Potential Environmental Concern (APECs) identified in the Phase One ESA:

APEC 1: Potential soil impact due to possible use of pesticide as a part of agricultural activities at the subject site.

APEC 2: Potential soil impact due to former coal furnace located in the basement of the house in the eastern portion of the subject site.

APEC 3: Potential soil and groundwater impact due to one (1) fuel oil tank listed in the northern portion of the subject site.

APEC 4: Potential soil and groundwater impact due to presence of freight transportation company associated with records of waste generator including waste oil and photoprocessing waste, adjacent to the east of the subject site.

APEC 5: Potential soil and groundwater impact due to presence of equipment and logistic supply company associated with records of waste generator including waste oil, adjacent to the east of the subject site.

APEC 6: Potential soil and groundwater impact due to presence of construction materials supply company associated with records of waste generator including waste oil, adjacent to the southeast of the subject site.

APEC 7: Potential soil and groundwater impact due to presence of equipment supply company associated with records of waste generator including waste oil, adjacent to the southeast of the subject site.

The findings of the field investigation and analytical results of the Phase Two ESA are summarized below:

- The field investigation for this Phase Two ESA consisted of advancing eight (8) boreholes (designated as BH1 to BH8) to a maximum depth of 7.6 meters

below ground surface (mbgs) and carryout eight (8) hand-dug test pits (designated as TP1 to TP8) to a depth of 0.3 mbgs.

- The subsoil conditions at the borehole locations indicated that beneath the layer of topsoil or asphal, the subject site is generally underlain by deposits of silty clay, silt, sand and sandy silt at various depths and locations. No bedrock was encountered during the Phase Two ESA investigation.
- The soil and groundwater samples retrieved from the boreholes, test pits and monitoring wells were examined for visual and olfactory evidence of potential contamination. No evidence of potential contamination was documented in any of the retrieved soil and groundwater samples.
- Headspace vapour screening was conducted for all retrieved soil samples using a combustible gas detector (RKI Eagle) in methane elimination mode, calibrated with hexane and having a minimum detection level of 2 parts per million by volume (ppmv). Headspace vapour readings ranging from non-detect to 25 ppmv were recorded in the soil samples retrieved from the sampling locations.
- Based on the soil vapour measurements and visual and/or olfactory observations, representative "worst case" soil samples were selected from each sampling location for chemical analyses of Organochlorine Pesticides (OCs), Petroleum Hydrocarbons (PHCs), Volatile Organic Compound (VOCs), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), Metals, Arsenic (As), Antimony (Sb), Selenium (Se), Mercury (Hg), Chromium Hexavalent (Cr (VI)), Cyanides (CN-), Boron Hot Water Soluble (B-HWS), Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR) and pH parameters.
- Installed five (5) monitoring wells at borehole BH1 to BH5 locations (designated as BH/MW1 to BH/MW5) for groundwater flow direction, sampling and testing.
- No visible sheen or odours were recorded in the groundwater at any of the monitoring wells installed at the subject site. Groundwater samples (including QA/QC samples) were collected from five (5) monitoring wells and were

submitted for analysis of one or more of Petroleum Hydrocarbons (PHCs), Benzene, Toluene, Ethylbenzene, Xylene (BTEX), Volatile Organic Compounds (VOCs), Polycyclic Aromatic Hydrocarbons (PAHs), Metals and pH parameters.

- As part of the Quality Assurance / Quality Control (QA/QC) program for the investigation, QC samples in the form of field duplicate samples and trip blank sample were analyzed. Field duplicate samples were collected in the field for Metals, OCs, VOCs and PHCs in soil, and VOCs, PHCs and PAHs in groundwater. One (1) trip blank for VOCs was shipped with the batch of the groundwater samples submitted for analysis.
- The analytical test results were reviewed using the Table 8, Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for Residential/ Parkland/ Institutional/ Industrial/ Commercial/ Community property use for coarse grain soil (Table 8 Standards), as published the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (EPA), April 15, 2011.
- The results of the analysis of the duplicate samples were acceptable and no material effect on interpretation of the soil and groundwater data.
- The result of the trip blank sample indicates that the sample was below the reported laboratory detection limit.
- The overall QA/QC results are considered reliable.
- A review of the analytical test results of soil and groundwater samples indicated that the tested parameters at the test locations met the Table 8 Standards. Consequently, there are no contaminants identified at the subject site at a concentration above the applicable site condition standards (Table 8 Standards) during the Phase Two ESA.

Based on the findings of the Phase Two ESA, it is our opinion that the property is suitable for the proposed development. No further environmental investigation is recommended at this time.

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8.0 REFERENCES

MECP. "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario", May 1996, revised December 1996, as amended by O. Reg. 511/09.

MECP. "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act", dated March 9, 2004, amended as of July 1, 2011, in accordance with O. Reg. 511/09 and O. Reg. 269/11.

MECP. "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (EPA), April 15, 2011.

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TABLES

Reference No. 2108-E089

Reference No. 2108-E089

Table I – Monitoring Well Installation

Monitoring Well I.D.	Bottom of Monitoring Well (mbgs)	Screen Length (m)	Screen Interval (m)	Filter Pack (m)	Bentonite Plug (m)	Concete (m)
BH/MW1	3.5	3.0	0.5 - 3.5	0.5 - 3.5	0.3 - 0.5	0.0 - 0.3
BH/MW2	3.7	3.0	1.6 - 4.6	1.0 - 4.6	0.0 - 1.0	0.0 - 0.3
BH/MW3	4.6	3.0	1.6 - 4.6	1.0 - 4.6	0.3 - 1.0	0.0 - 0.3
BH/MW4	4.0	3.0	4.0 - 7.0	3.4 - 7.0	0.3 - 3.4	0.0 - 0.3
BH/MW5	7.6	3.0	1.6 - 4.6	1.0 - 4.6	0.3 - 1.0	0.0 - 0.3

Note: mbgs – meters below ground surface

Reference No. 2108-E089
Table II – Water Levels

Monitoring Well I.D.	Ground Elevation (masl)	Measured Groundwater Level		Field Observations		
		July 5, 2024				
		Depth (mbgs)	Elevation (m)	Odour	Colour	Sheen or Free Product
BH/MW1	265.6	1.5	264.1	None	Clear	None
BH/MW2	265.9	2.0	263.9	None	Clear	None
BH/MW3	265.9	2.1	263.8	None	Clear	None
BH/MW4	266.3	0.8	265.5	None	Clear	None
BH/MW5	268.6	5.2	263.4	None	Clear	None

Soil Engineers Ltd.

Project No. 2108-E089

SOIL CHEMICAL ANALYSIS - Inorganics Parameters

Sample ID	RDL*	TP1	DUPS1	TP2	TP3	TP4	TP5	TP6	TP7	TP8	DUPS3	BH1/3	BH2/4	BH3/4	BH4/4A	BH5/1	BH5/6	BH6/1	BH7/1A	BH7/3	BH8/6	Ontario Regulation 153/04 Table 8 Standard**
Sample Date		27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	26-June-2024	26-June-2024	26-June-2024	26-June-2024	27-June-2024	27-June-2024	27-June-2024	
Laboratory ID		ZPH239	ZPH247	ZPH240	ZPH241	ZPH242	ZPH243	ZPH244	ZPH245	ZPH246	ZPH249	ZPH253	ZPH254	ZPH255	ZPE148	ZPE146	ZPE147	ZPE145	ZPH251	ZPH252	ZPH250	
Bore Hole/TP No.		TP1	TP1	TP2	TP3	TP4	TP5	TP6	TP7	TP8	TP8	BH1	BH2	BH3	BH4	BH5	BH5	BH6	BH7	BH7	BH8	
Depth (mbgs)		0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	1.5 - 2.3	2.3 - 3.0	2.3 - 3.0	2.3 - 2.6	0.2 - 1.0	3.8 - 4.5	0.0 - 0.8	0.0 - 0.3	1.5 - 2.3	3.8 - 4.3	
Antimony	0.2	<0.20	<0.20	<0.20	0.23	0.23	<0.20	<0.20	<0.20	<0.20	0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.56	0.21	-	<0.20	1.3
Arsenic	1	1.1	3.2	3.1	3.3	3.5	3.3	3	2.9	3.7	3.5	1.2	1.1	1.5	3.6	3.4	2.5	3.9	3.2	-	3.4	18
Barium	0.5	75	80	72	76	89	80	76	89	99	88	30	18	17	51	83	99	88	74	-	90	220
Beryllium	0.2	0.67	0.71	0.72	0.69	0.79	0.72	0.68	0.63	0.67	0.63	0.22	0.21	<0.20	0.38	0.82	0.49	0.58	0.68	-	0.57	2.5
Boron (Hot Water Soluble)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.068	-	-	-	-	-	1.5
Cadmium	0.1	0.21	0.21	0.21	0.2	0.35	0.23	0.24	0.23	0.16	0.14	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.4	0.14	-	<0.10	1.2
Chromium	1	20	21	21	21	22	31	20	18	21	21	8.3	8.6	6.2	12	24	19	22	21	-	20	70
Chromium VI	0.18	<0.18	-	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	-	-	-	-	-	<0.18	-	<0.18	<0.18	-	-	0.66
Cobalt	0.1	7.8	8.1	8.3	8.6	8.8	8.5	8.2	7.4	10	9.9	3	3.1	2.9	8.7	11	8.4	8.5	9.7	-	12	22
Copper	0.5	16	17	18	17	18	17	16	15	24	22	8	8.8	13	31	24	21	21	16	-	24	92
Lead	1	14	18	14	14	16	15	13	17	30	25	7.1	7.2	7.7	10	10	7.5	55	11	-	8.9	120
Mercury	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.056	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.12	<0.050	-	<0.050	0.27
Molybdenum	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	<0.50	2
Nickel	0.5	17	17	18	17	18	18	17	15	22	22	6.1	5.8	5.7	16	24	19	20	18	-	21	82
Selenium	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	<0.50	1.5
Silver	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	0.5
Thallium	0.05	0.12	0.12	0.13	0.12	0.12	0.12	0.13	0.12	0.13	0.13	<0.050	<0.050	<0.050	0.057	0.15	0.1	0.12	0.12	-	0.13	1
Vanadium	5	31	32	32	33	35	33	32	29	36	30	17	18	13	22	35	25	30	33	-	27	86
Zinc	5	61	62	65	62	68	64	59	59	76	77	17	16	17	49	56	45	100	52	-	48	290
pH (pH Units)		-	-	7.34	-	7.41	-	-	-	7.59	-	-	-	-	-	7.56	7.83	8.05	7.39	7.82	-	
Conductivity (ms/cm)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.49	-	-	-	-	-	0.7
Sodium Adsorption Ratio	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-	-	-	-	-	5
Cyanide, Free	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	0.051
Boron (Total)	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	[illegible]	5.5	<5.0	<5.0	<5.0	5.4	6.4	7.4	7.2	<5.0	-	7.7	36
Uranium	0.05	0.77	0.82	0.74	0.71	1.1	0.79	0.75	0.76	0.5	0.45	0.38	0.36	0.29	0.43	0.57	0.68	0.45	0.58	-	0.61	2.5

Analysis by Bureau Veritas, all results in ppm (µg/g) unless otherwise stated

* Analytical Reportable Detection Limits (RDLs) are shown except as indicated in brackets

** Standards shown are for Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for Residential/Parkland/Institutional/Industrial/Commercial/Community property use for coarse grain soil.

SOIL CHEMICAL ANALYSIS - Organochlorine Pesticides (OCs) Parameters

Sample ID	RDL*	TP1	TP2	TP3	TP4	DUPS2	TP5	TP6	TP7	TP8	BH7/1A	Ontario Regulation 153/04 Table 8 Standard**
Sample Date		27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	27-June-2024	
Laboratory ID		ZPH239	ZPH240	ZPH241	ZPH242	ZPH248	ZPH243	ZPH244	ZPH245	ZPH246	ZPH251	
Bore Hole No.		TP1	TP2	TP3	TP4	TP4	TP5	TP6	TP7	TP8	BH7/1A	
Depth (mbgs)		0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	
Aldrin	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.05
Chlordane (alpha)	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
Chlordane (gamma)	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
Chlordane (total)	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.05
o,p DDD	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
p,p-DDD	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
DDD (total)	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.05
o,p DDE	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
p,p-DDE	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
DDE (total)	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.05
op-DDT	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
pp-DDT	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
DDT (total)	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	1.4
Dieldrin	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.05
Endosulphan I	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
Endosulphan II	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-
Total Endosulphan	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.04
Endrin	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.04
Heptachlor	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.05
Heptachlor Epoxide	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.05
Lindane	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.01
Methoxychlor	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.05
Hexachlorobenzene	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.02
Hexachlorobutadiene	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.01
Hexachloroethane	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.01

Analysis by Bureau Veritas, all results in ppm (µg/g) unless otherwise stated

* Analytical Reportable Detection Limits (RDLs) are shown except as indicated in brackets.

** Standards shown are for Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for Residential/Parkland/Institutional/Industrial/Commercial/Community property use for

Soil Engineers Ltd.

SOIL CHEMICAL ANALYSIS - Volatile Organic Compound (VOCs) Parameters

Project No. 2108-E089

Sample ID	RDL*	BH1/3	DUP54	BH2/4	BH3/4	BH4/4A	BH5/1	Ontario Regulation 153/04 Table 8 Standard**
Sample Date		27-June-2024	27-June-2024	27-June-2024	27-June-2024	26-June-2024	26-June-2024	
Laboratory ID		ZPH253	ZPH256	ZPH254	ZPH255	ZPE148	ZPE146	
Bore Hole No.		BH1	BH1	BH2	BH3	BH4	BH5	
Depth (mbgs)		1.5 - 2.3	1.5 - 2.3	2.3 - 3.0	2.3 - 3.0	2.3 - 2.6	0.2 - 1.0	
Acetone	0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	0.5
Benzene	0.006	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.02
Bromodichloromethane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Bromoform	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Bromomethane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Carbon Tetrachloride	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Chlorobenzene	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Chloroform	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Dibromochloromethane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
1,2-Dichlorobenzene	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
1,3-Dichlorobenzene	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
1,4-Dichlorobenzene	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
1,1-Dichloroethane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
1,2-Dichloroethane	0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	0.05
1,1-Dichloroethylene	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Cis-1,2-Dichloroethylene	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Trans-1,2-Dichloroethylene	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
1,2-Dichloropropane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Cis-1,3-Dichloropropylene	0.03	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	-
Trans-1,3-Dichloropropylene	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	-
Ethylbenzene	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.05
Ethylene Dibromide	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Methyl Ethyl Ketone	0.4	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.5
Methylene Chloride	0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	0.05
Methyl Isobutyl Ketone	0.4	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	0.5
Methyl-t-Butyl Ether	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Styrene	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
1,1,1,2-Tetrachloroethane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
1,1,2,2-Tetrachloroethane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Toluene	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.2
Tetrachloroethylene	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
1,1,1-Trichloroethane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
1,1,2-Trichloroethane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Trichloroethylene	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.05
Vinyl Chloride	0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	0.02
m-Xylene & p-Xylene	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	-
o-Xylene	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	-
Total Xylenes	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.05
Dichlorodifluoromethane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Hexane(n)	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.05
Trichlorofluoromethane	0.04	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.25
1,3-Dichloropropene (cis + trans)	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.05

Analysis by Bureau Veritas, all results in ppm (µg/g) unless otherwise stated

* Analytical Reportable Detection Limits (RDLs) are shown except as indicated in brackets.

** Standards shown are for Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for

Soil Engineers Ltd.

SOIL CHEMICAL ANALYSIS - Petroleum Hydrocarbons (PHCs) Parameters

Project No. 2108-E089

Sample ID	RDL*	BH1/3	DUPS4	BH2/4	BH3/4	BH4/4A	BH5/1	BH5/6	BH8/6	Ontario Regulation 153/04 Table 8 Standard**
Sample Date		27-June-2024	27-June-2024	27-June-2024	27-June-2024	26-June-2024	26-June-2024	26-June-2024	27-June-2024	
Laboratory ID		ZPH253	ZPH256	ZPH254	ZPH255	ZPE148	ZPE146	ZPE147	ZPH250	
Bore Hole No.		BH1	BH1	BH2	BH3	BH4	BH5	BH5	BH8	
Depth (mbgs)		1.5 - 2.3	1.5 - 2.3	2.3 - 3.0	2.3 - 3.0	2.3 - 2.6	0.2 - 1.0	3.8 - 4.5	3.8 - 4.3	
Benzene	0.02	-	-	-	-	-	-	<0.020	<0.020	0.02
Toluene	0.02	-	-	-	-	-	-	<0.020	<0.020	0.2
Ethylbenzene	0.02	-	-	-	-	-	-	<0.020	<0.020	0.05
m/p xylenes	0.04	-	-	-	-	-	-	<0.040	<0.040	-
o xylene	0.02	-	-	-	-	-	-	<0.020	<0.020	-
Total Xylenes	0.04	-	-	-	-	-	-	<0.040	<0.040	0.05
F1 (C6-C10)	10	<10	<10	<10	<10	<10	<10	<10	<10	25
F1 (C6-C10) - BTEX	10	<10	<10	<10	<10	<10	<10	<10	<10	25
F2 (C10-C16)	10	<10	<10	<10	<10	<10	<10	<10	<10	10
F3 (C16-C34)	50	<50	<50	<50	<50	<50	<50	50	<50	240
F4 (C34-C50)	50	<50	<50	<50	<50	<50	<50	<50	<50	120

Analysis by Bureau Veritas, all results in ppm (µg/g) unless otherwise stated

* Analytical Reportable Detection Limits (RDLs) are shown except as indicated in brackets.

** Standards shown are for Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for Residential/Parkland/Institutional/Industrial/Commercial/Community

Soil Engineers Ltd.

SOIL CHEMICAL ANALYSIS - Polycyclic Aromatic Hydrocarbons (PAHs) Parameters

Project No. 2108-E089

Sample ID	RDL*	BH1/3	BH2/4	BH3/4	BH4/4A	BH5/1	BH5/6	BH6/1	Ontario Regulation 153/04 Table 8 Standard**
Sample Date		27-June-2024	27-June-2024	27-June-2024	26-June-2024	26-June-2024	26-June-2024	26-June-2024	
Laboratory ID		ZPH253	ZPH254	ZPH255	ZPE148	ZPE146	ZPE147	ZPE145	
Bore Hole No.		BH1	BH2	BH3/4	BH4	BH5	BH5	BH6	
Depth (mbgs)		1.5 - 2.3	2.3 - 3.0	2.3 - 3.0	2.3 - 2.6	0.2 - 1.0	3.8 - 4.5	0.0 - 0.8	
Acenaphthene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.072
Acenaphthylene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.093
Anthracene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.22
Benzo(a)anthracene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0082	0.36
Benzo(a)pyrene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0081	0.3
Benzo(b/j)fluoranthene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.013	0.47
Benzo(ghi)perylene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0085	0.68
Benzo(k)fluoranthene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.48
Chrysene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0052	0.0076	2.8
Dibenzo(a,h)anthracene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.1
Fluoranthene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.023	0.69
Fluorene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.19
Indeno(1,2,3-cd)pyrene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0066	0.23
1-Methylnaphthalene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.59
2-Methylnaphthalene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.59
Naphthalene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.09
Phenanthrene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.017	0.69
Pyrene	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0052	0.019	1
Methylnaphthalene, 2-(1-)	0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	0.59

Analysis by Bureau Veritas, all results in ppm (µg/g) unless otherwise stated

* Analytical Reportable Detection Limits (RDLs) are shown except as indicated in brackets.

** Standards shown are for Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition for

Soil Engineers Ltd

Table IV

GROUND WATER CHEMICAL ANALYSIS - Metals and Inorganic Parameters

Project No.2108-E089

Sample ID	RDL*	MW1	MW2	MW3	MW4	MW5	Ontario Regulation 153/04 Table 8 Standards**
Sample Date		05-July-2024	05-July-2024	05-July-2024	05-July-2024	05-July-2024	
Laboratory ID		ZQW428	ZQW429	ZQW430	ZQW431	ZQW432	
Bore Hole No.		BH1	BH2	BH3	BH4	BH5	
Screen Depth (mbgs)		0.5 - 3.5	1.6 - 4.6	1.6 - 4.6	4.0 - 7.0	1.6 - 4.6	
Antimony	0.5	<0.50	<0.50	<0.50	<0.50	0.59	1.5
Arsenic	1	<1.0	<1.0	<1.0	<1.0	1.6	13
Barium	2	120	70	140	87	78	610
Beryllium	0.4	<0.40	<0.40	<0.40	<0.40	<0.40	0.5
Boron	10	14	12	14	40	140	1700
Cadmium	0.09	<0.090	<0.090	<0.090	<0.090	<0.090	0.5
Chromium	5	<5.0	<5.0	<5.0	<5.0	<5.0	11
Cobalt	0.5	<0.50	<0.50	<0.50	<0.50	0.58	3.8
Copper	0.9	4.5	2.1	1.6	2.6	2.5	5
Lead	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	1.9
Molybdenum	0.5	1.1	9	4.1	2.7	21	23
Nickel	1	<1.0	<1.0	1.1	2	2.6	14
Selenium	2	<2.0	<2.0	<2.0	<2.0	<2.0	5
Silver	0.09	<0.090	<0.090	<0.090	<0.090	<0.090	0.3
Thallium	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	0.5
Vanadium	0.5	<0.50	<0.50	<0.50	<0.50	1.2	3.9
Zinc	5	<5.0	<5.0	<5.0	<5.0	<5.0	160
Uranium	0.1	0.97	1.7	6.6	8.6	5.5	8.9
pH	-	-	7.56	-	-	7.81	-

Analysis by Bureau Veritas Laboratories, all results in ppm (µg/L) unless otherwise stated

* Analytical Reportable Detection Limits (RDLs) are shown except as indicated in brackets.

** Standards shown are for Full Depth Background Site Condition Standards for all types of property use for coarse grained soil

GROUND WATER CHEMICAL ANALYSIS - Volatile Organic Compound (VOCs) Parameters

Sample ID	RDL*	MW1	DUPW1	MW2	MW3	MW4	TRIP BLANK	Ontario Regulation 153/04 Table 8 Standards**
Sample Date		05-July-2024	05-July-2024	05-July-2024	05-July-2024	05-July-2024	05-July-2024	
Laboratory ID		ZQW428	ZQW433	ZQW429	ZQW430	ZQW431	ZQW392	
Bore Hole No.		BH1	BH1	BH2	BH3	BH4	-	
Screen Depth (mbgs)		0.5 - 3.5	0.5 - 3.5	1.6 - 4.6	1.6 - 4.6	4.0 - 7.0	-	
Acetone	10	<10	<10	<10	27	<10	<10	2700
Benzene	0.17	<0.17	<0.17	<0.17	0.28	<0.17	<0.20	5
Bromodichloromethane	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	16
Bromoform	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	25
Bromomethane	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.89
Carbon Tetrachloride	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.19	0.79
Chlorobenzene	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	30
Chloroform	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.4
Dibromochloromethane	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	25
1,2-Dichlorobenzene	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.40	3
1,3-Dichlorobenzene	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.40	59
1,4-Dichlorobenzene	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.40	1
1,1-Dichloroethane	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	5
1,2-Dichloroethane	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.49	1.6
1,1-Dichloroethylene	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.6
Cis-1,2-Dichloroethylene	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.6
Trans-1,2-Dichloroethylene	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.6
1,2-Dichloropropane	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	5
Cis-1,3-Dichloropropylene	0.3	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	-
Trans-1,3-Dichloropropylene	0.4	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	-
Ethylbenzene	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	2.4
Ethylene Dibromide	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.19	0.2
Methyl Ethyl Ketone	10	<10	<10	<10	<10	<10	<10	1800
Methylene Chloride	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	50
Methyl Isobutyl Ketone	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	640
Methyl-t-Butyl Ether	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	15
Styrene	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.40	5.4
1,1,1,2-Tetrachloroethane	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.1
1,1,2,2-Tetrachloroethane	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.40	1
Toluene	0.2	<0.20	0.36	0.55	0.87	0.51	<0.20	22
Tetrachloroethylene	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.6
1,1,1-Trichloroethane	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	200
1,1,2-Trichloroethane	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.40	4.7
Trichloroethylene	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	1.6
Vinyl Chloride	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.5
m-Xylene & p-Xylene	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-
o-Xylene	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	-
Total Xylenes	0.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	300
Dichlorodifluoromethane	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	590
Hexane(n)	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	51
Trichlorofluoromethane	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	150
1,3-Dichloropropene (cis + trans)	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.5

Analysis by Bureau Veritas Laboratories, all results in ppm (µg/L) unless otherwise stated

* Analytical Reportable Detection Limits (RDLs) are shown except as indicated in brackets.

** Standards shown are for Full Depth Background Site Condition Standards for all types of property use for coarse grained soil

GROUND WATER CHEMICAL ANALYSIS - BTEX and Petroleum

Project No.2108-E089

Hydrocarbon (PHCs) Parameters

Sample ID	RDL*	MW1	DUPW1	MW2	MW3	MW4	MW5	Ontario Regulation 153/04 Table 8 Standards**
Sample Date		05-July-2024	05-July-2024	05-July-2024	05-July-2024	05-July-2024	05-July-2024	
Laboratory ID		ZQW428	ZQW433	ZQW429	ZQW430	ZQW431	ZQW432	
Bore Hole No.		BH1	BH1	BH2	BH3	BH4	BH5	
Screen Depth (mbgs)		0.5 - 3.5	0.5 - 3.5	1.6 - 4.6	1.6 - 4.6	4.0 - 7.0	1.6 - 4.6	
Benzene	0.2	-	-	-	-	-	<0.20	5
Toluene	0.2	-	-	-	-	-	<0.20	22
Ethylbenzene	0.2	-	-	-	-	-	<0.20	2.4
m/p xylenes	0.4	-	-	-	-	-	<0.40	-
o xylene	0.2	-	-	-	-	-	<0.20	-
Total Xylenes	0.4	-	-	-	-	-	<0.40	300
F1 (C6-C10)	25	<25	<25	<25	<25	<25	<25	420
F1 (C6-C10) - BTEX	25	<25	<25	<25	<25	<25	<25	420
F2 (C10-C16)	100	<100	<100	<100	<100	<100	<100	150
F3 (C16-C34)	200	<200	<200	<200	<200	<200	<200	500
F4 (C34-C50)	200	<200	<200	<200	<200	<200	<200	500
Reached Baseline at C50		YES	YES	YES	YES	YES	YES	-

Analysis by Bureau Veritas Laboratories, all results in ppm (µg/L) unless otherwise stated

* Analytical Reportable Detection Limits (RDLs) are shown except as indicated in brackets.

** Standards shown are for Full Depth Background Site Condition Standards for all types of property use for coarse grained soil

GROUND WATER CHEMICAL ANALYSIS - Polycyclic Aromatic Hydrocarbons (PAHs) Parameters

Project No.2108-E089

Sample ID	RDL*	MW1	DUPW1	MW2	MW3	MW4	MW5	Ontario Regulation 153/04 Table 8 Standards**
Sample Date		05-July-2024	05-July-2024	05-July-2024	05-July-2024	05-July-2024	05-July-2024	
Laboratory ID		ZQW428	ZQW433	ZQW429	ZQW430	ZQW431	ZQW432	
Bore Hole No.		BH1	BH1	BH2	BH3	BH4	BH5	
Screen Depth (mbgs)		0.5 - 3.5	0.5 - 3.5	1.6 - 4.6	1.6 - 4.6	4.0 - 7.0	1.6 - 4.6	
Acenaphthene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	4.1
Acenaphthylene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	1
Anthracene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	1
Benzo(a)anthracene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	1
Benzo(a)pyrene	0.009	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	0.01
Benzo(b/j)fluoranthene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.1
Benzo(ghi)perylene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.2
Benzo(k)fluoranthene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.1
Chrysene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.1
Dibenzo(a,h)anthracene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.2
Fluoranthene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.41
Fluorene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	120
Indeno(1,2,3-cd)pyrene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.2
1-Methylnaphthalene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	3.2
2-Methylnaphthalene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	3.2
Naphthalene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	11
Phenanthrene	0.03	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	1
Pyrene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	4.1
Methylnaphthalene, 2-(1-)	0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	3.2

Analysis by Bureau Veritas Laboratories, all results in ppm (µg/L) unless otherwise stated

* Analytical Reportable Detection Limits (RDLs) are shown except as indicated in brackets.

