Soil Engineers Ltd.
CONSULTING ENGINEERS
GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE
90 WEST BEAVER CREEK ROAD, SUITE 100, RICHMOND HILL, ONTARIO L4B 1E7 · TEL: (416) 754-8515 · FAX: (905) 881-8335

BARRIE	MISSISSAUGA	OSHAWA	NEWMARKET	MUSKOKA	HAMILTON
TEL: (705) 721-7863	TEL: (905) 542-7605	TEL: (905) 440-2040	TEL: (905) 853-0647	TEL: (705) 684-4242	TEL: (905) 777-7956
FAX: (705) 721-7864	FAX: (905) 542-2769	FAX: (905) 725-1315	FAX: (905) 881-8335	FAX: (705) 684-8522	FAX: (905) 542-2769

A REPORT TO

FRONTENAC FOREST ESTATES INC.

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

PROPOSED RESIDENTIAL DEVELOPMENT

6647 TRAFALGAR ROAD

TOWN OF MILTON

Reference No. 1910-E004

September 18, 2024

DISTRIBUTION

3 Copies – Frontenac Forest Estates Inc.

LIMITATIONS OF LIABILITY

This report was prepared by Soil Engineers Ltd. for the account of Frontenac Forest Estates Inc. and for review by their designated agents, financial institutions and government agencies. Use of the report is subject to the conditions and limitation of the contractual agreement. The material in it reflects the judgement of Madan K. Suwal, PhD, EIT, EPt., Simon Xian, P.Eng., QP_{ESA} and Arshad Shaikh, M.Sc., P.Eng., QP_{ESA}, in light of the information available at the time of preparation. Any use which a Third Party makes of this report, and/or any reliance on decisions to be made based on it, is the responsibility of such Third Parties. Soil Engineers Ltd. accepts no responsibility for damages, if any, suffered by any Third Party as a result of decisions made or actions based on this report.

One must understand that the mandate of Soil Engineers Ltd. is to obtain readily available past and present information pertinent to the subject site and to analyze representative soil samples for a Phase Two Environmental Site Assessment only. No other warranty or representation, expressed or implied, as to the accuracy of the information is included or intended by this assessment. Site conditions, environmental or otherwise, are not static and this report documents site conditions observed at the time of the last sampling.

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.

TABLE OF CONTENTS

TABLES

DRAWINGS

APPENDICES

1.0 EXECUTIVE SUMMARY

Soil Engineers Ltd. (SEL) was retained by Frontenac Forest Estates Inc. 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) for a property located at 6647 Trafalgar Road, in the Town of Milton, 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 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/ Parkland/ Institutional property use for coarse grain soil (Table 2 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 2 Standards. Consequently, there are no contaminants identified at the subject site at a concentration above the applicable site condition standards (Table 2 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 residential development. No further environmental investigation is recommended at this time.

2.0 INTRODUCTION

Soil Engineers Ltd. (SEL) was retained by Frontenac Forest Estates Inc. 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) for a property located at 6647 Trafalgar Road, in the Town of Milton, 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, rectangular in shape and approximately of 0.30 hectares (ha) (0.76 acres (ac)) in area, is located at 6647 Trafalgar Road, in the Town of Milton. The subject site is a part of Property Identification Number (PIN): 24938-0178 (LT). The legal descriptions of the property from parcel registry is: "LOT 10 CONCESSION 8 TRAFALGAR NEW SURVEY BEING PART 1 20R18929, PART 1 20R19185, PART 1 20R19184, PART 1 20R19218 AND PARTS 1 AND 2 20R21632; TOWN OF MILTON".

At the time of this assessment, the subject site has been used for agricultural purpose. The neighbouring properties consists of farm fields to the northwest, north, east and south, a commercial nursery to the southwest of the subject site.

2.2 Property Ownership

This Phase Two ESA was commissioned to address any potential environmental concern associated with the proposed residential development. Our client can be contacted at:

Frontenac Forest Estates Inc.
8600 Dufferin Street
Vaughan, Ontario
L4K 5P5

Attention: Mr. Sang Kim

2.3 Current and Proposed Future Uses

The subject site is comprised farm field which was formerly used for residential purpose. A residential 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 environmentally sensitive based on the definition set forth in Ontario Regulation 153/04 as amended, as the property 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.
- No watercourse or water bodies are located at or within 30 metres (m) from the subject site.
- Based on the information obtained from the Phase One ESA, water wells are documented at neighbouring properties within the Phase One Study Area.
- Full depth generic site condition standards is to be used in this assessment.
- The intended property use of the subject site is residential.

- No grain size analysis was performed during this Phase Two ESA, therefore, the, coarse textured soil standards has been applied.

Based on the above information, the Ministry of the Environment, Conservation and Parks (MECP) Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/ Parkland/ Institutional Property Use for coarse grain soil (Table 2 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 has been selected for evaluating the environmental conditions at the subject sit.

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 area of the Town of Milton. The neighbouring properties consists of farm fields to the northwest, north, east and south, a commercial nursery to the southwest of the subject site.

According to the Surface Geology Map of the Phase One Study Area, the subject site is underlain by Halton Till deposit with materials documented as 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 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 16 metres below ground surface (mbgs).

The overall grade of the subject site descends towards the southerly direction. A watershed map obtained from the Land Information Ontario (LIO), dated 2024, shows that the subject site is located within the Sixteen Mile Creek – Credit 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 site, there is no notable features located in the vicinity 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 Residential Development, 6647 Trafalgar Road, Town of Milton, SEL Reference No. 1910-E004, dated September 18, 2024.

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 the possible use of pesticides during agricultural activities at majority of the subject site.

APEC 2: Potential soil impact due to presence of former fuel oil above-ground storage tank (AST) in the basement of former residential building at middle portion of the subject site.

APEC 3: Potential soil and groundwater impact due to presence of commercial nursery businesses and waste generator located at 6750 Trafalgar Road, approximately 35 m to the southwest 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 5.3 meters below ground surface (mbgs) for sampling, soil profiling and hydrological study, and carryout two (2) hand-dug tests pit (designated as TP1 and TP2) 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 three (3) monitoring wells at boreholes BH1 to BH3 locations (designated at BH/MW1 to BH/MW3) for groundwater flow direction, sampling, testing and monitoring.
- Carry out an analytical testing program on selected soil samples including quality assurance and quality control (QA/QC) samples for one or more of the following parameters: Volatile Organic Compounds (VOCs), Petroleum Hydrocarbons (PHCs), Benzene, Toluene, Ethylbenzene, Xylene (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), Organochlorine Pesticides (OCs), Metals, Arsenic (As), Antimony (Sb), Selenium (Se), Mercury (Hg), Chromium Hexavalent (Cr (VI)), Cyanides (CN^-) and pH parameters.

- Review analytical testing results of submitted soil and groundwater samples using applicable Site Condition Standards.
- Prepare a Phase Two ESA report presenting 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 Geoprobe equipped with shelby tube 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 three (3) borehole locations (designated at BH/MW1 to BH/MW3) as part Phase Two ESA investigation. The monitoring wells were constructed using 50 millimeter (mm) diameter flush-joint threaded PVC monitoring well supplies. At each monitoring well location, the above ground risers were protected by steel monument casings that have been sealed into the ground with concrete. 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 two (2) hand-dug test pits, installation of three (3) 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.

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 Limited).

The field work for the Phase Two ESA was conducted during August 6, 2024 for boreholes up to maximum depths of 5.3 mbgs. Borehole drilling and installation of monitoring wells

were completed by SL Sonic Soil Limited, MECP approved licensed well contractors for groundwater observation, sampling and testing at the subject site. Two (2) test pit samples were also collected on August 6, 2024. The locations of the boreholes and test pits are shown in Drawing No. 2.

All boreholes were advanced with Geoprobe equipped with shelby tube sampler, supplied by drilling contractors. 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 Geoprobe equipped with 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, the subject site is generally underlain by deposits of silty clay 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 three (3) monitoring wells were installed at the subject site by SL Sonic Soil Limited, an MECP approved licensed well contractor. The monitoring wells were constructed using 50 mm diameter PVC screen, 3.0 m in length 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 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 August 16, 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 August 20, 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 August 20, 2024 are presented in Table II.

5.7 Groundwater: Sampling

Groundwater sampling was conducted on August 20, 2024, after purging and allows the 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 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, the subject site is generally underlain by deposits of silty clay 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 0.3 m thickness, was encountered at borehole BH1, BH2, BH4, BH7, and BH8 locations.

Silty clay

Silty clay deposits were encountered at all borehole location from surface or underneath topsoil to the termination depths 4.6 to 5.3 mbgs.

Sandy Silt

Sandy silt deposits were encountered at borehole BH2 locations underneath top soil to 0.8 mbgs, between the depth of 1.5 to 2.3 mbgs and 3.0 to 3.8 mbgs. Sandy silt deposit was also encountered at borehole BH3 location from surface to the depth of 0.3 mbgs.

Hydrogeology

Upon completion of drilling, all the borehole remained dry except boreholes BH1 and BH3.

This hydrogeologic unit at the subject site was investigated for the Phase Two ESA.

6.2 Groundwater: Elevations and Flow Direction

Three (3) monitoring wells (designated BH/MW1 to BH/MW3) were installed at borehole locations BH1 to BH3 during the field investigation for the Phase Two ESA on August 6, 2024. The monitoring wells were installed at depths ranging from 5.3 mbgs.

On August 20, 2024, during the groundwater monitoring event, water levels were recorded at depths of 1.1, 1.3 and 1.0 mbgs in the monitoring wells BH/MW1, BH/MW2 and BH/MW3 respectively. The corresponding water level elevations were recorded as 188.8, 188.7 and 189.1 meters above sea level (masl) in BH/MW1, BH/MW2 and BH/MW3 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 easterly direction in western portion and southerly in eastern 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 0.0028 and 0.016 m/m (average 0.0091 m/m).

6.4 Fine-Medium Soil Texture

No grain size analysis was conducted as part of this investigation. Therefore, coarse grain textured soil standards were applied.

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 15 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 PHCs, BTEX, VOCs, PAHs, OCs, Metals, As, Sb, Se, Hg, Cr (VI), CN^- and pH parameters.

The soil test results were reviewed using the MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/ Parkland/ Institutional property use for coarse grain soil (Table 2 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), CN^-, pH

Twelve (12) original soil samples and one (1) field duplicate sample were submitted for analyses of Metals, As, Sb, Se, Hg, Cr(VI), CN^- and pH parameters. The test results indicate that the tested parameters in the soil samples at the tested locations met the Table 2 Standards.

Organochlorine Pesticides (OCs)

Nine (9) original soil samples and two (2) field duplicate samples were submitted for analyses of OCs. The test results indicate that the tested parameters in the soil samples at the tested locations met the Table 2 Standards.

Volatile Organic Compounds (VOCs)

Two (2) original soil samples and one (1) field duplicate sample were submitted for analyses of VOCs. The test results indicate that the tested parameters in the soil samples at the tested locations met the Table 2 Standards.

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

Five (5) original soil samples and one (1) field duplicate sample were submitted for analyses of PHCs and/or BTEX. The test results indicate that the tested parameters in the soil samples at the tested locations met the Table 2 Standards.

Polycyclic Aromatic Hydrocarbons (PAHs)

Two (2) original soil samples were submitted for analyses of PAHs. The test results indicate

that the tested parameters in the soil samples at the tested locations met the Table 2 Standards.

6.7 Groundwater Quality

Groundwater samples were collected from two (2) monitoring wells at the subject site. The groundwater samples were submitted to the laboratory for chemical analyses of OCs, PHCs, VOCs, PAHs and Metals parameters.

The groundwater test results were reviewed using Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for all property use for coarse grain soil (Table 2 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

Two (2) set of original groundwater samples were submitted for analyses of Metal parameters. The test results indicate the tested groundwater sample at tested location met the Table 2 Standards.

Volatile Organic Compounds (VOCs)

Two (2) set of original groundwater sample, one (1) set of field duplicate and one (1) trip blank were submitted for analyses of VOCs. The test results indicate the tested groundwater sample at tested location met the Table 2 Standards.

Petroleum Hydrocarbons (PHCs)

Two (2) set of original groundwater sample was submitted for analyses of PHCs. The test results indicate the tested groundwater sample at tested location met the Table 2 Standards.

Polycyclic Aromatic Hydrocarbons (PAHs)

Two (2) set of original groundwater sample was submitted for analyses of PAHs. The test results indicate the tested groundwater sample at tested location met the Table 2 Standards.

Organochlorine Pesticides (OCs)

Two (2) set of original groundwater sample was submitted for analyses of OCs. The test results indicate the tested groundwater sample at tested location met the Table 2 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, VOCs, PHCs and OCs for soil and VOCs and PHCs in 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 in soil and 1 set of field duplicate in groundwater samples 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	BH2/3	Soil	VOCs, PCHs
DUPS2	BH8/1A	Soil	OCs
DUPS3	TP1	Soil	Metals
DUPS4	TP2	Soil	OCs
DUPW1	MW1	Groundwater	VOCs

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 along with groundwater samples. 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

This Phase Two Conceptual Site Model has been prepared as part of a Phase Two Environmental Site Assessment (Phase Two ESA) for the Record of Site Condition (RSC) Property located at 6647 Trafalgar Road, in the Town of Milton, Ontario (hereafter referred to as the "subject site").

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) for the subject site.

6.10.1 **Description and Assessment**

The subject site, rectangular in shape and approximately of 0.33 hectares (ha) (076 acres (ac)) in area, is located at 6647 Trafalgar Road, in the Town of Milton. The subject site is a part of Property Identification Number (PIN): 24938-0178 (LT). The legal descriptions of the property from parcel registry is: "LOT 10 CONCESSION 8 TRAFALGAR NEW SURVEY BEING PART 1 20R18929, PART 1 20R19185, PART 1 20R19184, PART 1 20R19218 AND PARTS 1 AND 2 20R21632; TOWN OF MILTON".

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 PCAs

- 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.
- Presence of former fuel oil AST for heating oil was located in the basement of former residential building located at middle portion of the subject site. #28 – Gasoline and Associated Products Storage in Fixed Tanks

Off-site PCAs

- One (1) commercial business associated with records of commercial nursery (i.e.

Van Dongen's Landscaping and Nurseries Ltd.) is located at 6750 Trafalgar Road, located approximately 35 m to the southwest of the subject site. #40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications.

- Possible use of pesticides as a part of agricultural activities at neighbouring property located to the north of the subject site. #40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications.
- Possible use of pesticides as a part of agricultural activities at neighbouring property located to the east of the subject site. #40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications.
- Possible use of pesticides as a part of agricultural activities at neighbouring property located to the south of the subject site. #40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications.

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

- One (1) commercial business (i.e. Van Dongen's Ltd.) associated with records of waste generator is located at 6750 Trafalgar Road, approximately 35 m to the southwest of the subject site. #Other – Waste Generator
- One (1) historical spill incident of 25 L diesel fuel to gravel shoulder is documented between 6583 and 6541 Trafalgar Road, approximately 200 m southeast of the subject site. #Other – Spill Incident

The on-site PCAs and two off-site PCAs namely commercial nursery and records of waste generators at 6750 Trafalgar Road 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 PCA (i.e. Spill Incident) and type/nature of the contaminants (i.e. localize impact of pesticide use on agriculture lands), these PCAs 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 the possible use of pesticides during agricultural activities at majority of the subject site.

APEC 2: Potential soil impact due to presence of former of AST in the basement of former residential building at middle portion of the subject site.

APEC 3: Potential soil and groundwater impact due to presence of commercial nursery businesses and waste generator located at 6750 Trafalgar Road, approximately 35 m to the southwest 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 field. 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 Halton Till deposit with materials documented as predominantly silt to silty clay matrix, high in matrix carbonate content and clast poor. The Bedrock Geology Map shows the subject site is is underlain by bedrock of Queenston Formation 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 4.6 to 5.3 mbgs and carrying out two (2) test pits to maximum depth of 0.3 mbgs. The subsoil conditions at the borehole locations indicated that beneath the layer of topsoil, the subject site is generally underlain by deposits of silty clay 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 Sixteen Mile Creek – Credit River Watershed.

A total of three (3) monitoring wells were installed at the subject site during the field investigation for the Phase Two ESA investigation. The monitoring wells BH/MW1 to BH/MW3 were installed at the depths of 5.3 mbgs. Based on the groundwater records of Phase Two ESA monitoring wells, the groundwater flow direction appears to be southerly direction at 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 0.0028 and 0.016 m/m (average 0.0091 m/m).

6.10.2.3 Approximate Depth to Bedrock

Bedrock was not encountered at the subject site during the field investigation within the maximum drilling depth of 5.3 mbgs. According to the Bedrock Topography Series, depth to bedrock in general vicinity of the subject site is approximately 16 mbgs.

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 1.0 to 1.3 mbgs on August 20, 2024.

6.10.2.5 Section 35 and Section 41 or 43.1 of the Regulation

Based on the records review, water wells are documented for properties within the 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 and the analytical testing indicated that pH of the tested surface soil samples was between 5 and 9 and subsurface soil samples are between 5 and 11. Section 41 of the regulation (Site Condition Standards, Environmental Sensitive Areas) does not apply to the subject site.

The subject site is not a shallow soil property, as the bedrock was not encountered within 2.0 mbgs during the investigation. In addition, there is no water body at the subject site or within 30 m from the subject site boundaries. Therefore, Section 43.1 of the O. Reg. 153/04 (Site Condition Standards, Shallow Soil Property or Water Body) does not 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 our Phase One ESA and the field investigation of the Phase Two ESA did not

indicate fill material at the subject site. No soil has been brought to the subject site during the Phase Two ESA.

6.10.2.7 Proposed Building and Other Structures

A residential 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 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/ Parkland/ Institutional property use for coarse grain soil (Table 2 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 sample to the

maximum depth of 0.3 mbgs were submitted for chemical analyses from seven (7) different locations.

APEC 2: Soil samples were submitted for chemical analyses of PHCs, BTEX and Metal parameters. Soil samples were submitted from the depth of 1.2 to 1.5 mbgs and 1.5 to 2.3 mbgs from three (3) different locations.