** Standards shown are for Full Depth Background Site Condition Standards for all types of property use for coarse grained soil

Project No. 2404-E084

Table VI – Maximum Concentration (Soil)

Summary of Metals and Inorganics

Parameter	Unit	Maximum Concentration	Sample ID	Sampling Depth (m)
Antimony	ug/g	0.56	BH6/1	0.0 - 0.8
Arsenic	ug/g	3.9	BH6/1	0.0 - 0.8
Barium	ug/g	90	TP8	0.0 - 0.3
Beryllium	ug/g	0.82	BH5/1	0.2 - 1.0
Boron (Hot Water Soluble)	ug/g	0.068	BH5/1	0.2 - 1.0
Cadmium	ug/g	0.4	BH6/1	0.0 - 0.8
Chromium	ug/g	24	BH5/1	0.2 - 1.0
Chromium VI	ug/g	<0.18	-	-
Cobalt	ug/g	12	BH8/6	3.8 - 4.3
Copper	ug/g	31	BH4/4A	2.3 - 2.6
Lead	ug/g	95	BH6/1	0.0 - 0.8
Mercury	ug/g	0.12	BH6/1	0.0 - 0.8
Molybdenum	ug/g	<0.5	-	-
Nickel	ug/g	24	BH5/1	0.2 - 1.0
Selenium	ug/g	<0.5	-	-
Silver	ug/g	<0.2	-	-
Thallium	ug/g	0.15	BH5/1	0.2 - 1.0
Vanadium	ug/g	35	TP4	0.0 - 0.3
Zinc	ug/g	160	BH6/1	0.0 - 0.8
pH (pH Units)	-	8.05	BH6/1	0.0 - 0.8
Conductivity (ms/cm)	ms/cm	0.49	BH5/1	0.2 - 1.0
Sodium Adsorption Ratio	-	2.2	BH5/1	0.2 - 1.0
Cyanide, Free	ug/g	<0.01	-	-
Boron (Total)	ug/g	7.7	TP8	0.0 - 0.3
Uranium	ug/g	1.1	TP4	0.0 - 0.3

Project No. 2404-E084

Table VI – Maximum Concentration (Soil)

Summary of VOCs

Parameter	Unit	Maximum Concentration	Sample ID	Sampling Depth (m)
Acetone	ug/g	<0.49	-	-
Benzene	ug/g	<0.006	-	-
Bromodichloromethane	ug/g	<0.04	-	-
Bromoform	ug/g	<0.04	-	-
Bromomethane	ug/g	<0.04	-	-
Carbon Tetrachloride	ug/g	<0.04	-	-
Chlorobenzene	ug/g	<0.04	-	-
Chloroform	ug/g	<0.04	-	-
Dibromochloromethane	ug/g	<0.04	-	-
1,2-Dichlorobenzene	ug/g	<0.04	-	-
1,3-Dichlorobenzene	ug/g	<0.04	-	-
1,4-Dichlorobenzene	ug/g	<0.04	-	-
1,1-Dichloroethane	ug/g	<0.04	-	-
1,2-Dichloroethane	ug/g	<0.049	-	-
1,1-Dichloroethylene	ug/g	<0.04	-	-
Cis-1,2-Dichloroethylene	ug/g	<0.04	-	-
Trans-1,2-Dichloroethylene	ug/g	<0.04	-	-
1,2-Dichloropropane	ug/g	<0.04	-	-
Cis-1,3-Dichloropropylene	ug/g	<0.03	-	-
Trans-1,3-Dichloropropylene	ug/g	<0.04	-	-
Ethylbenzene	ug/g	<0.01	-	-
Ethylene Dibromide	ug/g	<0.04	-	-
Methyl Ethyl Ketone	ug/g	<0.4	-	-
Methylene Chloride	ug/g	<0.049	-	-
Methyl Isobutyl Ketone	ug/g	<0.4	-	-
Methyl-t-Butyl Ether	ug/g	<0.04	-	-
Styrene	ug/g	<0.04	-	-
1,1,1,2-Tetrachloroethane	ug/g	<0.04	-	-

Project No. 2404-E084

Table VI – Maximum Concentration (Soil)

Summary of VOCs (continued)

Parameter	Unit	Maximum Concentration	Sample ID	Sampling Depth (m)
1,1,2,2-Tetrachloroethane	ug/g	<0.04	-	-
Toluene	ug/g	<0.02	-	-
Tetrachloroethylene	ug/g	<0.04	-	-
1,1,1-Trichloroethane	ug/g	<0.04	-	-
1,1,2-Trichloroethane	ug/g	<0.04	-	-
Trichloroethylene	ug/g	<0.01	-	-
Vinyl Chloride	ug/g	<0.019	-	-
m-Xylene & p-Xylene	ug/g	<0.02	-	-
o-Xylene	ug/g	<0.02	-	-
Total Xylenes	ug/g	<0.02	-	-
Dichlorodifluoromethane	ug/g	<0.04	-	-
Hexane(n)	ug/g	<0.04	-	-
Trichlorofluoromethane	ug/g	<0.04	-	-
1,3-Dichloropropene (cis + trans)	ug/g	<0.05	-	-

Project No. 2404-E084

Table VI – Maximum Concentration (Soil)

Summary of PAHs

Parameter	Unit	Maximum Concentration	Sample ID	Sampling Depth (m)
Acenaphthene	ug/g	<0.005	-	-
Acenaphthylene	ug/g	<0.005	-	-
Anthracene	ug/g	<0.005	-	-
Benzo(a)anthracene	ug/g	0.0082	0	0.0 - 0.8
Benzo(a)pyrene	ug/g	0.0081	0	0.0 - 0.8
Benzo(b/j)fluoranthene	ug/g	0.013	0	0.0 - 0.8
Benzo(ghi)perylene	ug/g	0.0085	0	0.0 - 0.8
Benzo(k)fluoranthene	ug/g	<0.005	-	-
Chrysene	ug/g	0.0076	0	0.0 - 0.8
Dibenzo(a,h)anthracene	ug/g	<0.005	-	-
Fluoranthene	ug/g	0.023	0	0.0 - 0.8
Fluorene	ug/g	<0.005	-	-
Indeno(1,2,3-cd)pyrene	ug/g	0.0066	0	0.0 - 0.8
1-Methylnaphthalene	ug/g	<0.005	-	-
2-Methylnaphthalene	ug/g	<0.005	-	-
Naphthalene	ug/g	<0.005	-	-
Phenanthrene	ug/g	0.017	0	0.0 - 0.8
Pyrene	ug/g	0.019	0	0.0 - 0.8
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	-	-

Project No. 2404-E084

Table VI – Maximum Concentration (Soil)

Summary of CCME F1-F4

Parameter	Unit	Maximum Concentration	Sample ID	Sampling Depth (m)
Benzene	ug/g	<0.02	-	-
Toluene	ug/g	<0.02	-	-
Ethylbenzene	ug/g	<0.02	-	-
m/p xylenes	ug/g	<0.04	-	-
o xylene	ug/g	<0.02	-	-
Total Xylenes	ug/g	<0.04	-	-
F1 (C6-C10)	ug/g	<10	-	-
F1 (C6-C10) - BTEX	ug/g	<10	-	-
F2 (C10-C16)	ug/g	<10	-	-
F3 (C16-C34)	ug/g	50	BH5/6	3.8 - 4.5
F4 (C34-C50)	ug/g	<50	-	-

Project No. 2404-E084

Table VI – Maximum Concentration (Soil)

Summary of OCs

Parameter	Unit	Maximum Concentration	Sample ID	Sampling Depth (m)
Aldrin	ug/g	<0.002	-	-
Chlordane (alpha)	ug/g	<0.002	-	-
Chlordane (gamma)	ug/g	<0.002	-	-
Chlordane (total)	ug/g	<0.002	-	-
o,p DDD	ug/g	<0.002	-	-
p,p-DDD	ug/g	<0.002	-	-
DDD (total)	ug/g	<0.002	-	-
o,p DDE	ug/g	<0.002	-	-
p,p-DDE	ug/g	<0.002	-	-
DDE (total)	ug/g	<0.002	-	-
op-DDT	ug/g	<0.002	-	-
pp-DDT	ug/g	<0.002	-	-
DDT (total)	ug/g	<0.002	-	-
Dieldrin	ug/g	<0.002	-	-
Endosulphan I	ug/g	<0.002	-	-
Endosulphan II	ug/g	<0.002	-	-
Total Endosulphan	ug/g	<0.002	-	-
Endrin	ug/g	<0.002	-	-
Heptachlor	ug/g	<0.002	-	-
Heptachlor Epoxide	ug/g	<0.002	-	-
Lindane	ug/g	<0.002	-	-
Methoxychlor	ug/g	<0.005	-	-
Hexachlorobenzene	ug/g	<0.002	-	-
Hexachlorobutadiene	ug/g	<0.002	-	-
Hexachloroethane	ug/g	<0.002	-	-

Project No.2108-E089
Table VI – Maximum Concentration (Groundwater)

Summary of Metals and Inorganics

Parameter	Unit	Maximum Concentration	Sample ID	Screen Depth (m)
Antimony	µg/L	0.59	MW5	1.6 - 4.6
Arsenic	µg/L	1.6	MW5	1.6 - 4.6
Barium	µg/L	140	MW3	1.6 - 4.6
Beryllium	µg/L	<0.4	-	-
Boron	µg/L	140	MW5	1.6 - 4.6
Cadmium	µg/L	<0.09	-	-
Chromium	µg/L	<5	-	-
Cobalt	µg/L	0.58	MW5	1.6 - 4.6
Copper	µg/L	4.5	MW1	0.5 - 3.5
Lead	µg/L	<0.5	-	-
Molybdenum	µg/L	21	MW5	1.6 - 4.6
Nickel	µg/L	2.6	MW5	1.6 - 4.6
Selenium	µg/L	<2	-	-
Silver	µg/L	<0.09	-	-
Thallium	µg/L	<0.05	-	-
Vanadium	µg/L	1.2	MW5	1.6 - 4.6
Zinc	µg/L	<5	-	-
Uranium	µg/L	8.6	MW4	4.0 - 7.0

Project No.2108-E089

Table VI – Maximum Concentration (Groundwater)

Summary of VOCs

Parameter	Unit	Maximum Concentration	Sample ID	Screen Depth (m)
Acetone	µg/L	27	MW3	1.6 - 4.6
Benzene	µg/L	0.28	MW3	1.6 - 4.6
Bromodichloromethane	µg/L	<0.5	-	-
Bromoform	µg/L	<1	-	-
Bromomethane	µg/L	<0.5	-	-
Carbon Tetrachloride	µg/L	<0.2	-	-
Chlorobenzene	µg/L	<0.2	-	-
Chloroform	µg/L	<0.2	-	-
Dibromochloromethane	µg/L	<0.5	-	-
1,2-Dichlorobenzene	µg/L	<0.5	-	-
1,3-Dichlorobenzene	µg/L	<0.5	-	-
1,4-Dichlorobenzene	µg/L	<0.5	-	-
1,1-Dichloroethane	µg/L	<0.2	-	-
1,2-Dichloroethane	µg/L	<0.5	-	-
1,1-Dichloroethylene	µg/L	<0.2	-	-
Cis-1,2-Dichloroethylene	µg/L	<0.5	-	-
Trans-1,2-Dichloroethylene	µg/L	<0.5	-	-
1,2-Dichloropropane	µg/L	<0.2	-	-
Cis-1,3-Dichloropropylene	µg/L	<0.3	-	-
Trans-1,3-Dichloropropylene	µg/L	<0.4	-	-
Ethylbenzene	µg/L	<0.2	-	-
Ethylene Dibromide	µg/L	<0.2	-	-
Methyl Ethyl Ketone	µg/L	<10	-	-
Methylene Chloride	µg/L	<2	-	-
Methyl Isobutyl Ketone	µg/L	<5	-	-
Methyl-t-Butyl Ether	µg/L	<0.5	-	-
Styrene	µg/L	<0.5	-	-

Project No.2108-E089

Table VI – Maximum Concentration (Groundwater)

Summary of VOCs

Parameter	Unit	Maximum Concentration	Sample ID	Screen Depth (m)
1,1,1,2-Tetrachloroethane	µg/L	<0.5	-	-
1,1,2,2-Tetrachloroethane	µg/L	<0.5	-	-
Toluene	µg/L	0.87	MW3	1.6 - 4.6
Tetrachloroethylene	µg/L	<0.2	-	-
1,1,1-Trichloroethane	µg/L	<0.2	-	-
1,1,2-Trichloroethane	µg/L	<0.5	-	-
Trichloroethylene	µg/L	<0.2	-	-
Vinyl Chloride	µg/L	<0.2	-	-
m-Xylene & p-Xylene	µg/L	<0.2	-	-
o-Xylene	µg/L	<0.2	-	-
Total Xylenes	µg/L	<0.2	-	-
Dichlorodifluoromethane	µg/L	<1	-	-
Hexane(n)	µg/L	<1	-	-
Trichlorofluoromethane	µg/L	<0.5	-	-
1,3-Dichloropropene (cis + trans)	µg/L	<0.5	-	-

Project No.2108-E089

Table VI – Maximum Concentration (Groundwater)

Summary of CCME F1-F4

Parameter	Unit	Maximum Concentration	Sample ID	Screen Depth (m)
Benzene	µg/L	<0.2	-	-
Toluene	µg/L	<0.2	-	-
Ethylbenzene	µg/L	<0.2	-	-
m/p xylenes	µg/L	<0.4	-	-
o xylene	µg/L	<0.2	-	-
Total Xylenes	µg/L	<0.4	-	-
F1 (C6-C10)	µg/L	<25	-	-
F1 (C6-C10) - BTEX	µg/L	<25	-	-
F2 (C10-C16)	µg/L	<100	-	-
F3 (C16-C34)	µg/L	<200	-	-
F4 (C34-C50)	µg/L	<200	-	-
Reached Baseline at C50	µg/L	<	-	-

Project No.2108-E089

Table VI – Maximum Concentration (Groundwater)

Summary of PAHs

Parameter	Unit	Maximum Concentration	Sample ID	Screen Depth (m)
Acenaphthene	µg/L	<0.05	-	-
Acenaphthylene	µg/L	<0.05	-	-
Anthracene	µg/L	<0.05	-	-
Benzo(a)anthracene	µg/L	<0.05	-	-
Benzo(a)pyrene	µg/L	<0.009	-	-
Benzo(b/j)fluoranthene	µg/L	<0.05	-	-
Benzo(ghi)perylene	µg/L	<0.05	-	-
Benzo(k)fluoranthene	µg/L	<0.05	-	-
Chrysene	µg/L	<0.05	-	-
Dibenzo(a,h)anthracene	µg/L	<0.05	-	-
Fluoranthene	µg/L	<0.05	-	-
Fluorene	µg/L	<0.05	-	-
Indeno(1,2,3-cd)pyrene	µg/L	<0.05	-	-
1-Methylnaphthalene	µg/L	<0.05	-	-
2-Methylnaphthalene	µg/L	<0.05	-	-
Naphthalene	µg/L	<0.05	-	-
Phenanthrene	µg/L	<0.03	-	-
Pyrene	µg/L	<0.05	-	-
Methylnaphthalene, 2-(1-)	µg/L	<0.071	-	-

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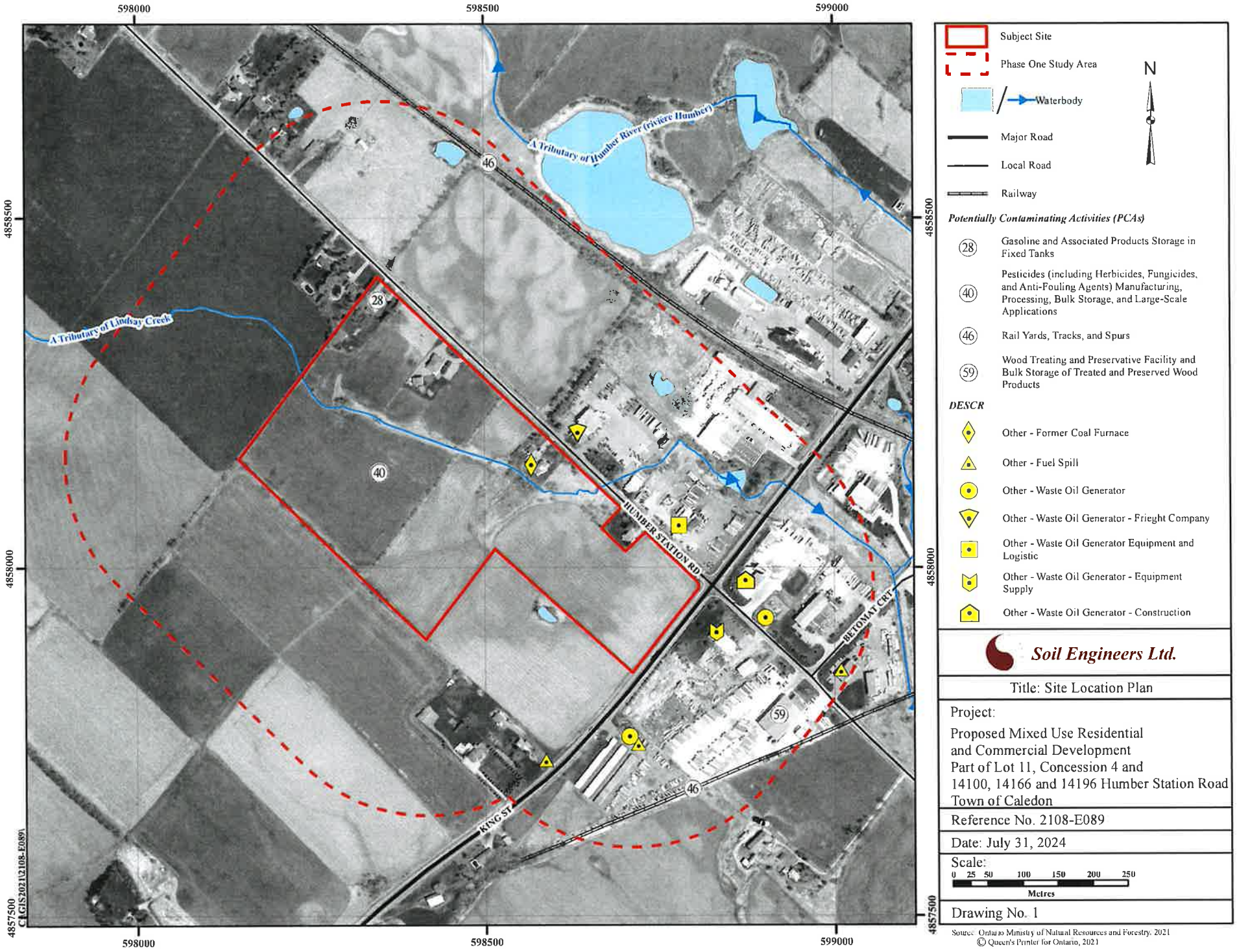
FAX: (705) 721-7864	FAX: (905) 542-2769	FAX: (905) 725-1315	FAX: (905) 881-8335	FAX: (705) 721-7864	FAX: (905) 542-2769

FIGURES

Reference No. 2108-E089


598000
598500
599000
4858500
4858000
4857500
A Tributary of Humber River (rivière Humber)
A Tributary of Lindsay Creek
HUMBER STATION RD
BETOMAT CRT
KING ST
46
28
40
59
N
Subject Site
Phase One Study Area
Waterbody
Major Road
Local Road
Railway
Potentially Contaminating Activities (PCAs)
28 Gasoline and Associated Products Storage in Fixed Tanks
40 Pesticides (including Herbicides, Fungicides, and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage, and Large-Scale Applications
46 Rail Yards, Tracks, and Spurs
59 Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products
DESCR
Other - Former Coal Furnace
Other - Fuel Spill
Other - Waste Oil Generator
Other - Waste Oil Generator - Frieght Company
Other - Waste Oil Generator Equipment and Logistic
Other - Waste Oil Generator - Equipment Supply
Other - Waste Oil Generator - Construction
Soil Engineers Ltd.
Title: Site Location Plan
Project:
Proposed Mixed Use Residential and Commercial Development
Part of Lot 11, Concession 4 and 14100, 14166 and 14196 Humber Station Road
Town of Caledon
Reference No. 2108-E089
Date: July 31, 2024
Scale:
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Metres
Drawing No. 1
Source: Ontario Ministry of Natural Resources and Forestry, 2021
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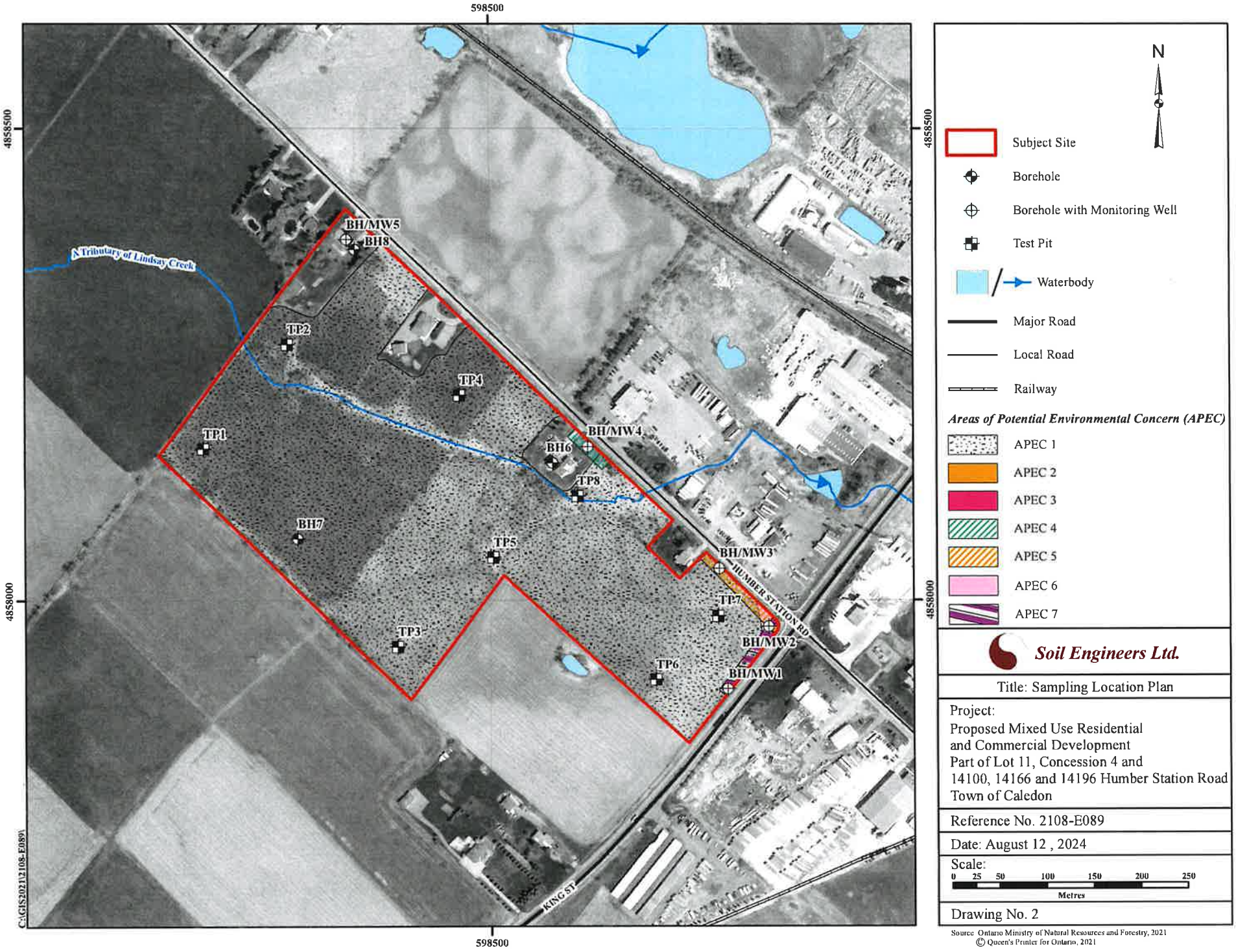
598500
4858500
4858000
598500
N
BH/MW5
BH8
N Tributary of Lindsay Creek
TP2
TP4
TP1
BH/MW4
BH6
TP8
BH7
TP5
BH/MW3
HUMBER STATION RD
TP7
TP3
BH/MW2
TP6
BH/MW1
KING ST
C:\GIS\2021\2108-E089\
Subject Site
Borehole
Borehole with Monitoring Well
Test Pit
Waterbody
Major Road
Local Road
Railway
Areas of Potential Environmental Concern (APEC)
APEC 1
APEC 2
APEC 3
APEC 4
APEC 5
APEC 6
APEC 7
Soil Engineers Ltd.
Title: Sampling Location Plan
Project:
Proposed Mixed Use Residential
and Commercial Development
Part of Lot 11, Concession 4 and
14100, 14166 and 14196 Humber Station Road
Town of Caledon
Reference No. 2108-E089
Date: August 12 , 2024
Scale:
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Metres
Drawing No. 2
Source: Ontario Ministry of Natural Resources and Forestry, 2021
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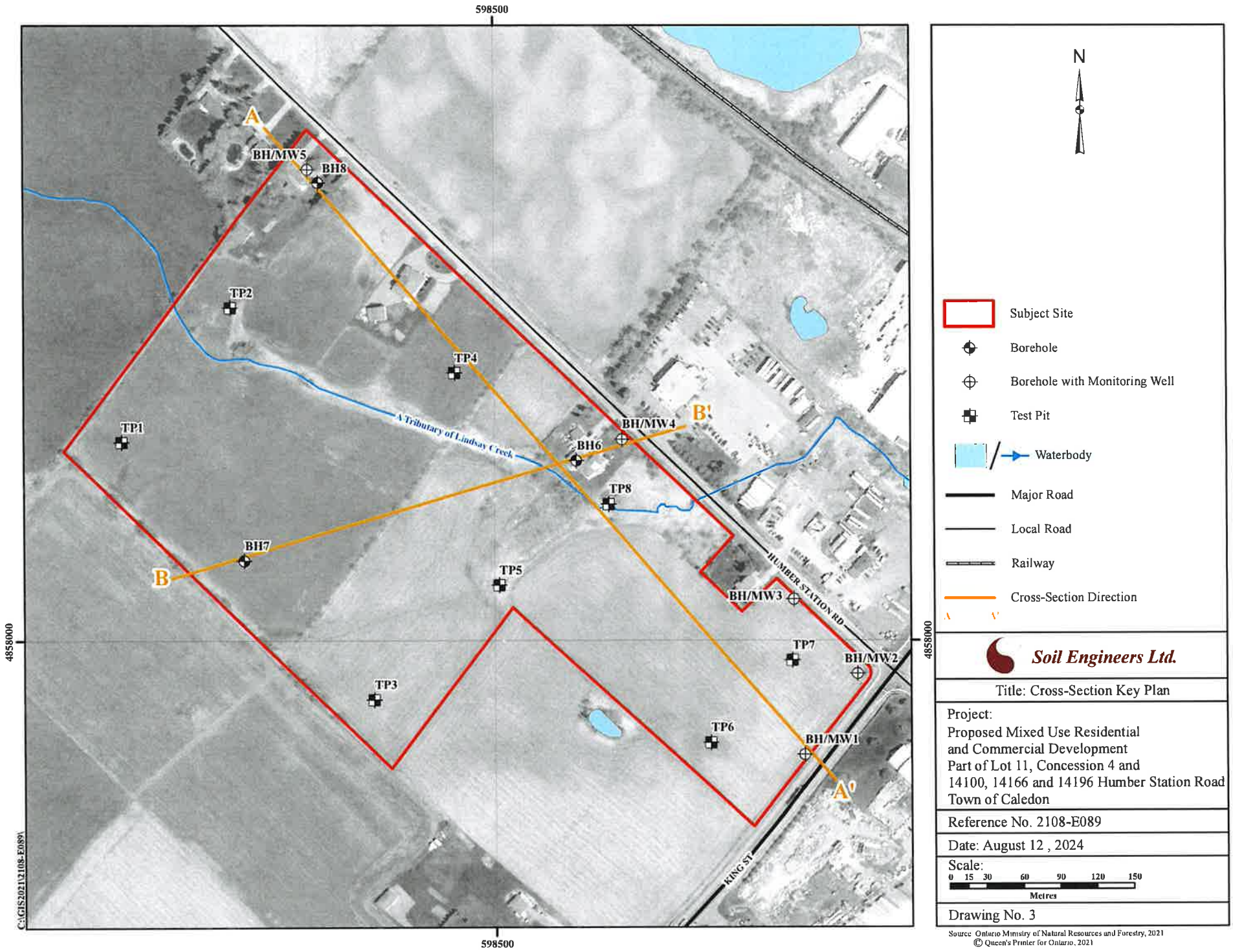
598500
4858000
A
A'
B
B'
BH/MW5
BH8
BH/MW4
BH6
BH7
BH/MW3
BH/MW2
BH/MW1
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
A Tributary of Lindsay Creek
HUMBER STATION RD
KING ST
C:\GIS\2021\2108-E089\
N
Subject Site
Borehole
Borehole with Monitoring Well
Test Pit
Waterbody
Major Road
Local Road
Railway
Cross-Section Direction
Soil Engineers Ltd.
Title: Cross-Section Key Plan
Project:
Proposed Mixed Use Residential
and Commercial Development
Part of Lot 11, Concession 4 and
14100, 14166 and 14196 Humber Station Road
Town of Caledon
Reference No. 2108-E089
Date: August 12 , 2024
Scale:
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Metres
Drawing No. 3
Source: Ontario Ministry of Natural Resources and Forestry, 2021
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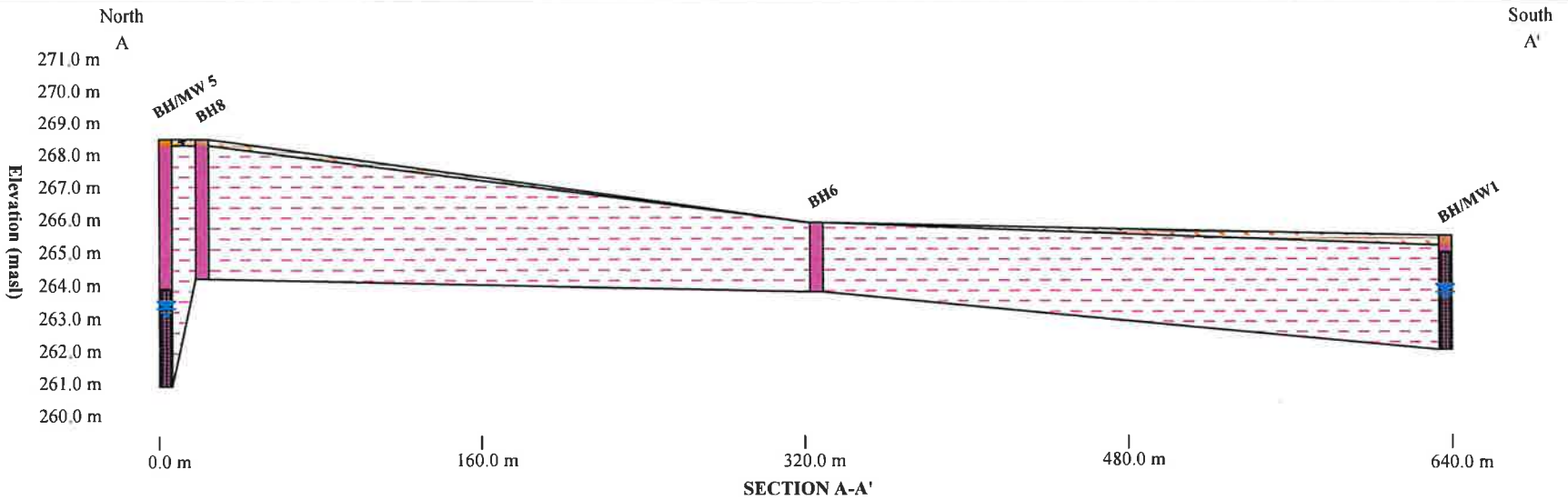
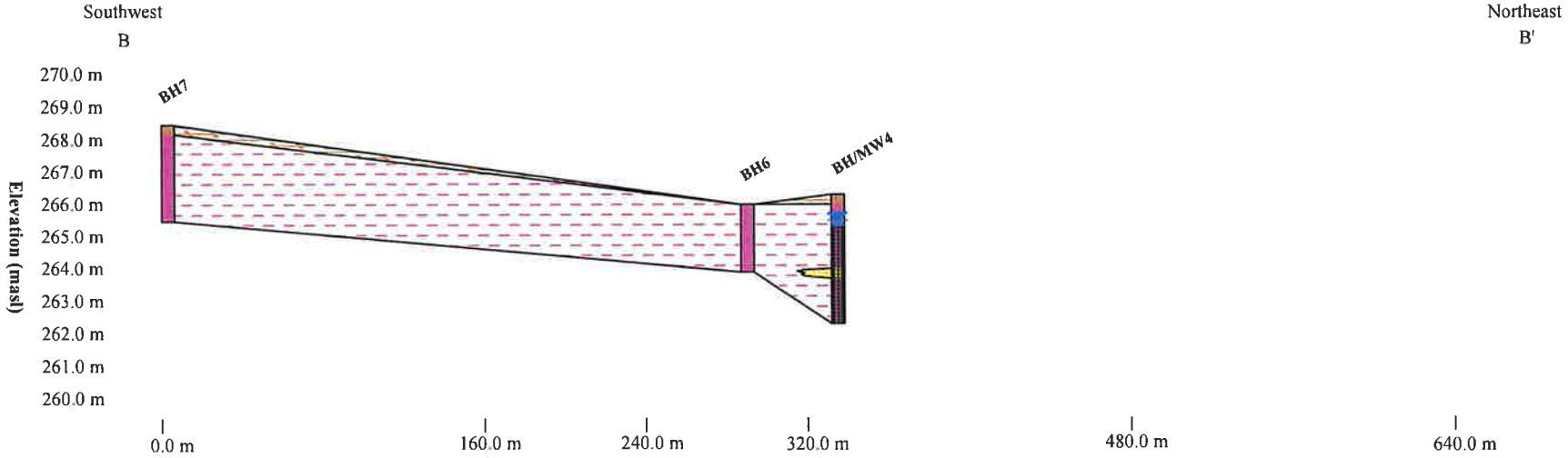


SECTION A-A'



SECTION B-B'

Asphalt/ Granular Material

Sand

Topsoil

Silty Clay

Water Table

Screen

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Title: Geological Cross-Sections A-A' and B-B'

Project: Proposed Mixed Use Residential and Commercial Development
Part of Lot 11, Concession 4 and 14100, 14166 and 14196
Humber Station Road
Town of Caledon

Reference No:	Date:	Scale: V	Scale: H	Drawing No.
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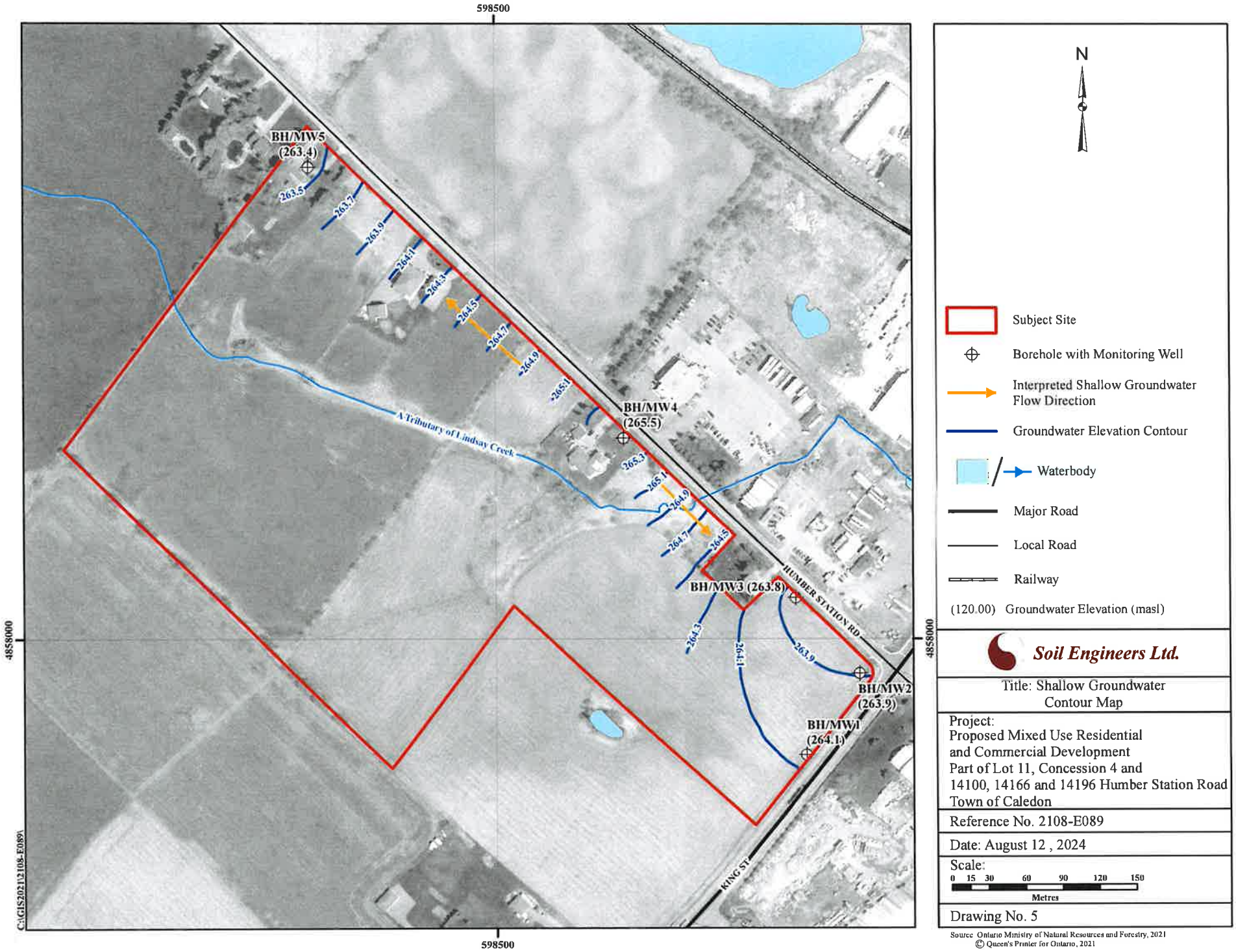
598500
4858000
BH/MW5
(263.4)
263.5
263.7
263.9
264.1
264.3
264.5
264.7
264.9
265.1
BH/MW4
(265.5)
265.3
265.1
264.9
264.7
264.5
A Tributary of Lindsay Creek
BH/MW3 (263.8)
264.3
264.1
263.9
BH/MW2
(263.9)
BH/MW1
(264.1)
HUMBER STATION RD
KING ST
598500
4858000
C:\GIS\2021\2108-E089\
N
Subject Site
Borehole with Monitoring Well
Interpreted Shallow Groundwater Flow Direction
Groundwater Elevation Contour
Waterbody
Major Road
Local Road
Railway
(120.00) Groundwater Elevation (masl)
Soil Engineers Ltd.
Title: Shallow Groundwater Contour Map
Project:
Proposed Mixed Use Residential and Commercial Development
Part of Lot 11, Concession 4 and
14100, 14166 and 14196 Humber Station Road
Town of Caledon
Reference No. 2108-E089
Date: August 12 , 2024
Scale:
0 15 30 60 90 120 150
Metres
Drawing No. 5
Source: Ontario Ministry of Natural Resources and Forestry, 2021
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FAX: (705) 721-7864	FAX: (905) 542-2769	FAX: (905) 725-1315	FAX: (905) 881-8335	FAX: (705) 721-7864	FAX: (905) 542-2769

APPENDIX 'A'

SAMPLING AND ANALYSIS PLAN

Reference No. 2108-E089

This Sampling and Analysis Plan is prepared for the Phase Two Environmental Site Assessment (Phase Two ESA), as defined by Ontario Regulation (O. Reg.) 153/04, as amended. The Phase Two ESA was conducted for the properties located to the northwest of the intersection of Humber Station Road and King Street in the Town of Caledon. The properties includes in this assessment are a parcel with legal address as part of Lot 11 and Concession 4 and parcels municipally addressed as 14100, 14166 and 14196 Humber Station Road, in the Town of Caledon, Ontario (hereinafter referred to as the 'subject site'. The Sampling and Analysis Plan is based on the findings of our Phase One Environmental Site Assessment (Reference No. 2108-E089, dated December 12, 2022) and Phase Two Environmental Site Assessment.

1) OBJECTIVE

The objective of the Phase Two ESA is to determine the soil and groundwater quality at the subject site, as related to the following Areas of Potential Environmental Concerns (APECs) at the subject site:

APEC 1: Potential soil impact due to possible use of pesticide as a part of agricultural activities at the subject site.

APEC 2: Potential soil impact due to former coal furnace located in the basement of the house in the eastern portion of the subject site.

APEC 3: Potential soil and groundwater impact due to one (1) fuel oil tank listed in the northern portion of the subject site.

APEC 4: Potential soil and groundwater impact due to presence of freight transportation company associated with records of waste generator including waste oil and photoprocessing waste, adjacent to the east of the subject site.

APEC 5: Potential soil and groundwater impact due to presence of equipment and logistic supply company associated with records of waste generator including waste oil, adjacent to the east of the subject site.

APEC 6: Potential soil and groundwater impact due to presence of construction materials supply company associated with records of waste generator including waste oil, adjacent to the southeast of the subject site.

APEC 7: Potential soil and groundwater impact due to presence of equipment supply company associated with records of waste generator including waste oil, adjacent to the southeast of the subject site.

2) SCOPE OF WORK

The scope of work for the Phase Two ESA includes:

- Locate the underground and overhead utilities.
- Advance eight (8) boreholes (designated as BH1 to BH8) to a maximum depth of 7.6 meters below grade surface (mbgs) and carryout eight (8) hand dug test pits (designated as TP1 to TP8) to a depth of 0.3 mbgs.
- Collect representative soil samples from the sampling locations.
- Undertake field examination of the retrieved soil samples for visual and olfactory evidence of potential contamination.
- Undertake soil vapour measurements for the retrieved soil samples using a combustible gas detector (RKI Eagle) in methane elimination mode.
- Install five (5) monitoring wells at boreholes BH1 to BH5 locations (designated at BH/MW1 to BH/MW5) for groundwater sampling, testing and monitoring.
- Carry out an analytical testing program on selected soil and groundwater samples including quality assurance and quality control (QA/QC) samples for one or more of the following parameters: Organochlorine Pesticides (OCs), Petroleum Hydrocarbons (PHCs), Volatile Organic Compound (VOCs), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), Metals, Arsenic (As), Antimony (Sb), Selenium (Se), Mercury (Hg), Chromium Hexavalent (Cr (VI)), Cyanides (CN^-), Boron Hot Water Soluble (B-HWS), Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR) and pH parameters.
- Review analytical testing results of submitted soil and groundwater samples using applicable Site Condition Standards.

- Prepare a Phase Two ESA report containing the findings of the investigation.

3) RATIONALE FOR BOREHOLE LOCATIONS

The rationale for the selection of the test pit, borehole and monitoring well locations is presented in the table below:

Areas of Potential Environmental Concerns (APECs)	Borehole / Monitoring Well ID.
APEC 1: Potential soil impact due to possible use of pesticide as a part of agricultural activities at the subject site.	TP1 to TP8, BH7
APEC 2: Potential soil impact due to former coal furnace located in the basement of the house in the eastern portion of the subject site.	BH6
APEC 3: Potential soil and groundwater impact due to one (1) fuel oil tank listed in the northern portion of the subject site.	BH/MW5, BH8
APEC 4: Potential soil and groundwater impact due to presence of freight transportation company associated with records of waste generator including waste oil and photoprocessing waste adjacent to the east of the subject site.	BH/MW4
APEC 5: Potential soil and groundwater impact due to presence of equipment and logistic supply company associated with records of waste generator including waste oil adjacent to the east of the subject site.	BH/MW3, BH/MW2
APEC 6: Potential soil and groundwater impact due to presence of construction materials supply company associated with records of waste generator including waste oil adjacent to the southeast of the subject site.	BH/MW2
APEC 7: Potential soil and groundwater impact due to presence of equipment supply company associated with records of waste generator including waste oil adjacent to the southeast of the subject site.	BH/MW1, BH/MW2

Location of proposed sampling locations for the Phase Two ESA is shown in Drawing No. 2.

4) SOIL AND GROUNDWATER SAMPLES (INCLUDING QA/QC SAMPLES) ANALYTICAL SCHEDULE

A summary of soil and groundwater samples (including QA/QC samples) to be submitted is presented in the table below:

	OCs	M &/or I	BTEX and PHCs	VOCs	PAHs
Soil Samples (Test Pits (TP)) (QA/QC Samples)					
TP1 to TP8	8	8	-	-	-
DupS1	-	1	-	-	-
DupS2	1	-	-	-	-
DupS3	-	1	-	-	-
Soil Samples (Boreholes (BH)) (QA/QC Samples)					
BH1	-	1	1	1	1
BH2	-	1	1	1	1
BH3	-	1	1	1	1
BH4	-	1	1	1	1
BH5	-	2	2	1	2
BH6	-	1	-	-	1
BH7	1	2	-	-	-
BH8	-	1	1	-	-
DupS4	-	-	1	1	-
Groundwater Samples (Monitoring Wells (MW)) (QA/QC Samples)					
BH/MW1	-	1	1	1	1
BH/MW2	-	1	1	1	1
BH/MW3	-	1	1	1	1
BH/MW4	-	1	1	1	1
BH/MW5	-	1	1	-	1
DUPW1	-	-	1	1	1
TRIPBLANK	-	-	-	1	-

It should be noted that based on the analytical results of the submitted soil samples, if further activities of Phase Two ESA such as re-sampling and testing is required, additional samples from the area of interest will be submitted for analysis of contaminants of concern.

5) SOIL SAMPLING PROCEDURES

Soil Engineers Ltd.'s (SEL) Standard Operation Procedures (SOPs) will be followed throughout the field investigation (sampling, decontamination of equipment, observation and documentation) including the field QA/QC program. SEL SOPs are presented in Section 7 of this sampling and analysis plan.

6) DATA QUALITY OBJECTIVES

Sampling and decontamination procedures including QA/QC program should be carried out in accordance with:

- SEL SOPs, as presented in Section 7.
- The "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario", May 1996, revised December 1996, as amended by O. Reg. 511/09.

Laboratory analytical methods, protocols and procedures should be carried out in accordance with the "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act", dated March 9, 2004, amended as of July 1, 2011, in accordance with O. Reg. 511/09 and O. Reg. 269/11.

7) STANDARD OPERATING PROCEDURES (SOPs)

7.1) Borehole Drilling

The purpose of borehole drilling is to provide access to subsurface soils at specified locations and depths. Soil borings also allow for installation of groundwater monitoring wells.

7.1.1) Underground Utilities

Prior to drilling, the public utility service (One Call) and private utility services are contacted. The underground utility services are located and marked out in the field.

7.1.2) Drilling Methods

Direct Push Drilling (i.e. Geoprobe, Powerprobe, Pionjar, etc.)

The direct push drilling machine is a hydraulically powered hammer/ram sampling device. The unit is designed so that the weight of the vehicle provides the majority of downward force. The hydraulics, with the aid of a percussion hammer, push lengths of specially modified 54 mm (2.125 inch) outside diameter (OD), hardened steel rod into the ground. The rod is advanced to target sampling depth is reached. The steel rod has been specially modified for specific types of sample collection.

Flight-Auger Drilling

The flight-auger drilling machine is a hydraulically powered feed and retract system that provides 28,275 pounds (12,826 kg) of retract force and 18,650 pounds (8,460 kg) of down pressure. The 183 cm (72 inch) stroke, hydraulic vertical drive system has no chains or cables which can stretch. It is equipped with solid or hollow-stem augers. It is extended to pre-determined sampling intervals using conventional drilling methods, at which time a decontaminated 51 mm split-spoon sampler is extended ahead of the lead auger to collect a soil sample. The split-spoon sampler is then brought to surface and opened, exposing the soil core sample.

Hand Dug Test Pit

The hand-dug test pits were hand-dug using shovel. Prior to digging and sampling at each test pit location, the shovel was brushed clean using a solution of phosphate-free detergent and distilled water.

7.1.3) Occupational Health and Safety

Prior to drilling, the site is inspected to ensure that no potentially hazardous material is present near/around the drilling area. Safety procedures are reviewed and a safety check of the equipment is conducted including locating the emergency stop button on the drill rig, checking personal protective equipment (hard hats, safety shoes, eye/ear protection), locating the first aid kit and confirming the location of the nearest hospital, and verifying the standard procedure in case of injury.

7.1.4) Drilling Spoils

Excess soil generated during sampling and drilling procedure is stored at the site in metal barrels. If the analytical results indicate the soil is contaminated, a licensed disposal company is notified to collect the barrels of soil for proper disposal.

7.1.5) Borehole Abandonment

After drilling, logging and/or sampling, boreholes will be backfilled by the method described below:

- Bentonite is thoroughly mixed into the grout within the specified percentage range. The tremie grout is usually placed into the hole; however, for selected boreholes (e.g., shallow borings well above the water table) at certain sites, the grout may be allowed to free fall, taking care to ensure the grout does not bridge and form gaps or voids in the grout column.

- The volume of the borehole is calculated and compared to the grout volume used during grouting to aid in verifying that bridging did not occur.
- When using a tremie to place grout in the borehole, the bottom of the tremie is submerged into the grout column and withdrawn slowly as the hole fills with grout. If allowing the grout to free fall (and not using a tremie), the grout is poured slowly into the boring. The rise of the grout column is visually monitored or sounded with a weighted tape.
- If the method used to drill the boring utilized a drive casing, the casing is slowly extracted during grouting such that the bottom of the casing does not come above the top of the grout column.
- During the grouting process, no contaminating material (oil, grease, or fuels from gloves, pumps, hoses, et. al) is permitted to enter the grout mix and personnel wear personal protective equipment as specified in the Project Health and Safety Plan.
- Following grouting, barriers are placed over grouted boreholes as the grout is likely to settle in time, creating a physical hazard. Grouted boreholes typically require at least a second visit to 'top off' the hole.
- The surface hole condition should match the pre-drilling condition (asphalt, concrete, or smoothed flush with native surface), unless otherwise specified in the project work plans.

7.1.6) Subsurface Obstruction

Where refusal to drilling occurs due to rock, foundation or underground services, the borehole is relocated within 2.0 m downstream from the original borehole location.

7.2) **Soil Sampling**

7.2.1) Introduction

Soil sampling is conducted in accordance with the "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario, May 1996" as revised December 1996 (MOE

Guidance Manual) and as amended by O. Reg. 366/05, 66/08, 511/09, 245/10, 179/11, 269/11 and 333/13. The sampling procedures are described herein.

Drilling Rig Decontamination

Geoprobe

One-time use Shelby tube (thin-walled) samples are recovered from the boreholes in clear disposable PVC liners to prevent cross-contamination.

CME 55

Drilling equipment such as drill rigs, augers, drill pipes, drilling rods and split-spoons are decontaminated prior to initial use, between borehole locations and at the completion of drilling activities. The drilling equipment is manually scrubbed with a brush using a phosphate-free solution and thoroughly steam cleaned and/or power washed to remove any foreign material and potential contaminants.

In addition, the spilt-spoon sampler and any sub-sampling equipment is decontaminated prior to each usage. Various solutions are used for sampling equipment decontamination as described below:

- Phosphate-free soap solution (i.e., Alconox), tap water and distilled water are used for suspected petroleum hydrocarbon soil sampling.
- A reagent-grade methanol solution and distilled water are used for suspected VOCs soil sampling. The reinstate waste is collected.
- Reagent-grade 10% nitric acid solution and distilled water are used for suspected metals soil sampling. The reinstate waste will be collected.

7.2.2) Sample Logging and Field Screening

Samples are typically collected at 1.5 m intervals in the overburden. Tactile examination of the samples is made to classify the soil, and a log is recorded for each borehole detailing the physical characteristics of the soil including colour, soil type, structure, and any observed staining or odour. The organic vapour readings, the moisture content of the samples as determined in the laboratory, the groundwater and cave-in levels measured at the time of investigation, and the groundwater monitoring well construction details are given on the borehole logs.

7.2.3) Field Screening and Calibration Procedures

The soil samples are classified based on physical characteristics including colour, soil type, moisture, and visible observation of staining and/or odour. In addition, the organic vapour reading for each soil sample is determined using a gas detector. Based on the overall soil physical characteristics, representative soil samples are selected for chemical analysis.

The organic vapour readings are measured using a portable RKI Eagle gas detector, TYPE 101 (Serial Number: E091011) set to include all gases, and having a minimum detection of 2 ppm. Prior to measurement, the detector is calibrated using a Hexane 40% LEL gas. The allowable range of calibration is 38% to 42%.

7.2.4) Soil Sampling

The soil from the disposable sampler liner is handled using new disposable gloves in order to avoid the risk of cross-contamination between the samples. Sufficient amounts of the soil samples are placed into clean glass jars with Teflon lined lids for analyses for moisture content, medium to heavy PHCs, and Metals and Inorganics.

Small amounts of the soil samples are collected using a disposable 'T'-shaped Terracore sampler and stored in methanol or sodium bisulfate vials for light PHCs (CCME F1) and VOCs analysis, respectively; the remainder of the samples is placed into a sealable bag for vapour measurement and soil classification. The samples are stored in an insulated container with ice after sampling and during shipment to the laboratory.

The minimum requirements for the number, type and frequency of field quality control are given below:

i. Field Duplicates: At least 1 field duplicate sample is collected and submitted for laboratory analysis for every 10 soil samples that are collected to ensure the soil sampling technique is accurate.

7.3) Well Installation, Well Development/Purging and Groundwater Sampling

7.3.1) Introduction

The well installation procedures are described herein.

7.3.2) Screen and Riser Pipe

Monitoring wells are constructed from individually wrapped 38 or 50 mm inside diameter (ID) schedule 40 polyvinyl chloride (PVC) flush threaded casing equipped with O-rings. The screen consists of casing material which is factory slotted (slot width = 0.25 mm) to permit the entry of water into the well. The bottom of the screens is equipped with threaded end caps. The appropriate numbers of risers are coupled with the screen section(s) via threaded joints to construct the well. The top of the wells are tightly capped using a locking well cap, which prevents the infiltration of surface water and foreign material into the well and also provides security. A watertight, traffic-rated protective casing is installed over each monitoring well within a concrete pad extending approximately 0.5 mbgs. No PVC cements or other solvent based cements are used in the construction of the monitoring wells.

7.3.3) Well Materials Decontamination

Dedicated sampling equipment, such as submersible pumps, are decontaminated prior to installation inside monitoring wells. Where factory-cleaned, hermetically sealed materials are used, no decontamination is conducted.

Setting Screen, Riser Casings and Filter Materials

At total depth, the soil cuttings are removed through circulation or rapidly spinning the augers prior to constructing the well. The drill pipe and bit or centre bit boring is removed. The well construction materials are then installed inside the open borehole or through the centre of the drive casing or augers.

After the monitoring well assembly is lowered to the bottom of the borehole, the filter pack is added until its height is approximately two feet above the top of the screen, and placement is verified. The filter pack is then surged using a surge block or swab in order to settle the pack material and reduce the possibility of bridging.

Setting Seals and Grouting

Once the top of the filter pack is verified to be in the correct position, a bentonite seal is placed above the filter pack. The seal is allowed to hydrate for at least one hour before proceeding with the grouting operation.

After hydration of the bentonite seal, grout is then pumped through a tremie pipe and filled from the top of the bentonite seal upward. The bottom of the tremie pipe should be maintained below the top of the grout to prevent free fall and bridging. When using drive casing or hollow-stem auger techniques, the drive casing/augers should be raised in incremental intervals, keeping the bottom of the drive casing/augers below the top of the grout. Grouting will cease when the grout level has risen to within approximately one to two feet of the ground surface, depending on the

surface completion type (flush-mount versus above-ground). Grout levels are monitored to assure that grout taken into the formation is replaced by additional grout.

Capping the Wells

For above-ground completions, the protective steel casing is centered on the well casing and inserted into the grouted annulus. Prior to installation, a 2-inch deep temporary spacer may be placed between the PVC well cap and the bottom of the protective casing cover to keep the protective casing from settling onto the well cap. A minimum of 24 hours after grouting should elapse before installation of the concrete pad and steel guard posts for above-ground completions, or street boxes or vaults for flush mount completions. For above-ground completions, a concrete pad, usually 3-foot by 3-foot by 4-inch thick, is constructed at ground surface around the protective steel casing. The concrete is sloped away from the protective casing to promote surface drainage from the well.

7.3.4) Documentation of Monitoring Well Configuration

The following information is recorded:

- Length of well screen
- Total depth of well boring
- Depth from ground surface to top of grout or bentonite plug in bottom of borehole (if present)
- Depth to base of well string
- Depth to top and bottom of well screen

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APPENDIX 'B'

BOREHOLE LOGS

Reference No. 2108-E089

JOB NO.: 2108-E089

LOG OF BOREHOLE NO.: 1

PROJECT DESCRIPTION: Proposed Mixed-Use Residential and Commercial Development

METHOD OF BORING: Geoprobe

PROJECT LOCATION: Part of Lot 11, Concession 4 and 14100, 14166 and 14196 Humber Station Road Town of Caledon

DRILLING DATE: June 27, 2024

El. (masl) / Depth (mbgs)	SOIL DESCRIPTION	SAMPLES Number	Type	Combustible Headspace Reading (ppm)	Depth Scale (mbgs)	Combustible Headspace Reading (ppm) 20 60 100 140 180	REMARKS	WATER LEVEL
265.6 / 0.0	Ground Surface **33 cm TOPSOIL**				0			
0.3	**SILTY CLAY**	1	TO	0				
	trace of gravel	2	TO	0	1			
		3	TO	0	2		BH1/3: Metals, PHCs, VOCs, PAHs DUPS4	
	brown brown/grey							
	trace of sand, trace of gravel some sand, some gravel	4	TO	0	3			
		5	TO	0				
262.2 / 3.5	END OF BOREHOLE Installed 51mm standpipe @ 3.5m Concrete from 0.0m to 0.3m Bentonite seal from 0.3m to 0.5m Sand backfill from 0.5m to 3.5m 3m screen from 0.5m to 3.5m Provided with monument protective casing/flushmount				4 5 6 7 8			W.L. @ 1.5 mbgs on July 5, 2024

Soil Engineers Ltd.

JOB NO.: 2108-E089

LOG OF BOREHOLE NO.: 2

PROJECT DESCRIPTION: Proposed Mixed-Use Residential and Commercial Development

METHOD OF BORING: Geoprobe

PROJECT LOCATION: Part of Lot 11, Concession 4 and 14100, 14166 and 14196 Humber Station Road Town of Caledon

DRILLING DATE: June 27, 2024

El. (masl) / Depth (mbgs)	SOIL DESCRIPTION	SAMPLES Number	Type	Combustible Headspace Reading (ppm)	Depth Scale (mbgs)	Combustible Headspace Reading (ppm) 20 60 100 140 180	REMARKS	WATER LEVEL
265.9	Ground Surface							
0.0	**18 cm TOPSOIL**				0			
0.2	Brown **SILTY CLAY** trace of gravel	1	TO	0				
		2	TO	0	1			
		3	TO	0	2			
263.6								
2.3	Brown, moist **SILT** some sand, trace of gravel	4	TO	0			BH2/4: Metals, PHCs, VOCs, PAHs	
262.9					3			
3.0	Grey, fine **SAND** wet	5	TO	0				
		6	TO	0	4			
261.3								
4.6	END OF BOREHOLE Installed 51mm standpipe @ 3.7m Concrete from 0.0m to 0.3m Bentonite seal from 0.3m to 0.7m Sand backfill from 0.7m to 3.7m 3m screen from 0.7m to 3.7m Provided with monument protective casing/flushmount				5 6 7 8			W.L. @ 2.0 mbgs on July 5, 2024

Soil Engineers Ltd.

JOB NO.: 2108-E089

LOG OF BOREHOLE NO.: 3

PROJECT DESCRIPTION: Proposed Mixed-Use Residential and Commercial Development

METHOD OF BORING: Geoprobe

PROJECT LOCATION: Part of Lot 11, Concession 4 and 14100, 14166 and 14196 Humber Station Road Town of Caledon

DRILLING DATE: June 27, 2024

El. (masl) / Depth (mbgs)	SOIL DESCRIPTION	SAMPLES: Number	SAMPLES: Type	SAMPLES: Combustible Headspace Reading (ppm)	Depth Scale (mbgs)	Combustible Headspace Reading (ppm)	REMARKS	WATER LEVEL
265.9 / 0.0	Ground Surface **30 cm TOPSOIL**				0			
0.3	**SILTY CLAY** trace of gravel brown brown/grey	1	TO	0				
		2	TO	0	1			
264.4 / 1.5	Brown **SANDY SILT** trace of clay and gravel	3	TO	0	2			
263.6 / 2.3	Brown **SAND** some silt	4	TO	0	3		BH3/4: Metals, PHCs, VOCs, PAHs	
		5	TO	0	4			
261.3 / 4.6	END OF BOREHOLE Installed 51mm standpipe @ 4.6m Concrete from 0.0m to 0.3m Bentonite seal from 0.3m to 1.0m Sand backfill from 1.0m to 4.6m 3m screen from 1.6m to 4.6m Provided with monument protective casing/flushmount				5 6 7 8			W.L. @ 2.1 mbgs on July 5, 2024

Combustible Headspace Reading (ppm): 20 60 100 140 180

Soil Engineers Ltd.