APEC 3: Soil and groundwater samples were submitted for chemical analyses of OCs, PHCs, VOCs, PAHs, Metals, As, Se, Sb, Hg, Cr (VI), CN^-, pH parameters. Soil samples were submitted from the depth of 3.5 to 4.0 mbgs, 4.0 to 4.6 mbgs and 1.5 to 2.3 mbgs from two (2) different locations for chemical analyses. Groundwater monitoring wells screen were installed at depth of 2.3 to 5.3 mbgs with sand filter pack from 1.7 to 5.3 mbgs.

A review of the analytical test results of soil and groundwater samples indicated that the tested samples for the tested parameters at tested locations met the Table 2 Standards.

Consequently, there are no contaminants identified at the test locations at a concentration above the applicable site condition standards (Table 2 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 2 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 the possible use of pesticides during agricultural activities at majority of the subject site.

APEC 2: Potential soil impact due to presence of former AST in the basement of former residential building at middle portion of the subject site.

APEC 3: Potential soil and groundwater impact due to presence of commercial nursery businesses and waste generator located at 6750 Trafalgar Road, approximately 35 m to the southwest 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 5.3 meters below ground surface (mbgs) for sampling, soil profiling and hydrological study, and carryout two (2) hand-dug tests pit (designated as TP1 and TP2) to a depth of 0.3 mbgs.
- The subsoil conditions at the borehole locations indicated that beneath the layer of topsoil, the subject site is generally underlain by deposits of silty clay 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 over 15 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 Volatile Organic Compounds (VOCs), Petroleum Hydrocarbons (PHCs), Benzene, Toluene, Ethylbenzene, Xylene (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), Organochlorine Pesticides (OCs), Metals, Arsenic (As), Antimony (Sb), Selenium (Se), Mercury (Hg), Chromium Hexavalent (Cr (VI)), Cyanides (CN^-) and pH parameters.
- Installed three (3) monitoring wells at BH1 to BH3 locations (designated at BH/MW1 to BH/MW3) for groundwater flow direction, sampling, testing and monitoring.
- No visible sheen or odour was recorded in the groundwater at any of the monitoring wells installed at the subject site. Groundwater samples were collected from two (2) monitoring well 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), Organochlorine Pesticides (OCs), 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 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 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/ Parkland/ Institutional property use for coarse grain soil (Table 2 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 2 Standards. Consequently, there are no contaminants identified at the subject site at a concentration above the applicable site condition standards (Table 2 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 residential development. No further environmental investigation is recommended at this time.

SOIL ENGINEERS LTD.

Madan K. Suwal, PhD, EIT, EPt.

Simon Xian, P.Eng., QP$_{ESA}$

LICENSED PROFESSIONAL ENGINEER
S. XIAN
100510327
Sept. 18, 2024
PROVINCE OF ONTARIO

LICENSED PROFESSIONAL ENGINEER
A. SHAIKH
100196680
PROVINCE OF ONTARIO
Sept 18, 2024

Arshad Shaikh, M.Sc., P.Eng., QP$_{ESA}$

MKS/SX/AS: mks

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.

Soil Engineers Ltd.
CONSULTING ENGINEERS
GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE
90 WEST BEAVER CREEK ROAD, SUITE 100, RICHMOND HILL, ONTARIO L4B 1E7 · TEL: (416) 754-8515 · FAX: (905) 881-8335

BARRIE	MISSISSAUGA	OSHAWA	NEWMARKET	MUSKOKA	HAMILTON
TEL: (705) 721-7863	TEL: (905) 542-7605	TEL: (905) 440-2040	TEL: (905) 853-0647	TEL: (705) 721-7863	TEL: (905) 777-7956
FAX: (705) 721-7864	FAX: (905) 542-2769	FAX: (905) 725-1315	FAX: (905) 881-8335	FAX: (705) 721-7864	FAX: (905) 542-2769

TABLES

Reference No. 1910-E004

Reference No. 1910-E004
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	5.3	3.0	5.3 - 2.3	5.3 - 1.7	0.3 - 1.7	0.0 - 0.3
BH/MW2	5.3	3.0	5.3 - 2.3	5.3 - 1.7	0.3 - 1.7	0.0 - 0.3
BH/MW3	5.3	3.0	5.3 - 2.3	5.3 - 1.7	0.3 - 1.7	0.0 - 0.3

Note: mbgs – meters below ground surface

Reference No. 1910-E004

Table II – Water Levels

Monitoring Well I.D.	Ground Elevation (masl)	Measured Groundwater Level		Field Observations		
		August 20, 2024				
		Depth (mbgs)	Elevation (m)	Odour	Colour	Sheen or Free Product
BH/MW1	189.9	1.1	188.8	None	Clear	None
BH/MW2	190.0	1.3	188.7	None	Clear	None
BH/MW3	190.1	1.0	189.1	None	Clear	None

Soil Engineers Ltd.

Table III

SOIL CHEMICAL ANALYSIS - Inorganics Parameters

Project No. 1910-E004

Sample ID		BH1/1A	BH1/5B	BH2/3	BH3/2B	BH4/1A	BH4/3	BH5/2B	BH6/1A	BH7/1A	BH8/1A	TP1	DUPS3	TP2	
Sample Date		06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	Ontario Regulation
Laboratory ID	RDL*	ZYD997	ZYD995	ZYD994	ZYE010	ZYE004	ZYE008	ZYE009	ZYE001	ZYE000	ZYD999	ZYE005	ZYE003	ZYE006	153/04 Table 2 RPI Standard**
Bore Hole/TP No.		BH1	BH1	BH2	BH3	BH4	BH4	BH5	BH6	BH7	BH8	TP1	TP1	TP2	
Depth (mbgs)		0.0 - 0.3	3.5 - 4.0	1.5 - 2.3	1.2 - 1.5	0.0 - 0.3	1.5 - 2.3	1.2 - 1.5	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	0.0 - 0.3	
Antimony	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	7.5
Arsenic	1	3	6.1	4.9	4.3	3.3	5.7	5.9	3.2	3	2.5	3.1	3.3	3.8	18
Barium	0.5	46	39	46	85	34	100	66	33	21	35	30	34	67	390
Beryllium	0.2	0.45	0.53	0.49	0.66	0.36	0.78	0.73	0.39	0.35	0.32	0.36	0.36	0.61	4
Cadmium	0.1	0.14	<0.10	<0.10	0.12	0.17	<0.10	<0.10	0.15	0.14	0.11	0.17	0.15	0.19	1.2
Chromium	1	14	20	18	22	12	25	23	12	8.9	11	11	12	19	160
Chromium VI	0.18	<0.18	<0.18	<0.18	-	<0.18	-	-	<0.18	<0.18	<0.18	<0.18	-	<0.18	8
Cobalt	0.1	4.6	12	6.7	12	4.7	16	14	4.8	3.8	3.7	4.4	4.8	7.1	22
Copper	0.5	15	27	50	27	16	35	31	16	12	9.3	14	16	26	140
Lead	1	17	7.1	10	15	14	12	12	13	11	9.7	14	12	17	120
Mercury	0.05	<0.050	<0.050	0.052	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.27
Molybdenum	0.5	<0.50	<0.50	<0.50	<0.50	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	6.9
Nickel	0.5	11	26	22	27	11	34	32	11	7.6	8.1	9.3	11	18	100
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	2.4
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	20
Thallium	0.05	0.11	0.11	0.12	0.17	0.087	0.19	0.15	0.093	0.08	0.087	0.086	0.089	0.11	1
Vanadium	5	24	26	29	31	22	33	31	21	17	19	19	20	28	86
Zinc	5	48	56	47	67	42	69	69	38	28	34	42	39	64	340
pH (pH Units)	-	-	7.98	7.43	-	-	-	-	-	-	-	7.31	-	7.54	-
Cyanide, Free	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	8.5	5.5	8.7	<5.0	12	9	<5.0	<5.0	<5.0	<5.0	<5.0	6.6	120
Uranium	0.05	0.79	1	0.64	0.69	0.47	0.57	0.57	0.46	0.34	0.44	0.47	0.46	0.56	23

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 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional property use for coarse grain soil

Soil Engineers Ltd.

SOIL CHEMICAL ANALYSIS - Volatile Organic Compound (VOCs) Parameters

Project No. 1910-E004

Sample ID	RDL*	BH1/5B	BH2/3	DUPS1	Ontario Regulation 153/04 Table 2 RPI Standard**
Sample Date		06-August-2024	06-August-2024	06-August-2024	
Laboratory ID		ZYD995	ZYD994	ZYD998	
Bore Hole No.		BH1	BH2	BH2	
Depth (mbgs)		3.5 - 4.0	1.5 - 2.3	1.5 - 2.3	
Acetone	0.49	<0.49	<0.49	<0.49	16
Benzene	0.006	<0.0060	<0.0060	<0.0060	0.21
Bromodichloromethane	0.04	<0.040	<0.040	<0.040	1.5
Bromoform	0.04	<0.040	<0.040	<0.040	0.27
Bromomethane	0.04	<0.040	<0.040	<0.040	0.05
Carbon Tetrachloride	0.04	<0.040	<0.040	<0.040	0.05
Chlorobenzene	0.04	<0.040	<0.040	<0.040	2.4
Chloroform	0.04	<0.040	<0.040	<0.040	0.05
Dibromochloromethane	0.04	<0.040	<0.040	<0.040	2.3
1,2-Dichlorobenzene	0.04	<0.040	<0.040	<0.040	1.2
1,3-Dichlorobenzene	0.04	<0.040	<0.040	<0.040	4.8
1,4-Dichlorobenzene	0.04	<0.040	<0.040	<0.040	0.083
1,1-Dichloroethane	0.04	<0.040	<0.040	<0.040	0.47
1,2-Dichloroethane	0.049	<0.049	<0.049	<0.049	0.05
1,1-Dichloroethylene	0.04	<0.040	<0.040	<0.040	0.05
Cis-1,2-Dichloroethylene	0.04	<0.040	<0.040	<0.040	1.9
Trans-1,2-Dichloroethylene	0.04	<0.040	<0.040	<0.040	0.084
1,2-Dichloropropane	0.04	<0.040	<0.040	<0.040	0.05
Cis-1,3-Dichloropropylene	0.03	<0.030	<0.030	<0.030	-
Trans-1,3-Dichloropropylene	0.04	<0.040	<0.040	<0.040	-
Ethylbenzene	0.01	<0.010	<0.010	<0.010	1.1
Ethylene Dibromide	0.04	<0.040	<0.040	<0.040	0.05
Methyl Ethyl Ketone	0.4	<0.40	<0.40	<0.40	16
Methylene Chloride	0.049	<0.049	<0.049	<0.049	0.1
Methyl Isobutyl Ketone	0.4	<0.40	<0.40	<0.40	1.7
Methyl-t-Butyl Ether	0.04	<0.040	<0.040	<0.040	0.75
Styrene	0.04	<0.040	<0.040	<0.040	0.7
1,1,1,2-Tetrachloroethane	0.04	<0.040	<0.040	<0.040	0.058
1,1,2,2-Tetrachloroethane	0.04	<0.040	<0.040	<0.040	0.05
Toluene	0.02	<0.020	<0.020	<0.020	2.3
Tetrachloroethylene	0.04	<0.040	<0.040	<0.040	0.28
1,1,1-Trichloroethane	0.04	<0.040	<0.040	<0.040	0.38
1,1,2-Trichloroethane	0.04	<0.040	<0.040	<0.040	0.05
Trichloroethylene	0.01	<0.010	<0.010	<0.010	0.061
Vinyl Chloride	0.019	<0.019	<0.019	<0.019	0.02
m-Xylene & p-Xylene	0.02	<0.020	<0.020	<0.020	-
o-Xylene	0.02	<0.020	<0.020	<0.020	-
Total Xylenes	0.02	<0.020	<0.020	<0.020	3.1
Dichlorodifluoromethane	0.04	<0.040	<0.040	<0.040	16
Hexane(n)	0.04	<0.040	<0.040	<0.040	2.8
Trichlorofluoromethane	0.04	<0.040	<0.040	<0.040	4
1,3-Dichloropropene (cis + trans)	0.05	<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 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional property use for coarse grain soil

Soil Engineers Ltd.

SOIL CHEMICAL ANALYSIS - Petroleum Hydrocarbons (PHCs) Parameters

Project No. 1910-E004

Sample ID	RDL*	BH1/5B	BH2/3	DUPS1	BH3/2B	BH4/3	BH5/2B	Ontario Regulation 153/04 Table 2 RPI Standard**
Sample Date		06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	
Laboratory ID		ZYD995	ZYD994	ZYD998	ZYE010	ZYE008	ZYE009	
Bore Hole No.		BH1	BH2	BH2	BH3	BH4	BH5	
Depth (mbgs)		3.5 - 4.0	1.5 - 2.3	1.5 - 2.3	1.2 - 1.5	1.5 - 2.3	1.2 - 1.5	
Benzene	0.02	-	-	-	<0.020	<0.020	<0.020	0.21
Toluene	0.02	-	-	-	<0.020	<0.020	<0.020	2.3
Ethylbenzene	0.02	-	-	-	<0.020	<0.020	<0.020	1.1
m/p xylenes	0.04	-	-	-	<0.040	<0.040	<0.040	-
o xylene	0.02	-	-	-	<0.020	<0.020	<0.020	-
Total Xylenes	0.04	-	-	-	<0.040	<0.040	<0.040	3.1
F1 (C6-C10)	10	<10	<10	<10	<10	<10	<10	55
F1 (C6-C10) - BTEX	10	<10	<10	<10	<10	<10	<10	55
F2 (C10-C16)	10	17	<10	17	<10	<10	<10	98
F3 (C16-C34)	50	77	<50	70	<50	<50	<50	300
F4 (C34-C50)	50	<50	<50	<50	<50	<50	<50	2800
Reached Baseline at C50		YES	YES	YES	YES	YES	YES	-
F4 Gravimetric	-	-	-	-	-	-	-	2800

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 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional property use for coarse grain soil

Soil Engineers Ltd.

SOIL CHEMICAL ANALYSIS - Polycyclic Aromatic Hydrocarbons (PAHs) Parameters

Project No. 1910-E004

Sample ID	RDL*	BH1/6	BH2/3	Ontario Regulation 153/04 Table 2 RPI Standard**
Sample Date		06-August-2024	06-August-2024	
Laboratory ID		ZYD996	ZYD994	
Bore Hole No.		BH1	BH2	
Depth (mbgs)		4.0 - 4.6	1.5 - 2.3	
Acenaphthene	0.005	<0.0050	<0.0050	7.9
Acenaphthylene	0.005	<0.0050	<0.0050	0.15
Anthracene	0.005	<0.0050	<0.0050	0.67
Benzo(a)anthracene	0.005	<0.0050	<0.0050	0.5
Benzo(a)pyrene	0.005	<0.0050	<0.0050	0.3
Benzo(b/j)fluoranthene	0.005	<0.0050	<0.0050	0.78
Benzo(ghi)perylene	0.005	<0.0050	<0.0050	6.6
Benzo(k)fluoranthene	0.005	<0.0050	<0.0050	0.78
Chrysene	0.005	<0.0050	<0.0050	7
Dibenzo(a,h)anthracene	0.005	<0.0050	<0.0050	0.1
Fluoranthene	0.005	<0.0050	<0.0050	0.69
Fluorene	0.005	<0.0050	<0.0050	62
Indeno(1,2,3-cd)pyrene	0.005	<0.0050	<0.0050	0.38
1-Methylnaphthalene	0.005	<0.0050	<0.0050	0.99
2-Methylnaphthalene	0.005	<0.0050	<0.0050	0.99
Naphthalene	0.005	<0.0050	<0.0050	0.6
Phenanthrene	0.005	<0.0050	<0.0050	6.2
Pyrene	0.005	<0.0050	<0.0050	78
Methylnaphthalene, 2-(1-)	0.0071	<0.0071	<0.0071	0.99

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 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional property use for coarse grain soil

Soil Engineers Ltd.