JOB NO.: 2108-E089

LOG OF BOREHOLE NO.: 4

PROJECT DESCRIPTION: Proposed Mixed-Use Residential and Commercial Development

METHOD OF BORING: Geoprobe

PROJECT LOCATION: Part of Lot 11, Concession 4 and 14100, 14166 and 14196 Humber Station Road Town of Caledon

DRILLING DATE: June 26, 2024

El. (masl) / Depth (mbgs)	SOIL DESCRIPTION	SAMPLES: Number	SAMPLES: Type	SAMPLES: Combustible Headspace Reading (ppm)	Depth Scale (mbgs)	Combustible Headspace Reading (ppm)	REMARKS	WATER LEVEL
266.3	Ground Surface							
0.0	**25 cm TOPSOIL**	1A	TO	15	0			
0.3	Brown/grey **SILTY CLAY**	1B	TO	15				
265.5								
0.8	Brown/grey **SILTY CLAY**	2	TO	20	1			
		3	TO	25	2			
264.0								
2.3	Brown **SAND**	4A	TO	10			BH4/4A: Metals, PHCs, VOCs, PAHs	
263.7								
2.6	Brown/grey **SILTY CLAY** Some sand	4B	TO	15	3			
263.3								
3.0	Grey **SILTY CLAY**	5	TO	15				
262.3		6	TO	10	4			
4.0	END OF BOREHOLE Installed 51mm standpipe @ 4.0m Concrete from 0.0m to 0.3m Bentonite seal from 0.3m to 0.5m Sand backfill from 0.5m to 4.0m 3m screen from 1.0m to 4.0m Provided with monument protective casing/flushmount				5 6 7 8			W.L. @ 0.8 mbgs on July 5, 2024

Combustible Headspace Reading (ppm): 20 60 100 140 180

Soil Engineers Ltd.

JOB NO.: 2108-E089

LOG OF BOREHOLE NO.: 5

PROJECT DESCRIPTION: Proposed Mixed-Use Residential and Commercial Development

METHOD OF BORING: Geoprobe

PROJECT LOCATION: Part of Lot 11, Concession 4 and 14100, 14166 and 14196 Humber Station Road Town of Caledon

DRILLING DATE: June 26, 2024

El. (masl) / Depth (mbgs)	SOIL DESCRIPTION	SAMPLES: Number	SAMPLES: Type	SAMPLES: Combustible Headspace Reading (ppm)	Depth Scale (mbgs)	Combustible Headspace Reading (ppm)	REMARKS	WATER LEVEL
268.6	Ground Surface							
0.0	**3 cm ASPHALT**				0		BH5/1: Metals, Hg, Cr(VI), B-HWS, Cyanide, pH, EC, SAR, PHCs, VOCs, PAHs	
0.2	**15 cm GRANULAR MATERIAL**							
	Brown **SILTY CLAY**	1	TO	5				
267.8								
1.0	**SILTY CLAY** brown	2	TO	15	1			
		3	TO	15	2			
	brown/grey, some sand	4	TO	10	3			
		5	TO	25				
		6	TO	15	4		BH5/6: Metals, pH, PHCs, BTEX	
		7	TO	10	5			
	grey	8	TO	15				
		9	TO	10	6			
		10	TO	20	7			
261.0								
7.6	END OF BOREHOLE Installed 51mm standpipe @ 7.6m Concrete from 0.0m to 0.3m Bentonite seal from 0.3m to 4.0m Sand backfill from 4.0m to 7.6m 3m screen from 4.6m to 7.6m Provided with monument protective casing/flushmount				8			
					9			
					10			

Combustible Headspace Reading (ppm): 20 60 100 140 180

W.L. @ 5.2 mbgs on July 5, 2024

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JOB NO.: 2108-E089

LOG OF BOREHOLE NO.: 6

PROJECT DESCRIPTION: Proposed Mixed-Use Residential and Commercial Development

METHOD OF BORING: Geoprobe

PROJECT LOCATION: Part of Lot 11, Concession 4 and 14100, 14166 and 14196 Humber Station Road Town of Caledon

DRILLING DATE: June 26, 2024

El. (masl) / Depth (mbgs)	SOIL DESCRIPTION	SAMPLES: Number	SAMPLES: Type	SAMPLES: Combustible Headspace Reading (ppm)	Depth Scale (mbgs)	Combustible Headspace Reading (ppm) (20 60 100 140 180)	REMARKS	WATER LEVEL
266.0 / 0.0	Ground Surface				0			
	SILTY CLAY dark-brown	1	TO	25			BH6/1: Metals, Hg, Cr(VI), B-HWS, Cyanide, pH, PAHs	
	brown/grey	2	TO	15	1			
		3	TO	20	2			
263.9 / 2.1	END OF BOREHOLE Refusal at 7'				3 4 5 6 7 8			

Soil Engineers Ltd.

JOB NO.: 2108-E089

LOG OF BOREHOLE NO.: 7

PROJECT DESCRIPTION: Proposed Mixed-Use Residential and Commercial Development

METHOD OF BORING: Geoprobe

PROJECT LOCATION: Part of Lot 11, Concession 4 and 14100, 14166 and 14196 Humber Station Road Town of Caledon

DRILLING DATE: June 27, 2024

El. (masl) / Depth (mbgs)	SOIL DESCRIPTION	SAMPLES Number	Type	Combustible Headspace Reading (ppm)	Depth Scale (mbgs)	Combustible Headspace Reading (ppm) 20 60 100 140 180	REMARKS	WATER LEVEL
268.5	Ground Surface							
0.0	**30 cm TOPSOIL**	1A	TO	0	0		BH7/1A: Metals, OCs	
0.3	Brown **SILTY CLAY** trace of gravel	1B	TO	0				
		2	TO	0	1			
		3	TO	0	2		BH7/3: pH	
		4	TO	0				
265.5					3			
3.0	END OF BOREHOLE							
					4			
					5			
					6			
					7			
					8			

Soil Engineers Ltd.

JOB NO.: 2108-E089

LOG OF BOREHOLE NO.: 8

PROJECT DESCRIPTION: Proposed Mixed-Use Residential and Commercial Development

METHOD OF BORING: Geoprobe

PROJECT LOCATION: Part of Lot 11, Concession 4 and 14100, 14166 and 14196 Humber Station Road Town of Caledon

DRILLING DATE: June 27, 2024

El. (masl) / Depth (mbgs)	SOIL DESCRIPTION	SAMPLES Number	SAMPLES Type	SAMPLES Combustible Headspace Reading (ppm)	Depth Scale (mbgs)	Combustible Headspace Reading (ppm) (20 60 100 140 180)	REMARKS	WATER LEVEL
268.6	Ground Surface							
0.0	**18 cm TOPSOIL**				0			
0.2	**SILTY CLAY**	1	TO	0				
		2	TO	0	1			
	some gravel	3	TO	0	2			
		4	TO	0				
	trace of gravel	5	TO	0	3			
	brown/grey	6	TO	0	4		BH8/6: Metals, PHCs, BTEX	
264.3								
4.3	END OF BOREHOLE				5			
					6			
					7			
					8			

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APPENDIX 'C'

CERTIFICATE OF ANALYSIS
(SOIL SAMPLES)

Reference No. 2108-E089

Your Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Your C.O.C. #: N/A

Attention: Madan K. Suwal

Soil Engineers Ltd
90 West Beaver Creek Road
Unit 100
Richmond Hill, ON
CANADA L4B 1E7

Report Date: 2024/07/09
Report #: R8226883
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4J8548
Received: 2024/06/27, 17:27

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	3	N/A	2024/07/02	CAM SOP-00301	EPA 8270D m
Methylnaphthalene Sum	1	N/A	2024/07/08	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	1	2024/07/05	2024/07/05	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	2	N/A	2024/07/04		EPA 8260C m
Free (WAD) Cyanide	1	2024/07/05	2024/07/08	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	3	2024/07/08	2024/07/08	CAM SOP-00457	OMOE E3015 m
Conductivity	1	2024/07/05	2024/07/06	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	2	2024/07/04	2024/07/04	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	1	N/A	2024/07/05	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	3	2024/07/03	2024/07/04	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	1	2024/07/05	2024/07/08	CAM SOP-00447	EPA 6020B m
Acid Extractable Metals by ICPMS	3	2024/07/08	2024/07/08	CAM SOP-00447	EPA 6020B m
Moisture	4	N/A	2024/06/29	CAM SOP-00445	Carter 2nd ed 70.2 m
PAH Compounds in Soil by GC/MS (SIM)	3	2024/06/30	2024/06/30	CAM SOP-00318	EPA 8270E
PAH Compounds in Soil by GC/MS (SIM)	1	2024/07/06	2024/07/07	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	3	2024/07/05	2024/07/05	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	1	N/A	2024/07/09	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	2	N/A	2024/07/04	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Your Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Your C.O.C. #: N/A

Attention: Madan K. Suwal

Soil Engineers Ltd
90 West Beaver Creek Road
Unit 100
Richmond Hill, ON
CANADA L4B 1E7

Report Date: 2024/07/09
Report #: R8226883
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4J8548
Received: 2024/06/27, 17:27

Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Soils are reported on a dry weight basis unless otherwise specified.
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Bureau Veritas
09 Jul 2024 17:08:28

Please direct all questions regarding this Certificate of Analysis to:
Antonella Brasil, Senior Project Manager
Email: Antonella.Brasil@bureauveritas.com
Phone# (905)817-5817

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C4J8548
Report Date: 2024/07/09

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: CG

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPE145				ZPE145			
Sampling Date		2024/06/26				2024/06/26			
COC Number		N/A				N/A			
	UNITS	BH6/1	RDL	MDL	QC Batch	BH6/1 Lab-Dup	RDL	MDL	QC Batch
Inorganics									
Available (CaCl2) pH	pH	8.05			9497243				
WAD Cyanide (Free)	ug/g	<0.01	0.01	0.0019	9500038	<0.01	0.01	0.0019	9500038
Chromium (VI)	ug/g	<0.18	0.18	0.050	9494544				
Metals									
Acid Extractable Antimony (Sb)	ug/g	0.56	0.20	0.10	9500379				
Acid Extractable Arsenic (As)	ug/g	3.9	1.0	0.10	9500379				
Acid Extractable Barium (Ba)	ug/g	88	0.50	0.30	9500379				
Acid Extractable Beryllium (Be)	ug/g	0.58	0.20	0.020	9500379				
Acid Extractable Boron (B)	ug/g	7.2	5.0	1.0	9500379				
Acid Extractable Cadmium (Cd)	ug/g	0.40	0.10	0.030	9500379				
Acid Extractable Chromium (Cr)	ug/g	22	1.0	0.20	9500379				
Acid Extractable Cobalt (Co)	ug/g	8.5	0.10	0.020	9500379				
Acid Extractable Copper (Cu)	ug/g	21	0.50	0.20	9500379				
Acid Extractable Lead (Pb)	ug/g	95	1.0	0.10	9500379				
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	0.10	9500379				
Acid Extractable Nickel (Ni)	ug/g	20	0.50	0.20	9500379				
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	0.10	9500379				
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	0.040	9500379				
Acid Extractable Thallium (Tl)	ug/g	0.12	0.050	0.010	9500379				
Acid Extractable Uranium (U)	ug/g	0.45	0.050	0.030	9500379				
Acid Extractable Vanadium (V)	ug/g	30	5.0	0.50	9500379				
Acid Extractable Zinc (Zn)	ug/g	160	5.0	0.50	9500379				
Acid Extractable Mercury (Hg)	ug/g	0.12	0.050	0.030	9500379				

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C4J8548
Report Date: 2024/07/09

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: CG

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPE146				ZPE146			
Sampling Date		2024/06/26				2024/06/26			
COC Number		N/A				N/A			
	UNITS	BH5/1	RDL	MDL	QC Batch	BH5/1 Lab-Dup	RDL	MDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	2.2			9486937				
Inorganics									
Conductivity	mS/cm	0.49	0.002	0.0005	9498034				
Available (CaCl2) pH	pH	7.56			9497243				
WAD Cyanide (Free)	ug/g	<0.01	0.01	0.0019	9500036				
Chromium (VI)	ug/g	<0.18	0.18	0.050	9494544	<0.18	0.18	0.050	9494544
Metals									
Hot Water Ext. Boron (B)	ug/g	0.068	0.050	0.030	9496667				
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	0.10	9500379				
Acid Extractable Arsenic (As)	ug/g	3.4	1.0	0.10	9500379				
Acid Extractable Barium (Ba)	ug/g	83	0.50	0.30	9500379				
Acid Extractable Beryllium (Be)	ug/g	0.82	0.20	0.020	9500379				
Acid Extractable Boron (B)	ug/g	6.4	5.0	1.0	9500379				
Acid Extractable Cadmium (Cd)	ug/g	<0.10	0.10	0.030	9500379				
Acid Extractable Chromium (Cr)	ug/g	24	1.0	0.20	9500379				
Acid Extractable Cobalt (Co)	ug/g	11	0.10	0.020	9500379				
Acid Extractable Copper (Cu)	ug/g	24	0.50	0.20	9500379				
Acid Extractable Lead (Pb)	ug/g	10	1.0	0.10	9500379				
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	0.10	9500379				
Acid Extractable Nickel (Ni)	ug/g	24	0.50	0.20	9500379				
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	0.10	9500379				
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	0.040	9500379				
Acid Extractable Thallium (Tl)	ug/g	0.15	0.050	0.010	9500379				
Acid Extractable Uranium (U)	ug/g	0.57	0.050	0.030	9500379				
Acid Extractable Vanadium (V)	ug/g	35	5.0	0.50	9500379				
Acid Extractable Zinc (Zn)	ug/g	56	5.0	0.50	9500379				
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	0.030	9500379				

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C4J8548
Report Date: 2024/07/09

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: CG

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPE147				ZPE147		
Sampling Date		2024/06/26				2024/06/26		
COC Number		N/A				N/A		
	UNITS	BH5/6	RDL	MDL	QC Batch	BH5/6 Lab-Dup	MDL	QC Batch
Inorganics								
Available (CaCl2) pH	pH	7.83			9497243	7.88		9497243
WAD Cyanide (Free)	ug/g	<0.01	0.01	0.0019	9497809			
Metals								
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	0.10	9497505			
Acid Extractable Arsenic (As)	ug/g	2.5	1.0	0.10	9497505			
Acid Extractable Barium (Ba)	ug/g	59	0.50	0.30	9497505			
Acid Extractable Beryllium (Be)	ug/g	0.49	0.20	0.020	9497505			
Acid Extractable Boron (B)	ug/g	7.4	5.0	1.0	9497505			
Acid Extractable Cadmium (Cd)	ug/g	<0.10	0.10	0.030	9497505			
Acid Extractable Chromium (Cr)	ug/g	19	1.0	0.20	9497505			
Acid Extractable Cobalt (Co)	ug/g	8.4	0.10	0.020	9497505			
Acid Extractable Copper (Cu)	ug/g	21	0.50	0.20	9497505			
Acid Extractable Lead (Pb)	ug/g	7.5	1.0	0.10	9497505			
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	0.10	9497505			
Acid Extractable Nickel (Ni)	ug/g	19	0.50	0.20	9497505			
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	0.10	9497505			
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	0.040	9497505			
Acid Extractable Thallium (Tl)	ug/g	0.10	0.050	0.010	9497505			
Acid Extractable Uranium (U)	ug/g	0.68	0.050	0.030	9497505			
Acid Extractable Vanadium (V)	ug/g	25	5.0	0.50	9497505			
Acid Extractable Zinc (Zn)	ug/g	45	5.0	0.50	9497505			
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	0.030	9497505			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C4J8548
Report Date: 2024/07/09

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: CG

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPE148			
Sampling Date		2024/06/26			
COC Number		N/A			
	UNITS	BH4/4A	RDL	MDL	QC Batch
Inorganics					
WAD Cyanide (Free)	ug/g	<0.01	0.01	0.0019	9500036
Metals					
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	0.10	9500379
Acid Extractable Arsenic (As)	ug/g	3.6	1.0	0.10	9500379
Acid Extractable Barium (Ba)	ug/g	51	0.50	0.30	9500379
Acid Extractable Beryllium (Be)	ug/g	0.38	0.20	0.020	9500379
Acid Extractable Boron (B)	ug/g	5.4	5.0	1.0	9500379
Acid Extractable Cadmium (Cd)	ug/g	<0.10	0.10	0.030	9500379
Acid Extractable Chromium (Cr)	ug/g	12	1.0	0.20	9500379
Acid Extractable Cobalt (Co)	ug/g	8.3	0.10	0.020	9500379
Acid Extractable Copper (Cu)	ug/g	31	0.50	0.20	9500379
Acid Extractable Lead (Pb)	ug/g	10	1.0	0.10	9500379
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	0.10	9500379
Acid Extractable Nickel (Ni)	ug/g	16	0.50	0.20	9500379
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	0.10	9500379
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	0.040	9500379
Acid Extractable Thallium (Tl)	ug/g	0.097	0.050	0.010	9500379
Acid Extractable Uranium (U)	ug/g	0.43	0.050	0.030	9500379
Acid Extractable Vanadium (V)	ug/g	22	5.0	0.50	9500379
Acid Extractable Zinc (Zn)	ug/g	49	5.0	0.50	9500379
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	0.030	9500379

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 PAHS (SOIL)

Bureau Veritas ID		ZPE145				ZPE145			
Sampling Date		2024/06/26				2024/06/26			
COC Number		N/A				N/A			
	UNITS	BH6/1	RDL	MDL	QC Batch	BH6/1 Lab-Dup	RDL	MDL	QC Batch
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	0.0071	N/A	9487022				
Polyaromatic Hydrocarbons									
Acenaphthene	ug/g	<0.0050	0.0050	0.0020	9499345	0.029 (1)	0.0050	0.0020	9499345
Acenaphthylene	ug/g	<0.0050	0.0050	0.0010	9499345	<0.0050	0.0050	0.0010	9499345
Anthracene	ug/g	<0.0050	0.0050	0.0010	9499345	0.058 (1)	0.0050	0.0010	9499345
Benzo(a)anthracene	ug/g	0.0082	0.0050	0.0020	9499345	0.054 (1)	0.0050	0.0020	9499345
Benzo(a)pyrene	ug/g	0.0081	0.0050	0.0010	9499345	0.037 (1)	0.0050	0.0010	9499345
Benzo(b/j)fluoranthene	ug/g	0.013	0.0050	0.0020	9499345	0.050 (1)	0.0050	0.0020	9499345
Benzo(g,h,i)perylene	ug/g	0.0085	0.0050	0.0040	9499345	0.022 (1)	0.0050	0.0040	9499345
Benzo(k)fluoranthene	ug/g	<0.0050	0.0050	0.0020	9499345	0.019 (1)	0.0050	0.0020	9499345
Chrysene	ug/g	0.0076	0.0050	0.0020	9499345	0.042 (1)	0.0050	0.0020	9499345
Dibenzo(a,h)anthracene	ug/g	<0.0050	0.0050	0.0040	9499345	<0.0050	0.0050	0.0040	9499345
Fluoranthene	ug/g	0.023	0.0050	0.0010	9499345	0.21 (1)	0.0050	0.0010	9499345
Fluorene	ug/g	<0.0050	0.0050	0.0010	9499345	0.031 (1)	0.0050	0.0010	9499345
Indeno(1,2,3-cd)pyrene	ug/g	0.0066	0.0050	0.0040	9499345	0.022 (1)	0.0050	0.0040	9499345
1-Methylnaphthalene	ug/g	<0.0050	0.0050	0.0010	9499345	0.0096	0.0050	0.0010	9499345
2-Methylnaphthalene	ug/g	<0.0050	0.0050	0.0010	9499345	0.013	0.0050	0.0010	9499345
Naphthalene	ug/g	<0.0050	0.0050	0.0010	9499345	0.043 (1)	0.0050	0.0010	9499345
Phenanthrene	ug/g	0.017	0.0050	0.0010	9499345	0.29 (1)	0.0050	0.0010	9499345
Pyrene	ug/g	0.019	0.0050	0.0010	9499345	0.16 (1)	0.0050	0.0010	9499345
Surrogate Recovery (%)									
D10-Anthracene	%	99			9499345	99			9499345
D14-Terphenyl (FS)	%	105			9499345	102			9499345
D8-Acenaphthylene	%	86			9499345	87			9499345

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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O.REG 153 PAHS (SOIL)

Bureau Veritas ID		ZPE146	ZPE147	ZPE148			
Sampling Date		2024/06/26	2024/06/26	2024/06/26			
COC Number		N/A	N/A	N/A			
	UNITS	BH5/1	BH5/6	BH4/4A	RDL	MDL	QC Batch
Calculated Parameters							
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	<0.0071	<0.0071	0.0071	N/A	9486472
Polyaromatic Hydrocarbons							
Acenaphthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9487994
Acenaphthylene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9487994
Anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9487994
Benzo(a)anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9487994
Benzo(a)pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9487994
Benzo(b/j)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9487994
Benzo(g,h,i)perylene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9487994
Benzo(k)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9487994
Chrysene	ug/g	<0.0050	0.0052	<0.0050	0.0050	0.0020	9487994
Dibenzo(a,h)anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9487994
Fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9487994
Fluorene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9487994
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9487994
1-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9487994
2-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9487994
Naphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9487994
Phenanthrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9487994
Pyrene	ug/g	<0.0050	0.0052	<0.0050	0.0050	0.0010	9487994
Surrogate Recovery (%)							
D10-Anthracene	%	104	103	101			9487994
D14-Terphenyl (FS)	%	103	104	101			9487994
D8-Acenaphthylene	%	92	90	87			9487994

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

Bureau Veritas ID		ZPE147			
Sampling Date		2024/06/26			
COC Number		N/A			
	UNITS	BH5/6	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/g	<0.020	0.020	0.020	9496420
Toluene	ug/g	<0.020	0.020	0.020	9496420
Ethylbenzene	ug/g	<0.020	0.020	0.020	9496420
o-Xylene	ug/g	<0.020	0.020	0.020	9496420
p+m-Xylene	ug/g	<0.040	0.040	0.040	9496420
Total Xylenes	ug/g	<0.040	0.040	0.040	9496420
F1 (C6-C10)	ug/g	<10	10	5.0	9496420
F1 (C6-C10) - BTEX	ug/g	<10	10	5.0	9496420
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	5.0	9492342
F3 (C16-C34 Hydrocarbons)	ug/g	50	50	5.0	9492342
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	10	9492342
Reached Baseline at C50	ug/g	Yes			9492342
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	103			9496420
4-Bromofluorobenzene	%	99			9496420
D10-o-Xylene	%	86			9496420
D4-1,2-Dichloroethane	%	102			9496420
o-Terphenyl	%	89			9492342

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Bureau Veritas ID		ZPE146	ZPE148			
Sampling Date		2024/06/26	2024/06/26			
COC Number		N/A	N/A			
	UNITS	BH5/1	BH4/4A	RDL	MDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	0.050	0.010	9486634
Volatile Organics						
Acetone (2-Propanone)	ug/g	<0.49	<0.49	0.49	0.49	9489650
Benzene	ug/g	<0.0060	<0.0060	0.0060	0.0060	9489650
Bromodichloromethane	ug/g	<0.040	<0.040	0.040	0.040	9489650
Bromoform	ug/g	<0.040	<0.040	0.040	0.040	9489650
Bromomethane	ug/g	<0.040	<0.040	0.040	0.040	9489650
Carbon Tetrachloride	ug/g	<0.040	<0.040	0.040	0.040	9489650
Chlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9489650
Chloroform	ug/g	<0.040	<0.040	0.040	0.040	9489650
Dibromochloromethane	ug/g	<0.040	<0.040	0.040	0.040	9489650
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9489650
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9489650
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9489650
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	0.040	0.040	9489650
1,1-Dichloroethane	ug/g	<0.040	<0.040	0.040	0.040	9489650
1,2-Dichloroethane	ug/g	<0.049	<0.049	0.049	0.049	9489650
1,1-Dichloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9489650
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9489650
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9489650
1,2-Dichloropropane	ug/g	<0.040	<0.040	0.040	0.040	9489650
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	0.030	0.030	9489650
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	0.040	0.040	9489650
Ethylbenzene	ug/g	<0.010	<0.010	0.010	0.010	9489650
Ethylene Dibromide	ug/g	<0.040	<0.040	0.040	0.040	9489650
Hexane	ug/g	<0.040	<0.040	0.040	0.040	9489650
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	0.049	0.049	9489650
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	0.40	0.40	9489650
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	0.40	0.40	9489650
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	0.040	0.040	9489650
Styrene	ug/g	<0.040	<0.040	0.040	0.040	9489650
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	0.040	0.040	9489650
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	0.040	0.040	9489650
Tetrachloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9489650

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Bureau Veritas ID		ZPE146	ZPE148			
Sampling Date		2024/06/26	2024/06/26			
COC Number		N/A	N/A			
	UNITS	BH5/1	BH4/4A	RDL	MDL	QC Batch
Toluene	ug/g	<0.020	<0.020	0.020	0.020	9489650
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	0.040	0.040	9489650
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	0.040	0.040	9489650
Trichloroethylene	ug/g	<0.010	<0.010	0.010	0.010	9489650
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	0.040	0.040	9489650
Vinyl Chloride	ug/g	<0.019	<0.019	0.019	0.019	9489650
p+m-Xylene	ug/g	<0.020	<0.020	0.020	0.020	9489650
o-Xylene	ug/g	<0.020	<0.020	0.020	0.020	9489650
Total Xylenes	ug/g	<0.020	<0.020	0.020	0.020	9489650
F1 (C6-C10)	ug/g	<10	<10	10	2.0	9489650
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	2.0	9489650
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	10	5.0	9492342
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	50	5.0	9492342
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	50	10	9492342
Reached Baseline at C50	ug/g	Yes	Yes			9492342
Surrogate Recovery (%)						
o-Terphenyl	%	92	94			9492342
4-Bromofluorobenzene	%	84	85			9489650
D10-o-Xylene	%	97	99			9489650
D4-1,2-Dichloroethane	%	107	107			9489650
D8-Toluene	%	105	107			9489650

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4J8548
Report Date: 2024/07/09

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: CG

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ZPE145	ZPE146		ZPE147	ZPE148			
Sampling Date		2024/06/26	2024/06/26		2024/06/26	2024/06/26			
COC Number		N/A	N/A		N/A	N/A			
	UNITS	BH6/1	BH5/1	QC Batch	BH5/6	BH4/4A	RDL	MDL	QC Batch
Inorganics									
Moisture	%	18	18	9487396	13	10	1.0	0.50	9487522

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4J8548
Report Date: 2024/07/09

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: CG

TEST SUMMARY

Bureau Veritas ID: ZPE145
Sample ID: BH6/1
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9487022	N/A	2024/07/08	Automated Statchk
Free (WAD) Cyanide	TECH	9500038	2024/07/08	2024/07/08	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9494544	2024/07/04	2024/07/04	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9500379	2024/07/08	2024/07/08	Viviana Canzonieri
Moisture	BAL	9487396	N/A	2024/06/29	Jeremy Apoon
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9499345	2024/07/06	2024/07/07	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9497243	2024/07/05	2024/07/05	Taslima Aktar

Bureau Veritas ID: ZPE145 Dup
Sample ID: BH6/1
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9500038	2024/07/08	2024/07/08	Prgya Panchal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9499345	2024/07/06	2024/07/07	Jonghan Yoon

Bureau Veritas ID: ZPE146
Sample ID: BH5/1
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9486472	N/A	2024/07/02	Automated Statchk
Hot Water Extractable Boron	ICP	9496667	2024/07/05	2024/07/05	Suban Kanapathippllai
1,3-Dichloropropene Sum	CALC	9486634	N/A	2024/07/04	Automated Statchk
Free (WAD) Cyanide	TECH	9500036	2024/07/08	2024/07/08	Prgya Panchal
Conductivity	AT	9498034	2024/07/05	2024/07/06	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9494544	2024/07/04	2024/07/04	Sousan Besharatlou
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9492342	2024/07/03	2024/07/04	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9500379	2024/07/08	2024/07/08	Viviana Canzonieri
Moisture	BAL	9487396	N/A	2024/06/29	Jeremy Apoon
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9487994	2024/06/30	2024/06/30	Jett Wu
pH CaCl2 EXTRACT	AT	9497243	2024/07/05	2024/07/05	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	9486937	N/A	2024/07/09	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9489650	N/A	2024/07/04	Cheng-Yu Sha

Bureau Veritas ID: ZPE146 Dup
Sample ID: BH5/1
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hexavalent Chromium in Soil by IC	IC/SPEC	9494544	2024/07/04	2024/07/04	Sousan Besharatlou

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Bureau Veritas Job #: C4J8548
Report Date: 2024/07/09

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: CG

TEST SUMMARY

Bureau Veritas ID: ZPE147
Sample ID: BH5/6
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9486472	N/A	2024/07/02	Automated Statchk
Free (WAD) Cyanide	TECH	9497809	2024/07/05	2024/07/08	Prgya Panchal
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9496420	N/A	2024/07/05	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9492342	2024/07/03	2024/07/04	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9497505	2024/07/05	2024/07/08	Jaswinder Kaur
Moisture	BAL	9487522	N/A	2024/06/29	Jeremy Apoon
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9487994	2024/06/30	2024/06/30	Jett Wu
pH CaCl2 EXTRACT	AT	9497243	2024/07/05	2024/07/05	Taslima Aktar

Bureau Veritas ID: ZPE147 Dup
Sample ID: BH5/6
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	9497243	2024/07/05	2024/07/05	Taslima Aktar

Bureau Veritas ID: ZPE148
Sample ID: BH4/4A
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9486472	N/A	2024/07/02	Automated Statchk
1,3-Dichloropropene Sum	CALC	9486634	N/A	2024/07/04	Automated Statchk
Free (WAD) Cyanide	TECH	9500036	2024/07/08	2024/07/08	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9492342	2024/07/03	2024/07/04	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9500379	2024/07/08	2024/07/08	Viviana Canzonieri
Moisture	BAL	9487522	N/A	2024/06/29	Jeremy Apoon
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9487994	2024/06/30	2024/06/30	Jett Wu
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9489650	N/A	2024/07/04	Cheng-Yu Sha

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.3°C

Cooler custody seal was present and intact .

Sample ZPE147 [BH5/6] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

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Bureau Veritas Job #: C4J8548
Report Date: 2024/07/09

QUALITY ASSURANCE REPORT

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: CG

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9487994	D10-Anthracene	2024/06/30	107	50 - 130	104	50 - 130	105	%		
9487994	D14-Terphenyl (FS)	2024/06/30	109	50 - 130	105	50 - 130	107	%		
9487994	D8-Acenaphthylene	2024/06/30	93	50 - 130	89	50 - 130	90	%		
9489650	4-Bromofluorobenzene	2024/07/04	85	60 - 140	85	60 - 140	84	%		
9489650	D10-o-Xylene	2024/07/04	99	60 - 130	93	60 - 130	92	%		
9489650	D4-1,2-Dichloroethane	2024/07/04	109	60 - 140	110	60 - 140	108	%		
9489650	D8-Toluene	2024/07/04	109	60 - 140	109	60 - 140	105	%		
9492342	o-Terphenyl	2024/07/03	93	60 - 130	92	60 - 130	96	%		
9496420	1,4-Difluorobenzene	2024/07/05	101	60 - 140	100	60 - 140	107	%		
9496420	4-Bromofluorobenzene	2024/07/05	101	60 - 140	93	60 - 140	94	%		
9496420	D10-o-Xylene	2024/07/05	109	60 - 140	90	60 - 140	91	%		
9496420	D4-1,2-Dichloroethane	2024/07/05	98	60 - 140	96	60 - 140	99	%		
9499345	D10-Anthracene	2024/07/07	99	50 - 130	104	50 - 130	98	%		
9499345	D14-Terphenyl (FS)	2024/07/07	104	50 - 130	104	50 - 130	101	%		
9499345	D8-Acenaphthylene	2024/07/07	89	50 - 130	93	50 - 130	74	%		
9487396	Moisture	2024/06/29							8.3	20
9487522	Moisture	2024/06/29							4.3	20
9487994	1-Methylnaphthalene	2024/06/30	96	50 - 130	90	50 - 130	<0.0050	ug/g	34	40
9487994	2-Methylnaphthalene	2024/06/30	95	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
9487994	Acenaphthene	2024/06/30	105	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9487994	Acenaphthylene	2024/06/30	102	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
9487994	Anthracene	2024/06/30	116	50 - 130	114	50 - 130	<0.0050	ug/g	NC	40
9487994	Benzo(a)anthracene	2024/06/30	117	50 - 130	112	50 - 130	<0.0050	ug/g	NC	40
9487994	Benzo(a)pyrene	2024/06/30	111	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
9487994	Benzo(b/j)fluoranthene	2024/06/30	108	50 - 130	110	50 - 130	<0.0050	ug/g	NC	40
9487994	Benzo(g,h,i)perylene	2024/06/30	95	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
9487994	Benzo(k)fluoranthene	2024/06/30	111	50 - 130	111	50 - 130	<0.0050	ug/g	NC	40
9487994	Chrysene	2024/06/30	111	50 - 130	111	50 - 130	<0.0050	ug/g	NC	40
9487994	Dibenzo(a,h)anthracene	2024/06/30	101	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
9487994	Fluoranthene	2024/06/30	119	50 - 130	117	50 - 130	<0.0050	ug/g	NC	40
9487994	Fluorene	2024/06/30	107	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9487994	Indeno(1,2,3-cd)pyrene	2024/06/30	103	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
9487994	Naphthalene	2024/06/30	95	50 - 130	92	50 - 130	<0.0050	ug/g	12	40
9487994	Phenanthrene	2024/06/30	112	50 - 130	113	50 - 130	<0.0050	ug/g	12	40
9487994	Pyrene	2024/06/30	119	50 - 130	118	50 - 130	<0.0050	ug/g	8.5	40
9489650	1,1,1,2-Tetrachloroethane	2024/07/04	90	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
9489650	1,1,1-Trichloroethane	2024/07/04	90	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
9489650	1,1,2,2-Tetrachloroethane	2024/07/04	108	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
9489650	1,1,2-Trichloroethane	2024/07/04	114	60 - 140	113	60 - 130	<0.040	ug/g	NC	50
9489650	1,1-Dichloroethane	2024/07/04	115	60 - 140	111	60 - 130	<0.040	ug/g	NC	50
9489650	1,1-Dichloroethylene	2024/07/04	113	60 - 140	108	60 - 130	<0.040	ug/g	NC	50
9489650	1,2-Dichlorobenzene	2024/07/04	92	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
9489650	1,2-Dichloroethane	2024/07/04	103	60 - 140	102	60 - 130	<0.049	ug/g	NC	50
9489650	1,2-Dichloropropane	2024/07/04	111	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
9489650	1,3-Dichlorobenzene	2024/07/04	91	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
9489650	1,4-Dichlorobenzene	2024/07/04	90	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
9489650	Acetone (2-Propanone)	2024/07/04	124	60 - 140	127	60 - 140	<0.49	ug/g	NC	50
9489650	Benzene	2024/07/04	104	60 - 140	101	60 - 130	<0.0060	ug/g	NC	50
9489650	Bromodichloromethane	2024/07/04	94	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9489650	Bromoform	2024/07/04	79	60 - 140	78	60 - 130	<0.040	ug/g	NC	50
9489650	Bromomethane	2024/07/04	88	60 - 140	84	60 - 140	<0.040	ug/g	NC	50
9489650	Carbon Tetrachloride	2024/07/04	82	60 - 140	79	60 - 130	<0.040	ug/g	NC	50
9489650	Chlorobenzene	2024/07/04	94	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
9489650	Chloroform	2024/07/04	99	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9489650	cis-1,2-Dichloroethylene	2024/07/04	96	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9489650	cis-1,3-Dichloropropene	2024/07/04	89	60 - 140	89	60 - 130	<0.030	ug/g	NC	50
9489650	Dibromochloromethane	2024/07/04	89	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
9489650	Dichlorodifluoromethane (FREON 12)	2024/07/04	80	60 - 140	73	60 - 140	<0.040	ug/g	NC	50
9489650	Ethylbenzene	2024/07/04	97	60 - 140	94	60 - 130	<0.010	ug/g	NC	50
9489650	Ethylene Dibromide	2024/07/04	99	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9489650	F1 (C6-C10) - BTEX	2024/07/04					<10	ug/g	NC	30
9489650	F1 (C6-C10)	2024/07/04	82	60 - 140	85	80 - 120	<10	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9489650	Hexane	2024/07/04	123	60 - 140	118	60 - 130	<0.040	ug/g	NC	50
9489650	Methyl Ethyl Ketone (2-Butanone)	2024/07/04	121	60 - 140	125	60 - 140	<0.40	ug/g	NC	50
9489650	Methyl Isobutyl Ketone	2024/07/04	107	60 - 140	112	60 - 130	<0.40	ug/g	NC	50
9489650	Methyl t-butyl ether (MTBE)	2024/07/04	98	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9489650	Methylene Chloride(Dichloromethane)	2024/07/04	104	60 - 140	101	60 - 130	<0.049	ug/g	NC	50
9489650	o-Xylene	2024/07/04	95	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
9489650	p+m-Xylene	2024/07/04	92	60 - 140	90	60 - 130	<0.020	ug/g	NC	50
9489650	Styrene	2024/07/04	88	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
9489650	Tetrachloroethylene	2024/07/04	82	60 - 140	78	60 - 130	<0.040	ug/g	NC	50
9489650	Toluene	2024/07/04	100	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
9489650	Total Xylenes	2024/07/04					<0.020	ug/g	NC	50
9489650	trans-1,2-Dichloroethylene	2024/07/04	96	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9489650	trans-1,3-Dichloropropene	2024/07/04	95	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9489650	Trichloroethylene	2024/07/04	83	60 - 140	80	60 - 130	<0.010	ug/g	NC	50
9489650	Trichlorofluoromethane (FREON 11)	2024/07/04	95	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
9489650	Vinyl Chloride	2024/07/04	118	60 - 140	110	60 - 130	<0.019	ug/g	NC	50
9492342	F2 (C10-C16 Hydrocarbons)	2024/07/04	95	60 - 130	94	80 - 120	<10	ug/g	NC	30
9492342	F3 (C16-C34 Hydrocarbons)	2024/07/04	98	60 - 130	95	80 - 120	<50	ug/g	NC	30
9492342	F4 (C34-C50 Hydrocarbons)	2024/07/04	95	60 - 130	92	80 - 120	<50	ug/g	NC	30
9494544	Chromium (VI)	2024/07/04	67 (1)	70 - 130	96	80 - 120	<0.18	ug/g	NC	35
9496420	Benzene	2024/07/05	93	50 - 140	80	50 - 140	<0.020	ug/g	NC	50
9496420	Ethylbenzene	2024/07/05	105	50 - 140	90	50 - 140	<0.020	ug/g	NC	50
9496420	F1 (C6-C10) - BTEX	2024/07/05					<10	ug/g	NC	30
9496420	F1 (C6-C10)	2024/07/05	92	60 - 140	87	80 - 120	<10	ug/g	NC	30
9496420	o-Xylene	2024/07/05	103	50 - 140	87	50 - 140	<0.020	ug/g	NC	50
9496420	p+m-Xylene	2024/07/05	99	50 - 140	83	50 - 140	<0.040	ug/g	NC	50
9496420	Toluene	2024/07/05	89	50 - 140	77	50 - 140	<0.020	ug/g	NC	50
9496420	Total Xylenes	2024/07/05					<0.040	ug/g	NC	50
9496667	Hot Water Ext. Boron (B)	2024/07/05	98	75 - 125	98	75 - 125	<0.050	ug/g	1.3	40
9497243	Available (CaCl2) pH	2024/07/05			100	97 - 103			0.72	N/A
9497505	Acid Extractable Antimony (Sb)	2024/07/08	89	75 - 125	105	80 - 120	<0.20	ug/g	11	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9497505	Acid Extractable Arsenic (As)	2024/07/08	96	75 - 125	104	80 - 120	<1.0	ug/g	2.4	30
9497505	Acid Extractable Barium (Ba)	2024/07/08	NC	75 - 125	101	80 - 120	<0.50	ug/g	4.4	30
9497505	Acid Extractable Beryllium (Be)	2024/07/08	101	75 - 125	102	80 - 120	<0.20	ug/g	1.1	30
9497505	Acid Extractable Boron (B)	2024/07/08	98	75 - 125	106	80 - 120	<5.0	ug/g	2.5	30
9497505	Acid Extractable Cadmium (Cd)	2024/07/08	97	75 - 125	99	80 - 120	<0.10	ug/g	NC	30
9497505	Acid Extractable Chromium (Cr)	2024/07/08	NC	75 - 125	101	80 - 120	<1.0	ug/g	2.5	30
9497505	Acid Extractable Cobalt (Co)	2024/07/08	92	75 - 125	100	80 - 120	<0.10	ug/g	7.2	30
9497505	Acid Extractable Copper (Cu)	2024/07/08	94	75 - 125	99	80 - 120	<0.50	ug/g	2.0	30
9497505	Acid Extractable Lead (Pb)	2024/07/08	94	75 - 125	99	80 - 120	<1.0	ug/g	2.2	30
9497505	Acid Extractable Mercury (Hg)	2024/07/08	100	75 - 125	104	80 - 120	<0.050	ug/g	NC	30
9497505	Acid Extractable Molybdenum (Mo)	2024/07/08	90	75 - 125	95	80 - 120	<0.50	ug/g	6.2	30
9497505	Acid Extractable Nickel (Ni)	2024/07/08	NC	75 - 125	104	80 - 120	<0.50	ug/g	3.2	30
9497505	Acid Extractable Selenium (Se)	2024/07/08	97	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
9497505	Acid Extractable Silver (Ag)	2024/07/08	96	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
9497505	Acid Extractable Thallium (Tl)	2024/07/08	94	75 - 125	100	80 - 120	<0.050	ug/g	2.0	30
9497505	Acid Extractable Uranium (U)	2024/07/08	95	75 - 125	99	80 - 120	<0.050	ug/g	0.62	30
9497505	Acid Extractable Vanadium (V)	2024/07/08	NC	75 - 125	103	80 - 120	<5.0	ug/g	1.8	30
9497505	Acid Extractable Zinc (Zn)	2024/07/08	NC	75 - 125	101	80 - 120	<5.0	ug/g	1.6	30
9497809	WAD Cyanide (Free)	2024/07/08	93	75 - 125	93	80 - 120	<0.01	ug/g	NC	35
9498034	Conductivity	2024/07/06			104	90 - 110	<0.002	mS/cm	2.3	10
9499345	1-Methylnaphthalene	2024/07/07	83	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
9499345	2-Methylnaphthalene	2024/07/07	82	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
9499345	Acenaphthene	2024/07/07	102	50 - 130	108	50 - 130	<0.0050	ug/g	141 (2)	40
9499345	Acenaphthylene	2024/07/07	96	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
9499345	Anthracene	2024/07/07	116	50 - 130	120	50 - 130	<0.0050	ug/g	168 (2)	40
9499345	Benzo(a)anthracene	2024/07/07	120	50 - 130	119	50 - 130	<0.0050	ug/g	147 (2)	40
9499345	Benzo(a)pyrene	2024/07/07	114	50 - 130	117	50 - 130	<0.0050	ug/g	129 (2)	40
9499345	Benzo(b/j)fluoranthene	2024/07/07	108	50 - 130	116	50 - 130	<0.0050	ug/g	116 (2)	40
9499345	Benzo(g,h,i)perylene	2024/07/07	109	50 - 130	111	50 - 130	<0.0050	ug/g	87 (2)	40
9499345	Benzo(k)fluoranthene	2024/07/07	111	50 - 130	114	50 - 130	<0.0050	ug/g	115 (2)	40
9499345	Chrysene	2024/07/07	113	50 - 130	116	50 - 130	<0.0050	ug/g	139 (2)	40

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9499345	Dibenzo(a,h)anthracene	2024/07/07	113	50 - 130	114	50 - 130	<0.0050	ug/g	NC	40
9499345	Fluoranthene	2024/07/07	126	50 - 130	121	50 - 130	<0.0050	ug/g	160 (2)	40
9499345	Fluorene	2024/07/07	106	50 - 130	110	50 - 130	<0.0050	ug/g	144 (2)	40
9499345	Indeno(1,2,3-cd)pyrene	2024/07/07	117	50 - 130	118	50 - 130	<0.0050	ug/g	109 (2)	40
9499345	Naphthalene	2024/07/07	81	50 - 130	100	50 - 130	<0.0050	ug/g	159 (2)	40
9499345	Phenanthrene	2024/07/07	118	50 - 130	117	50 - 130	<0.0050	ug/g	177 (2)	40
9499345	Pyrene	2024/07/07	128	50 - 130	122	50 - 130	<0.0050	ug/g	159 (2)	40
9500036	WAD Cyanide (Free)	2024/07/08	91	75 - 125	95	80 - 120	<0.01	ug/g	NC	35
9500038	WAD Cyanide (Free)	2024/07/08	94	75 - 125	94	80 - 120	<0.01	ug/g	NC	35
9500379	Acid Extractable Antimony (Sb)	2024/07/08	97	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
9500379	Acid Extractable Arsenic (As)	2024/07/08	93	75 - 125	98	80 - 120	<1.0	ug/g	14	30
9500379	Acid Extractable Barium (Ba)	2024/07/08	85	75 - 125	92	80 - 120	<0.50	ug/g	13	30
9500379	Acid Extractable Beryllium (Be)	2024/07/08	98	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
9500379	Acid Extractable Boron (B)	2024/07/08	94	75 - 125	104	80 - 120	<5.0	ug/g	NC	30
9500379	Acid Extractable Cadmium (Cd)	2024/07/08	94	75 - 125	97	80 - 120	<0.10	ug/g	NC	30
9500379	Acid Extractable Chromium (Cr)	2024/07/08	93	75 - 125	98	80 - 120	<1.0	ug/g	11	30
9500379	Acid Extractable Cobalt (Co)	2024/07/08	94	75 - 125	100	80 - 120	<0.10	ug/g	13	30
9500379	Acid Extractable Copper (Cu)	2024/07/08	92	75 - 125	97	80 - 120	<0.50	ug/g	6.8	30
9500379	Acid Extractable Lead (Pb)	2024/07/08	91	75 - 125	96	80 - 120	<1.0	ug/g	7.2	30
9500379	Acid Extractable Mercury (Hg)	2024/07/08	96	75 - 125	98	80 - 120	<0.050	ug/g	NC	30
9500379	Acid Extractable Molybdenum (Mo)	2024/07/08	90	75 - 125	93	80 - 120	<0.50	ug/g	NC	30
9500379	Acid Extractable Nickel (Ni)	2024/07/08	95	75 - 125	99	80 - 120	<0.50	ug/g	12	30
9500379	Acid Extractable Selenium (Se)	2024/07/08	97	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
9500379	Acid Extractable Silver (Ag)	2024/07/08	93	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
9500379	Acid Extractable Thallium (Tl)	2024/07/08	90	75 - 125	93	80 - 120	<0.050	ug/g	NC	30
9500379	Acid Extractable Uranium (U)	2024/07/08	91	75 - 125	93	80 - 120	<0.050	ug/g	10	30
9500379	Acid Extractable Vanadium (V)	2024/07/08	92	75 - 125	100	80 - 120	<5.0	ug/g	14	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9500379	Acid Extractable Zinc (Zn)	2024/07/08	89	75 - 125	100	80 - 120	<5.0	ug/g	13	30

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The sample was reanalyzed with the same results.

(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Bureau Veritas Job #: C4J8548
Report Date: 2024/07/09

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: CG

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

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Your Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Your C.O.C. #: N/A

Attention: Madan K. Suwal

Soil Engineers Ltd
90 West Beaver Creek Road
Unit 100
Richmond Hill, ON
CANADA L4B 1E7

Report Date: 2024/07/08
Report #: R8225776
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4J9082
Received: 2024/06/28, 17:45

Sample Matrix: Soil
Samples Received: 18

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	3	N/A	2024/07/05	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	4	N/A	2024/07/06		EPA 8260C m
Free (WAD) Cyanide	3	2024/07/04	2024/07/04	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	10	2024/07/04	2024/07/05	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	2	2024/07/05	2024/07/05	CAM SOP-00457	OMOE E3015 m
Hexavalent Chromium in Soil by IC (1)	1	2024/07/03	2024/07/03	CAM SOP-00436	EPA 3060A/7199 m
Hexavalent Chromium in Soil by IC (1)	8	2024/07/03	2024/07/04	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	1	N/A	2024/07/04	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	3	2024/07/04	2024/07/04	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	2	2024/07/04	2024/07/05	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	6	2024/07/04	2024/07/04	CAM SOP-00447	EPA 6020B m
Acid Extractable Metals by ICPMS	9	2024/07/05	2024/07/08	CAM SOP-00447	EPA 6020B m
Moisture	17	N/A	2024/07/02	CAM SOP-00445	Carter 2nd ed 70.2 m
OC Pesticides (Selected) & PCB (4)	10	2024/07/03	2024/07/04	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides Summed Parameters	10	N/A	2024/07/03	CAM SOP-00307	EPA 8081B/ 8082A
PAH Compounds in Soil by GC/MS (SIM)	3	2024/07/04	2024/07/05	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	6	2024/07/05	2024/07/05	CAM SOP-00413	EPA 9045 D m
Volatile Organic Compounds and F1 PHCs	4	N/A	2024/07/06	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report.

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Your Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Your C.O.C. #: N/A

Attention: Madan K. Suwal

Soil Engineers Ltd
90 West Beaver Creek Road
Unit 100
Richmond Hill, ON
CANADA L4B 1E7

Report Date: 2024/07/08
Report #: R8225776
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4J9082
Received: 2024/06/28, 17:45

Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Soils are reported on a dry weight basis unless otherwise specified.
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(4) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Bureau Veritas
08 Jul 2024 18:16:29

Please direct all questions regarding this Certificate of Analysis to:
Antonella Brasil, Senior Project Manager
Email: Antonella.Brasil@bureauveritas.com
Phone# (905)817-5817

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPH239		ZPH240		ZPH241			
Sampling Date		2024/06/27		2024/06/27		2024/06/27			
COC Number		N/A		N/A		N/A			
	UNITS	TP1	QC Batch	TP2	QC Batch	TP3	RDL	MDL	QC Batch
Inorganics									
Available (CaCl2) pH	pH			7.34	9497226				
WAD Cyanide (Free)	ug/g	<0.01	9496424	<0.01	9494970	<0.01	0.01	0.0019	9494970
Chromium (VI)	ug/g	<0.18	9492417	<0.18	9492417	<0.18	0.18	0.050	9492417
Metals									
Acid Extractable Antimony (Sb)	ug/g	<0.20	9494595	<0.20	9497235	0.23	0.20	0.10	9497235
Acid Extractable Arsenic (As)	ug/g	3.1	9494595	3.1	9497235	3.3	1.0	0.10	9497235
Acid Extractable Barium (Ba)	ug/g	75	9494595	72	9497235	76	0.50	0.30	9497235
Acid Extractable Beryllium (Be)	ug/g	0.67	9494595	0.72	9497235	0.69	0.20	0.020	9497235
Acid Extractable Boron (B)	ug/g	<5.0	9494595	<5.0	9497235	<5.0	5.0	1.0	9497235
Acid Extractable Cadmium (Cd)	ug/g	0.21	9494595	0.21	9497235	0.20	0.10	0.030	9497235
Acid Extractable Chromium (Cr)	ug/g	20	9494595	21	9497235	21	1.0	0.20	9497235
Acid Extractable Cobalt (Co)	ug/g	7.8	9494595	8.3	9497235	8.6	0.10	0.020	9497235
Acid Extractable Copper (Cu)	ug/g	16	9494595	18	9497235	17	0.50	0.20	9497235
Acid Extractable Lead (Pb)	ug/g	14	9494595	14	9497235	14	1.0	0.10	9497235
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	9494595	<0.50	9497235	<0.50	0.50	0.10	9497235
Acid Extractable Nickel (Ni)	ug/g	17	9494595	18	9497235	17	0.50	0.20	9497235
Acid Extractable Selenium (Se)	ug/g	<0.50	9494595	<0.50	9497235	<0.50	0.50	0.10	9497235
Acid Extractable Silver (Ag)	ug/g	<0.20	9494595	<0.20	9497235	<0.20	0.20	0.040	9497235
Acid Extractable Thallium (Tl)	ug/g	0.12	9494595	0.13	9497235	0.12	0.050	0.010	9497235
Acid Extractable Uranium (U)	ug/g	0.77	9494595	0.74	9497235	0.71	0.050	0.030	9497235
Acid Extractable Vanadium (V)	ug/g	31	9494595	32	9497235	33	5.0	0.50	9497235
Acid Extractable Zinc (Zn)	ug/g	61	9494595	65	9497235	62	5.0	0.50	9497235
Acid Extractable Mercury (Hg)	ug/g	<0.050	9494595	<0.050	9497235	<0.050	0.050	0.030	9497235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPH242		ZPH243				ZPH243			
Sampling Date		2024/06/27		2024/06/27				2024/06/27			
COC Number		N/A		N/A				N/A			
	UNITS	TP4	QC Batch	TP5	RDL	MDL	QC Batch	TP5 Lab-Dup	RDL	MDL	QC Batch
Inorganics											
Available (CaCl2) pH	pH	7.41	9497226								
WAD Cyanide (Free)	ug/g	<0.01	9494970	<0.01	0.01	0.0019	9494970	<0.01	0.01	0.0019	9494970
Chromium (VI)	ug/g	<0.18	9492417	<0.18	0.18	0.050	9492417	<0.18	0.18	0.050	9492417
Metals											
Acid Extractable Antimony (Sb)	ug/g	0.23	9497235	<0.20	0.20	0.10	9494595				
Acid Extractable Arsenic (As)	ug/g	3.5	9497235	3.3	1.0	0.10	9494595				
Acid Extractable Barium (Ba)	ug/g	89	9497235	80	0.50	0.30	9494595				
Acid Extractable Beryllium (Be)	ug/g	0.79	9497235	0.72	0.20	0.020	9494595				
Acid Extractable Boron (B)	ug/g	<5.0	9497235	<5.0	5.0	1.0	9494595				
Acid Extractable Cadmium (Cd)	ug/g	0.35	9497235	0.23	0.10	0.030	9494595				
Acid Extractable Chromium (Cr)	ug/g	22	9497235	21	1.0	0.20	9494595				
Acid Extractable Cobalt (Co)	ug/g	8.6	9497235	8.5	0.10	0.020	9494595				
Acid Extractable Copper (Cu)	ug/g	18	9497235	17	0.50	0.20	9494595				
Acid Extractable Lead (Pb)	ug/g	16	9497235	15	1.0	0.10	9494595				
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	9497235	<0.50	0.50	0.10	9494595				
Acid Extractable Nickel (Ni)	ug/g	18	9497235	18	0.50	0.20	9494595				
Acid Extractable Selenium (Se)	ug/g	<0.50	9497235	<0.50	0.50	0.10	9494595				
Acid Extractable Silver (Ag)	ug/g	<0.20	9497235	<0.20	0.20	0.040	9494595				
Acid Extractable Thallium (Tl)	ug/g	0.12	9497235	0.12	0.050	0.010	9494595				
Acid Extractable Uranium (U)	ug/g	1.1	9497235	0.79	0.050	0.030	9494595				
Acid Extractable Vanadium (V)	ug/g	35	9497235	33	5.0	0.50	9494595				
Acid Extractable Zinc (Zn)	ug/g	68	9497235	64	5.0	0.50	9494595				
Acid Extractable Mercury (Hg)	ug/g	<0.050	9497235	<0.050	0.050	0.030	9494595				

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPH244		ZPH245		ZPH246			
Sampling Date		2024/06/27		2024/06/27		2024/06/27			
COC Number		N/A		N/A		N/A			
	UNITS	TP6	QC Batch	TP7	QC Batch	TP8	RDL	MDL	QC Batch
Inorganics									
Available (CaCl2) pH	pH	7.00	9497226			7.59			9497226
WAD Cyanide (Free)	ug/g	<0.01	9494970	<0.01	9494970	<0.01	0.01	0.0019	9494970
Chromium (VI)	ug/g	<0.18	9492417	<0.18	9492417	<0.18	0.18	0.050	9492417
Metals									
Acid Extractable Antimony (Sb)	ug/g	<0.20	9494595	<0.20	9497235	<0.20	0.20	0.10	9494595
Acid Extractable Arsenic (As)	ug/g	3.0	9494595	2.9	9497235	3.7	1.0	0.10	9494595
Acid Extractable Barium (Ba)	ug/g	76	9494595	69	9497235	90	0.50	0.30	9494595
Acid Extractable Beryllium (Be)	ug/g	0.68	9494595	0.63	9497235	0.67	0.20	0.020	9494595
Acid Extractable Boron (B)	ug/g	<5.0	9494595	<5.0	9497235	7.7	5.0	1.0	9494595
Acid Extractable Cadmium (Cd)	ug/g	0.24	9494595	0.23	9497235	0.16	0.10	0.030	9494595
Acid Extractable Chromium (Cr)	ug/g	20	9494595	18	9497235	21	1.0	0.20	9494595
Acid Extractable Cobalt (Co)	ug/g	8.2	9494595	7.4	9497235	10	0.10	0.020	9494595
Acid Extractable Copper (Cu)	ug/g	16	9494595	15	9497235	24	0.50	0.20	9494595
Acid Extractable Lead (Pb)	ug/g	13	9494595	13	9497235	20	1.0	0.10	9494595
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	9494595	<0.50	9497235	<0.50	0.50	0.10	9494595
Acid Extractable Nickel (Ni)	ug/g	17	9494595	15	9497235	22	0.50	0.20	9494595
Acid Extractable Selenium (Se)	ug/g	<0.50	9494595	<0.50	9497235	<0.50	0.50	0.10	9494595
Acid Extractable Silver (Ag)	ug/g	<0.20	9494595	<0.20	9497235	<0.20	0.20	0.040	9494595
Acid Extractable Thallium (Tl)	ug/g	0.13	9494595	0.12	9497235	0.13	0.050	0.010	9494595
Acid Extractable Uranium (U)	ug/g	0.75	9494595	0.76	9497235	0.50	0.050	0.030	9494595
Acid Extractable Vanadium (V)	ug/g	32	9494595	29	9497235	30	5.0	0.50	9494595
Acid Extractable Zinc (Zn)	ug/g	60	9494595	60	9497235	76	5.0	0.50	9494595
Acid Extractable Mercury (Hg)	ug/g	<0.050	9494595	<0.050	9497235	<0.050	0.050	0.030	9494595