SOIL CHEMICAL ANALYSIS - Organochlorine Pesticides (OCs) Parameters

Project No. 1910-E004

Sample ID	RDL*	BH1/1A	BH1/5B	BH2/3	BH4/1A	BH6/1A	BH7/1A	BH8/1A	DUPS2	TP1	TP2	DUPS4	Ontario Regulation 153/04 Table 2 RPI Standard**
Sample Date		06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	06-August-2024	
Laboratory ID		ZYD997	ZYD995	ZYD994	ZYE004	ZYE001	ZYE000	ZYD999	ZYE002	ZYE005	ZYE006	ZYE007	
Bore Hol/TP No.		BH1	BH1	BH2	BH4	BH6	BH7	BH8	BH8	TP1	TP2	TP2	
Depth (mbgs)		0.0 - 0.3	3.5 - 4.0	1.5 - 2.3	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	<0.0020	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	<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	<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	<0.0020	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	<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	<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	<0.0020	3.3
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	<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	<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	<0.0020	0.26
op-DDT	0.002	<0.0020	<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	<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	<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	<0.0020	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	<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	<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	<0.0020	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	<0.0020	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	<0.0020	0.15
Heptachlor Epoxide	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	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	<0.0020	0.056
Methoxychlor	0.005	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.13
Hexachlorobenzene	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.52
Hexachlorobutadiene	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.012
Hexachloroethane	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.089

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 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional property use for coarse grain soil

GROUND WATER CHEMICAL ANALYSIS - Metals and Inorganic Parameters

Project No.1910-E004

Sample ID	RDL*	MW1	MW2	Ontario Regulation 153/04 Table 2 Standards**
Sample Date		20-August-2024	20-August-2024	
Laboratory ID		AAQE88	AAQE89	
Bore Hole No.		BH1	BH2	
Screen Depth (mbgs)		2.3 - 5.3	2.3 - 5.3	
Antimony	0.5	<0.50	<0.50	6
Arsenic	1	2	4.9	25
Barium	2	130	120	1000
Beryllium	0.4	<0.40	<0.40	4
Boron	10	130	120	5000
Cadmium	0.09	<0.090	<0.090	2.7
Chromium	5	<5.0	<5.0	50
Chromium VI	0.5	<0.50	<0.50	25
Cobalt	0.5	<0.50	1.1	3.8
Copper	0.9	1.3	1.4	87
Lead	0.5	<0.50	<0.50	10
Mercury	0.1	<0.10	<0.10	0.29
Molybdenum	0.5	3.5	2.6	70
Nickel	1	<1.0	1.2	100
Sodium	100	28000	360000	490000
Selenium	2	<2.0	<2.0	10
Silver	0.09	<0.090	<0.090	1.5
Thallium	0.05	<0.050	<0.050	2
Vanadium	0.5	0.53	<0.50	6.2
Zinc	5	<5.0	<5.0	1100
Cyanide, Free	1	<1	<1	66
Uranium	0.1	2.3	3.8	20
pH	-	7.86	-	-

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 Generic Site Condition Standards in a Potable Ground Water Condition for all types of property use for coarse grained soil

Soil Engineers Ltd

Table IV

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

Project No.1910-E004

Sample ID	RDL*	MW1	DUPW1	MW2	TRIPBLANK	Ontario Regulation 153/04 Table 2 Standards**
Sample Date		20-August-2024	20-August-2024	20-August-2024	20-August-2024	
Laboratory ID		AAQE88	AAQE90	AAQE89	AAQE91	
Bore Hole No.		BH1	BH1	BH2	-	
Screen Depth (mbgs)		2.3 - 5.3	2.3 - 5.3	2.3 - 5.3	-	
Acetone	10	<10	<10	<10	<10	2700
Benzene	0.2	<0.17	<0.20	<0.17	<0.20	5
Bromodichloromethane	0.5	<0.50	<0.50	<0.50	<0.50	16
Bromoform	1	<1.0	<1.0	<1.0	<1.0	25
Bromomethane	0.5	<0.50	<0.50	<0.50	<0.50	0.89
Carbon Tetrachloride	0.19	<0.20	<0.19	<0.20	<0.19	0.79
Chlorobenzene	0.2	<0.20	<0.20	<0.20	<0.20	30
Chloroform	0.2	<0.20	<0.20	<0.20	<0.20	2.4
Dibromochloromethane	0.5	<0.50	<0.50	<0.50	<0.50	25
1,2-Dichlorobenzene	0.4	<0.50	<0.40	<0.50	<0.40	3
1,3-Dichlorobenzene	0.4	<0.50	<0.40	<0.50	<0.40	59
1,4-Dichlorobenzene	0.4	<0.50	<0.40	<0.50	<0.40	1
1,1-Dichloroethane	0.2	<0.20	<0.20	<0.20	<0.20	5
1,2-Dichloroethane	0.49	<0.50	<0.49	<0.50	<0.49	1.6
1,1-Dichloroethylene	0.2	<0.20	<0.20	<0.20	<0.20	1.6
Cis-1,2-Dichloroethylene	0.5	<0.50	<0.50	<0.50	<0.50	1.6
Trans-1,2-Dichloroethylene	0.5	<0.50	<0.50	<0.50	<0.50	1.6
1,2-Dichloropropane	0.2	<0.20	<0.20	<0.20	<0.20	5
Cis-1,3-Dichloropropylene	0.3	<0.30	<0.30	<0.30	<0.30	-
Trans-1,3-Dichloropropylene	0.4	<0.40	<0.40	<0.40	<0.40	-
Ethylbenzene	0.2	<0.20	<0.20	<0.20	<0.20	2.4
Ethylene Dibromide	0.19	<0.20	<0.19	<0.20	<0.19	0.2
Methyl Ethyl Ketone	10	<10	<10	<10	<10	1800
Methylene Chloride	2	<2.0	<2.0	<2.0	<2.0	50
Methyl Isobutyl Ketone	5	<5.0	<5.0	<5.0	<5.0	640
Methyl-t-Butyl Ether	0.5	<0.50	<0.50	<0.50	<0.50	15
Styrene	0.4	<0.50	<0.40	<0.50	<0.40	5.4
1,1,1,2-Tetrachloroethane	0.5	<0.50	<0.50	<0.50	<0.50	1.1
1,1,2,2-Tetrachloroethane	0.4	<0.50	<0.40	<0.50	<0.40	1
Toluene	0.2	<0.20	<0.20	<0.20	<0.20	24
Tetrachloroethylene	0.2	<0.20	<0.20	<0.20	<0.20	1.6
1,1,1-Trichloroethane	0.2	<0.20	<0.20	<0.20	<0.20	200
1,1,2-Trichloroethane	0.4	<0.50	<0.40	<0.50	<0.40	4.7
Trichloroethylene	0.2	<0.20	<0.20	<0.20	<0.20	1.6
Vinyl Chloride	0.2	<0.20	<0.20	<0.20	<0.20	0.5
m-Xylene & p-Xylene	0.2	<0.20	<0.20	<0.20	<0.20	-
o-Xylene	0.2	<0.20	<0.20	<0.20	<0.20	-
Total Xylenes	0.2	<0.20	<0.20	<0.20	<0.20	300
Dichlorodifluoromethane	1	<1.0	<1.0	<1.0	<1.0	590
Hexane(n)	1	<1.0	<1.0	<1.0	<1.0	51
Trichlorofluoromethane	0.5	<0.50	<0.50	<0.50	<0.50	150
1,3-Dichloropropene (cis + trans)	0.5	<0.50	<0.50	<0.50	<0.50	0.5

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 Generic Site Condition Standards in a Potable Ground Water Condition for all types of property use for coarse grained soil

GROUND WATER CHEMICAL ANALYSIS - BTEX and Petroleum

Project No.1910-E004

Hydrocarbon (PHCs) Parameters

Sample ID	RDL*	MW1	MW2	Ontario Regulation 153/04 Table 2 Standards**
Sample Date		20-August-2024	20-August-2024	
Laboratory ID		AAQE88	AAQE89	
Bore Hole No.		BH1	BH2	
Screen Depth (mbgs)		2.3 - 5.3	2.3 - 5.3	
F1 (C6-C10)	25	<25	<25	750
F1 (C6-C10) - BTEX	25	<25	<25	750
F2 (C10-C16)	100	<100	<100	150
F3 (C16-C34)	200	<200	<200	500
F4 (C34-C50)	200	<200	<200	500

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 Generic Site Condition Standards in a Potable Ground Water Condition for all types of property use for coarse grained soil

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

Project No.1910-E004

Sample ID	RDL*	MW1	MW2	Ontario Regulation 153/04 Table 2 Standards**
Sample Date		20-August-2024	20-August-2024	
Laboratory ID		AAQE88	AAQE89	
Bore Hole No.		BH1	BH2	
Screen Depth (mbgs)		2.3 - 5.3	2.3 - 5.3	
Acenaphthene	0.05	<0.050	<0.050	4.1
Acenaphthylene	0.05	<0.050	<0.050	1
Anthracene	0.05	<0.050	<0.050	2.4
Benzo(a)anthracene	0.05	<0.050	<0.050	1
Benzo(a)pyrene	0.009	<0.0090	<0.0090	0.01
Benzo(b/j)fluoranthene	0.05	<0.050	<0.050	0.1
Benzo(ghi)perylene	0.05	<0.050	<0.050	0.2
Benzo(k)fluoranthene	0.05	<0.050	<0.050	0.1
Chrysene	0.05	<0.050	<0.050	0.1
Dibenzo(a,h)anthracene	0.05	<0.050	<0.050	0.2
Fluoranthene	0.05	<0.050	<0.050	0.41
Fluorene	0.05	<0.050	<0.050	120
Indeno(1,2,3-cd)pyrene	0.05	<0.050	<0.050	0.2
1-Methylnaphthalene	0.05	<0.050	<0.050	3.2
2-Methylnaphthalene	0.05	<0.050	<0.050	3.2
Naphthalene	0.05	<0.050	<0.050	11
Phenanthrene	0.03	<0.030	<0.030	1
Pyrene	0.05	<0.050	<0.050	4.1
Methylnaphthalene, 2-(1-)	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 Generic Site Condition Standards in a Potable Ground Water Condition for all types of property use for coarse grained soil

GROUND WATER CHEMICAL ANALYSIS - Organochlorine Pesticides

Project No.1910-E004

Sample ID	RDL*	MW1	MW2	Ontario Regulation 153/04 Table 2 Standards**
Sample Date		20-August-2024	20-August-2024	
Laboratory ID		AAQE88	AAQE89	
Bore Hole No.		BH1	BH2	
Screen Depth (mbgs)		2.3 - 5.3	2.3 - 5.3	
Aldrin	0.005	<0.005	<0.005	0.35
Chlordane (alpha)	0.005	<0.005	<0.005	-
Chlordane (gamma)	0.005	<0.005	<0.005	-
Chlordane (total)	0.005	<0.005	<0.005	7
o,p DDD	0.005	<0.005	<0.005	-
p,p-DDD	0.005	<0.005	<0.005	-
DDD (total)	0.005	<0.005	<0.005	10
o,p DDE	0.005	<0.005	<0.005	-
p,p-DDE	0.005	<0.005	<0.005	-
DDE (total)	0.005	<0.005	<0.005	10
op-DDT	0.005	<0.005	<0.005	-
pp-DDT	0.005	<0.005	<0.005	-
DDT (total)	0.005	<0.005	<0.005	2.8
Dieldrin	0.005	<0.005	<0.005	0.35
Endosulphan I	0.005	<0.005	<0.005	-
Endosulphan II	0.005	<0.005	<0.005	-
Total Endosulphan	0.005	<0.005	<0.005	1.5
Endrin	0.005	<0.005	<0.005	0.48
Heptachlor	0.005	<0.005	<0.005	1.5
Hepatchlor Epoxide	0.005	<0.005	<0.005	0.048
Lindane	0.003	<0.003	<0.003	1.2
Methoxychlor	0.01	<0.01	<0.01	6.5
Hexachlorobenzene	0.005	<0.005	<0.005	1
Hexachlorobutadiene	0.009	<0.009	<0.009	0.44
Hexachloroethane	0.01	<0.01	<0.01	2.1

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 Generic Site Condition Standards in a Potable Ground Water Condition for all types of property use for coarse grained soil

Project No. 1910-E004

Table V – Maximum Concentration (Soil)

Summary of Metals and Inorganics

Parameter	Unit	Maximum Concentration	Sample ID	Sampling Depth (m)
Antimony	ug/g	<0.2	-	-
Arsenic	ug/g	6.1	BH1/5B	3.5 - 4.0
Barium	ug/g	100	BH4/3	1.5 - 2.3
Beryllium	ug/g	0.78	BH4/3	1.5 - 2.3
Cadmium	ug/g	0.19	TP2	0.0 - 0.3
Chromium	ug/g	25	BH4/3	1.5 - 2.3
Chromium VI	ug/g	<0.18	-	-
Cobalt	ug/g	16	BH4/3	1.5 - 2.3
Copper	ug/g	50	BH2/3	1.5 - 2.3
Lead	ug/g	17	BH1/1A	0.0 - 0.3
Mercury	ug/g	0.052	BH2/3	1.5 - 2.3
Molybdenum	ug/g	1.2	BH4/1A	0.0 - 0.3
Nickel	ug/g	34	BH4/3	1.5 - 2.3
Selenium	ug/g	<0.5	-	-
Silver	ug/g	<0.2	-	-
Thallium	ug/g	0.19	BH4/3	1.5 - 2.3
Vanadium	ug/g	33	BH4/3	1.5 - 2.3
Zinc	ug/g	69	BH4/3	1.5 - 2.3
pH (pH Units)	-	0	0	0
Cyanide, Free	ug/g	0	0	0
Boron (Total)	ug/g	12	BH4/3	1.5 - 2.3
Uranium	ug/g	1	BH1/5B	3.5 - 4.0

Project No. 1910-E004

Table V – 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. 1910-E004

Table V – 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. 1910-E004

Table V – 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	<0.005	-	-
Benzo(a)pyrene	ug/g	<0.005	-	-
Benzo(b/j)fluoranthene	ug/g	<0.005	-	-
Benzo(ghi)perylene	ug/g	<0.005	-	-
Benzo(k)fluoranthene	ug/g	<0.005	-	-
Chrysene	ug/g	<0.005	-	-
Dibenzo(a,h)anthracene	ug/g	<0.005	-	-
Fluoranthene	ug/g	<0.005	-	-
Fluorene	ug/g	<0.005	-	-
Indeno(1,2,3-cd)pyrene	ug/g	<0.005	-	-
1-Methylnaphthalene	ug/g	<0.005	-	-
2-Methylnaphthalene	ug/g	<0.005	-	-
Naphthalene	ug/g	<0.005	-	-
Phenanthrene	ug/g	<0.005	-	-
Pyrene	ug/g	<0.005	-	-
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	-	-

Project No. 1910-E004

Table V – 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	-	-
F4 (C34-C50)	ug/g	<50	-	-
Reached Baseline at C50	ug/g	<	-	-
F4 Gravimetric	ug/g	<-	-	-

Project No. 1910-E004

Table V – 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.1910-E004

Table VI – Maximum Concentration (Groundwater)

Summary of Metals and Inorganics

Parameter	Unit	Maximum Concentration	Sample ID	Screen Depth (m)
Antimony	µg/L	<0.5	-	-
Arsenic	µg/L	4.9	MW2	2.3 - 5.3
Barium	µg/L	130	MW1	2.3 - 5.3
Beryllium	µg/L	<0.4	-	-
Boron	µg/L	130	MW1	2.3 - 5.3
Cadmium	µg/L	<0.09	-	-
Chromium	µg/L	<5	-	-
Chromium VI	µg/L	<0.5	-	-
Cobalt	µg/L	1.1	MW2	2.3 - 5.3
Copper	µg/L	1.4	MW2	2.3 - 5.3
Lead	µg/L	<0.5	-	-
Mercury	µg/L	<0.1	-	-
Molybdenum	µg/L	3.5	MW1	2.3 - 5.3
Nickel	µg/L	1.2	MW2	2.3 - 5.3
Sodium	µg/L	360000	MW2	2.3 - 5.3
Selenium	µg/L	<2	-	-
Silver	µg/L	<0.09	-	-
Thallium	µg/L	<0.05	-	-
Vanadium	µg/L	0.53	MW1	2.3 - 5.3
Zinc	µg/L	<5	-	-
Cyanide, Free	µg/L	<1	-	-
Uranium	µg/L	3.8	MW2	2.3 - 5.3
pH	µg/L	7.86	MW1	2.3 - 5.3

Project No.1910-E004

Table VI – Maximum Concentration (Groundwater)

Summary of VOCs

Parameter	Unit	Maximum Concentration	Sample ID	Screen Depth (m)
Acetone	µg/L	<10	-	-
Benzene	µg/L	<0.2	-	-
Bromodichloromethane	µg/L	<0.5	-	-
Bromoform	µg/L	<1	-	-
Bromomethane	µg/L	<0.5	-	-
Carbon Tetrachloride	µg/L	<0.19	-	-
Chlorobenzene	µg/L	<0.2	-	-
Chloroform	µg/L	<0.2	-	-
Dibromochloromethane	µg/L	<0.5	-	-
1,2-Dichlorobenzene	µg/L	<0.4	-	-
1,3-Dichlorobenzene	µg/L	<0.4	-	-
1,4-Dichlorobenzene	µg/L	<0.4	-	-
1,1-Dichloroethane	µg/L	<0.2	-	-
1,2-Dichloroethane	µg/L	<0.49	-	-
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	<0.19	-	-
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	<0.4	-	-

Project No.1910-E004
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	<0.4	-	-
Toluene	µg/L	<0.2	-	-
Tetrachloroethylene	µg/L	<0.2	-	-
1,1,1-Trichloroethane	µg/L	<0.2	-	-
1,1,2-Trichloroethane	µg/L	<0.4	-	-
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.1910-E004
Table VI – Maximum Concentration (Groundwater)

Summary of CCME F1-F4

Parameter	Unit	Maximum Concentration	Sample ID	Screen Depth (m)
F1 (C6-C10)	µg/L	<25	-	0
F1 (C6-C10) - BTEX	µg/L	<25	-	0
F2 (C10-C16)	µg/L	<100	-	0
F3 (C16-C34)	µg/L	<200	-	0
F4 (C34-C50)	µg/L	<200	-	0

Project No.1910-E004

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	-	-

Project No.1910-E004

Table VI – Maximum Concentration (Groundwater)

Summary of OCs

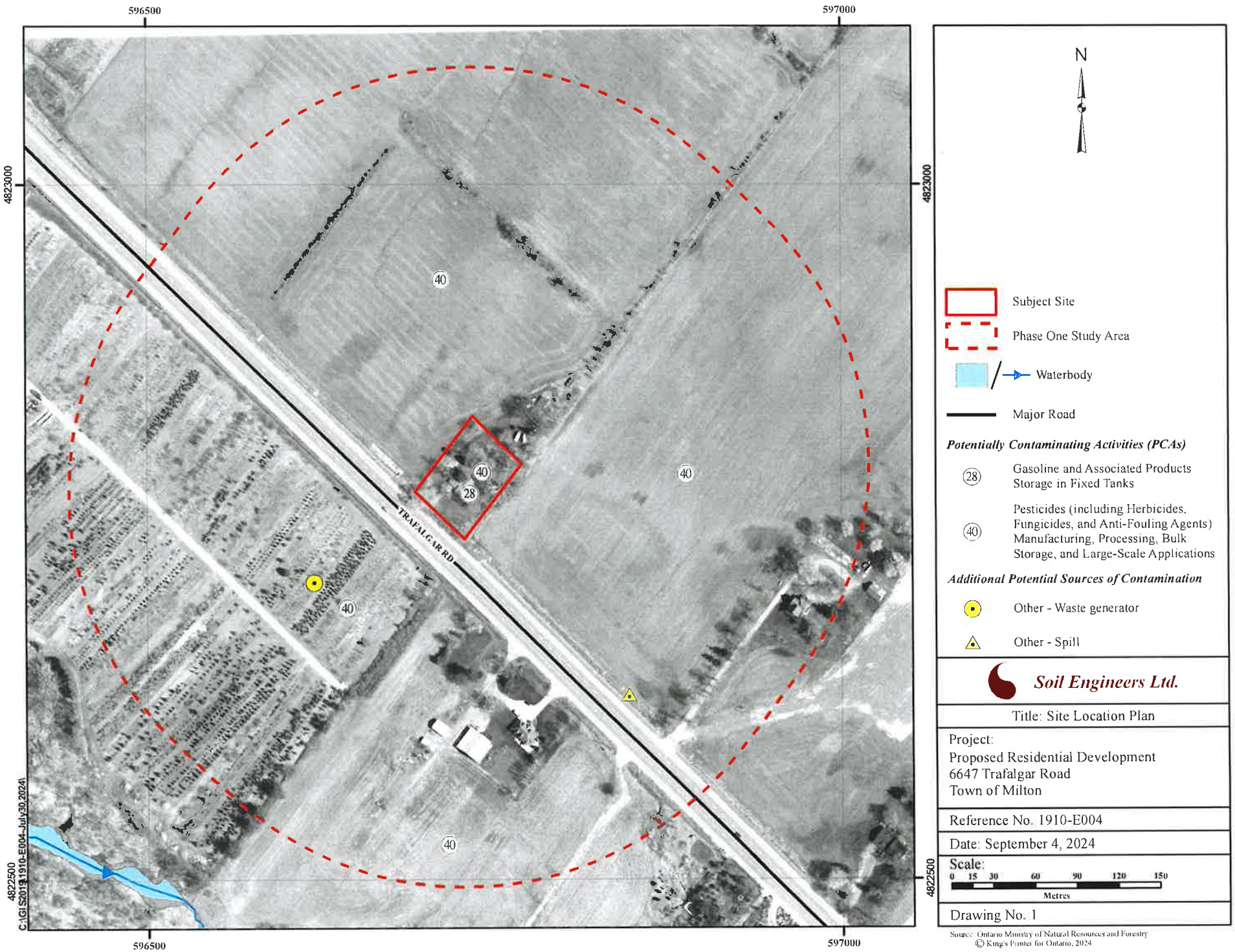
Parameter	Unit	Maximum Concentration	Sample ID	Screen Depth (m)
Aldrin	µg/L	<0.005	-	-
Chlordane (alpha)	µg/L	<0.005	-	-
Chlordane (gamma)	µg/L	<0.005	-	-
Chlordane (total)	µg/L	<0.005	-	-
o,p DDD	µg/L	<0.005	-	-
p,p-DDD	µg/L	<0.005	-	-
DDD (total)	µg/L	<0.005	-	-
o,p DDE	µg/L	<0.005	-	-
p,p-DDE	µg/L	<0.005	-	-
DDE (total)	µg/L	<0.005	-	-
op-DDT	µg/L	<0.005	-	-
pp-DDT	µg/L	<0.005	-	-
DDT (total)	µg/L	<0.005	-	-
Dieldrin	µg/L	<0.005	-	-
Endosulphan I	µg/L	<0.005	-	-
Endosulphan II	µg/L	<0.005	-	-
Total Endosulphan	µg/L	<0.005	-	-
Endrin	µg/L	<0.005	-	-
Heptachlor	µg/L	<0.005	-	-
Hepatchlor Epoxide	µg/L	<0.005	-	-
Lindane	µg/L	<0.003	-	-
Methoxychlor	µg/L	<0.01	-	-
Hexachlorobenzene	µg/L	<0.005	-	-
Hexachlorobutadiene	µg/L	<0.009	-	-
Hexachloroethane	µg/L	<0.01	-	-

Soil Engineers Ltd.
CONSULTING ENGINEERS
GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE
90 WEST BEAVER CREEK ROAD, SUITE 100, RICHMOND HILL, ONTARIO L4B 1E7 · TEL: (416) 754-8515 · FAX: (905) 881-8335

BARRIE	MISSISSAUGA	OSHAWA	NEWMARKET	MUSKOKA	HAMILTON
TEL: (705) 721-7863	TEL: (905) 542-7605	TEL: (905) 440-2040	TEL: (905) 853-0647	TEL: (705) 721-7863	TEL: (905) 777-7956
FAX: (705) 721-7864	FAX: (905) 542-2769	FAX: (905) 725-1315	FAX: (905) 881-8335	FAX: (705) 721-7864	FAX: (905) 542-2769

DRAWINGS

Reference No. 1910-E004



N

Subject Site

Phase One Study Area

Waterbody

Major Road

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

Additional Potential Sources of Contamination

Other - Waste generator

Other - Spill

Soil Engineers Ltd.

Title: Site Location Plan

Project:
Proposed Residential Development
6647 Trafalgar Road
Town of Milton

Reference No. 1910-E004

Date: September 4, 2024

Scale:
0 15 30 60 90 120 150
Metres

Drawing No. 1

N

Subject Site

Borehole

Borehole with Monitoring Well

Test Pit

Major Road

Areas of Potential Environmental Concern (APEC)

APEC 1

APEC 2

APEC 3

Soil Engineers Ltd.

Title: Sampling Location Plan

Project:
Proposed Residential Development
6647 Trafalgar Road
Town of Milton

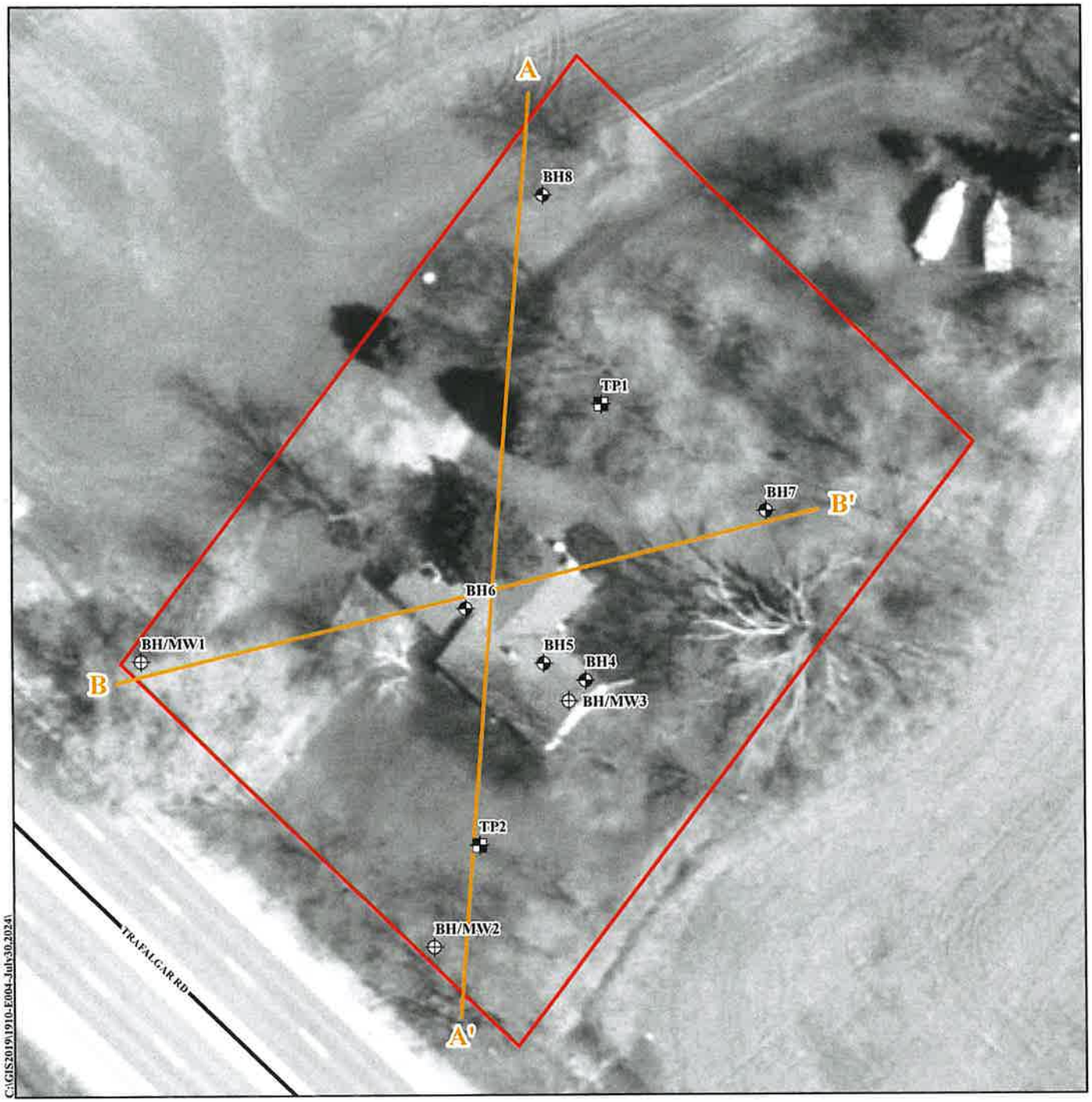
Reference No. 1910-E004

Date: September 4, 2024

Scale:
0 5 10 20 30 40 50
Metres

Drawing No. 2

Source: Ontario Ministry of Natural Resources and Forestry



N

Subject Site

Borehole

Borehole with Monitoring Well

Test Pit

Major Road

A A' Cross-Section Direction

Soil Engineers Ltd.

Title: Cross-Section Key Plan

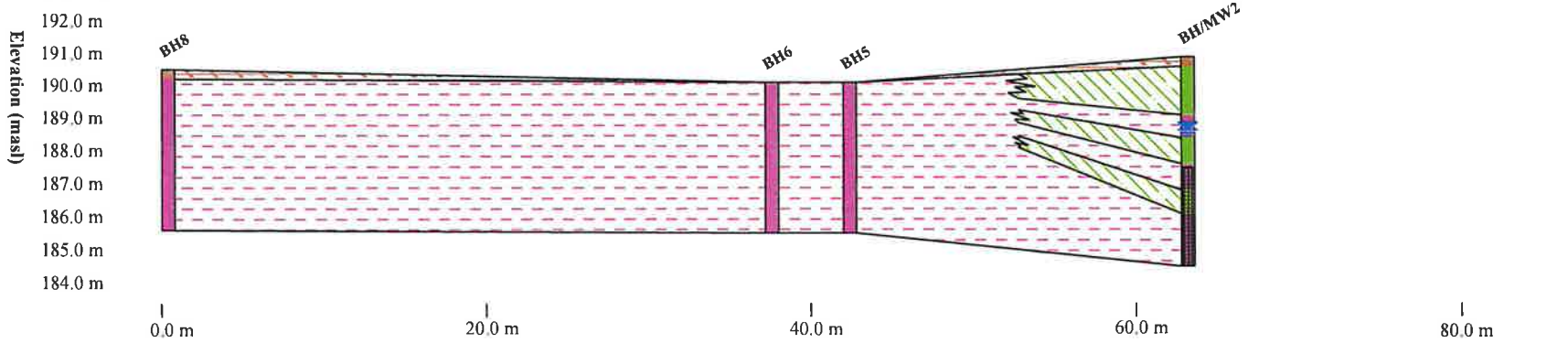
Project:
Proposed Residential Development
6647 Trafalgar Road
Town of Milton

Reference No. 1910-E004

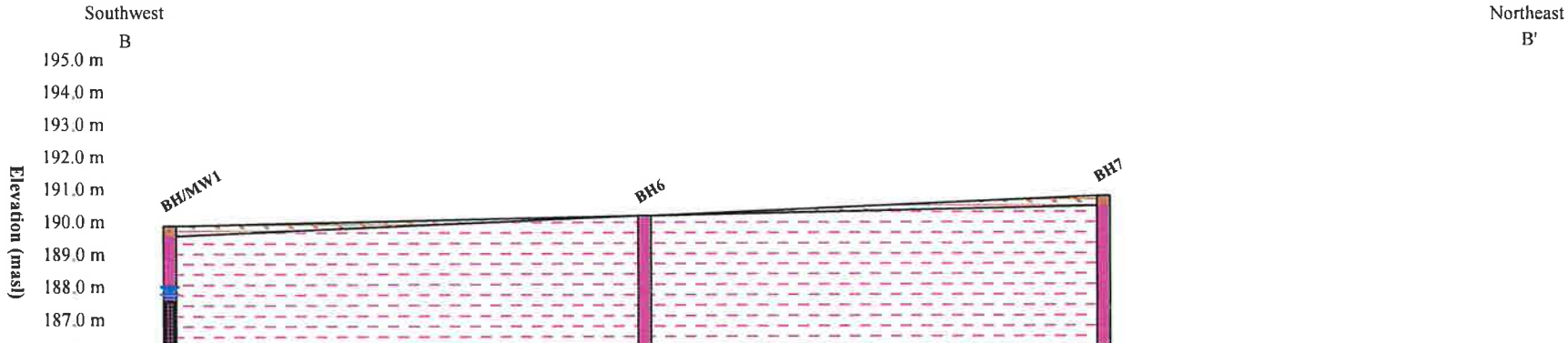
Date: September 4, 2024

Scale:
0 2.5 5 10 15 20 25
Metres

Drawing No. 3



SECTION A-A'



SECTION B-B'

Topsoil

Silty Clay

Water Table

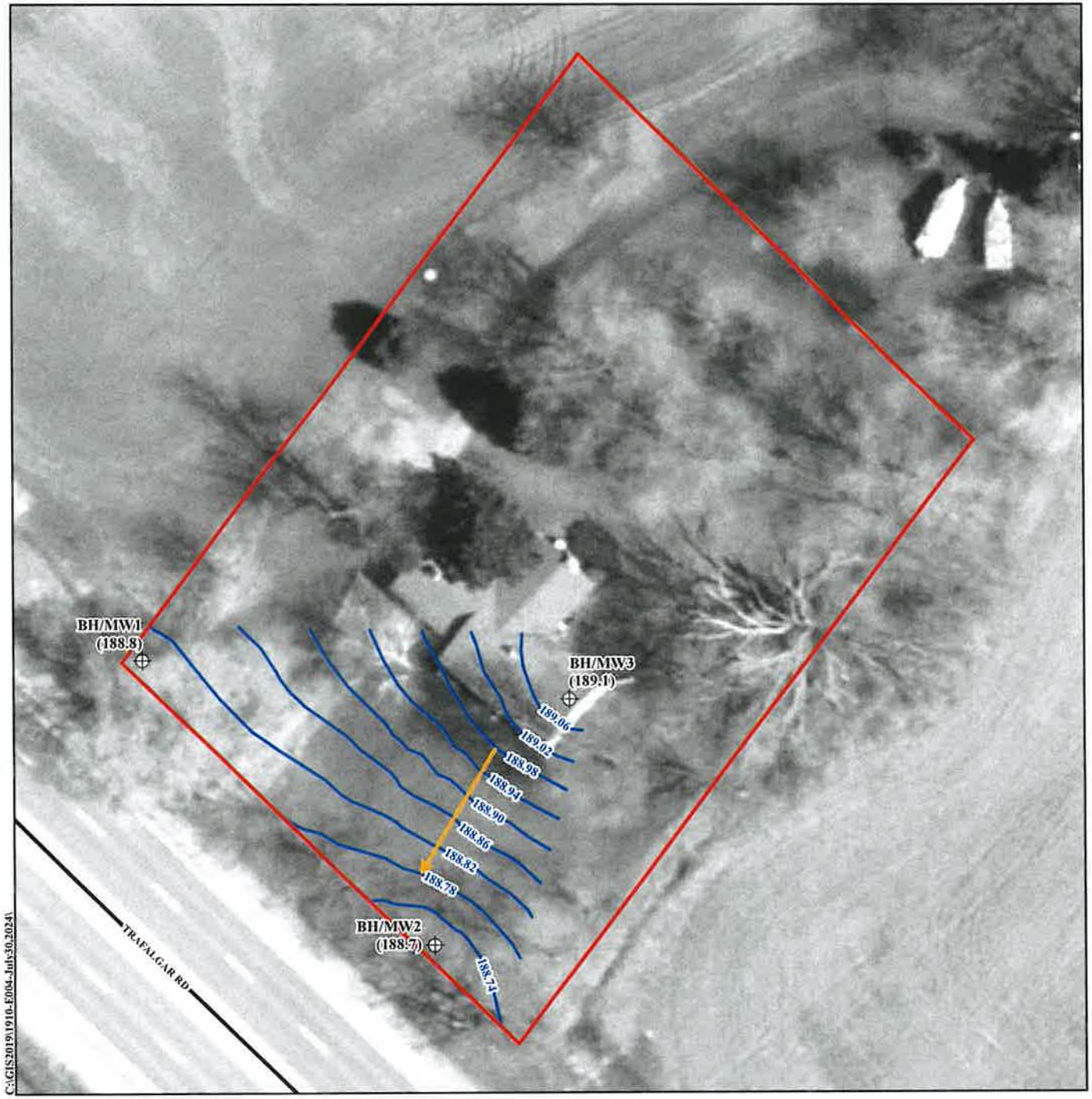
Sandy Silt

Screen

Soil Engineers Ltd.
CONSULTING SOIL, FOUNDATION & ENVIRONMENTAL ENGINEERS

Title:	Geological Cross-Sections A-A' and B-B'
Project	Proposed Residential Development 6647 Trafalgar Road Town of Milton

Reference No:	Date:	Scale: V	Scale: H	Drawing No.
1910-E004	September 4, 2024	1:200	1:400	4



N

Subject Site

Borehole with Monitoring Well

Interpreted Shallow Groundwater Flow Direction

Groundwater Elevation Contour

Major Road

(120.00) Groundwater Elevation (masl)

Soil Engineers Ltd.

Title: Shallow Groundwater Contour Map

Project:
Proposed Residential Development
6647 Trafalgar Road
Town of Milton

Reference No. 1910-E004

Date: September 4, 2024

Scale:
0 2.5 5 10 15 20 25
Metres

Drawing No. 5

Soil Engineers Ltd.
CONSULTING ENGINEERS
GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE
90 WEST BEAVER CREEK ROAD, SUITE 100, RICHMOND HILL, ONTARIO L4B 1E7 · TEL: (416) 754-8515 · FAX: (905) 881-8335

BARRIE	MISSISSAUGA	OSHAWA	NEWMARKET	MUSKOKA	HAMILTON
TEL: (705) 721-7863	TEL: (905) 542-7605	TEL: (905) 440-2040	TEL: (905) 853-0647	TEL: (705) 721-7863	TEL: (905) 777-7956
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. 1910-E004

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 under Environmental Protection Act (EPA). The Phase Two ESA was conducted for a property located at 6647 Trafalgar Road, in the Town of Milton, Ontario (hereinafter referred to as the 'subject site'). The Sampling and Analysis Plan is based on the findings of SEL Phase One Environmental Site Assessment (Phase One ESA).