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPH246			ZPH247		ZPH249			
Sampling Date		2024/06/27			2024/06/27		2024/06/27			
COC Number		N/A			N/A		N/A			
	UNITS	TP8 Lab-Dup	MDL	QC Batch	DUPS1	QC Batch	DUPS3	RDL	MDL	QC Batch
Inorganics										
Available (CaCl2) pH	pH	7.60		9497226						
WAD Cyanide (Free)	ug/g				<0.01	9494609	<0.01	0.01	0.0019	9494609
Metals										
Acid Extractable Antimony (Sb)	ug/g				<0.20	9494595	0.21	0.20	0.10	9497235
Acid Extractable Arsenic (As)	ug/g				3.2	9494595	3.5	1.0	0.10	9497235
Acid Extractable Barium (Ba)	ug/g				80	9494595	88	0.50	0.30	9497235
Acid Extractable Beryllium (Be)	ug/g				0.71	9494595	0.65	0.20	0.020	9497235
Acid Extractable Boron (B)	ug/g				<5.0	9494595	5.5	5.0	1.0	9497235
Acid Extractable Cadmium (Cd)	ug/g				0.21	9494595	0.14	0.10	0.030	9497235
Acid Extractable Chromium (Cr)	ug/g				21	9494595	21	1.0	0.20	9497235
Acid Extractable Cobalt (Co)	ug/g				8.1	9494595	9.9	0.10	0.020	9497235
Acid Extractable Copper (Cu)	ug/g				17	9494595	22	0.50	0.20	9497235
Acid Extractable Lead (Pb)	ug/g				15	9494595	20	1.0	0.10	9497235
Acid Extractable Molybdenum (Mo)	ug/g				<0.50	9494595	<0.50	0.50	0.10	9497235
Acid Extractable Nickel (Ni)	ug/g				17	9494595	22	0.50	0.20	9497235
Acid Extractable Selenium (Se)	ug/g				<0.50	9494595	<0.50	0.50	0.10	9497235
Acid Extractable Silver (Ag)	ug/g				<0.20	9494595	<0.20	0.20	0.040	9497235
Acid Extractable Thallium (Tl)	ug/g				0.12	9494595	0.13	0.050	0.010	9497235
Acid Extractable Uranium (U)	ug/g				0.82	9494595	0.45	0.050	0.030	9497235
Acid Extractable Vanadium (V)	ug/g				32	9494595	30	5.0	0.50	9497235
Acid Extractable Zinc (Zn)	ug/g				62	9494595	77	5.0	0.50	9497235
Acid Extractable Mercury (Hg)	ug/g				<0.050	9494595	0.056	0.050	0.030	9497235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPH250				ZPH251			
Sampling Date		2024/06/27				2024/06/27			
COC Number		N/A				N/A			
	UNITS	BH8/6	RDL	MDL	QC Batch	BH7/1A	RDL	MDL	QC Batch
Inorganics									
Available (CaCl2) pH	pH					7.39			9497226
WAD Cyanide (Free)	ug/g	<0.01	0.01	0.0019	9494609	<0.01	0.01	0.0019	9494970
Chromium (VI)	ug/g					<0.18	0.18	0.050	9492417
Metals									
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	0.10	9494595	0.21	0.20	0.10	9497235
Acid Extractable Arsenic (As)	ug/g	3.4	1.0	0.10	9494595	3.2	1.0	0.10	9497235
Acid Extractable Barium (Ba)	ug/g	90	0.50	0.30	9494595	73	0.50	0.30	9497235
Acid Extractable Beryllium (Be)	ug/g	0.57	0.20	0.020	9494595	0.68	0.20	0.020	9497235
Acid Extractable Boron (B)	ug/g	7.7	5.0	1.0	9494595	<5.0	5.0	1.0	9497235
Acid Extractable Cadmium (Cd)	ug/g	<0.10	0.10	0.030	9494595	0.14	0.10	0.030	9497235
Acid Extractable Chromium (Cr)	ug/g	20	1.0	0.20	9494595	21	1.0	0.20	9497235
Acid Extractable Cobalt (Co)	ug/g	12	0.10	0.020	9494595	9.3	0.10	0.020	9497235
Acid Extractable Copper (Cu)	ug/g	24	0.50	0.20	9494595	16	0.50	0.20	9497235
Acid Extractable Lead (Pb)	ug/g	8.9	1.0	0.10	9494595	13	1.0	0.10	9497235
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	0.10	9494595	<0.50	0.50	0.10	9497235
Acid Extractable Nickel (Ni)	ug/g	21	0.50	0.20	9494595	18	0.50	0.20	9497235
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	0.10	9494595	<0.50	0.50	0.10	9497235
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	0.040	9494595	<0.20	0.20	0.040	9497235
Acid Extractable Thallium (Tl)	ug/g	0.13	0.050	0.010	9494595	0.12	0.050	0.010	9497235
Acid Extractable Uranium (U)	ug/g	0.61	0.050	0.030	9494595	0.58	0.050	0.030	9497235
Acid Extractable Vanadium (V)	ug/g	27	5.0	0.50	9494595	33	5.0	0.50	9497235
Acid Extractable Zinc (Zn)	ug/g	48	5.0	0.50	9494595	52	5.0	0.50	9497235
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	0.030	9494595	<0.050	0.050	0.030	9497235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPH251				ZPH253		ZPH254			
Sampling Date		2024/06/27				2024/06/27		2024/06/27			
COC Number		N/A				N/A		N/A			
	UNITS	BH7/1A Lab-Dup	RDL	MDL	QC Batch	BH1/3	QC Batch	BH2/4	RDL	MDL	QC Batch
Inorganics											
WAD Cyanide (Free)	ug/g					<0.01	9496424	<0.01	0.01	0.0019	9494970
Metals											
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	0.10	9497235	<0.20	9497235	<0.20	0.20	0.10	9497235
Acid Extractable Arsenic (As)	ug/g	3.2	1.0	0.10	9497235	1.2	9497235	1.1	1.0	0.10	9497235
Acid Extractable Barium (Ba)	ug/g	71	0.50	0.30	9497235	30	9497235	18	0.50	0.30	9497235
Acid Extractable Beryllium (Be)	ug/g	0.67	0.20	0.020	9497235	0.22	9497235	0.21	0.20	0.020	9497235
Acid Extractable Boron (B)	ug/g	<5.0	5.0	1.0	9497235	<5.0	9497235	<5.0	5.0	1.0	9497235
Acid Extractable Cadmium (Cd)	ug/g	0.15	0.10	0.030	9497235	<0.10	9497235	<0.10	0.10	0.030	9497235
Acid Extractable Chromium (Cr)	ug/g	20	1.0	0.20	9497235	8.3	9497235	8.6	1.0	0.20	9497235
Acid Extractable Cobalt (Co)	ug/g	8.9	0.10	0.020	9497235	3.0	9497235	3.1	0.10	0.020	9497235
Acid Extractable Copper (Cu)	ug/g	16	0.50	0.20	9497235	8.0	9497235	8.8	0.50	0.20	9497235
Acid Extractable Lead (Pb)	ug/g	13	1.0	0.10	9497235	3.1	9497235	3.2	1.0	0.10	9497235
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	0.10	9497235	<0.50	9497235	<0.50	0.50	0.10	9497235
Acid Extractable Nickel (Ni)	ug/g	18	0.50	0.20	9497235	6.1	9497235	6.8	0.50	0.20	9497235
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	0.10	9497235	<0.50	9497235	<0.50	0.50	0.10	9497235
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	0.040	9497235	<0.20	9497235	<0.20	0.20	0.040	9497235
Acid Extractable Thallium (Tl)	ug/g	0.13	0.050	0.010	9497235	<0.050	9497235	<0.050	0.050	0.010	9497235
Acid Extractable Uranium (U)	ug/g	0.58	0.050	0.030	9497235	0.38	9497235	0.36	0.050	0.030	9497235
Acid Extractable Vanadium (V)	ug/g	33	5.0	0.50	9497235	17	9497235	18	5.0	0.50	9497235
Acid Extractable Zinc (Zn)	ug/g	51	5.0	0.50	9497235	17	9497235	16	5.0	0.50	9497235
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	0.030	9497235	<0.050	9497235	<0.050	0.050	0.030	9497235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZPH255			
Sampling Date		2024/06/27			
COC Number		N/A			
	UNITS	BH3/4	RDL	MDL	QC Batch
Inorganics					
WAD Cyanide (Free)	ug/g	<0.01	0.01	0.0010	9494970
Metals					
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	0.10	9497235
Acid Extractable Arsenic (As)	ug/g	1.5	1.0	0.10	9497235
Acid Extractable Barium (Ba)	ug/g	17	0.50	0.30	9497235
Acid Extractable Beryllium (Be)	ug/g	<0.20	0.20	0.020	9497235
Acid Extractable Boron (B)	ug/g	<5.0	5.0	1.0	9497235
Acid Extractable Cadmium (Cd)	ug/g	<0.10	0.10	0.030	9497235
Acid Extractable Chromium (Cr)	ug/g	6.2	1.0	0.20	9497235
Acid Extractable Cobalt (Co)	ug/g	2.9	0.10	0.020	9497235
Acid Extractable Copper (Cu)	ug/g	13	0.50	0.20	9497235
Acid Extractable Lead (Pb)	ug/g	3.3	1.0	0.10	9497235
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	0.10	9497235
Acid Extractable Nickel (Ni)	ug/g	5.3	0.50	0.20	9497235
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	0.10	9497235
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	0.040	9497235
Acid Extractable Thallium (Tl)	ug/g	<0.050	0.050	0.010	9497235
Acid Extractable Uranium (U)	ug/g	0.29	0.050	0.030	9497235
Acid Extractable Vanadium (V)	ug/g	13	5.0	0.50	9497235
Acid Extractable Zinc (Zn)	ug/g	17	5.0	0.50	9497235
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	0.030	9497235

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID		ZPH239	ZPH240	ZPH241				ZPH241			
Sampling Date		2024/06/27	2024/06/27	2024/06/27				2024/06/27			
COC Number		N/A	N/A	N/A				N/A			
	UNITS	TP1	TP2	TP3	RDL	MDL	QC Batch	TP3 Lab-Dup	RDL	MDL	QC Batch
Calculated Parameters											
Chlordane (Total)	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9487791				
o,p-DDD + p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9487791				
o,p-DDE + p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9487791				
o,p-DDT + p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9487791				
Total Endosulfan	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9487791				
Pesticides & Herbicides											
Aldrin	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
a-Chlordane	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
g-Chlordane	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
o,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
o,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
o,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
Dieldrin	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
Lindane	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
Endosulfan I (alpha)	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
Endosulfan II (beta)	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
Endrin	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
Heptachlor	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
Heptachlor epoxide	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
Hexachlorobenzene	ug/g	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360	<0.0020	0.0020	0.00040	9493360
Hexachlorobutadiene	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9493360	<0.0020	0.0020	N/A	9493360
Hexachloroethane	ug/g	<0.0020	<0.0020	<0.0020	0.0020	N/A	9493360	<0.0020	0.0020	N/A	9493360
Methoxychlor	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0016	9493360	<0.0050	0.0050	0.0016	9493360
Surrogate Recovery (%)											
2,4,5,6-Tetrachloro-m-xylene	%	104	91	94			9493360	89			9493360
Decachlorobiphenyl	%	83	74	69			9493360	70			9493360

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID		ZPH242	ZPH243	ZPH244	ZPH245	ZPH246			
Sampling Date		2024/06/27	2024/06/27	2024/06/27	2024/06/27	2024/06/27			
COC Number		N/A	N/A	N/A	N/A	N/A			
	UNITS	TP4	TP5	TP6	TP7	TP8	RDL	MDL	QC Batch
Calculated Parameters									
Chlordane (Total)	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9487791
o,p-DDD + p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9487791
o,p-DDE + p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9487791
o,p-DDT + p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9487791
Total Endosulfan	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9487791
Pesticides & Herbicides									
Aldrin	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
a-Chlordane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
g-Chlordane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
o,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
o,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
o,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
Dieldrin	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
Lindane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
Endosulfan I (alpha)	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
Endosulfan II (beta)	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
Endrin	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
Heptachlor	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
Heptachlor epoxide	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
Hexachlorobenzene	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9493360
Hexachlorobutadiene	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9493360
Hexachloroethane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9493360
Methoxychlor	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	0.0016	9493360
Surrogate Recovery (%)									
2,4,5,6-Tetrachloro-m-xylene	%	111	105	70	90	83			9493360
Decachlorobiphenyl	%	116	81	61	73	83			9493360

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID		ZPH248	ZPH251			
Sampling Date		2024/06/27	2024/06/27			
COC Number		N/A	N/A			
	UNITS	DUPS2	BH7/1A	RDL	MDL	QC Batch
Calculated Parameters						
Chlordane (Total)	ug/g	<0.0020	<0.0020	0.0020	N/A	9487791
o,p-DDD + p,p-DDD	ug/g	<0.0020	<0.0020	0.0020	N/A	9487791
o,p-DDE + p,p-DDE	ug/g	<0.0020	<0.0020	0.0020	N/A	9487791
o,p-DDT + p,p-DDT	ug/g	<0.0020	<0.0020	0.0020	N/A	9487791
Total Endosulfan	ug/g	<0.0020	<0.0020	0.0020	N/A	9487791
Pesticides & Herbicides						
Aldrin	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
a-Chlordane	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
g-Chlordane	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
o,p-DDD	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
p,p-DDD	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
o,p-DDE	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
p,p-DDE	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
o,p-DDT	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
p,p-DDT	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
Dieldrin	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
Lindane	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
Endosulfan I (alpha)	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
Endosulfan II (beta)	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
Endrin	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
Heptachlor	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
Heptachlor epoxide	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
Hexachlorobenzene	ug/g	<0.0020	<0.0020	0.0020	0.00040	9493360
Hexachlorobutadiene	ug/g	<0.0020	<0.0020	0.0020	N/A	9493360
Hexachloroethane	ug/g	<0.0020	<0.0020	0.0020	N/A	9493360
Methoxychlor	ug/g	<0.0050	<0.0050	0.0050	0.0016	9493360
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	88	85			9493360
Decachlorobiphenyl	%	79	77			9493360

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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O.REG 153 PAHS (SOIL)

Bureau Veritas ID		ZPH253	ZPH254	ZPH255			
Sampling Date		2024/06/27	2024/06/27	2024/06/27			
COC Number		N/A	N/A	N/A			
	UNITS	BH1/3	BH2/4	BH3/4	RDL	MDL	QC Batch
Calculated Parameters							
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	<0.0071	<0.0071	0.0071	N/A	9487748
Polyaromatic Hydrocarbons							
Acenaphthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9495149
Acenaphthylene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9495149
Anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9495149
Benzo(a)anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9495149
Benzo(a)pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9495149
Benzo(b/j)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9495149
Benzo(g,h,i)perylene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9495149
Benzo(k)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9495149
Chrysene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9495149
Dibenzo(a,h)anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9495149
Fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9495149
Fluorene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9495149
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9495149
1-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9495149
2-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9495149
Naphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9495149
Phenanthrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9495149
Pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9495149
Surrogate Recovery (%)							
D10-Anthracene	%	100	97	96			9495149
D14-Terphenyl (FS)	%	99	97	96			9495149
D8-Acenaphthylene	%	95	92	88			9495149

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

Bureau Veritas ID		ZPH250			
Sampling Date		2024/06/27			
COC Number		N/A			
	UNITS	BH8/6	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/g	<0.020	0.020	0.020	9496071
Toluene	ug/g	<0.020	0.020	0.020	9496071
Ethylbenzene	ug/g	<0.020	0.020	0.020	9496071
o-Xylene	ug/g	<0.020	0.020	0.020	9496071
p+m-Xylene	ug/g	<0.040	0.040	0.040	9496071
Total Xylenes	ug/g	<0.040	0.040	0.040	9496071
F1 (C6-C10)	ug/g	<10	10	5.0	9496071
F1 (C6-C10) - BTEX	ug/g	<10	10	5.0	9496071
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	5.0	9494732
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	5.0	9494732
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	10	9494732
Reached Baseline at C50	ug/g	Yes			9494732
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	91			9496071
4-Bromofluorobenzene	%	130			9496071
D10-o-Xylene	%	98			9496071
D4-1,2-Dichloroethane	%	83			9496071
o-Terphenyl	%	91			9494732

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Bureau Veritas ID		ZPH253	ZPH254	ZPH255	ZPH256			
Sampling Date		2024/06/27	2024/06/27	2024/06/27	2024/06/27			
COC Number		N/A	N/A	N/A	N/A			
	UNITS	BH1/3	BH2/4	BH3/4	DUPS4	RDL	MDL	QC Batch
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	0.010	9487617
Volatile Organics								
Acetone (2-Propanone)	ug/g	<0.49	<0.49	<0.49	<0.49	0.49	0.49	9490760
Benzene	ug/g	<0.0060	<0.0060	<0.0060	<0.0060	0.0060	0.0060	9490760
Bromodichloromethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Bromoform	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Bromomethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Carbon Tetrachloride	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Chlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Chloroform	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Dibromochloromethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
1,1-Dichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
1,2-Dichloroethane	ug/g	<0.049	<0.049	<0.049	<0.049	0.049	0.049	9490760
1,1-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
1,2-Dichloropropane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	<0.030	0.030	0.030	9490760
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Ethylbenzene	ug/g	<0.010	<0.010	<0.010	<0.010	0.010	0.010	9490760
Ethylene Dibromide	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Hexane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	<0.049	<0.049	0.049	0.049	9490760
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	<0.40	<0.40	0.40	0.40	9490760
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	<0.40	<0.40	0.40	0.40	9490760
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Styrene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Tetrachloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Bureau Veritas ID		ZPH253	ZPH254	ZPH255	ZPH256			
Sampling Date		2024/06/27	2024/06/27	2024/06/27	2024/06/27			
COC Number		N/A	N/A	N/A	N/A			
	UNITS	BH1/3	BH2/4	BH3/4	DUPS4	RDL	MDL	QC Batch
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9490760
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Trichloroethylene	ug/g	<0.010	<0.010	<0.010	<0.010	0.010	0.010	9490760
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9490760
Vinyl Chloride	ug/g	<0.019	<0.019	<0.019	<0.019	0.019	0.019	9490760
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9490760
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9490760
Total Xylenes	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9490760
F1 (C6-C10)	ug/g	<10	<10	<10	<10	10	2.0	9490760
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	10	2.0	9490760
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	<10	10	5.0	9494732
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	5.0	9494732
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	10	9494732
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes			9494732
Surrogate Recovery (%)								
o-Terphenyl	%	90	91	93	91			9494732
4-Bromofluorobenzene	%	101	99	99	99			9490760
D10-o-Xylene	%	93	106	104	108			9490760
D4-1,2-Dichloroethane	%	115	116	114	116			9490760
D8-Toluene	%	102	100	100	101			9490760

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ZPH239	ZPH240	ZPH241	ZPH242	ZPH242	ZPH243	ZPH244			
Sampling Date		2024/06/27	2024/06/27	2024/06/27	2024/06/27	2024/06/27	2024/06/27	2024/06/27			
COC Number		N/A	N/A	N/A	N/A	N/A	N/A	N/A			
	UNITS	TP1	TP2	TP3	TP4	TP4 Lab-Dup	TP5	TP6	RDL	MDL	QC Batch
Inorganics											
Moisture	%	24	23	17	24	24	21	21	1.0	0.50	9490817

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		ZPH245	ZPH246		ZPH247		ZPH248			
Sampling Date		2024/06/27	2024/06/27		2024/06/27		2024/06/27			
COC Number		N/A	N/A		N/A		N/A			
	UNITS	TP7	TP8	QC Batch	DUPS1	QC Batch	DUPS2	RDL	MDL	QC Batch
Inorganics										
Moisture	%	19	20	9490817	23	9490677	18	1.0	0.50	9490817

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		ZPH249		ZPH250		ZPH251				ZPH252		
Sampling Date		2024/06/27		2024/06/27		2024/06/27				2024/06/27		
COC Number		N/A		N/A		N/A				N/A		
	UNITS	DUPS3	QC Batch	BH8/6	QC Batch	BH7/1A	RDL	MDL	QC Batch	BH7/3	MDL	QC Batch
Inorganics												
Moisture	%	21	9490677	19	9490666	18	1.0	0.50	9490817			
Available (CaCl2) pH	pH									7.82		9497226

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		ZPH253	ZPH254	ZPH255	ZPH255	ZPH256			
Sampling Date		2024/06/27	2024/06/27	2024/06/27	2024/06/27	2024/06/27			
COC Number		N/A	N/A	N/A	N/A	N/A			
	UNITS	BH1/3	BH2/4	BH3/4	BH3/4 Lab-Dup	DUPS4	RDL	MDL	QC Batch
Inorganics									
Moisture	%	16	16	13	13	21	1.0	0.50	9490666

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

TEST SUMMARY

Bureau Veritas ID: ZPH239
Sample ID: TP1
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9496424	2024/07/05	2024/07/05	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9492417	2024/07/03	2024/07/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9494595	2024/07/04	2024/07/04	Daniel Teclu
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9487791	N/A	2024/07/03	Automated Statchk

Bureau Veritas ID: ZPH240
Sample ID: TP2
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9492417	2024/07/03	2024/07/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9497235	2024/07/05	2024/07/08	Daniel Teclu
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9487791	N/A	2024/07/03	Automated Statchk
pH CaCl2 EXTRACT	AT	9497226	2024/07/05	2024/07/05	Taslima Aktar

Bureau Veritas ID: ZPH241
Sample ID: TP3
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9492417	2024/07/03	2024/07/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9497235	2024/07/05	2024/07/08	Daniel Teclu
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9487791	N/A	2024/07/03	Automated Statchk

Bureau Veritas ID: ZPH241 Dup
Sample ID: TP3
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan

Bureau Veritas ID: ZPH242
Sample ID: TP4
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

TEST SUMMARY

Bureau Veritas ID: ZPH242
Sample ID: TP4
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hexavalent Chromium in Soil by IC	IC/SPEC	9492417	2024/07/03	2024/07/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9497235	2024/07/05	2024/07/08	Daniel Teclu
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9487791	N/A	2024/07/03	Automated Statchk
pH CaCl2 EXTRACT	AT	9497226	2024/07/05	2024/07/05	Taslima Aktar

Bureau Veritas ID: ZPH242 Dup
Sample ID: TP4
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas

Bureau Veritas ID: ZPH243
Sample ID: TP5
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9492417	2024/07/03	2024/07/03	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9494595	2024/07/04	2024/07/04	Daniel Teclu
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9487791	N/A	2024/07/03	Automated Statchk

Bureau Veritas ID: ZPH243 Dup
Sample ID: TP5
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9492417	2024/07/03	2024/07/03	Violeta Porcila

Bureau Veritas ID: ZPH244
Sample ID: TP6
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9492417	2024/07/03	2024/07/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9494595	2024/07/04	2024/07/04	Daniel Teclu
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9487791	N/A	2024/07/03	Automated Statchk

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

TEST SUMMARY

Bureau Veritas ID: ZPH244
Sample ID: TP6
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	9497226	2024/07/05	2024/07/05	Taslima Aktar

Bureau Veritas ID: ZPH245
Sample ID: TP7
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9492417	2024/07/03	2024/07/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9497235	2024/07/05	2024/07/08	Daniel Teclu
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9487791	N/A	2024/07/03	Automated Statchk

Bureau Veritas ID: ZPH246
Sample ID: TP8
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9492417	2024/07/03	2024/07/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9494595	2024/07/04	2024/07/04	Daniel Teclu
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9487791	N/A	2024/07/03	Automated Statchk
pH CaCl2 EXTRACT	AT	9497226	2024/07/05	2024/07/05	Taslima Aktar

Bureau Veritas ID: ZPH246 Dup
Sample ID: TP8
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	9497226	2024/07/05	2024/07/05	Taslima Aktar

Bureau Veritas ID: ZPH247
Sample ID: DUPS1
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494609	2024/07/04	2024/07/04	Prgya Panchal
Acid Extractable Metals by ICPMS	ICP/MS	9494595	2024/07/04	2024/07/04	Daniel Teclu
Moisture	BAL	9490677	N/A	2024/07/02	Joe Thomas

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

TEST SUMMARY

Bureau Veritas ID: ZPH248
Sample ID: DUPS2
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9487791	N/A	2024/07/03	Automated Statchk

Bureau Veritas ID: ZPH249
Sample ID: DUPS3
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494609	2024/07/04	2024/07/04	Prgya Panchal
Acid Extractable Metals by ICPMS	ICP/MS	9497235	2024/07/05	2024/07/08	Daniel Teclu
Moisture	BAL	9490677	N/A	2024/07/02	Joe Thomas

Bureau Veritas ID: ZPH250
Sample ID: BH8/6
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494609	2024/07/04	2024/07/04	Prgya Panchal
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9496071	N/A	2024/07/04	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9494732	2024/07/04	2024/07/04	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9494595	2024/07/04	2024/07/04	Daniel Teclu
Moisture	BAL	9490666	N/A	2024/07/02	Joe Thomas

Bureau Veritas ID: ZPH251
Sample ID: BH7/1A
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9492417	2024/07/03	2024/07/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9497235	2024/07/05	2024/07/08	Daniel Teclu
Moisture	BAL	9490817	N/A	2024/07/02	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	9493360	2024/07/03	2024/07/04	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9487791	N/A	2024/07/03	Automated Statchk
pH CaCl2 EXTRACT	AT	9497226	2024/07/05	2024/07/05	Taslima Aktar

Bureau Veritas ID: ZPH251 Dup
Sample ID: BH7/1A
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	9497235	2024/07/05	2024/07/08	Daniel Teclu

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

TEST SUMMARY

Bureau Veritas ID: ZPH252
Sample ID: BH7/3
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	9497226	2024/07/05	2024/07/05	Taslima Aktar

Bureau Veritas ID: ZPH253
Sample ID: BH1/3
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9487748	N/A	2024/07/05	Automated Statchk
1,3-Dichloropropene Sum	CALC	9487617	N/A	2024/07/06	Automated Statchk
Free (WAD) Cyanide	TECH	9496424	2024/07/05	2024/07/05	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9494732	2024/07/04	2024/07/04	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9497235	2024/07/05	2024/07/08	Daniel Teclu
Moisture	BAL	9490666	N/A	2024/07/02	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9495149	2024/07/04	2024/07/05	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9490760	N/A	2024/07/06	Anna Gabrielyan

Bureau Veritas ID: ZPH254
Sample ID: BH2/4
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9487748	N/A	2024/07/05	Automated Statchk
1,3-Dichloropropene Sum	CALC	9487617	N/A	2024/07/06	Automated Statchk
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9494732	2024/07/04	2024/07/04	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9497235	2024/07/05	2024/07/08	Daniel Teclu
Moisture	BAL	9490666	N/A	2024/07/02	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9495149	2024/07/04	2024/07/05	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9490760	N/A	2024/07/06	Anna Gabrielyan

Bureau Veritas ID: ZPH255
Sample ID: BH3/4
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9487748	N/A	2024/07/05	Automated Statchk
1,3-Dichloropropene Sum	CALC	9487617	N/A	2024/07/06	Automated Statchk
Free (WAD) Cyanide	TECH	9494970	2024/07/04	2024/07/05	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9494732	2024/07/04	2024/07/05	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9497235	2024/07/05	2024/07/08	Daniel Teclu
Moisture	BAL	9490666	N/A	2024/07/02	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9495149	2024/07/04	2024/07/05	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9490760	N/A	2024/07/06	Anna Gabrielyan

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

TEST SUMMARY

Bureau Veritas ID: ZPH255 Dup
Sample ID: BH3/4
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9490666	N/A	2024/07/02	Joe Thomas

Bureau Veritas ID: ZPH256
Sample ID: DUPS4
Matrix: Soil

Collected: 2024/06/27
Shipped:
Received: 2024/06/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9487617	N/A	2024/07/06	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9494732	2024/07/04	2024/07/05	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9490666	N/A	2024/07/02	Joe Thomas
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9490760	N/A	2024/07/06	Anna Gabrielyan

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	-1.7°C

Cooler custody seal was present and intact.