1) OBJECTIVE

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

APEC 1: Potential soil impact due to the possible use of pesticides during agricultural activities at majority of the subject site.

APEC 2: Potential soil impact due to presence of former fuel oil above-ground storage tank (AST) in the basement of former residential building at middle portion of the subject site.

APEC 3: Potential soil and groundwater impact due to presence of commercial nursery businesses and waste generator located at 6750 Trafalgar Road, approximately 35 m to the southwest 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 5.3 meters below ground surface (mbgs) for sampling, soil profiling and hydrological study, and carryout two (2) hand-dug tests pit (designated as TP1 and TP2) 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 three (3) monitoring wells at boreholes BH1 to BH3 locations (designated at BH/MW1 to BH/MW3) for groundwater flow direction, sampling, testing and monitoring.
- Carry out an analytical testing program on selected soil samples including quality assurance and quality control (QA/QC) samples for one or more of the following parameters: Volatile Organic Compounds (VOCs), Petroleum Hydrocarbons (PHCs), Benzene, Toluene, Ethylbenzene, Xylene (BTEX), Polycyclic Aromatic Hydrocarbons (PAHs), Organochlorine Pesticides (OCs), Metals, Arsenic (As), Antimony (Sb), Selenium (Se), Mercury (Hg), Chromium Hexavalent (Cr (VI)), Cyanides (CN^-) and pH parameters.
- Review analytical testing results of submitted soil and groundwater samples using applicable Site Condition Standards.
- Prepare a Phase Two ESA report presenting the findings of the investigation.

3) RATIONALE FOR BOREHOLE LOCATIONS

The rationale for the selection of the 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 the possible use of pesticides during agricultural activities at majority of the subject site.	TP1, TP2, BH1, BH4, BH6, BH7, BH8
APEC 2: Potential soil impact due to presence of former fuel oil AST in the basement of former residential building at middle portion of the subject site.	BH3, BH4, BH5
APEC 3: Potential soil and groundwater impact due to presence of commercial nursery businesses and waste generator located at 6750 Trafalgar Road to the southwest 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 (TPs) (QA/QC Samples)					
TP1 and TP2	2	2	-	-	-
DUPS4	1	-	-	-	-
DUPS3	-	1	-	-	-
Soil Samples (Boreholes) (QA/QC Samples)					
BH1	2	2	1	1	1
BH2	1	1	1	1	1
BH3	-	1	1	-	-
BH4	1	2	1	-	-
BH5	-	1	1	-	-
BH6	1	1	-	-	-
BH7	1	1	-	-	-
BH8	1	1	-	-	-
DUPS1	-	-	1	1	-
DUPS2	1	-	-	-	-
Groundwater samples (QA/QC Samples)					
BH/MW1	1	1	1	1	1
BH/MW2	1	1	1	1	1
DUPW1	-	-	-	1	-
Trip Blank	-	-	-	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.

7.2.2) 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.

7.2.3) 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.

7.2.4) 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%.

7.2.5) 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, VOCs, PAHs, OCs 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

Soil Engineers Ltd.
CONSULTING ENGINEERS
GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE
90 WEST BEAVER CREEK ROAD, SUITE 100, RICHMOND HILL, ONTARIO L4B 1E7 · TEL: (416) 754-8515 · FAX: (905) 881-8335

BARRIE	MISSISSAUGA	OSHAWA	NEWMARKET	MUSKOKA	HAMILTON
TEL: (705) 721-7863	TEL: (905) 542-7605	TEL: (905) 440-2040	TEL: (905) 853-0647	TEL: (705) 721-7863	TEL: (905) 777-7956
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 'B'

BOREHOLE LOGS

Reference No. 1910-E004

JOB NO.: 1910-E004

LOG OF BOREHOLE NO.: 1

FIGURE NO.:

PROJECT DESCRIPTION: Proposed Residential Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 6647 Trafalgar Road
Town of Milton

DRILLING DATE: August 6, 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
189.9	Ground Surface							
0.0	**30 cm TOPSOIL**				0			
	moist	1A	TO	0			BH1/1A: Metals, As, Sb, Se, Hg, Cr(VI), Cyanide, pH, OCs	
0.3	**SILTY CLAY**	1B	TO	0				
	trace gravel, moist	2	TO	0	1			
		3	TO	0	2			
		4	TO	0	3			
	moist	5A	TO	0				
		5B	TO	0			BH1/5B: Metals, As, Sb, Se, Hg, Cr(VI), Cyanide, pH, OCs, PHCs, VOCs	
	brown grey				4			
	wet	6	TO	0			BH1/6: PAHs	
		7A	TO	0	5			
	moist saturated	7B	TO	0				
184.6								
5.3	END OF BOREHOLE Installed 51mm standpipe @ 5.3m Concrete from 0.0m to 0.3m Bentonite seal from 0.0m to 1.7m Sand backfill from 1.7m to 5.3m 3m screen from 2.3m to 5.3m Provided with monument protective casing				6 7 8			W.L. @ 1.1 mbgs on August 20, 2024

Soil Engineers Ltd.

JOB NO.: 1910-E004

LOG OF BOREHOLE NO.: 2

FIGURE NO.:

PROJECT DESCRIPTION: Proposed Residential Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 6647 Trafalgar Road
Town of Milton

DRILLING DATE: August 6, 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
190.0	Ground Surface							
0.0	**30 cm TOPSOIL**	1A	TO	0	0			
0.3	**SANDY SILT** trace gravel, clay	1B	TO	0				
189.2 0.8	**SILTY CLAY** trace gravel	2	TO	0	1			
188.5 1.5	**SANDY SILT** trace gravel, clay, wet	3	TO	0	2		BH2/3: Metals, As, Sb, Se, Hg, Cr(VI), Cyanide, pH, OCs, PHCs, VOCs, PAHs, DUPS1	
187.7 2.3	**SILTY CLAY** trace gravel	4	TO	0				
186.9 3.0	Brown **SANDY SILT** trace gravel, Saturated	5	TO	0	3			
186.2 3.8	Grey **SILTY CLAY** moist / wet	6	TO	0	4			
		7	TO	0	5			
184.7 5.3	END OF BOREHOLE Installed 51mm standpipe @ 5.3m Concrete from 0.0m to 0.3m Bentonite seal from 0.0m to 1.7m Sand backfill from 1.7m to 5.3m 3m screen from 2.3m to 5.3m Provided with monument protective casing				6 7 8			

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

W.L. @ 1.3 mbgs on August 20, 2024

Soil Engineers Ltd.

JOB NO.: 1910-E004

LOG OF BOREHOLE NO.: 3

FIGURE NO.:

PROJECT DESCRIPTION: Proposed Residential Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 6647 Trafalgar Road
Town of Milton

DRILLING DATE: August 6, 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
190.1	Ground Surface							
0.0	**SANDY SILT**	1A	TO	0	0			
0.3	moist, disturbed, topsoil							
	SILTY CLAY	1B	TO	0				
	trace gravel	2A	TO	0	1			
	disturbed	2B	TO	15			BH3/2B: Metals, PHCs, BTEX	
	odour, wet	3	TO	0	2			
		4	TO	0				
	saturated	5	TO	0	3			
		6	TO	0	4			
		7	TO	0	5			
184.7								
5.3	END OF BOREHOLE				6			
	Installed 51mm standpipe @ 5.3m							
	Concrete from 0.0m to 0.3m							
	Bentonite seal from 0.0m to 1.7m							
	Sand backfill from 1.7m to 5.3m				7			
	3m screen from 2.3m to 5.3m							
	Provided with monument protective casing				8			

W.L. @ 1.0 mbgs on August 20, 202

Soil Engineers Ltd.

JOB NO.: 1910-E004

LOG OF BOREHOLE NO.: 4

FIGURE NO.:

PROJECT DESCRIPTION: Proposed Residential Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 6647 Trafalgar Road
Town of Milton

DRILLING DATE: August 6, 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
190.2 / 0.0	Ground Surface **30 cm TOPSOIL**	1A	TO	0	0		BH4/1A: Metals, OCs, As, Sb, Se, Hg, Cyanide	
0.3	**SILTY CLAY** trace gravel, sand — some sand, topsoil mix, disturbed	1B	TO	0				
	— disturbed	2	TO	0	1			
		3	TO	0	2		BH4/3: Metals, PHCs, BTEX	
		4	TO	0	3			
		5	TO	0	4			
		6	TO	0	5			
185.6 / 4.6	END OF BOREHOLE				6			
					7			
					8			

Soil Engineers Ltd.

JOB NO.: 1910-E004

LOG OF BOREHOLE NO.: 5

FIGURE NO.:

PROJECT DESCRIPTION: Proposed Residential Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 6647 Trafalgar Road
Town of Milton

DRILLING DATE: August 6, 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
190.2 0.0	Ground Surface				0			
	Brown **SILTY CLAY** some sand, trace gravel disturbed, mixed topsoil	1	TO	0				
	disturbed trace gravel, sand	2A	TO	0	1			
		2B	TO	0			BH5/2B: Metals, PHCs, BTEX	
		3	TO	0	2			
		4	TO	0				
		5	TO	0	3			
	moist wet	6	TO	0	4			
185.6 4.6	END OF BOREHOLE				5			
					6			
					7			
					8			

Soil Engineers Ltd.

JOB NO.: 1910-E004

LOG OF BOREHOLE NO.: 6

FIGURE NO.:

PROJECT DESCRIPTION: Proposed Residential Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 6647 Trafalgar Road
Town of Milton

DRILLING DATE: August 6, 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
190.2 / 0.0	Ground Surface				0			
	SILTY CLAY mixed topsoil, disturbed trace gravel, sand	1A	TO	0			BH6/1A: Metals, As, Sb, Se, Hg, Cr(VI), Cyanide, OCs	
		1B	TO	0				
	disturbed	2A	TO	0	1			
	rocks	2B	TO	0				
		3	TO	0	2			
		4	TO	0				
	brown grey	5	TO	0	3			
		6	TO	0	4			
185.6 / 4.6	END OF BOREHOLE				5			
					6			
					7			
					8			

Soil Engineers Ltd.

JOB NO.: 1910-E004

LOG OF BOREHOLE NO.: 7

FIGURE NO.:

PROJECT DESCRIPTION: Proposed Residential Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 6647 Trafalgar Road
Town of Milton

DRILLING DATE: August 6, 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
190.8	Ground Surface							
0.0	**30 cm TOPSOIL** Brown, Sandy Silt, moist	1A	TO	0	0		BH7/1A: Metals, As, Sb, Se, Cr(VI), Cyanide, OCs	
0.3	Brown **SILTY CLAY** some sand, trace gravel	1B	TO	0				
		2	TO	0	1			
		3	TO	0	2			
		4	TO	0				
		5	TO	0	3			
		6	TO	0	4			
186.2								
4.6	END OF BOREHOLE				5			
					6			
					7			
					8			

Soil Engineers Ltd.

JOB NO.: 1910-E004

LOG OF BOREHOLE NO.: 8

FIGURE NO.:

PROJECT DESCRIPTION: Proposed Residential Development

METHOD OF BORING: Direct Push

PROJECT LOCATION: 6647 Trafalgar Road
Town of Milton

DRILLING DATE: August 6, 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
190.6 / 0.0	Ground Surface **30 cm TOPSOIL**	1A	TO	0	0		BH8/1A: Metals, As, Sb, Se, Hg, Cr(VI), Cyanide, OCs, DUPS2	
0.3	**SILTY CLAY**	1B	TO	0				
		2	TO	0	1			
	grey	3	TO	0	2			
		4	TO	0				
		5A	TO	0	3			
		5B	TO	0				
		6A	TO	0	4			
	wet saturated	6B	TO	0				
185.7 / 4.9	END OF BOREHOLE				5			
					6			
					7			
					8			

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

Soil Engineers Ltd.
CONSULTING ENGINEERS
GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE
90 WEST BEAVER CREEK ROAD, SUITE 100, RICHMOND HILL, ONTARIO L4B 1E7 · TEL: (416) 754-8515 · FAX: (905) 881-8335

BARRIE	MISSISSAUGA	OSHAWA	NEWMARKET	MUSKOKA	HAMILTON
TEL: (705) 721-7863	TEL: (905) 542-7605	TEL: (905) 440-2040	TEL: (905) 853-0647	TEL: (705) 721-7863	TEL: (905) 777-7956
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

(SOIL SAMPLES)

Reference No. 1910-E004

Your Project #: 1910-E004
Site Location: MILTON
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: 2024/08/16
Report #: R8280132
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4O3161
Received: 2024/08/07, 15:56

Sample Matrix: Soil
Samples Received: 17

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	2	N/A	2024/08/11	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	3	N/A	2024/08/12		EPA 8260C m
Free (WAD) Cyanide	9	2024/08/12	2024/08/12	CAM SOP-00457	OMOE E3015 m
Hexavalent Chromium in Soil by IC (1)	9	2024/08/13	2024/08/13	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	2	N/A	2024/08/11	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	1	N/A	2024/08/12	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	6	2024/08/09	2024/08/10	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	13	2024/08/13	2024/08/13	CAM SOP-00447	EPA 6020B m
Moisture	16	N/A	2024/08/08	CAM SOP-00445	Carter 2nd ed 70.2 m
OC Pesticides (Selected) & PCB (4)	11	2024/08/11	2024/08/14	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides Summed Parameters	11	N/A	2024/08/09	CAM SOP-00307	EPA 8081B/ 8082A
PAH Compounds in Soil by GC/MS (SIM)	2	2024/08/09	2024/08/10	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	4	2024/08/12	2024/08/12	CAM SOP-00413	EPA 9045 D m
Volatile Organic Compounds and F1 PHCs	3	N/A	2024/08/09	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

Your Project #: 1910-E004
Site Location: MILTON
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: 2024/08/16
Report #: R8280132
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4O3161
Received: 2024/08/07, 15:56

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) 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
16 Aug 2024 16:39:35

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

==========

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

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

O.REG 153 ICPMS METALS (SOIL)

Bureau Veritas ID		ZYE003		ZYE008		ZYE009	ZYE010			
Sampling Date		2024/08/06		2024/08/06		2024/08/06	2024/08/06			
COC Number		N/A		N/A		N/A	N/A			
	UNITS	DUPS3	QC Batch	BH4/3	QC Batch	BH5/2B	BH3/2B	RDL	MDL	QC Batch
Metals										
Acid Extractable Antimony (Sb)	ug/g	<0.20	9572140	<0.20	9572135	<0.20	<0.20	0.20	0.10	9572140
Acid Extractable Arsenic (As)	ug/g	3.3	9572140	5.7	9572135	5.9	4.3	1.0	0.10	9572140
Acid Extractable Barium (Ba)	ug/g	34	9572140	100	9572135	66	85	0.50	0.30	9572140
Acid Extractable Beryllium (Be)	ug/g	0.36	9572140	0.78	9572135	0.73	0.66	0.20	0.020	9572140
Acid Extractable Boron (B)	ug/g	<5.0	9572140	12	9572135	9.0	8.7	5.0	1.0	9572140
Acid Extractable Cadmium (Cd)	ug/g	0.15	9572140	<0.10	9572135	<0.10	0.12	0.10	0.030	9572140
Acid Extractable Chromium (Cr)	ug/g	12	9572140	25	9572135	23	22	1.0	0.20	9572140
Acid Extractable Cobalt (Co)	ug/g	4.8	9572140	16	9572135	14	12	0.10	0.020	9572140
Acid Extractable Copper (Cu)	ug/g	16	9572140	35	9572135	31	27	0.50	0.20	9572140
Acid Extractable Lead (Pb)	ug/g	12	9572140	12	9572135	12	15	1.0	0.10	9572140
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	9572140	<0.50	9572135	<0.50	<0.50	0.50	0.10	9572140
Acid Extractable Nickel (Ni)	ug/g	11	9572140	34	9572135	32	27	0.50	0.20	9572140
Acid Extractable Selenium (Se)	ug/g	<0.50	9572140	<0.50	9572135	<0.50	<0.50	0.50	0.10	9572140
Acid Extractable Silver (Ag)	ug/g	<0.20	9572140	<0.20	9572135	<0.20	<0.20	0.20	0.040	9572140
Acid Extractable Thallium (Tl)	ug/g	0.089	9572140	0.19	9572135	0.15	0.17	0.050	0.010	9572140
Acid Extractable Uranium (U)	ug/g	0.46	9572140	0.57	9572135	0.57	0.69	0.050	0.030	9572140
Acid Extractable Vanadium (V)	ug/g	20	9572140	33	9572135	31	31	5.0	0.50	9572140
Acid Extractable Zinc (Zn)	ug/g	39	9572140	69	9572135	69	67	5.0	0.50	9572140
Acid Extractable Mercury (Hg)	ug/g	<0.050	9572140	<0.050	9572135	<0.050	<0.050	0.050	0.030	9572140

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZYD994	ZYD995		ZYD997	ZYD999			
Sampling Date		2024/08/06	2024/08/06		2024/08/06	2024/08/06			
COC Number		N/A	N/A		N/A	N/A			
	UNITS	BH2/3	BH1/5B	QC Batch	BH1/1A	BH8/1A	RDL	MDL	QC Batch
Inorganics									
Available (CaCl2) pH	pH	7.43	7.98	9570440					
WAD Cyanide (Free)	ug/g	<0.01	<0.01	9569861	<0.01	<0.01	0.01	0.0019	9569861
Chromium (VI)	ug/g	<0.18	<0.18	9572227	<0.18	<0.18	0.18	0.050	9572227
Metals									
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	9572140	<0.20	<0.20	0.20	0.10	9572140
Acid Extractable Arsenic (As)	ug/g	4.9	6.1	9572140	3.0	2.5	1.0	0.10	9572140
Acid Extractable Barium (Ba)	ug/g	46	39	9572140	46	35	0.50	0.30	9572140
Acid Extractable Beryllium (Be)	ug/g	0.49	0.53	9572140	0.45	0.32	0.20	0.020	9572140
Acid Extractable Boron (B)	ug/g	5.5	8.5	9572140	<5.0	<5.0	5.0	1.0	9572140
Acid Extractable Cadmium (Cd)	ug/g	<0.10	<0.10	9572140	0.14	0.11	0.10	0.030	9572140
Acid Extractable Chromium (Cr)	ug/g	18	20	9572140	14	11	1.0	0.20	9572140
Acid Extractable Cobalt (Co)	ug/g	6.7	12	9572140	4.6	3.7	0.10	0.020	9572140
Acid Extractable Copper (Cu)	ug/g	50	27	9572140	15	9.3	0.50	0.20	9572140
Acid Extractable Lead (Pb)	ug/g	10	7.1	9572140	17	9.7	1.0	0.10	9572140
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	9572140	<0.50	<0.50	0.50	0.10	9572140
Acid Extractable Nickel (Ni)	ug/g	22	26	9572140	11	8.1	0.50	0.20	9572140
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	9572140	<0.50	<0.50	0.50	0.10	9572140
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	9572140	<0.20	<0.20	0.20	0.040	9572140
Acid Extractable Thallium (Tl)	ug/g	0.12	0.11	9572140	0.11	0.087	0.050	0.010	9572140
Acid Extractable Uranium (U)	ug/g	0.64	1.0	9572140	0.79	0.44	0.050	0.030	9572140
Acid Extractable Vanadium (V)	ug/g	29	26	9572140	24	19	5.0	0.50	9572140
Acid Extractable Zinc (Zn)	ug/g	47	56	9572140	48	34	5.0	0.50	9572140
Acid Extractable Mercury (Hg)	ug/g	0.052	<0.050	9572140	<0.050	<0.050	0.050	0.030	9572140

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZYE000		ZYE001	ZYE004		ZYE005			
Sampling Date		2024/08/06		2024/08/06	2024/08/06		2024/08/06			
COC Number		N/A		N/A	N/A		N/A			
	UNITS	BH7/1A	QC Batch	BH6/1A	BH4/1A	QC Batch	TP1	RDL	MDL	QC Batch
Inorganics										
Available (CaCl2) pH	pH						7.31			9570440
WAD Cyanide (Free)	ug/g	<0.01	9569861	<0.01	<0.01	9569861	<0.01	0.01	0.0019	9569861
Chromium (VI)	ug/g	<0.18	9572220	<0.18	<0.18	9572227	<0.18	0.18	0.050	9572227
Metals										
Acid Extractable Antimony (Sb)	ug/g	<0.20	9572135	<0.20	<0.20	9572140	<0.20	0.20	0.10	9572140
Acid Extractable Arsenic (As)	ug/g	3.0	9572135	3.2	3.3	9572140	3.1	1.0	0.10	9572140
Acid Extractable Barium (Ba)	ug/g	21	9572135	33	34	9572140	30	0.50	0.30	9572140
Acid Extractable Beryllium (Be)	ug/g	0.35	9572135	0.39	0.36	9572140	0.36	0.20	0.020	9572140
Acid Extractable Boron (B)	ug/g	<5.0	9572135	<5.0	<5.0	9572140	<5.0	5.0	1.0	9572140
Acid Extractable Cadmium (Cd)	ug/g	0.14	9572135	0.15	0.17	9572140	0.17	0.10	0.030	9572140
Acid Extractable Chromium (Cr)	ug/g	8.9	9572135	12	12	9572140	11	1.0	0.20	9572140
Acid Extractable Cobalt (Co)	ug/g	3.8	9572135	4.8	4.7	9572140	4.4	0.10	0.020	9572140
Acid Extractable Copper (Cu)	ug/g	12	9572135	16	16	9572140	14	0.50	0.20	9572140
Acid Extractable Lead (Pb)	ug/g	11	9572135	13	14	9572140	14	1.0	0.10	9572140
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	9572135	<0.50	1.2	9572140	<0.50	0.50	0.10	9572140
Acid Extractable Nickel (Ni)	ug/g	7.6	9572135	11	11	9572140	9.3	0.50	0.20	9572140
Acid Extractable Selenium (Se)	ug/g	<0.50	9572135	<0.50	<0.50	9572140	<0.50	0.50	0.10	9572140
Acid Extractable Silver (Ag)	ug/g	<0.20	9572135	<0.20	<0.20	9572140	<0.20	0.20	0.040	9572140
Acid Extractable Thallium (Tl)	ug/g	0.080	9572135	0.093	0.087	9572140	0.086	0.050	0.010	9572140
Acid Extractable Uranium (U)	ug/g	0.34	9572135	0.46	0.47	9572140	0.47	0.050	0.030	9572140
Acid Extractable Vanadium (V)	ug/g	17	9572135	21	22	9572140	19	5.0	0.50	9572140
Acid Extractable Zinc (Zn)	ug/g	28	9572135	38	42	9572140	42	5.0	0.50	9572140
Acid Extractable Mercury (Hg)	ug/g	<0.050	9572135	<0.050	<0.050	9572140	<0.050	0.050	0.030	9572140

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZYE006			
Sampling Date		2024/08/06			
COC Number		N/A			
	UNITS	TP2	RDL	MDL	QC Batch
Inorganics					
Available (CaCl2) pH	pH	7.54			9570440
WAD Cyanide (Free)	ug/g	<0.01	0.01	0.0019	9569861
Chromium (VI)	ug/g	<0.18	0.18	0.050	9572227
Metals					
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	0.10	9572140
Acid Extractable Arsenic (As)	ug/g	3.8	1.0	0.10	9572140
Acid Extractable Barium (Ba)	ug/g	67	0.50	0.30	9572140
Acid Extractable Beryllium (Be)	ug/g	0.61	0.20	0.020	9572140
Acid Extractable Boron (B)	ug/g	6.6	5.0	1.0	9572140
Acid Extractable Cadmium (Cd)	ug/g	0.19	0.10	0.030	9572140
Acid Extractable Chromium (Cr)	ug/g	19	1.0	0.20	9572140
Acid Extractable Cobalt (Co)	ug/g	7.1	0.10	0.020	9572140
Acid Extractable Copper (Cu)	ug/g	26	0.50	0.20	9572140
Acid Extractable Lead (Pb)	ug/g	17	1.0	0.10	9572140
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	0.10	9572140
Acid Extractable Nickel (Ni)	ug/g	18	0.50	0.20	9572140
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	0.10	9572140
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	0.040	9572140
Acid Extractable Thallium (Tl)	ug/g	0.11	0.050	0.010	9572140
Acid Extractable Uranium (U)	ug/g	0.56	0.050	0.030	9572140
Acid Extractable Vanadium (V)	ug/g	28	5.0	0.50	9572140
Acid Extractable Zinc (Zn)	ug/g	64	5.0	0.50	9572140
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	0.030	9572140

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID		ZYD994	ZYD995	ZYD997	ZYD999	ZYE000			
Sampling Date		2024/08/06	2024/08/06	2024/08/06	2024/08/06	2024/08/06			
COC Number		N/A	N/A	N/A	N/A	N/A			
	UNITS	BH2/3	BH1/5B	BH1/1A	BH8/1A	BH7/1A	RDL	MDL	QC Batch
Calculated Parameters									
Chlordane (Total)	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9565072
o,p-DDD + p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9565072
o,p-DDE + p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9565072
o,p-DDT + p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9565072
Total Endosulfan	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9565072
Pesticides & Herbicides									
Aldrin	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
a-Chlordane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
g-Chlordane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
o,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
o,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
o,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Dieldrin	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Lindane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Endosulfan I (alpha)	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Endosulfan II (beta)	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Endrin	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Heptachlor	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Heptachlor epoxide	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Hexachlorobenzene	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Hexachlorobutadiene	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9569486
Hexachloroethane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9569486
Methoxychlor	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	0.0016	9569486
Surrogate Recovery (%)									
2,4,5,6-Tetrachloro-m-xylene	%	93	101	100	97	96			9569486
Decachlorobiphenyl	%	102	91	95	83	98			9569486

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

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID		ZYE001	ZYE002	ZYE004	ZYE005	ZYE006			
Sampling Date		2024/08/06	2024/08/06	2024/08/06	2024/08/06	2024/08/06			
COC Number		N/A	N/A	N/A	N/A	N/A			
	UNITS	BH6/1A	DUPS2	BH4/1A	TP1	TP2	RDL	MDL	QC Batch
Calculated Parameters									
Chlordane (Total)	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9565072
o,p-DDD + p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9565072
o,p-DDE + p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9565072
o,p-DDT + p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9565072
Total Endosulfan	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9565072
Pesticides & Herbicides									
Aldrin	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
a-Chlordane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
g-Chlordane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
o,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
p,p-DDD	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
o,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
p,p-DDE	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
o,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
p,p-DDT	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Dieldrin	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Lindane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Endosulfan I (alpha)	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Endosulfan II (beta)	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Endrin	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Heptachlor	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Heptachlor epoxide	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Hexachlorobenzene	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.00040	9569486
Hexachlorobutadiene	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9569486
Hexachloroethane	ug/g	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9569486
Methoxychlor	ug/g	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	0.0016	9569486
Surrogate Recovery (%)									
2,4,5,6-Tetrachloro-m-xylene	%	80	106	97	109	101			9569486
Decachlorobiphenyl	%	80	99	90	94	96			9569486

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

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

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID		ZYE007			
Sampling Date		2024/08/06			
COC Number		N/A			
	UNITS	DUPS4	RDL	MDL	QC Batch
Calculated Parameters					
Chlordane (Total)	ug/g	<0.0020	0.0020	N/A	9565072
o,p-DDD + p,p-DDD	ug/g	<0.0020	0.0020	N/A	9565072
o,p-DDE + p,p-DDE	ug/g	<0.0020	0.0020	N/A	9565072
o,p-DDT + p,p-DDT	ug/g	<0.0020	0.0020	N/A	9565072
Total Endosulfan	ug/g	<0.0020	0.0020	N/A	9565072
Pesticides & Herbicides					
Aldrin	ug/g	<0.0020	0.0020	0.00040	9569486
a-Chlordane	ug/g	<0.0020	0.0020	0.00040	9569486
g-Chlordane	ug/g	<0.0020	0.0020	0.00040	9569486
o,p-DDD	ug/g	<0.0020	0.0020	0.00040	9569486
p,p-DDD	ug/g	<0.0020	0.0020	0.00040	9569486
o,p-DDE	ug/g	<0.0020	0.0020	0.00040	9569486
p,p-DDE	ug/g	<0.0020	0.0020	0.00040	9569486
o,p-DDT	ug/g	<0.0020	0.0020	0.00040	9569486
p,p-DDT	ug/g	<0.0020	0.0020	0.00040	9569486
Dieldrin	ug/g	<0.0020	0.0020	0.00040	9569486
Lindane	ug/g	<0.0020	0.0020	0.00040	9569486
Endosulfan I (alpha)	ug/g	<0.0020	0.0020	0.00040	9569486
Endosulfan II (beta)	ug/g	<0.0020	0.0020	0.00040	9569486
Endrin	ug/g	<0.0020	0.0020	0.00040	9569486
Heptachlor	ug/g	<0.0020	0.0020	0.00040	9569486
Heptachlor epoxide	ug/g	<0.0020	0.0020	0.00040	9569486
Hexachlorobenzene	ug/g	<0.0020	0.0020	0.00040	9569486
Hexachlorobutadiene	ug/g	<0.0020	0.0020	N/A	9569486
Hexachloroethane	ug/g	<0.0020	0.0020	N/A	9569486
Methoxychlor	ug/g	<0.0050	0.0050	0.0016	9569486
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	110			9569486
Decachlorobiphenyl	%	105			9569486

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

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

O.REG 153 PAHS (SOIL)

Bureau Veritas ID		ZYD994	ZYD996			
Sampling Date		2024/08/06	2024/08/06			
COC Number		N/A	N/A			
	UNITS	BH2/3	BH1/6	RDL	MDL	QC Batch
Calculated Parameters						
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	<0.0071	0.0071	N/A	9563527
Polyaromatic Hydrocarbons						
Acenaphthene	ug/g	<0.0050	<0.0050	0.0050	0.0020	9566813
Acenaphthylene	ug/g	<0.0050	<0.0050	0.0050	0.0010	9566813
Anthracene	ug/g	<0.0050	<0.0050	0.0050	0.0010	9566813
Benzo(a)anthracene	ug/g	<0.0050	<0.0050	0.0050	0.0020	9566813
Benzo(a)pyrene	ug/g	<0.0050	<0.0050	0.0050	0.0010	9566813
Benzo(b/j)fluoranthene	ug/g	<0.0050	<0.0050	0.0050	0.0020	9566813
Benzo(g,h,i)perylene	ug/g	<0.0050	<0.0050	0.0050	0.0040	9566813
Benzo(k)fluoranthene	ug/g	<0.0050	<0.0050	0.0050	0.0020	9566813
Chrysene	ug/g	<0.0050	<0.0050	0.0050	0.0020	9566813
Dibenzo(a,h)anthracene	ug/g	<0.0050	<0.0050	0.0050	0.0040	9566813
Fluoranthene	ug/g	<0.0050	<0.0050	0.0050	0.0010	9566813
Fluorene	ug/g	<0.0050	<0.0050	0.0050	0.0010	9566813
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	<0.0050	0.0050	0.0040	9566813
1-Methylnaphthalene	ug/g	<0.0050	<0.0050	0.0050	0.0010	9566813
2-Methylnaphthalene	ug/g	<0.0050	<0.0050	0.0050	0.0010	9566813
Naphthalene	ug/g	<0.0050	<0.0050	0.0050	0.0010	9566813
Phenanthrene	ug/g	<0.0050	<0.0050	0.0050	0.0010	9566813
Pyrene	ug/g	<0.0050	<0.0050	0.0050	0.0010	9566813
Surrogate Recovery (%)						
D10-Anthracene	%	105	99			9566813
D14-Terphenyl (FS)	%	101	97			9566813
D8-Acenaphthylene	%	106	96			9566813

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

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

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

Bureau Veritas ID		ZYE008	ZYE009				ZYE009			
Sampling Date		2024/08/06	2024/08/06				2024/08/06			
COC Number		N/A	N/A				N/A			
	UNITS	BH4/3	BH5/2B	RDL	MDL	QC Batch	BH5/2B Lab-Dup	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons										
Benzene	ug/g	<0.020	<0.020	0.020	0.020	9569661	<0.020	0.020	0.020	9569661
Toluene	ug/g	<0.020	<0.020	0.020	0.020	9569661	<0.020	0.020	0.020	9569661
Ethylbenzene	ug/g	<0.020	<0.020	0.020	0.020	9569661	<0.020	0.020	0.020	9569661
o-Xylene	ug/g	<0.020	<0.020	0.020	0.020	9569661	<0.020	0.020	0.020	9569661
p+m-Xylene	ug/g	<0.040	<0.040	0.040	0.040	9569661	<0.040	0.040	0.040	9569661
Total Xylenes	ug/g	<0.040	<0.040	0.040	0.040	9569661	<0.040	0.040	0.040	9569661
F1 (C6-C10)	ug/g	<10	<10	10	5.0	9569661	<10	10	5.0	9569661
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	5.0	9569661	<10	10	5.0	9569661
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	10	5.0	9565967				
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	50	5.0	9565967				
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	50	10	9565967				
Reached Baseline at C50	ug/g	Yes	Yes			9565967				
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	106	108			9569661	119			9569661
4-Bromofluorobenzene	%	97	86			9569661	94			9569661
D10-o-Xylene	%	108	90			9569661	98			9569661
D4-1,2-Dichloroethane	%	105	94			9569661	104			9569661
o-Terphenyl	%	106	109			9565967				

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

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

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

Bureau Veritas ID		ZYE010			
Sampling Date		2024/08/06			
COC Number		N/A			
	UNITS	BH3/2B	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/g	<0.020	0.020	0.020	9569661
Toluene	ug/g	<0.020	0.020	0.020	9569661
Ethylbenzene	ug/g	<0.020	0.020	0.020	9569661
o-Xylene	ug/g	<0.020	0.020	0.020	9569661
p+m-Xylene	ug/g	<0.040	0.040	0.040	9569661
Total Xylenes	ug/g	<0.040	0.040	0.040	9569661
F1 (C6-C10)	ug/g	<10	10	5.0	9569661
F1 (C6-C10) - BTEX	ug/g	<10	10	5.0	9569661
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	5.0	9565967
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	5.0	9565967
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	10	9565967
Reached Baseline at C50	ug/g	Yes			9565967
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	106			9569661
4-Bromofluorobenzene	%	101			9569661
D10-o-Xylene	%	112			9569661
D4-1,2-Dichloroethane	%	102			9569661
o-Terphenyl	%	113			9565967

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

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

Bureau Veritas ID		ZYD994	ZYD995	ZYD998			
Sampling Date		2024/08/06	2024/08/06	2024/08/06			
COC Number		N/A	N/A	N/A			
	UNITS	BH2/3	BH1/5B	DUPS1	RDL	MDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	0.050	0.010	9563498
Volatile Organics							
Acetone (2-Propanone)	ug/g	<0.49	<0.49	<0.49	0.49	0.49	9566046
Benzene	ug/g	<0.0060	<0.0060	<0.0060	0.0060	0.0060	9566046
Bromodichloromethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Bromoform	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Bromomethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Carbon Tetrachloride	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Chlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Chloroform	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Dibromochloromethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
1,1-Dichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
1,2-Dichloroethane	ug/g	<0.049	<0.049	<0.049	0.049	0.049	9566046
1,1-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
1,2-Dichloropropane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	0.030	0.030	9566046
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Ethylbenzene	ug/g	<0.010	<0.010	<0.010	0.010	0.010	9566046
Ethylene Dibromide	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Hexane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	<0.049	0.049	0.049	9566046
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	<0.40	0.40	0.40	9566046
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	<0.40	0.40	0.40	9566046
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Styrene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Tetrachloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