Sample ZPH250 [BH8/6] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9490760	4-Bromofluorobenzene	2024/07/06	100	60 - 140	100	60 - 140	100	%		
9490760	D10-o-Xylene	2024/07/06	103	60 - 130	95	60 - 130	95	%		
9490760	D4-1,2-Dichloroethane	2024/07/06	110	60 - 140	117	60 - 140	109	%		
9490760	D8-Toluene	2024/07/06	104	60 - 140	103	60 - 140	101	%		
9493360	2,4,5,6-Tetrachloro-m-xylene	2024/07/04	111	50 - 130	89	50 - 130	55	%		
9493360	Decachlorobiphenyl	2024/07/04	81	50 - 130	65	50 - 130	57	%		
9494732	o-Terphenyl	2024/07/04	89	60 - 130	102	60 - 130	92	%		
9495149	D10-Anthracene	2024/07/04	101	50 - 130	100	50 - 130	97	%		
9495149	D14-Terphenyl (FS)	2024/07/04	102	50 - 130	100	50 - 130	95	%		
9495149	D8-Acenaphthylene	2024/07/04	89	50 - 130	95	50 - 130	73	%		
9496071	1,4-Difluorobenzene	2024/07/04	84	60 - 140	87	60 - 140	87	%		
9496071	4-Bromofluorobenzene	2024/07/04	127	60 - 140	132	60 - 140	121	%		
9496071	D10-o-Xylene	2024/07/04	84	60 - 140	83	60 - 140	75	%		
9496071	D4-1,2-Dichloroethane	2024/07/04	84	60 - 140	85	60 - 140	83	%		
9490666	Moisture	2024/07/02							0.78	20
9490677	Moisture	2024/07/02							0	20
9490760	1,1,1,2-Tetrachloroethane	2024/07/06	110	60 - 140	113	60 - 130	<0.040	ug/g	NC	50
9490760	1,1,1-Trichloroethane	2024/07/06	117	60 - 140	109	60 - 130	<0.040	ug/g	NC	50
9490760	1,1,2,2-Tetrachloroethane	2024/07/06	105	60 - 140	121	60 - 130	<0.040	ug/g	NC	50
9490760	1,1,2-Trichloroethane	2024/07/06	114	60 - 140	121	60 - 130	<0.040	ug/g	NC	50
9490760	1,1-Dichloroethane	2024/07/06	114	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9490760	1,1-Dichloroethylene	2024/07/06	125	60 - 140	107	60 - 130	<0.040	ug/g	NC	50
9490760	1,2-Dichlorobenzene	2024/07/06	104	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
9490760	1,2-Dichloroethane	2024/07/06	116	60 - 140	117	60 - 130	<0.049	ug/g	NC	50
9490760	1,2-Dichloropropane	2024/07/06	107	60 - 140	107	60 - 130	<0.040	ug/g	NC	50
9490760	1,3-Dichlorobenzene	2024/07/06	108	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
9490760	1,4-Dichlorobenzene	2024/07/06	105	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
9490760	Acetone (2-Propanone)	2024/07/06	103	60 - 140	108	60 - 140	<0.49	ug/g	NC	50
9490760	Benzene	2024/07/06	109	60 - 140	102	60 - 130	<0.0060	ug/g	NC	50
9490760	Bromodichloromethane	2024/07/06	109	60 - 140	112	60 - 130	<0.040	ug/g	NC	50
9490760	Bromoform	2024/07/06	101	60 - 140	109	60 - 130	<0.040	ug/g	NC	50

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9490760	Bromomethane	2024/07/06	100	60 - 140	81	60 - 140	<0.040	ug/g	NC	50
9490760	Carbon Tetrachloride	2024/07/06	118	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9490760	Chlorobenzene	2024/07/06	105	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9490760	Chloroform	2024/07/06	111	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
9490760	cis-1,2-Dichloroethylene	2024/07/06	111	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9490760	cis-1,3-Dichloropropene	2024/07/06	99	60 - 140	99	60 - 130	<0.030	ug/g	NC	50
9490760	Dibromochloromethane	2024/07/06	110	60 - 140	116	60 - 130	<0.040	ug/g	NC	50
9490760	Dichlorodifluoromethane (FREON 12)	2024/07/06	119	60 - 140	70	60 - 140	<0.040	ug/g	NC	50
9490760	Ethylbenzene	2024/07/06	108	60 - 140	105	60 - 130	<0.010	ug/g	NC	50
9490760	Ethylene Dibromide	2024/07/06	105	60 - 140	112	60 - 130	<0.040	ug/g	NC	50
9490760	F1 (C6-C10) - BTEX	2024/07/06					<10	ug/g	NC	30
9490760	F1 (C6-C10)	2024/07/06	102	60 - 140	96	80 - 120	<10	ug/g	NC	30
9490760	Hexane	2024/07/06	128	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9490760	Methyl Ethyl Ketone (2-Butanone)	2024/07/06	95	60 - 140	106	60 - 140	<0.40	ug/g	NC	50
9490760	Methyl Isobutyl Ketone	2024/07/06	94	60 - 140	112	60 - 130	<0.40	ug/g	NC	50
9490760	Methyl t-butyl ether (MTBE)	2024/07/06	103	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
9490760	Methylene Chloride(Dichloromethane)	2024/07/06	119	60 - 140	113	60 - 130	<0.049	ug/g	NC	50
9490760	o-Xylene	2024/07/06	104	60 - 140	104	60 - 130	<0.020	ug/g	NC	50
9490760	p+m-Xylene	2024/07/06	102	60 - 140	100	60 - 130	<0.020	ug/g	NC	50
9490760	Styrene	2024/07/06	109	60 - 140	113	60 - 130	<0.040	ug/g	NC	50
9490760	Tetrachloroethylene	2024/07/06	112	60 - 140	105	60 - 130	<0.040	ug/g	NC	50
9490760	Toluene	2024/07/06	104	60 - 140	99	60 - 130	<0.020	ug/g	NC	50
9490760	Total Xylenes	2024/07/06					<0.020	ug/g	NC	50
9490760	trans-1,2-Dichloroethylene	2024/07/06	113	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
9490760	trans-1,3-Dichloropropene	2024/07/06	105	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9490760	Trichloroethylene	2024/07/06	108	60 - 140	101	60 - 130	<0.010	ug/g	NC	50
9490760	Trichlorofluoromethane (FREON 11)	2024/07/06	121	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9490760	Vinyl Chloride	2024/07/06	118	60 - 140	90	60 - 130	<0.019	ug/g	NC	50
9490817	Moisture	2024/07/02							1.3	20
9492417	Chromium (VI)	2024/07/03	0 (1)	70 - 130	91	80 - 120	<0.18	ug/g	NC	35
9493360	a-Chlordane	2024/07/04	98	50 - 130	78	50 - 130	<C.0020	ug/g	NC	40

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9493360	Aldrin	2024/07/04	87	50 - 130	70	50 - 130	<0.0020	ug/g	NC	40
9493360	Dieldrin	2024/07/04	97	50 - 130	78	50 - 130	<0.0020	ug/g	NC	40
9493360	Endosulfan I (alpha)	2024/07/04	122	50 - 130	87	50 - 130	<0.0020	ug/g	NC	40
9493360	Endosulfan II (beta)	2024/07/04	84	50 - 130	73	50 - 130	<0.0020	ug/g	NC	40
9493360	Endrin	2024/07/04	93	50 - 130	78	50 - 130	<0.0020	ug/g	NC	40
9493360	g-Chlordane	2024/07/04	87	50 - 130	71	50 - 130	<0.0020	ug/g	NC	40
9493360	Heptachlor epoxide	2024/07/04	83	50 - 130	74	50 - 130	<0.0020	ug/g	NC	40
9493360	Heptachlor	2024/07/04	94	50 - 130	87	50 - 130	<0.0020	ug/g	NC	40
9493360	Hexachlorobenzene	2024/07/04	96	50 - 130	78	50 - 130	<0.0020	ug/g	NC	40
9493360	Hexachlorobutadiene	2024/07/04	52	50 - 130	70	50 - 130	<0.0020	ug/g	NC	40
9493360	Hexachloroethane	2024/07/04	29 (3)	50 - 130	34 (3)	50 - 130	<0.0020	ug/g	NC	40
9493360	Lindane	2024/07/04	78	50 - 130	79	50 - 130	<0.0020	ug/g	NC	40
9493360	Methoxychlor	2024/07/04	124	50 - 130	119	50 - 130	<0.0050	ug/g	NC	40
9493360	o,p-DDD	2024/07/04	94	50 - 130	84	50 - 130	<0.0020	ug/g	NC	40
9493360	o,p-DDE	2024/07/04	106	50 - 130	88	50 - 130	<0.0020	ug/g	NC	40
9493360	o,p-DDT	2024/07/04	121	50 - 130	105	50 - 130	<0.0020	ug/g	NC	40
9493360	p,p-DDD	2024/07/04	102	50 - 130	90	50 - 130	<0.0020	ug/g	NC	40
9493360	p,p-DDE	2024/07/04	138 (2)	50 - 130	100	50 - 130	<0.0020	ug/g	NC	40
9493360	p,p-DDT	2024/07/04	140 (2)	50 - 130	123	50 - 130	<0.0020	ug/g	NC	40
9494595	Acid Extractable Antimony (Sb)	2024/07/04	88	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
9494595	Acid Extractable Arsenic (As)	2024/07/04	92	75 - 125	100	80 - 120	<1.0	ug/g	1.5	30
9494595	Acid Extractable Barium (Ba)	2024/07/04	NC	75 - 125	100	80 - 120	<0.50	ug/g	0.38	30
9494595	Acid Extractable Beryllium (Be)	2024/07/04	97	75 - 125	99	80 - 120	<0.20	ug/g	0.82	30
9494595	Acid Extractable Boron (B)	2024/07/04	100	75 - 125	98	80 - 120	<5.0	ug/g	NC	30
9494595	Acid Extractable Cadmium (Cd)	2024/07/04	93	75 - 125	96	80 - 120	<0.10	ug/g	11	30
9494595	Acid Extractable Chromium (Cr)	2024/07/04	95	75 - 125	96	80 - 120	<1.0	ug/g	1.6	30
9494595	Acid Extractable Cobalt (Co)	2024/07/04	93	75 - 125	96	80 - 120	<0.10	ug/g	0.17	30
9494595	Acid Extractable Copper (Cu)	2024/07/04	97	75 - 125	101	80 - 120	<0.50	ug/g	1.3	30
9494595	Acid Extractable Lead (Pb)	2024/07/04	96	75 - 125	98	80 - 120	<1.0	ug/g	0.14	30
9494595	Acid Extractable Mercury (Hg)	2024/07/04	91	75 - 125	98	80 - 120	<0.050	ug/g	NC	30
9494595	Acid Extractable Molybdenum (Mo)	2024/07/04	90	75 - 125	94	80 - 120	<0.50	ug/g	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9494595	Acid Extractable Nickel (Ni)	2024/07/04	95	75 - 125	100	80 - 120	<0.50	ug/g	1.6	30
9494595	Acid Extractable Selenium (Se)	2024/07/04	94	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
9494595	Acid Extractable Silver (Ag)	2024/07/04	93	75 - 125	96	80 - 120	<0.20	ug/g	NC	30
9494595	Acid Extractable Thallium (Tl)	2024/07/04	95	75 - 125	99	80 - 120	<0.050	ug/g	7.2	30
9494595	Acid Extractable Uranium (U)	2024/07/04	92	75 - 125	96	80 - 120	<0.050	ug/g	3.6	30
9494595	Acid Extractable Vanadium (V)	2024/07/04	NC	75 - 125	99	80 - 120	<5.0	ug/g	0.74	30
9494595	Acid Extractable Zinc (Zn)	2024/07/04	NC	75 - 125	97	80 - 120	<5.0	ug/g	0.71	30
9494609	WAD Cyanide (Free)	2024/07/04	86	75 - 125	86	80 - 120	<0.01	ug/g	NC	35
9494732	F2 (C10-C16 Hydrocarbons)	2024/07/05	100	60 - 130	110	80 - 120	<10	ug/g	NC	30
9494732	F3 (C16-C34 Hydrocarbons)	2024/07/05	85	60 - 130	113	80 - 120	<50	ug/g	103 (4)	30
9494732	F4 (C34-C50 Hydrocarbons)	2024/07/05	79	60 - 130	103	80 - 120	<50	ug/g	NC	30
9494970	WAD Cyanide (Free)	2024/07/05	96	75 - 125	100	80 - 120	<0.01	ug/g	NC	35
9495149	1-Methylnaphthalene	2024/07/04	82	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
9495149	2-Methylnaphthalene	2024/07/04	82	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
9495149	Acenaphthene	2024/07/04	99	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9495149	Acenaphthylene	2024/07/04	95	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
9495149	Anthracene	2024/07/04	105	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
9495149	Benzo(a)anthracene	2024/07/04	104	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
9495149	Benzo(a)pyrene	2024/07/04	104	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
9495149	Benzo(b/j)fluoranthene	2024/07/04	100	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
9495149	Benzo(g,h,i)perylene	2024/07/04	101	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
9495149	Benzo(k)fluoranthene	2024/07/04	97	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
9495149	Chrysene	2024/07/04	101	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9495149	Dibenzo(a,h)anthracene	2024/07/04	100	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9495149	Fluoranthene	2024/07/04	106	50 - 130	107	50 - 130	<0.0050	ug/g	NC	40
9495149	Fluorene	2024/07/04	103	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
9495149	Indeno(1,2,3-cd)pyrene	2024/07/04	103	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
9495149	Naphthalene	2024/07/04	81	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
9495149	Phenanthrene	2024/07/04	103	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9495149	Pyrene	2024/07/04	108	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
9496071	Benzene	2024/07/04	74	50 - 140	77	50 - 140	<0.020	ug/g	NC	50

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9496071	Ethylbenzene	2024/07/04	82	50 - 140	89	50 - 140	<0.020	ug/g	NC	50
9496071	F1 (C6-C10) - BTEX	2024/07/04					<10	ug/g	NC	30
9496071	F1 (C6-C10)	2024/07/04	87	60 - 140	93	80 - 120	<10	ug/g	NC	30
9496071	o-Xylene	2024/07/04	80	50 - 140	84	50 - 140	<0.020	ug/g	NC	50
9496071	p+m-Xylene	2024/07/04	79	50 - 140	83	50 - 140	<0.040	ug/g	NC	50
9496071	Toluene	2024/07/04	73	50 - 140	76	50 - 140	<0.020	ug/g	NC	50
9496071	Total Xylenes	2024/07/04					<0.040	ug/g	NC	50
9496424	WAD Cyanide (Free)	2024/07/05	113	75 - 125	97	80 - 120	<0.01	ug/g	NC	35
9497226	Available (CaCl2) pH	2024/07/05			101	97 - 103			0.15	N/A
9497235	Acid Extractable Antimony (Sb)	2024/07/08	88	75 - 125	103	80 - 120	<0.20	ug/g	4.9	30
9497235	Acid Extractable Arsenic (As)	2024/07/08	100	75 - 125	103	80 - 120	<1.0	ug/g	1.1	30
9497235	Acid Extractable Barium (Ba)	2024/07/08	NC	75 - 125	106	80 - 120	<0.50	ug/g	3.7	30
9497235	Acid Extractable Beryllium (Be)	2024/07/08	104	75 - 125	101	80 - 120	<0.20	ug/g	1.6	30
9497235	Acid Extractable Boron (B)	2024/07/08	89	75 - 125	95	80 - 120	<5.0	ug/g	NC	30
9497235	Acid Extractable Cadmium (Cd)	2024/07/08	99	75 - 125	100	80 - 120	<0.10	ug/g	7.8	30
9497235	Acid Extractable Chromium (Cr)	2024/07/08	98	75 - 125	100	80 - 120	<1.0	ug/g	3.0	30
9497235	Acid Extractable Cobalt (Co)	2024/07/08	100	75 - 125	102	80 - 120	<0.10	ug/g	3.8	30
9497235	Acid Extractable Copper (Cu)	2024/07/08	100	75 - 125	101	80 - 120	<0.50	ug/g	2.7	30
9497235	Acid Extractable Lead (Pb)	2024/07/08	100	75 - 125	103	80 - 120	<1.0	ug/g	0.0078	30
9497235	Acid Extractable Mercury (Hg)	2024/07/08	112	75 - 125	106	80 - 120	<0.050	ug/g	NC	30
9497235	Acid Extractable Molybdenum (Mo)	2024/07/08	97	75 - 125	99	80 - 120	<0.50	ug/g	NC	30
9497235	Acid Extractable Nickel (Ni)	2024/07/08	102	75 - 125	105	80 - 120	<0.50	ug/g	0.25	30
9497235	Acid Extractable Selenium (Se)	2024/07/08	101	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
9497235	Acid Extractable Silver (Ag)	2024/07/08	98	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
9497235	Acid Extractable Thallium (Tl)	2024/07/08	100	75 - 125	103	80 - 120	<0.050	ug/g	11	30
9497235	Acid Extractable Uranium (U)	2024/07/08	101	75 - 125	104	80 - 120	<0.050	ug/g	0.20	30
9497235	Acid Extractable Vanadium (V)	2024/07/08	NC	75 - 125	106	80 - 120	<5.0	ug/g	2.5	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9497235	Acid Extractable Zinc (Zn)	2024/07/08	NC	75 - 125	104	80 - 120	<5.0	ug/g	2.2	30

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The sample was reanalyzed with the same results.

(2) Matrix spike exceeds acceptance limits, probable matrix interference.

(3) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

(4) Duplicate results exceeded RPD acceptance criteria for flagged analytes. Sample extract was reanalyzed with the same results. This is likely due to sample heterogeneity.

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Bureau Veritas Job #: C4J9082
Report Date: 2024/07/08

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADL

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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APPENDIX 'D'

CERTIFICATE OF ANALYSIS
(GROUNDWATER SAMPLES)

Reference No. 2108-E089

Soil Engineers Ltd.
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FAX: (705) 721-7864	FAX: (905) 542-2769	FAX: (905) 725-1315	FAX: (905) 881-8335	FAX: (705) 721-7864	FAX: (905) 542-2769

APPENDIX 'C'

CERTIFICATE OF ANALYSIS
(GROUNDWATER SAMPLES)

Reference No. 2108-E089

Your Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Your C.O.C. #: N/A

Attention: Madan K. Suwal

Soil Engineers Ltd
90 West Beaver Creek Road
Unit 100
Richmond Hill, ON
CANADA L4B 1E7

Report Date: 2024/07/15
Report #: R8235753
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4K7113
Received: 2024/07/08, 17:03

Sample Matrix: Ground Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	6	N/A	2024/07/11	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	5	N/A	2024/07/14		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2024/07/11	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	6	2024/07/10	2024/07/12	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS	5	N/A	2024/07/12	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM)	2	2024/07/10	2024/07/10	CAM SOP-00318	EPA 8270E
PAH Compounds in Water by GC/MS (SIM)	4	2024/07/10	2024/07/11	CAM SOP-00318	EPA 8270E
pH (2)	2	2024/07/10	2024/07/11	CAM SOP-00413	SM 24th - 4500H+ B
Volatile Organic Compounds and F1 PHCs	5	N/A	2024/07/13	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Your C.O.C. #: N/A

Attention: Madan K. Suwal

Soil Engineers Ltd
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Unit 100
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Report Date: 2024/07/15
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CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4K7113
Received: 2024/07/08, 17:03

reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(2) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

Encryption Key

Bureau Veritas
15 Jul 2024 18:23:26

Please direct all questions regarding this Certificate of Analysis to:
Antonella Brasil, Senior Project Manager
Email: Antonella.Brasil@bureauveritas.com
Phone# (905)817-5817

==========

This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C4K7113
Report Date: 2024/07/15

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: AD

RESULTS OF ANALYSES OF GROUND WATER

Bureau Veritas ID		ZQW429	ZQW429	ZQW432		
Sampling Date		2024/07/05	2024/07/05	2024/07/05		
COC Number		N/A	N/A	N/A		
	UNITS	MW2	MW2 Lab-Dup	MW5	MDL	QC Batch
Inorganics						
pH	pH	7.56	7.56	7.81		9506497

QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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O.REG 153 DISSOLVED ICPMS METALS (WATER)

Bureau Veritas ID		ZQW428	ZQW429	ZQW430	ZQW431	ZQW432			
Sampling Date		2024/07/05	2024/07/05	2024/07/05	2024/07/05	2024/07/05			
COC Number		N/A	N/A	N/A	N/A	N/A			
	UNITS	MW1	MW2	MW3	MW4	MW5	RDL	MDL	QC Batch
Metals									
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.59	0.50	0.50	9508873
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	<1.0	<1.0	1.6	1.0	1.0	9508873
Dissolved Barium (Ba)	ug/L	120	70	140	87	78	2.0	2.0	9508873
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	0.40	9508873
Dissolved Boron (B)	ug/L	14	12	14	40	140	10	10	9508873
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	<0.090	<0.090	<0.090	0.090	0.090	9508873
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5.0	9508873
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	<0.50	<0.50	0.58	0.50	0.50	9508873
Dissolved Copper (Cu)	ug/L	4.5	2.1	1.6	2.6	2.5	0.90	0.90	9508873
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	0.50	9508873
Dissolved Molybdenum (Mo)	ug/L	1.1	9.0	4.1	2.7	21	0.50	0.50	9508873
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	1.1	2.0	2.6	1.0	1.0	9508873
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	2.0	9508873
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	<0.090	<0.090	<0.090	0.090	0.090	9508873
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	0.050	9508873
Dissolved Uranium (U)	ug/L	0.97	1.7	6.6	8.6	5.5	0.10	0.10	9508873
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	<0.50	<0.50	1.2	0.50	0.50	9508873
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5.0	9508873

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4K7113
Report Date: 2024/07/15

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: AD

O.REG 153 PAHS (GROUND WATER)

Bureau Veritas ID		ZQW428	ZQW429	ZQW430				ZQW430			
Sampling Date		2024/07/05	2024/07/05	2024/07/05				2024/07/05			
COC Number		N/A	N/A	N/A				N/A			
	UNITS	MW1	MW2	MW3	RDL	MDL	QC Batch	MW3 Lab-Dup	RDL	MDL	QC Batch
Calculated Parameters											
Methylnaphthalene, 2-(1-)	ug/L	<0.071	<0.071	<0.071	0.071	N/A	9502377				
Polyaromatic Hydrocarbons											
Acenaphthene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Acenaphthylene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Anthracene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Benzo(a)anthracene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Benzo(a)pyrene	ug/L	<0.0090	<0.0090	<0.0090	0.0090	0.0030	9505659	<0.0090	0.0090	0.0030	9505659
Benzo(b/j)fluoranthene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Chrysene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Dibenzo(a,h)anthracene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Fluoranthene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Fluorene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
1-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
2-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Naphthalene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Phenanthrene	ug/L	<0.030	<0.030	<0.030	0.030	0.0030	9505659	<0.030	0.030	0.0030	9505659
Pyrene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659	<0.050	0.050	0.0030	9505659
Surrogate Recovery (%)											
D10-Anthracene	%	111	107	101			9505659	110			9505659
D14-Terphenyl (FS)	%	111	114	108			9505659	113			9505659
D8-Acenaphthylene	%	99	101	95			9505659	98			9505659

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Bureau Veritas Job #: C4K7113
Report Date: 2024/07/15

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: AD

O.REG 153 PAHS (GROUND WATER)

Bureau Veritas ID		ZQW431	ZQW432	ZQW433			
Sampling Date		2024/07/05	2024/07/05	2024/07/05			
COC Number		N/A	N/A	N/A			
	UNITS	MW4	MW5	DUPW1	RDL	MDL	QC Batch
Calculated Parameters							
Methylnaphthalene, 2-(1-)	ug/L	<0.071	<0.071	<0.071	0.071	N/A	9502377
Polyaromatic Hydrocarbons							
Acenaphthene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Acenaphthylene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Anthracene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Benzo(a)anthracene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Benzo(a)pyrene	ug/L	<0.0090	<0.0090	<0.0090	0.0090	0.0030	9505659
Benzo(b/j)fluoranthene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Chrysene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Dibenzo(a,h)anthracene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Fluoranthene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Fluorene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
1-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
2-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Naphthalene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Phenanthrene	ug/L	<0.030	<0.030	<0.030	0.030	0.0030	9505659
Pyrene	ug/L	<0.050	<0.050	<0.050	0.050	0.0030	9505659
Surrogate Recovery (%)							
D10-Anthracene	%	108	111	111			9505659
D14-Terphenyl (FS)	%	110	106	114			9505659
D8-Acenaphthylene	%	96	96	100			9505659

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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O.REG 153 PHCS, BTEX/F1-F4 (GROUND WATER)

Bureau Veritas ID		ZQW432			
Sampling Date		2024/07/05			
COC Number		N/A			
	UNITS	MW5	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/L	<0.20	0.20	0.040	9506747
Toluene	ug/L	<0.20	0.20	0.040	9506747
Ethylbenzene	ug/L	<0.20	0.20	0.040	9506747
o-Xylene	ug/L	<0.20	0.20	0.040	9506747
p+m-Xylene	ug/L	<0.40	0.40	0.080	9506747
Total Xylenes	ug/L	<0.40	0.40	0.080	9506747
F1 (C6-C10)	ug/L	<25	25	20	9506747
F1 (C6-C10) - BTEX	ug/L	<25	25	20	9506747
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	50	9505660
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	70	9505660
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	50	9505660
Reached Baseline at C50	ug/L	Yes			9505660
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	98			9506747
4-Bromofluorobenzene	%	99			9506747
D10-o-Xylene	%	105			9506747
D4-1,2-Dichloroethane	%	101			9506747
o-Terphenyl	%	91			9505660

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOCS BY HS & F1-F4 (GROUND WATER)

Bureau Veritas ID		ZQW428				ZQW428			
Sampling Date		2024/07/05				2024/07/05			
COC Number		N/A				N/A			
	UNITS	MW1	RDL	MDL	QC Batch	MW1 Lab-Dup	RDL	MDL	QC Batch
Calculated Parameters									
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	0.50	9502378				
Volatile Organics									
Acetone (2-Propanone)	ug/L	<10	10	1.0	9505682	<10	10	1.0	9505682
Benzene	ug/L	<0.17	0.17	0.020	9505682	<0.17	0.17	0.020	9505682
Bromodichloromethane	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
Bromoform	ug/L	<1.0	1.0	0.10	9505682	<1.0	1.0	0.10	9505682
Bromomethane	ug/L	<0.50	0.50	0.10	9505682	<0.50	0.50	0.10	9505682
Carbon Tetrachloride	ug/L	<0.20	0.20	0.050	9505682	<0.20	0.20	0.050	9505682
Chlorobenzene	ug/L	<0.20	0.20	0.010	9505682	<0.20	0.20	0.010	9505682
Chloroform	ug/L	<0.20	0.20	0.050	9505682	<0.20	0.20	0.050	9505682
Dibromochloromethane	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
1,2-Dichlorobenzene	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
1,3-Dichlorobenzene	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
1,4-Dichlorobenzene	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	0.050	9505682	<1.0	1.0	0.050	9505682
1,1-Dichloroethane	ug/L	<0.20	0.20	0.050	9505682	<0.20	0.20	0.050	9505682
1,2-Dichloroethane	ug/L	<0.50	0.50	0.020	9505682	<0.50	0.50	0.020	9505682
1,1-Dichloroethylene	ug/L	<0.20	0.20	0.050	9505682	<0.20	0.20	0.050	9505682
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
1,2-Dichloropropane	ug/L	<0.20	0.20	0.050	9505682	<0.20	0.20	0.050	9505682
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	0.050	9505682	<0.30	0.30	0.050	9505682
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	0.050	9505682	<0.40	0.40	0.050	9505682
Ethylbenzene	ug/L	<0.20	0.20	0.010	9505682	<0.20	0.20	0.010	9505682
Ethylene Dibromide	ug/L	<0.20	0.20	0.050	9505682	<0.20	0.20	0.050	9505682
Hexane	ug/L	<1.0	1.0	0.10	9505682	<1.0	1.0	0.10	9505682
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	0.10	9505682	<2.0	2.0	0.10	9505682
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	0.50	9505682	<10	10	0.50	9505682
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	0.10	9505682	<5.0	5.0	0.10	9505682
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
Styrene	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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O.REG 153 VOCS BY HS & F1-F4 (GROUND WATER)

Bureau Veritas ID		ZQW428				ZQW428			
Sampling Date		2024/07/05				2024/07/05			
COC Number		N/A				N/A			
	UNITS	MW1	RDL	MDL	QC Batch	MW1 Lab-Dup	RDL	MDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	0.20	0.050	9505682	<0.20	0.20	0.050	9505682
Toluene	ug/L	<0.20	0.20	0.010	9505682	<0.20	0.20	0.010	9505682
1,1,1-Trichloroethane	ug/L	<0.20	0.20	0.050	9505682	<0.20	0.20	0.050	9505682
1,1,2-Trichloroethane	ug/L	<0.50	0.50	0.050	9505682	<0.50	0.50	0.050	9505682
Trichloroethylene	ug/L	<0.20	0.20	0.050	9505682	<0.20	0.20	0.050	9505682
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	0.10	9505682	<0.50	0.50	0.10	9505682
Vinyl Chloride	ug/L	<0.20	0.20	0.050	9505682	<0.20	0.20	0.050	9505682
p+m-Xylene	ug/L	<0.20	0.20	0.010	9505682	<0.20	0.20	0.010	9505682
o-Xylene	ug/L	<0.20	0.20	0.010	9505682	<0.20	0.20	0.010	9505682
Total Xylenes	ug/L	<0.20	0.20	0.010	9505682	<0.20	0.20	0.010	9505682
F1 (C6-C10)	ug/L	<25	25	20	9505682	<25	25	20	9505682
F1 (C6-C10) - BTEX	ug/L	<25	25	20	9505682	<25	25	20	9505682
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	50	9505660				
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	70	9505660				
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	50	9505660				
Reached Baseline at C50	ug/L	Yes			9505660				
Surrogate Recovery (%)									
o-Terphenyl	%	93			9505660				
4-Bromofluorobenzene	%	98			9505682	98			9505682
D4-1,2-Dichloroethane	%	107			9505682	109			9505682
D8-Toluene	%	91			9505682	90			9505682

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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O.REG 153 VOCS BY HS & F1-F4 (GROUND WATER)

Bureau Veritas ID		ZQW429	ZQW430				ZQW430			
Sampling Date		2024/07/05	2024/07/05				2024/07/05			
COC Number		N/A	N/A				N/A			
	UNITS	MW2	MW3	RDL	MDL	QC Batch	MW3 Lab-Dup	RDL	MDL	QC Batch
Calculated Parameters										
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	0.50	9502378				
Volatile Organics										
Acetone (2-Propanone)	ug/L	<10	27	10	1.0	9505682				
Benzene	ug/L	<0.17	0.28	0.17	0.020	9505682				
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	0.050	9505682				
Bromoform	ug/L	<1.0	<1.0	1.0	0.10	9505682				
Bromomethane	ug/L	<0.50	<0.50	0.50	0.10	9505682				
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	0.050	9505682				
Chlorobenzene	ug/L	<0.20	<0.20	0.20	0.010	9505682				
Chloroform	ug/L	<0.20	<0.20	0.20	0.050	9505682				
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	0.050	9505682				
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	0.050	9505682				
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	0.050	9505682				
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	0.050	9505682				
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	0.050	9505682				
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	0.050	9505682				
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	0.020	9505682				
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	0.050	9505682				
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	0.050	9505682				
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	0.050	9505682				
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	0.050	9505682				
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	0.050	9505682				
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	0.050	9505682				
Ethylbenzene	ug/L	<0.20	<0.20	0.20	0.010	9505682				
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	0.050	9505682				
Hexane	ug/L	<1.0	<1.0	1.0	0.10	9505682				
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	0.10	9505682				
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	0.50	9505682				
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	0.10	9505682				
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	0.050	9505682				
Styrene	ug/L	<0.50	<0.50	0.50	0.050	9505682				
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	0.050	9505682				
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	0.050	9505682				

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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O.REG 153 VOCS BY HS & F1-F4 (GROUND WATER)

Bureau Veritas ID		ZQW429	ZQW430				ZQW430			
Sampling Date		2024/07/05	2024/07/05				2024/07/05			
COC Number		N/A	N/A				N/A			
	UNITS	MW2	MW3	RDL	MDL	QC Batch	MW3 Lab-Dup	RDL	MDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	0.050	9505682				
Toluene	ug/L	0.55	0.87	0.20	0.010	9505682				
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	0.050	9505682				
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	0.050	9505682				
Trichloroethylene	ug/L	<0.20	<0.20	0.20	0.050	9505682				
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	0.10	9505682				
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	0.050	9505682				
p+m-Xylene	ug/L	<0.20	<0.20	0.20	0.010	9505682				
o-Xylene	ug/L	<0.20	<0.20	0.20	0.010	9505682				
Total Xylenes	ug/L	<0.20	<0.20	0.20	0.010	9505682				
F1 (C6-C10)	ug/L	<25	<25	25	20	9505682				
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	20	9505682				
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	50	9505660	<100	100	50	9505660
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	70	9505660	<200	200	70	9505660
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	50	9505660	<200	200	50	9505660
Reached Baseline at C50	ug/L	Yes	Yes			9505660	Yes			9505660
Surrogate Recovery (%)										
o-Terphenyl	%	92	91			9505660	92			9505660
4-Bromofluorobenzene	%	98	98			9505682				
D4-1,2-Dichloroethane	%	112	111			9505682				
D8-Toluene	%	90	90			9505682				

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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O.REG 153 VOCS BY HS & F1-F4 (GROUND WATER)

Bureau Veritas ID		ZQW431	ZQW433			
Sampling Date		2024/07/05	2024/07/05			
COC Number		N/A	N/A			
	UNITS	MW4	DUPW1	RDL	MDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	0.50	9502378
Volatile Organics						
Acetone (2-Propanone)	ug/L	<10	<10	10	1.0	9505682
Benzene	ug/L	<0.17	<0.17	0.17	0.020	9505682
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	0.050	9505682
Bromoform	ug/L	<1.0	<1.0	1.0	0.10	9505682
Bromomethane	ug/L	<0.50	<0.50	0.50	0.10	9505682
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	0.050	9505682
Chlorobenzene	ug/L	<0.20	<0.20	0.20	0.010	9505682
Chloroform	ug/L	<0.20	<0.20	0.20	0.050	9505682
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	0.050	9505682
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	0.050	9505682
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	0.050	9505682
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	0.050	9505682
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	0.050	9505682
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	0.050	9505682
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	0.020	9505682
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	0.050	9505682
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	0.050	9505682
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	0.050	9505682
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	0.050	9505682
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	0.050	9505682
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	0.050	9505682
Ethylbenzene	ug/L	<0.20	<0.20	0.20	0.010	9505682
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	0.050	9505682
Hexane	ug/L	<1.0	<1.0	1.0	0.10	9505682
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	0.10	9505682
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	0.50	9505682
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	0.10	9505682
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	0.050	9505682
Styrene	ug/L	<0.50	<0.50	0.50	0.050	9505682
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	0.050	9505682
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	0.050	9505682

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOCS BY HS & F1-F4 (GROUND WATER)

Bureau Veritas ID		ZQW431	ZQW433			
Sampling Date		2024/07/05	2024/07/05			
COC Number		N/A	N/A			
	UNITS	MW4	DUPW1	RDL	MDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	0.050	9505682
Toluene	ug/L	0.51	0.36	0.20	0.010	9505682
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	0.050	9505682
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	0.050	9505682
Trichloroethylene	ug/L	<0.20	<0.20	0.20	0.050	9505682
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	0.10	9505682
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	0.050	9505682
p+m-Xylene	ug/L	<0.20	<0.20	0.20	0.010	9505682
o-Xylene	ug/L	<0.20	<0.20	0.20	0.010	9505682
Total Xylenes	ug/L	<0.20	<0.20	0.20	0.010	9505682
F1 (C6-C10)	ug/L	<25	<25	25	20	9505682
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	20	9505682
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	50	9505660
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	70	9505660
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	50	9505660
Reached Baseline at C50	ug/L	Yes	Yes			9505660
Surrogate Recovery (%)						
o-Terphenyl	%	92	91			9505660
4-Bromofluorobenzene	%	97	98			9505682
D4-1,2-Dichloroethane	%	108	112			9505682
D8-Toluene	%	90	91			9505682

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4K7113
Report Date: 2024/07/15

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: AD

TEST SUMMARY

Bureau Veritas ID: ZQW428
Sample ID: MW1
Matrix: Ground Water

Collected: 2024/07/05
Shipped:
Received: 2024/07/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9502377	N/A	2024/07/11	Automated Statchk
1,3-Dichloropropene Sum	CALC	9502378	N/A	2024/07/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9505660	2024/07/10	2024/07/12	Anna Stuglik-Rolland
Dissolved Metals by ICPMS	ICP/MS	9508873	N/A	2024/07/12	Indira HarryPaul
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9505659	2024/07/10	2024/07/11	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9505682	N/A	2024/07/13	Gladys Guerrero

Bureau Veritas ID: ZQW428 Dup
Sample ID: MW1
Matrix: Ground Water

Collected: 2024/07/05
Shipped:
Received: 2024/07/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9505682	N/A	2024/07/13	Gladys Guerrero

Bureau Veritas ID: ZQW429
Sample ID: MW2
Matrix: Ground Water

Collected: 2024/07/05
Shipped:
Received: 2024/07/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9502377	N/A	2024/07/11	Automated Statchk
1,3-Dichloropropene Sum	CALC	9502378	N/A	2024/07/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9505660	2024/07/10	2024/07/12	Anna Stuglik-Rolland
Dissolved Metals by ICPMS	ICP/MS	9508873	N/A	2024/07/12	Indira HarryPaul
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9505659	2024/07/10	2024/07/10	Jonghan Yoon
pH	AT	9506497	2024/07/10	2024/07/11	Taslima Aktar
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9505682	N/A	2024/07/13	Gladys Guerrero

Bureau Veritas ID: ZQW429 Dup
Sample ID: MW2
Matrix: Ground Water

Collected: 2024/07/05
Shipped:
Received: 2024/07/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH	AT	9506497	2024/07/10	2024/07/11	Taslima Aktar

Bureau Veritas ID: ZQW430
Sample ID: MW3
Matrix: Ground Water

Collected: 2024/07/05
Shipped:
Received: 2024/07/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9502377	N/A	2024/07/11	Automated Statchk
1,3-Dichloropropene Sum	CALC	9502378	N/A	2024/07/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9505660	2024/07/10	2024/07/12	Anna Stuglik-Rolland
Dissolved Metals by ICPMS	ICP/MS	9508873	N/A	2024/07/12	Indira HarryPaul
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9505659	2024/07/10	2024/07/10	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9505682	N/A	2024/07/13	Gladys Guerrero

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Bureau Veritas Job #: C4K7113
Report Date: 2024/07/15

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: AD

TEST SUMMARY

Bureau Veritas ID: ZQW430 Dup
Sample ID: MW3
Matrix: Ground Water

Collected: 2024/07/05
Shipped:
Received: 2024/07/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9505660	2024/07/10	2024/07/12	Anna Stuglik-Rolland
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9505659	2024/07/10	2024/07/10	Jonghan Yoon

Bureau Veritas ID: ZQW431
Sample ID: MW4
Matrix: Ground Water

Collected: 2024/07/05
Shipped:
Received: 2024/07/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9502377	N/A	2024/07/11	Automated Statchk
1,3-Dichloropropene Sum	CALC	9502378	N/A	2024/07/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9505660	2024/07/10	2024/07/12	Anna Stuglik-Rolland
Dissolved Metals by ICPMS	ICP/MS	9508873	N/A	2024/07/12	Indira HarryPaul
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9505659	2024/07/10	2024/07/11	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9505682	N/A	2024/07/13	Gladys Guerrero

Bureau Veritas ID: ZQW432
Sample ID: MW5
Matrix: Ground Water

Collected: 2024/07/05
Shipped:
Received: 2024/07/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9502377	N/A	2024/07/11	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9506747	N/A	2024/07/11	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9505660	2024/07/10	2024/07/12	Anna Stuglik-Rolland
Dissolved Metals by ICPMS	ICP/MS	9508873	N/A	2024/07/12	Indira HarryPaul
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9505659	2024/07/10	2024/07/11	Jonghan Yoon
pH	AT	9506497	2024/07/10	2024/07/11	Taslima Aktar

Bureau Veritas ID: ZQW433
Sample ID: DUPW1
Matrix: Ground Water

Collected: 2024/07/05
Shipped:
Received: 2024/07/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9502377	N/A	2024/07/11	Automated Statchk
1,3-Dichloropropene Sum	CALC	9502378	N/A	2024/07/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9505660	2024/07/10	2024/07/12	Anna Stuglik-Rolland
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9505659	2024/07/10	2024/07/11	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9505682	N/A	2024/07/13	Gladys Guerrero

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Bureau Veritas Job #: C4K7113
Report Date: 2024/07/15

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: AD

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	9.3°C

Cooler custody seal was present and intact .

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9505659	D10-Anthracene	2024/07/10	101	50 - 130	104	50 - 130	100	%		
9505659	D14-Terphenyl (FS)	2024/07/10	107	50 - 130	109	50 - 130	106	%		
9505659	D8-Acenaphthylene	2024/07/10	94	50 - 130	96	50 - 130	97	%		
9505660	o-Terphenyl	2024/07/11	94	60 - 140	93	60 - 140	92	%		
9505682	4-Bromofluorobenzene	2024/07/13	104	70 - 130	101	70 - 130	97	%		
9505682	D4-1,2-Dichloroethane	2024/07/13	104	70 - 130	103	70 - 130	104	%		
9505682	D8-Toluene	2024/07/13	103	70 - 130	106	70 - 130	93	%		
9506747	1,4-Difluorobenzene	2024/07/11	97	70 - 130	95	70 - 130	97	%		
9506747	4-Bromofluorobenzene	2024/07/11	101	70 - 130	101	70 - 130	99	%		
9506747	D10-o-Xylene	2024/07/11	109	70 - 130	109	70 - 130	98	%		
9506747	D4-1,2-Dichloroethane	2024/07/11	99	70 - 130	98	70 - 130	98	%		
9505659	1-Methylnaphthalene	2024/07/10	95	50 - 130	94	50 - 130	<0.050	ug/L	NC	30
9505659	2-Methylnaphthalene	2024/07/10	93	50 - 130	93	50 - 130	<0.050	ug/L	NC	30
9505659	Acenaphthene	2024/07/10	104	50 - 130	104	50 - 130	<0.050	ug/L	NC	30
9505659	Acenaphthylene	2024/07/10	98	50 - 130	98	50 - 130	<0.050	ug/L	NC	30
9505659	Anthracene	2024/07/10	99	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
9505659	Benzo(a)anthracene	2024/07/10	95	50 - 130	100	50 - 130	<0.050	ug/L	NC	30
9505659	Benzo(a)pyrene	2024/07/10	91	50 - 130	97	50 - 130	<0.0090	ug/L	NC	30
9505659	Benzo(b/j)fluoranthene	2024/07/10	96	50 - 130	100	50 - 130	<0.050	ug/L	NC	30
9505659	Benzo(g,h,i)perylene	2024/07/10	90	50 - 130	95	50 - 130	<0.050	ug/L	NC	30
9505659	Benzo(k)fluoranthene	2024/07/10	87	50 - 130	92	50 - 130	<0.050	ug/L	NC	30
9505659	Chrysene	2024/07/10	96	50 - 130	101	50 - 130	<0.050	ug/L	NC	30
9505659	Dibenzo(a,h)anthracene	2024/07/10	80	50 - 130	85	50 - 130	<0.050	ug/L	NC	30
9505659	Fluoranthene	2024/07/10	108	50 - 130	109	50 - 130	<0.050	ug/L	NC	30
9505659	Fluorene	2024/07/10	93	50 - 130	92	50 - 130	<0.050	ug/L	NC	30
9505659	Indeno(1,2,3-cd)pyrene	2024/07/10	93	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
9505659	Naphthalene	2024/07/10	96	50 - 130	95	50 - 130	<0.050	ug/L	NC	30
9505659	Phenanthrene	2024/07/10	103	50 - 130	102	50 - 130	<0.030	ug/L	NC	30
9505659	Pyrene	2024/07/10	106	50 - 130	107	50 - 130	<0.050	ug/L	NC	30
9505660	F2 (C10-C16 Hydrocarbons)	2024/07/12	94	60 - 140	91	60 - 140	<100	ug/L	NC	30
9505660	F3 (C16-C34 Hydrocarbons)	2024/07/12	93	60 - 140	91	60 - 140	<200	ug/L	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9505660	F4 (C34-C50 Hydrocarbons)	2024/07/12	82	60 - 140	80	60 - 140	<200	ug/L	NC	30
9505682	1,1,1,2-Tetrachloroethane	2024/07/13	103	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
9505682	1,1,1-Trichloroethane	2024/07/13	106	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
9505682	1,1,2,2-Tetrachloroethane	2024/07/13	102	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
9505682	1,1,2-Trichloroethane	2024/07/13	104	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
9505682	1,1-Dichloroethane	2024/07/13	112	70 - 130	112	70 - 130	<0.20	ug/L	NC	30
9505682	1,1-Dichloroethylene	2024/07/13	108	70 - 130	110	70 - 130	<0.20	ug/L	NC	30
9505682	1,2-Dichlorobenzene	2024/07/13	92	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
9505682	1,2-Dichloroethane	2024/07/13	108	70 - 130	107	70 - 130	<0.50	ug/L	NC	30
9505682	1,2-Dichloropropane	2024/07/13	109	70 - 130	109	70 - 130	<0.20	ug/L	NC	30
9505682	1,3-Dichlorobenzene	2024/07/13	95	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
9505682	1,4-Dichlorobenzene	2024/07/13	94	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9505682	Acetone (2-Propanone)	2024/07/13	100	60 - 140	98	60 - 140	<10	ug/L	NC	30
9505682	Benzene	2024/07/13	103	70 - 130	104	70 - 130	<0.17	ug/L	NC	30
9505682	Bromodichloromethane	2024/07/13	105	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
9505682	Bromoform	2024/07/13	104	70 - 130	97	70 - 130	<1.0	ug/L	NC	30
9505682	Bromomethane	2024/07/13	88	60 - 140	88	60 - 140	<0.50	ug/L	NC	30
9505682	Carbon Tetrachloride	2024/07/13	106	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
9505682	Chlorobenzene	2024/07/13	98	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
9505682	Chloroform	2024/07/13	105	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
9505682	cis-1,2-Dichloroethylene	2024/07/13	106	70 - 130	106	70 - 130	<0.50	ug/L	NC	30
9505682	cis-1,3-Dichloropropene	2024/07/13	104	70 - 130	103	70 - 130	<0.30	ug/L	NC	30
9505682	Dibromochloromethane	2024/07/13	102	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
9505682	Dichlorodifluoromethane (FREON 12)	2024/07/13	81	60 - 140	83	60 - 140	<1.0	ug/L	NC	30
9505682	Ethylbenzene	2024/07/13	91	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9505682	Ethylene Dibromide	2024/07/13	104	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
9505682	F1 (C6-C10) - BTEX	2024/07/13					<25	ug/L	NC	30
9505682	F1 (C6-C10)	2024/07/13	85	60 - 140	93	60 - 140	<25	ug/L	NC	30
9505682	Hexane	2024/07/13	113	70 - 130	114	70 - 130	<1.0	ug/L	NC	30
9505682	Methyl Ethyl Ketone (2-Butanone)	2024/07/13	107	60 - 140	102	60 - 140	<10	ug/L	NC	30
9505682	Methyl Isobutyl Ketone	2024/07/13	101	70 - 130	95	70 - 130	<5.0	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9505682	Methyl t-butyl ether (MTBE)	2024/07/13	101	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
9505682	Methylene Chloride(Dichloromethane)	2024/07/13	105	70 - 130	105	70 - 130	<2.0	ug/L	NC	30
9505682	o-Xylene	2024/07/13	94	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
9505682	p+m-Xylene	2024/07/13	94	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9505682	Styrene	2024/07/13	75	70 - 130	77	70 - 130	<0.50	ug/L	NC	30
9505682	Tetrachloroethylene	2024/07/13	104	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
9505682	Toluene	2024/07/13	98	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
9505682	Total Xylenes	2024/07/13					<0.20	ug/L	NC	30
9505682	trans-1,2-Dichloroethylene	2024/07/13	102	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
9505682	trans-1,3-Dichloropropene	2024/07/13	110	70 - 130	111	70 - 130	<0.40	ug/L	NC	30
9505682	Trichloroethylene	2024/07/13	104	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
9505682	Trichlorofluoromethane (FREON 11)	2024/07/13	100	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9505682	Vinyl Chloride	2024/07/13	93	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9506497	pH	2024/07/11			101	98 - 103			0.049	N/A
9506747	Benzene	2024/07/11	103	50 - 140	101	50 - 140	<0.20	ug/L	NC	30
9506747	Ethylbenzene	2024/07/11	105	50 - 140	106	50 - 140	<0.20	ug/L	NC	30
9506747	F1 (C6-C10) - BTEX	2024/07/11					<25	ug/L	NC	30
9506747	F1 (C6-C10)	2024/07/11	116	60 - 140	115	60 - 140	<25	ug/L	NC	30
9506747	o-Xylene	2024/07/11	102	50 - 140	103	50 - 140	<0.20	ug/L	NC	30
9506747	p+m-Xylene	2024/07/11	100	50 - 140	100	50 - 140	<0.40	ug/L	NC	30
9506747	Toluene	2024/07/11	93	50 - 140	93	50 - 140	<0.20	ug/L	NC	30
9506747	Total Xylenes	2024/07/11					<0.40	ug/L	NC	30
9508873	Dissolved Antimony (Sb)	2024/07/12	106	80 - 120	104	80 - 120	<0.50	ug/L	8.3	20
9508873	Dissolved Arsenic (As)	2024/07/12	102	80 - 120	98	80 - 120	<1.0	ug/L	5.6	20
9508873	Dissolved Barium (Ba)	2024/07/12	101	80 - 120	99	80 - 120	<2.0	ug/L	0.98	20
9508873	Dissolved Beryllium (Be)	2024/07/12	103	80 - 120	100	80 - 120	<0.40	ug/L	NC	20
9508873	Dissolved Boron (B)	2024/07/12	96	80 - 120	96	80 - 120	<10	ug/L	2.0	20
9508873	Dissolved Cadmium (Cd)	2024/07/12	103	80 - 120	100	80 - 120	<0.090	ug/L	NC	20
9508873	Dissolved Chromium (Cr)	2024/07/12	97	80 - 120	94	80 - 120	<5.0	ug/L	NC	20
9508873	Dissolved Cobalt (Co)	2024/07/12	99	80 - 120	97	80 - 120	<0.50	ug/L	3.2	20
9508873	Dissolved Copper (Cu)	2024/07/12	95	80 - 120	93	80 - 120	<0.90	ug/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9508873	Dissolved Lead (Pb)	2024/07/12	98	80 - 120	98	80 - 120	<0.50	ug/L	NC	20
9508873	Dissolved Molybdenum (Mo)	2024/07/12	99	80 - 120	97	80 - 120	<0.50	ug/L	0.043	20
9508873	Dissolved Nickel (Ni)	2024/07/12	99	80 - 120	98	80 - 120	<1.0	ug/L	7.1	20
9508873	Dissolved Selenium (Se)	2024/07/12	97	80 - 120	98	80 - 120	<2.0	ug/L	NC	20
9508873	Dissolved Silver (Ag)	2024/07/12	98	80 - 120	96	80 - 120	<0.090	ug/L	NC	20
9508873	Dissolved Thallium (Tl)	2024/07/12	100	80 - 120	99	80 - 120	<0.050	ug/L	NC	20
9508873	Dissolved Uranium (U)	2024/07/12	105	80 - 120	101	80 - 120	<0.10	ug/L	1.9	20
9508873	Dissolved Vanadium (V)	2024/07/12	102	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
9508873	Dissolved Zinc (Zn)	2024/07/12	101	80 - 120	99	80 - 120	<5.0	ug/L	NC	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Bureau Veritas Job #: C4K7113
Report Date: 2024/07/15

Soil Engineers Ltd
Client Project #: 2108-E089
Site Location: HUMBER STATION ROAD, CALEDON
Sampler Initials: AD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Your Project #: HUMBER STATION ROAD, CALEDON
Your C.O.C. #: N/A

Attention: Madan K. Suwal

Soil Engineers Ltd
90 West Beaver Creek Road
Unit 100
Richmond Hill, ON
CANADA L4B 1E7

Report Date: 2024/07/10
Report #: R8228541
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4K7106
Received: 2024/07/08, 17:03

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
1,3-Dichloropropene Sum	1	N/A	2024/07/10		EPA 8260C m
Volatile Organic Compounds in Water	1	N/A	2024/07/10	CAM SOP-00228	EPA 8260D

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

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Your Project #: HUMBER STATION ROAD, CALEDON
Your C.O.C. #: N/A

Attention: Madan K. Suwal

Soil Engineers Ltd
90 West Beaver Creek Road
Unit 100
Richmond Hill, ON
CANADA L4B 1E7

Report Date: 2024/07/10
Report #: R8228541
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4K7106
Received: 2024/07/08, 17:03

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
10 Jul 2024 15:09:12

Please direct all questions regarding this Certificate of Analysis to:
Antonella Brasil, Senior Project Manager
Email: Antonella.Brasil@bureauveritas.com
Phone# (905)817-5817

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O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		ZQW392			
Sampling Date		2024/07/05			
COC Number		N/A			
	UNITS	TRIP BLANK	RDL	MDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	0.50	9502378
Volatile Organics					
Acetone (2-Propanone)	ug/L	<10	10	1.0	9505066
Benzene	ug/L	<0.20	0.20	0.020	9505066
Bromodichloromethane	ug/L	<0.50	0.50	0.050	9505066
Bromoform	ug/L	<1.0	1.0	0.10	9505066
Bromomethane	ug/L	<0.50	0.50	0.10	9505066
Carbon Tetrachloride	ug/L	<0.19	0.19	0.050	9505066
Chlorobenzene	ug/L	<0.20	0.20	0.010	9505066
Chloroform	ug/L	<0.20	0.20	0.050	9505066
Dibromochloromethane	ug/L	<0.50	0.50	0.050	9505066
1,2-Dichlorobenzene	ug/L	<0.40	0.40	0.050	9505066
1,3-Dichlorobenzene	ug/L	<0.40	0.40	0.050	9505066
1,4-Dichlorobenzene	ug/L	<0.40	0.40	0.050	9505066
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	0.050	9505066
1,1-Dichloroethane	ug/L	<0.20	0.20	0.050	9505066
1,2-Dichloroethane	ug/L	<0.49	0.49	0.020	9505066
1,1-Dichloroethylene	ug/L	<0.20	0.20	0.050	9505066
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	0.050	9505066
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	0.050	9505066
1,2-Dichloropropane	ug/L	<0.20	0.20	0.050	9505066
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	0.050	9505066
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	0.050	9505066
Ethylbenzene	ug/L	<0.20	0.20	0.010	9505066
Ethylene Dibromide	ug/L	<0.19	0.19	0.050	9505066
Hexane	ug/L	<1.0	1.0	0.10	9505066
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	0.10	9505066
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	0.50	9505066
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	0.10	9505066
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	0.050	9505066
Styrene	ug/L	<0.40	0.40	0.050	9505066
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	0.050	9505066
1,1,2,2-Tetrachloroethane	ug/L	<0.40	0.40	0.050	9505066
Tetrachloroethylene	ug/L	<0.20	0.20	0.050	9505066
Toluene	ug/L	<0.20	0.20	0.010	9505066
1,1,1-Trichloroethane	ug/L	<0.20	0.20	0.050	9505066

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		ZQW392			
Sampling Date		2024/07/05			
COC Number		N/A			
	UNITS	TRIP BLANK	RDL	MDL	QC Batch
1,1,2-Trichloroethane	ug/L	<0.40	0.40	0.050	9505066
Trichloroethylene	ug/L	<0.20	0.20	0.050	9505066
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	0.10	9505066
Vinyl Chloride	ug/L	<0.20	0.20	0.050	9505066
p+m-Xylene	ug/L	<0.20	0.20	0.010	9505066
o-Xylene	ug/L	<0.20	0.20	0.010	9505066
Total Xylenes	ug/L	<0.20	0.20	0.010	9505066
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	98			9505066
D4-1,2-Dichloroethane	%	110			9505066
D8-Toluene	%	101			9505066

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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TEST SUMMARY

Bureau Veritas ID: ZQW392
Sample ID: TRIP BLANK
Matrix: Water

Collected: 2024/07/05
Shipped:
Received: 2024/07/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9502378	N/A	2024/07/10	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	9505066	N/A	2024/07/10	Manpreet Sarao

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	9.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Bureau Veritas Job #: C4K7106
Report Date: 2024/07/10

QUALITY ASSURANCE REPORT

Soil Engineers Ltd
Client Project #: HUMBER STATION ROAD, CALEDON
Sampler Initials: ADI

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9505066	4-Bromofluorobenzene	2024/07/10	98	70 - 130	98	70 - 130	98	%		
9505066	D4-1,2-Dichloroethane	2024/07/10	113	70 - 130	106	70 - 130	107	%		
9505066	D8-Toluene	2024/07/10	100	70 - 130	102	70 - 130	101	%		
9505066	1,1,1,2-Tetrachloroethane	2024/07/10	106	70 - 130	108	70 - 130	<0.50	ug/L	NC	30
9505066	1,1,1-Trichloroethane	2024/07/10	107	70 - 130	111	70 - 130	<0.20	ug/L	NC	30
9505066	1,1,2,2-Tetrachloroethane	2024/07/10	135 (1)	70 - 130	128	70 - 130	<0.40	ug/L	NC	30
9505066	1,1,2-Trichloroethane	2024/07/10	128	70 - 130	122	70 - 130	<0.40	ug/L	NC	30
9505066	1,1-Dichloroethane	2024/07/10	123	70 - 130	124	70 - 130	<0.20	ug/L	1.4	30
9505066	1,1-Dichloroethylene	2024/07/10	129	70 - 130	133 (1)	70 - 130	<0.20	ug/L	NC	30
9505066	1,2-Dichlorobenzene	2024/07/10	103	70 - 130	104	70 - 130	<0.40	ug/L	NC	30
9505066	1,2-Dichloroethane	2024/07/10	123	70 - 130	118	70 - 130	<0.49	ug/L	NC	30
9505066	1,2-Dichloropropane	2024/07/10	120	70 - 130	118	70 - 130	<0.20	ug/L	NC	30
9505066	1,3-Dichlorobenzene	2024/07/10	110	70 - 130	114	70 - 130	<0.40	ug/L	NC	30
9505066	1,4-Dichlorobenzene	2024/07/10	111	70 - 130	114	70 - 130	<0.40	ug/L	NC	30
9505066	Acetone (2-Propanone)	2024/07/10	117	60 - 140	103	60 - 140	<10	ug/L	NC	30
9505066	Benzene	2024/07/10	NC	70 - 130	113	70 - 130	<0.20	ug/L	0.44	30
9505066	Bromodichloromethane	2024/07/10	112	70 - 130	110	70 - 130	<0.50	ug/L	NC	30
9505066	Bromoform	2024/07/10	95	70 - 130	93	70 - 130	<1.0	ug/L	NC	30
9505066	Bromomethane	2024/07/10	95	60 - 140	97	60 - 140	<0.50	ug/L	NC	30
9505066	Carbon Tetrachloride	2024/07/10	106	70 - 130	110	70 - 130	<0.19	ug/L	NC	30
9505066	Chlorobenzene	2024/07/10	108	70 - 130	110	70 - 130	<0.20	ug/L	NC	30
9505066	Chloroform	2024/07/10	115	70 - 130	115	70 - 130	<0.20	ug/L	NC	30
9505066	cis-1,2-Dichloroethylene	2024/07/10	115	70 - 130	113	70 - 130	<0.50	ug/L	NC	30
9505066	cis-1,3-Dichloropropene	2024/07/10	111	70 - 130	113	70 - 130	<0.30	ug/L	NC	30
9505066	Dibromochloromethane	2024/07/10	107	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
9505066	Dichlorodifluoromethane (FREON 12)	2024/07/10	91	60 - 140	97	60 - 140	<1.0	ug/L	NC	30
9505066	Ethylbenzene	2024/07/10	106	70 - 130	111	70 - 130	<0.20	ug/L	NC	30
9505066	Ethylene Dibromide	2024/07/10	114	70 - 130	109	70 - 130	<0.19	ug/L	NC	30
9505066	Hexane	2024/07/10	135 (1)	70 - 130	139 (1)	70 - 130	<1.0	ug/L	NC	30
9505066	Methyl Ethyl Ketone (2-Butanone)	2024/07/10	128	60 - 140	111	60 - 140	<10	ug/L	NC	30
9505066	Methyl Isobutyl Ketone	2024/07/10	124	70 - 130	113	70 - 130	<5.0	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9505066	Methyl t-butyl ether (MTBE)	2024/07/10	113	70 - 130	111	70 - 130	<0.50	ug/L	NC	30
9505066	Methylene Chloride(Dichloromethane)	2024/07/10	120	70 - 130	117	70 - 130	<2.0	ug/L	NC	30
9505066	o-Xylene	2024/07/10	103	70 - 130	108	70 - 130	<0.20	ug/L	NC	30
9505066	p+m-Xylene	2024/07/10	108	70 - 130	113	70 - 130	<0.20	ug/L	NC	30
9505066	Styrene	2024/07/10	108	70 - 130	111	70 - 130	<0.40	ug/L	NC	30
9505066	Tetrachloroethylene	2024/07/10	104	70 - 130	110	70 - 130	<0.20	ug/L	NC	30
9505066	Toluene	2024/07/10	108	70 - 130	112	70 - 130	<0.20	ug/L	2.3	30
9505066	Total Xylenes	2024/07/10					<0.20	ug/L	NC	30
9505066	trans-1,2-Dichloroethylene	2024/07/10	116	70 - 130	118	70 - 130	<0.50	ug/L	NC	30
9505066	trans-1,3-Dichloropropene	2024/07/10	123	70 - 130	124	70 - 130	<0.40	ug/L	NC	30
9505066	Trichloroethylene	2024/07/10	106	70 - 130	110	70 - 130	<0.20	ug/L	NC	30
9505066	Trichlorofluoromethane (FREON 11)	2024/07/10	102	70 - 130	106	70 - 130	<0.50	ug/L	NC	30
9505066	Vinyl Chloride	2024/07/10	113	70 - 130	116	70 - 130	<0.20	ug/L	NC	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) The recovery was above the upper control limit. This may represent a high bias in some results for this specific analyte. For results that were not detected (ND), this potential bias has no impact.

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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