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

Bureau Veritas ID		ZYD994	ZYD995	ZYD998			
Sampling Date		2024/08/06	2024/08/06	2024/08/06			
COC Number		N/A	N/A	N/A			
	UNITS	BH2/3	BH1/5B	DUPS1	RDL	MDL	QC Batch
Toluene	ug/g	<0.020	<0.020	<0.020	0.020	0.020	9566046
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Trichloroethylene	ug/g	<0.010	<0.010	<0.010	0.010	0.010	9566046
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9566046
Vinyl Chloride	ug/g	<0.019	<0.019	<0.019	0.019	0.019	9566046
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	0.020	9566046
o-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	0.020	9566046
Total Xylenes	ug/g	<0.020	<0.020	<0.020	0.020	0.020	9566046
F1 (C6-C10)	ug/g	<10	<10	<10	10	2.0	9566046
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	10	2.0	9566046
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g	<10	17	17	10	5.0	9565967
F3 (C16-C34 Hydrocarbons)	ug/g	<50	77	70	50	5.0	9565967
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	50	10	9565967
Reached Baseline at C50	ug/g	Yes	Yes	Yes			9565967
Surrogate Recovery (%)							
o-Terphenyl	%	120	113	105			9565967
4-Bromofluorobenzene	%	97	97	97			9566046
D10-o-Xylene	%	97	95	93			9566046
D4-1,2-Dichloroethane	%	104	105	106			9566046
D8-Toluene	%	96	96	95			9566046

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ZYD994	ZYD995	ZYD996		ZYD997		ZYD998			
Sampling Date		2024/08/06	2024/08/06	2024/08/06		2024/08/06		2024/08/06			
COC Number		N/A	N/A	N/A		N/A		N/A			
	UNITS	BH2/3	BH1/5B	BH1/6	QC Batch	BH1/1A	QC Batch	DUPS1	RDL	MDL	QC Batch
Inorganics											
Moisture	%	22	15	19	9565559	16	9565223	12	1.0	0.50	9565559

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		ZYD999	ZYE000	ZYE001	ZYE002	ZYE004	ZYE005	ZYE006			
Sampling Date		2024/08/06	2024/08/06	2024/08/06	2024/08/06	2024/08/06	2024/08/06	2024/08/06			
COC Number		N/A	N/A	N/A	N/A	N/A	N/A	N/A			
	UNITS	BH8/1A	BH7/1A	BH6/1A	DUPS2	BH4/1A	TP1	TP2	RDL	MDL	QC Batch
Inorganics											
Moisture	%	13	15	15	16	18	18	15	1.0	0.50	9565223

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		ZYE007	ZYE008	ZYE009	ZYE010			
Sampling Date		2024/08/06	2024/08/06	2024/08/06	2024/08/06			
COC Number		N/A	N/A	N/A	N/A			
	UNITS	DUPS4	BH4/3	BH5/2B	BH3/2B	RDL	MDL	QC Batch
Inorganics								
Moisture	%	16	14	15	18	1.0	0.50	9565223

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

TEST SUMMARY

Bureau Veritas ID: ZYD994
Sample ID: BH2/3
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9563527	N/A	2024/08/11	Automated Statchk
1,3-Dichloropropene Sum	CALC	9563498	N/A	2024/08/12	Automated Statchk
Free (WAD) Cyanide	TECH	9569861	2024/08/12	2024/08/12	Alen Wang
Hexavalent Chromium in Soil by IC	IC/SPEC	9572227	2024/08/13	2024/08/13	Sousan Besharatlou
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9565967	2024/08/09	2024/08/10	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu
Moisture	BAL	9565559	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9566813	2024/08/09	2024/08/10	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9570440	2024/08/12	2024/08/12	Gurparteek KAUR
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9566046	N/A	2024/08/09	Cheng-Yu Sha

Bureau Veritas ID: ZYD995
Sample ID: BH1/5B
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9563498	N/A	2024/08/12	Automated Statchk
Free (WAD) Cyanide	TECH	9569861	2024/08/12	2024/08/12	Alen Wang
Hexavalent Chromium in Soil by IC	IC/SPEC	9572227	2024/08/13	2024/08/13	Sousan Besharatlou
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9565967	2024/08/09	2024/08/10	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu
Moisture	BAL	9565559	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk
pH CaCl2 EXTRACT	AT	9570440	2024/08/12	2024/08/12	Gurparteek KAUR
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9566046	N/A	2024/08/09	Cheng-Yu Sha

Bureau Veritas ID: ZYD996
Sample ID: BH1/6
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9563527	N/A	2024/08/11	Automated Statchk
Moisture	BAL	9565559	N/A	2024/08/08	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9566813	2024/08/09	2024/08/10	Jonghan Yoon

Bureau Veritas ID: ZYD997
Sample ID: BH1/1A
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9569861	2024/08/12	2024/08/12	Alen Wang

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

TEST SUMMARY

Bureau Veritas ID: ZYD997
Sample ID: BH1/1A
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hexavalent Chromium in Soil by IC	IC/SPEC	9572227	2024/08/13	2024/08/13	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk

Bureau Veritas ID: ZYD998
Sample ID: DUPS1
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9563498	N/A	2024/08/12	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9565967	2024/08/09	2024/08/10	Ksenia Trofimova
Moisture	BAL	9565559	N/A	2024/08/08	Muhammad Chhaidan
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9566046	N/A	2024/08/09	Cheng-Yu Sha

Bureau Veritas ID: ZYD999
Sample ID: BH8/1A
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9569861	2024/08/12	2024/08/12	Alen Wang
Hexavalent Chromium in Soil by IC	IC/SPEC	9572227	2024/08/13	2024/08/13	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk

Bureau Veritas ID: ZYE000
Sample ID: BH7/1A
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9569861	2024/08/12	2024/08/12	Alen Wang
Hexavalent Chromium in Soil by IC	IC/SPEC	9572220	2024/08/13	2024/08/13	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9572135	2024/08/13	2024/08/13	Viviana Canzonieri
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

TEST SUMMARY

Bureau Veritas ID: ZYE001
Sample ID: BH6/1A
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9569861	2024/08/12	2024/08/12	Alen Wang
Hexavalent Chromium in Soil by IC	IC/SPEC	9572227	2024/08/13	2024/08/13	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk

Bureau Veritas ID: ZYE002
Sample ID: DUPS2
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk

Bureau Veritas ID: ZYE003
Sample ID: DUPS3
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu

Bureau Veritas ID: ZYE004
Sample ID: BH4/1A
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9569861	2024/08/12	2024/08/12	Alen Wang
Hexavalent Chromium in Soil by IC	IC/SPEC	9572227	2024/08/13	2024/08/13	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk

Bureau Veritas ID: ZYE005
Sample ID: TP1
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9569861	2024/08/12	2024/08/12	Alen Wang
Hexavalent Chromium in Soil by IC	IC/SPEC	9572227	2024/08/13	2024/08/13	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

TEST SUMMARY

Bureau Veritas ID: ZYE005
Sample ID: TP1
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk
pH CaCl2 EXTRACT	AT	9570440	2024/08/12	2024/08/12	Gurparteek KAUR

Bureau Veritas ID: ZYE006
Sample ID: TP2
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9569861	2024/08/12	2024/08/12	Alen Wang
Hexavalent Chromium in Soil by IC	IC/SPEC	9572227	2024/08/13	2024/08/13	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk
pH CaCl2 EXTRACT	AT	9570440	2024/08/12	2024/08/12	Gurparteek KAUR

Bureau Veritas ID: ZYE007
Sample ID: DUPS4
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9569486	2024/08/11	2024/08/14	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	9565072	N/A	2024/08/09	Automated Statchk

Bureau Veritas ID: ZYE008
Sample ID: BH4/3
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9569661	N/A	2024/08/11	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9565967	2024/08/09	2024/08/10	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	9572135	2024/08/13	2024/08/13	Viviana Canzonieri
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan

Bureau Veritas ID: ZYE009
Sample ID: BH5/2B
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9569661	N/A	2024/08/12	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9565967	2024/08/09	2024/08/10	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

TEST SUMMARY

Bureau Veritas ID: ZYE009 Dup
Sample ID: BH5/2B
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9569661	N/A	2024/08/12	Ravinder Gaidhu

Bureau Veritas ID: ZYE010
Sample ID: BH3/2B
Matrix: Soil

Collected: 2024/08/06
Shipped:
Received: 2024/08/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9569661	N/A	2024/08/11	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9565967	2024/08/09	2024/08/10	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	9572140	2024/08/13	2024/08/13	Daniel Teclu
Moisture	BAL	9565223	N/A	2024/08/08	Muhammad Chhaidan

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

GENERAL COMMENTS

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

Package 1	6.7°C

Cooler custody seal was present and intact.

Sample ZYE009 [BH5/2B] : 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.

Sample ZYE010 [BH3/2B] : 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.

O.REG 153 OC PESTICIDES (SOIL)

OC Pesticides (Selected) & PCB: The recovery was above the upper control limit. This may represent a high bias in some results for flagged analytes. For results that were not detected (ND), this potential bias has no impact.

Results relate only to the items tested.

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

QUALITY ASSURANCE REPORT

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9565967	o-Terphenyl	2024/08/10	111	60 - 130	116	60 - 130	120	%		
9566046	4-Bromofluorobenzene	2024/08/09	99	60 - 140	98	60 - 140	97	%		
9566046	D10-o-Xylene	2024/08/09	105	60 - 130	92	60 - 130	89	%		
9566046	D4-1,2-Dichloroethane	2024/08/09	100	60 - 140	99	60 - 140	102	%		
9566046	D8-Toluene	2024/08/09	104	60 - 140	103	60 - 140	96	%		
9566813	D10-Anthracene	2024/08/09	94	50 - 130	99	50 - 130	101	%		
9566813	D14-Terphenyl (FS)	2024/08/09	95	50 - 130	98	50 - 130	98	%		
9566813	D8-Acenaphthylene	2024/08/09	96	50 - 130	100	50 - 130	99	%		
9569486	2,4,5,6-Tetrachloro-m-xylene	2024/08/13	103	50 - 130	109	50 - 130	110	%		
9569486	Decachlorobiphenyl	2024/08/13	96	50 - 130	87	50 - 130	108	%		
9569661	1,4-Difluorobenzene	2024/08/11	106	60 - 140	98	60 - 140	105	%		
9569661	4-Bromofluorobenzene	2024/08/11	87	60 - 140	104	60 - 140	100	%		
9569661	D10-o-Xylene	2024/08/11	107	60 - 140	99	60 - 140	95	%		
9569661	D4-1,2-Dichloroethane	2024/08/11	88	60 - 140	104	60 - 140	103	%		
9565223	Moisture	2024/08/08							3.2	20
9565559	Moisture	2024/08/08							0	20
9565967	F2 (C10-C16 Hydrocarbons)	2024/08/10	121	60 - 140	115	80 - 120	<10	ug/g	0	30
9565967	F3 (C16-C34 Hydrocarbons)	2024/08/10	115	60 - 140	116	80 - 120	<50	ug/g	5.0	30
9565967	F4 (C34-C50 Hydrocarbons)	2024/08/10	97	60 - 140	97	80 - 120	<50	ug/g	NC	30
9566046	1,1,1,2-Tetrachloroethane	2024/08/09	107	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9566046	1,1,1-Trichloroethane	2024/08/09	96	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9566046	1,1,2,2-Tetrachloroethane	2024/08/09	98	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9566046	1,1,2-Trichloroethane	2024/08/09	104	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9566046	1,1-Dichloroethane	2024/08/09	100	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9566046	1,1-Dichloroethylene	2024/08/09	100	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9566046	1,2-Dichlorobenzene	2024/08/09	100	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9566046	1,2-Dichloroethane	2024/08/09	101	60 - 140	100	60 - 130	<0.049	ug/g	NC	50
9566046	1,2-Dichloropropane	2024/08/09	104	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9566046	1,3-Dichlorobenzene	2024/08/09	101	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
9566046	1,4-Dichlorobenzene	2024/08/09	100	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9566046	Acetone (2-Propanone)	2024/08/09	97	60 - 140	95	60 - 140	<0.49	ug/g	NC	50

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

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
9566046	Benzene	2024/08/09	103	60 - 140	101	60 - 130	<0.0060	ug/g	NC	50
9566046	Bromodichloromethane	2024/08/09	97	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9566046	Bromoform	2024/08/09	103	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
9566046	Bromomethane	2024/08/09	83	60 - 140	82	60 - 140	<0.040	ug/g	NC	50
9566046	Carbon Tetrachloride	2024/08/09	102	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9566046	Chlorobenzene	2024/08/09	93	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9566046	Chloroform	2024/08/09	100	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9566046	cis-1,2-Dichloroethylene	2024/08/09	105	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9566046	cis-1,3-Dichloropropene	2024/08/09	93	60 - 140	94	60 - 130	<0.030	ug/g	NC	50
9566046	Dibromochloromethane	2024/08/09	103	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9566046	Dichlorodifluoromethane (FREON 12)	2024/08/09	82	60 - 140	79	60 - 140	<0.040	ug/g	NC	50
9566046	Ethylbenzene	2024/08/09	95	60 - 140	94	60 - 130	<0.010	ug/g	NC	50
9566046	Ethylene Dibromide	2024/08/09	100	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9566046	F1 (C6-C10) - BTEX	2024/08/09					<10	ug/g	NC	30
9566046	F1 (C6-C10)	2024/08/09	95	60 - 140	94	80 - 120	<10	ug/g	NC	30
9566046	Hexane	2024/08/09	115	60 - 140	111	60 - 130	<0.040	ug/g	NC	50
9566046	Methyl Ethyl Ketone (2-Butanone)	2024/08/09	100	60 - 140	98	60 - 140	<0.40	ug/g	NC	50
9566046	Methyl Isobutyl Ketone	2024/08/09	96	60 - 140	97	60 - 130	<0.40	ug/g	NC	50
9566046	Methyl t-butyl ether (MTBE)	2024/08/09	98	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9566046	Methylene Chloride(Dichloromethane)	2024/08/09	103	60 - 140	101	60 - 130	<0.049	ug/g	NC	50
9566046	o-Xylene	2024/08/09	103	60 - 140	102	60 - 130	<0.020	ug/g	1.2	50
9566046	p+m-Xylene	2024/08/09	94	60 - 140	93	60 - 130	<0.020	ug/g	3.1	50
9566046	Styrene	2024/08/09	97	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9566046	Tetrachloroethylene	2024/08/09	97	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9566046	Toluene	2024/08/09	101	60 - 140	100	60 - 130	<0.020	ug/g	2.3	50
9566046	Total Xylenes	2024/08/09					<0.020	ug/g	2.5	50
9566046	trans-1,2-Dichloroethylene	2024/08/09	106	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9566046	trans-1,3-Dichloropropene	2024/08/09	101	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
9566046	Trichloroethylene	2024/08/09	99	60 - 140	98	60 - 130	<0.010	ug/g	NC	50
9566046	Trichlorofluoromethane (FREON 11)	2024/08/09	94	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9566046	Vinyl Chloride	2024/08/09	98	60 - 140	96	60 - 130	<0.019	ug/g	NC	50

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

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
9566813	1-Methylnaphthalene	2024/08/09	77	50 - 130	79	50 - 130	<0.0050	ug/g	NC	40
9566813	2-Methylnaphthalene	2024/08/09	81	50 - 130	83	50 - 130	<0.0050	ug/g	NC	40
9566813	Acenaphthene	2024/08/09	82	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
9566813	Acenaphthylene	2024/08/09	87	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
9566813	Anthracene	2024/08/09	84	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
9566813	Benzo(a)anthracene	2024/08/09	87	50 - 130	91	50 - 130	<0.0050	ug/g	11	40
9566813	Benzo(a)pyrene	2024/08/09	81	50 - 130	84	50 - 130	<0.0050	ug/g	21	40
9566813	Benzo(b/j)fluoranthene	2024/08/09	70	50 - 130	77	50 - 130	<0.0050	ug/g	35	40
9566813	Benzo(g,h,i)perylene	2024/08/09	69	50 - 130	74	50 - 130	<0.0050	ug/g	30	40
9566813	Benzo(k)fluoranthene	2024/08/09	72	50 - 130	76	50 - 130	<0.0050	ug/g	32	40
9566813	Chrysene	2024/08/09	85	50 - 130	88	50 - 130	<0.0050	ug/g	21	40
9566813	Dibenzo(a,h)anthracene	2024/08/09	72	50 - 130	75	50 - 130	<0.0050	ug/g	NC	40
9566813	Fluoranthene	2024/08/09	84	50 - 130	87	50 - 130	<0.0050	ug/g	0.26	40
9566813	Fluorene	2024/08/09	84	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
9566813	Indeno(1,2,3-cd)pyrene	2024/08/09	72	50 - 130	78	50 - 130	<0.0050	ug/g	33	40
9566813	Naphthalene	2024/08/09	84	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
9566813	Phenanthrene	2024/08/09	79	50 - 130	82	50 - 130	<0.0050	ug/g	4.7	40
9566813	Pyrene	2024/08/09	83	50 - 130	87	50 - 130	<0.0050	ug/g	5.3	40
9569486	a-Chlordane	2024/08/13	102	50 - 130	134 (2)	50 - 130	<0.0020	ug/g	NC	40
9569486	Aldrin	2024/08/13	100	50 - 130	97	50 - 130	<0.0020	ug/g	NC	40
9569486	Dieldrin	2024/08/13	107	50 - 130	177 (2)	50 - 130	<0.0020	ug/g	NC	40
9569486	Endosulfan I (alpha)	2024/08/13	82	50 - 130	155 (2)	50 - 130	<0.0020	ug/g	NC	40
9569486	Endosulfan II (beta)	2024/08/13	83	50 - 130	144 (2)	50 - 130	<0.0020	ug/g	NC	40
9569486	Endrin	2024/08/13	108	50 - 130	167 (2)	50 - 130	<0.0020	ug/g	NC	40
9569486	g-Chlordane	2024/08/13	104	50 - 130	155 (2)	50 - 130	<0.0020	ug/g	NC	40
9569486	Heptachlor epoxide	2024/08/13	96	50 - 130	152 (2)	50 - 130	<0.0020	ug/g	NC	40
9569486	Heptachlor	2024/08/13	101	50 - 130	97	50 - 130	<0.0020	ug/g	NC	40
9569486	Hexachlorobenzene	2024/08/13	90	50 - 130	91	50 - 130	<0.0020	ug/g	NC	40
9569486	Hexachlorobutadiene	2024/08/13	69	50 - 130	105	50 - 130	<0.0020	ug/g	NC	40
9569486	Hexachloroethane	2024/08/13	43 (1)	50 - 130	85	50 - 130	<0.0020	ug/g	NC	40
9569486	Lindane	2024/08/13	99	50 - 130	154 (2)	50 - 130	<0.0020	ug/g	NC	40

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

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
9569486	Methoxychlor	2024/08/13	111	50 - 130	185 (2)	50 - 130	<0.0050	ug/g	NC	40
9569486	o,p-DDD	2024/08/13	115	50 - 130	180 (2)	50 - 130	<0.0020	ug/g	NC	40
9569486	o,p-DDE	2024/08/13	111	50 - 130	109	50 - 130	<0.0020	ug/g	NC	40
9569486	o,p-DDT	2024/08/13	114	50 - 130	121	50 - 130	<0.0020	ug/g	NC	40
9569486	p,p-DDD	2024/08/13	99	50 - 130	169 (2)	50 - 130	<0.0020	ug/g	NC	40
9569486	p,p-DDE	2024/08/13	106	50 - 130	110	50 - 130	<0.0020	ug/g	NC	40
9569486	p,p-DDT	2024/08/13	82	50 - 130	124	50 - 130	<0.0020	ug/g	NC	40
9569661	Benzene	2024/08/12	86	50 - 140	88	50 - 140	<0.020	ug/g	NC	50
9569661	Ethylbenzene	2024/08/12	99	50 - 140	95	50 - 140	<0.020	ug/g	NC	50
9569661	F1 (C6-C10) - BTEX	2024/08/12					<10	ug/g	NC	30
9569661	F1 (C6-C10)	2024/08/12	70	60 - 140	96	80 - 120	<10	ug/g	NC	30
9569661	o-Xylene	2024/08/12	97	50 - 140	95	50 - 140	<0.020	ug/g	NC	50
9569661	p+m-Xylene	2024/08/12	93	50 - 140	96	50 - 140	<0.040	ug/g	NC	50
9569661	Toluene	2024/08/12	82	50 - 140	87	50 - 140	<0.020	ug/g	NC	50
9569661	Total Xylenes	2024/08/12					<0.040	ug/g	NC	50
9569861	WAD Cyanide (Free)	2024/08/12	97	75 - 125	96	80 - 120	<0.01	ug/g	NC	35
9570440	Available (CaCl2) pH	2024/08/12			100	97 - 103			0.22	N/A
9572135	Acid Extractable Antimony (Sb)	2024/08/13	106	75 - 125	105	80 - 120	<0.20	ug/g		
9572135	Acid Extractable Arsenic (As)	2024/08/13	102	75 - 125	101	80 - 120	<1.0	ug/g	10	30
9572135	Acid Extractable Barium (Ba)	2024/08/13	NC	75 - 125	101	80 - 120	<0.50	ug/g		
9572135	Acid Extractable Beryllium (Be)	2024/08/13	108	75 - 125	100	80 - 120	<0.20	ug/g		
9572135	Acid Extractable Boron (B)	2024/08/13	107	75 - 125	104	80 - 120	<5.0	ug/g		
9572135	Acid Extractable Cadmium (Cd)	2024/08/13	107	75 - 125	100	80 - 120	<0.10	ug/g		
9572135	Acid Extractable Chromium (Cr)	2024/08/13	106	75 - 125	98	80 - 120	<1.0	ug/g		
9572135	Acid Extractable Cobalt (Co)	2024/08/13	105	75 - 125	100	80 - 120	<0.10	ug/g		
9572135	Acid Extractable Copper (Cu)	2024/08/13	106	75 - 125	101	80 - 120	<0.50	ug/g		
9572135	Acid Extractable Lead (Pb)	2024/08/13	NC	75 - 125	105	80 - 120	<1.0	ug/g		
9572135	Acid Extractable Mercury (Hg)	2024/08/13	111	75 - 125	111	80 - 120	<0.050	ug/g		
9572135	Acid Extractable Molybdenum (Mo)	2024/08/13	103	75 - 125	96	80 - 120	<0.50	ug/g		
9572135	Acid Extractable Nickel (Ni)	2024/08/13	108	75 - 125	104	80 - 120	<0.50	ug/g		
9572135	Acid Extractable Selenium (Se)	2024/08/13	109	75 - 125	103	80 - 120	<0.50	ug/g		

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
9572135	Acid Extractable Silver (Ag)	2024/08/13	104	75 - 125	98	80 - 120	<0.20	ug/g		
9572135	Acid Extractable Thallium (Tl)	2024/08/13	109	75 - 125	104	80 - 120	<0.050	ug/g		
9572135	Acid Extractable Uranium (U)	2024/08/13	112	75 - 125	105	80 - 120	<0.050	ug/g	2.8	30
9572135	Acid Extractable Vanadium (V)	2024/08/13	104	75 - 125	99	80 - 120	<5.0	ug/g		
9572135	Acid Extractable Zinc (Zn)	2024/08/13	NC	75 - 125	100	80 - 120	<5.0	ug/g		
9572140	Acid Extractable Antimony (Sb)	2024/08/13	100	75 - 125	107	80 - 120	<0.20	ug/g	7.6	30
9572140	Acid Extractable Arsenic (As)	2024/08/13	99	75 - 125	97	80 - 120	<1.0	ug/g	9.0	30
9572140	Acid Extractable Barium (Ba)	2024/08/13	NC	75 - 125	94	80 - 120	<0.50	ug/g	1.2	30
9572140	Acid Extractable Beryllium (Be)	2024/08/13	99	75 - 125	95	80 - 120	<0.20	ug/g	0.0049	30
9572140	Acid Extractable Boron (B)	2024/08/13	95	75 - 125	95	80 - 120	<5.0	ug/g	8.9	30
9572140	Acid Extractable Cadmium (Cd)	2024/08/13	100	75 - 125	97	80 - 120	<0.10	ug/g	0.37	30
9572140	Acid Extractable Chromium (Cr)	2024/08/13	105	75 - 125	98	80 - 120	<1.0	ug/g	1.6	30
9572140	Acid Extractable Cobalt (Co)	2024/08/13	102	75 - 125	99	80 - 120	<0.10	ug/g	0.54	30
9572140	Acid Extractable Copper (Cu)	2024/08/13	NC	75 - 125	96	80 - 120	<0.50	ug/g	1.1	30
9572140	Acid Extractable Lead (Pb)	2024/08/13	105	75 - 125	102	80 - 120	<1.0	ug/g	2.1	30
9572140	Acid Extractable Mercury (Hg)	2024/08/13	107	75 - 125	103	80 - 120	<0.050	ug/g		
9572140	Acid Extractable Molybdenum (Mo)	2024/08/13	98	75 - 125	95	80 - 120	<0.50	ug/g	NC	30
9572140	Acid Extractable Nickel (Ni)	2024/08/13	104	75 - 125	101	80 - 120	<0.50	ug/g	1.3	30
9572140	Acid Extractable Selenium (Se)	2024/08/13	100	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
9572140	Acid Extractable Silver (Ag)	2024/08/13	102	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
9572140	Acid Extractable Thallium (Tl)	2024/08/13	105	75 - 125	101	80 - 120	<0.050	ug/g	2.4	30
9572140	Acid Extractable Uranium (U)	2024/08/13	116	75 - 125	109	80 - 120	<0.050	ug/g	2.4	30
9572140	Acid Extractable Vanadium (V)	2024/08/13	100	75 - 125	98	80 - 120	<5.0	ug/g	0.36	30
9572140	Acid Extractable Zinc (Zn)	2024/08/13	NC	75 - 125	99	80 - 120	<5.0	ug/g	2.8	30
9572220	Chromium (VI)	2024/08/13	52 (3)	70 - 130	91	80 - 120	<0.18	ug/g	NC	35

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

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
9572227	Chromium (VI)	2024/08/13	86	70 - 130	92	80 - 120	<0.18	ug/g	NC	35

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) Matrix Spike recovery is below the control limit stipulated by Ont Reg 153, however, this recovery is still within Bureau Veritas' performance based limits. Results reported with recoveries within this range are still valid but may have a low bias.

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

(3) 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.

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

Bureau Veritas Job #: C4O3161
Report Date: 2024/08/16

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AI

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.

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

Soil Engineers Ltd.
CONSULTING ENGINEERS
GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE
90 WEST BEAVER CREEK ROAD, SUITE 100, RICHMOND HILL, ONTARIO L4B 1E7 · TEL: (416) 754-8515 · FAX: (905) 881-8335

BARRIE	MISSISSAUGA	OSHAWA	NEWMARKET	MUSKOKA	HAMILTON
TEL: (705) 721-7863	TEL: (905) 542-7605	TEL: (905) 440-2040	TEL: (905) 853-0647	TEL: (705) 721-7863	TEL: (905) 777-7956
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 'D'

CERTIFICATE OF ANALYSIS
(GROUNDWATER SAMPLES)

Reference No. 1910-E004

Your Project #: 1910-E004
Site Location: MILTON
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: 2024/08/28
Report #: R8297189
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4Q0567
Received: 2024/08/21, 15:33

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	2	N/A	2024/08/26	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	2	N/A	2024/08/26		EPA 8260C m
1,3-Dichloropropene Sum	2	N/A	2024/08/27		EPA 8260C m
Chromium (VI) in Water	2	N/A	2024/08/26	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	2	N/A	2024/08/23	CAM SOP-00457	OMOE E3015 m
Petroleum Hydrocarbons F2-F4 in Water (1)	2	2024/08/23	2024/08/25	CAM SOP-00316	CCME PHC-CWS m
Mercury	1	2024/08/23	2024/08/23	CAM SOP-00453	EPA 7470A m
Mercury	1	2024/08/26	2024/08/26	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	2	N/A	2024/08/26	CAM SOP-00447	EPA 6020B m
OC Pesticides (Selected) & PCB (2)	2	2024/08/27	2024/08/28	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides Summed Parameters	1	N/A	2024/08/23	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides Summed Parameters	1	N/A	2024/08/26	CAM SOP-00307	EPA 8081B/ 8082A
PAH Compounds in Water by GC/MS (SIM)	2	2024/08/23	2024/08/24	CAM SOP-00318	EPA 8270E
pH (3)	1	2024/08/22	2024/08/23	CAM SOP-00413	SM 24th - 4500H+ B
Volatile Organic Compounds and F1 PHCs	2	N/A	2024/08/23	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds in Water	2	N/A	2024/08/26	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.

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 #: 1910-E004
Site Location: MILTON
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: 2024/08/28
Report #: R8297189
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4Q0567
Received: 2024/08/21, 15:33

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 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) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane
(3) "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
28 Aug 2024 16:54:22

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

==========

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 #: C4Q0567
Report Date: 2024/08/28

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AS

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AAQE88		
Sampling Date		2024/08/20		
COC Number		N/A		
	UNITS	MW1	MDL	QC Batch
Inorganics				
pH	pH	7.86		9594631
QC Batch = Quality Control Batch				

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

Bureau Veritas Job #: C4Q0567
Report Date: 2024/08/28

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AS

O.REG 153 METALS & INORGANICS PKG (WTR)

Bureau Veritas ID		AAQE88				AAQE88				AAQE89			
Sampling Date		2024/08/20				2024/08/20				2024/08/20			
COC Number		N/A				N/A				N/A			
	UNITS	MW1	RDL	MDL	QC Batch	MW1 Lab-Dup	RDL	MDL	QC Batch	MW2	RDL	MDL	QC Batch
Inorganics													
WAD Cyanide (Free)	ug/L	<1	1	0.2	9595007					<1	1	0.2	9595007
Metals													
Chromium (VI)	ug/L	<0.50	0.50	0.30	9599291					<0.50	0.50	0.30	9599291
Mercury (Hg)	ug/L	<0.10	0.10	0.020	9595301					<0.10	0.10	0.020	9599292
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	0.20	9596201	<0.50	0.50	0.20	9596201	<0.50	0.50	0.20	9596201
Dissolved Arsenic (As)	ug/L	2.0	1.0	0.10	9596201	2.0	1.0	0.10	9596201	4.9	1.0	0.10	9596201
Dissolved Barium (Ba)	ug/L	130	2.0	0.30	9596201	130	2.0	0.30	9596201	120	2.0	0.30	9596201
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	0.050	9596201	<0.40	0.40	0.050	9596201	<0.40	0.40	0.050	9596201
Dissolved Boron (B)	ug/L	130	10	0.60	9596201	130	10	0.60	9596201	120	10	0.60	9596201
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	0.090	9596201	<0.090	0.090	0.090	9596201	<0.090	0.090	0.090	9596201
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	0.70	9596201	<5.0	5.0	0.70	9596201	<5.0	5.0	0.70	9596201
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	0.040	9596201	<0.50	0.50	0.040	9596201	1.1	0.50	0.040	9596201
Dissolved Copper (Cu)	ug/L	1.3	0.90	0.30	9596201	1.3	0.90	0.30	9596201	1.4	0.90	0.30	9596201
Dissolved Lead (Pb)	ug/L	<0.50	0.50	0.050	9596201	<0.50	0.50	0.050	9596201	<0.50	0.50	0.050	9596201
Dissolved Molybdenum (Mo)	ug/L	3.5	0.50	0.070	9596201	3.6	0.50	0.070	9596201	2.6	0.50	0.070	9596201
Dissolved Nickel (Ni)	ug/L	<1.0	1.0	0.40	9596201	<1.0	1.0	0.40	9596201	1.2	1.0	0.40	9596201
Dissolved Selenium (Se)	ug/L	<2.0	2.0	0.20	9596201	<2.0	2.0	0.20	9596201	<2.0	2.0	0.20	9596201
Dissolved Silver (Ag)	ug/L	<0.090	0.090	0.020	9596201	<0.090	0.090	0.020	9596201	<0.090	0.090	0.020	9596201
Dissolved Sodium (Na)	ug/L	28000	100	20	9596201	28000	100	20	9596201	360000	100	20	9596201
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	0.020	9596201	<0.050	0.050	0.020	9596201	<0.050	0.050	0.020	9596201
Dissolved Uranium (U)	ug/L	2.3	0.10	0.010	9596201	2.3	0.10	0.010	9596201	3.8	0.10	0.010	9596201
Dissolved Vanadium (V)	ug/L	0.53	0.50	0.090	9596201	0.55	0.50	0.090	9596201	<0.50	0.50	0.090	9596201
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	1.0	9596201	<5.0	5.0	1.0	9596201	<5.0	5.0	1.0	9596201

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

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

Bureau Veritas Job #: C4Q0567
Report Date: 2024/08/28

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AS

O.REG 153 OC PESTICIDES (WATER)

Bureau Veritas ID		AAQE88				AAQE88			
Sampling Date		2024/08/20				2024/08/20			
COC Number		N/A				N/A			
	UNITS	MW1	RDL	MDL	QC Batch	MW1 Lab-Dup	RDL	MDL	QC Batch
Calculated Parameters									
Chlordane (Total)	ug/L	<0.005	0.005	N/A	9593280				
o,p-DDD + p,p-DDD	ug/L	<0.005	0.005	N/A	9593280				
o,p-DDE + p,p-DDE	ug/L	<0.005	0.005	N/A	9593280				
o,p-DDT + p,p-DDT	ug/L	<0.005	0.005	N/A	9593280				
Total Endosulfan	ug/L	<0.005	0.005	N/A	9593280				
Pesticides & Herbicides									
Aldrin	ug/L	<0.005	0.005	0.002	9601551	<0.005	0.005	0.002	9601551
Dieldrin	ug/L	<0.005	0.005	0.0008	9601551	<0.005	0.005	0.0008	9601551
a-Chlordane	ug/L	<0.005	0.005	0.0007	9601551	<0.005	0.005	0.0007	9601551
g-Chlordane	ug/L	<0.005	0.005	0.0009	9601551	<0.005	0.005	0.0009	9601551
o,p-DDD	ug/L	<0.005	0.005	0.0007	9601551	<0.005	0.005	0.0007	9601551
p,p-DDD	ug/L	<0.005	0.005	0.0006	9601551	<0.005	0.005	0.0006	9601551
o,p-DDE	ug/L	<0.005	0.005	0.001	9601551	<0.005	0.005	0.001	9601551
p,p-DDE	ug/L	<0.005	0.005	0.0005	9601551	<0.005	0.005	0.0005	9601551
o,p-DDT	ug/L	<0.005	0.005	0.0004	9601551	<0.005	0.005	0.0004	9601551
p,p-DDT	ug/L	<0.005	0.005	0.0007	9601551	<0.005	0.005	0.0007	9601551
Lindane	ug/L	<0.003	0.003	0.001	9601551	<0.003	0.003	0.001	9601551
Endosulfan I (alpha)	ug/L	<0.005	0.005	0.001	9601551	<0.005	0.005	0.001	9601551
Endosulfan II (beta)	ug/L	<0.005	0.005	0.0005	9601551	<0.005	0.005	0.0005	9601551
Endrin	ug/L	<0.005	0.005	0.0005	9601551	<0.005	0.005	0.0005	9601551
Heptachlor	ug/L	<0.005	0.005	0.0004	9601551	<0.005	0.005	0.0004	9601551
Heptachlor epoxide	ug/L	<0.005	0.005	0.001	9601551	<0.005	0.005	0.001	9601551
Hexachlorobenzene	ug/L	<0.005	0.005	0.001	9601551	<0.005	0.005	0.001	9601551
Hexachlorobutadiene	ug/L	<0.009	0.009	0.0008	9601551	<0.009	0.009	0.0008	9601551
Hexachloroethane	ug/L	<0.01	0.01	0.0006	9601551	<0.01	0.01	0.0006	9601551
Methoxychlor	ug/L	<0.01	0.01	0.002	9601551	<0.01	0.01	0.002	9601551
Surrogate Recovery (%)									
2,4,5,6-Tetrachloro-m-xylene	%	55			9601551	62			9601551
Decachlorobiphenyl	%	97			9601551	95			9601551

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

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

O.REG 153 OC PESTICIDES (WATER)

Bureau Veritas ID		AAQE89			
Sampling Date		2024/08/20			
COC Number		N/A			
	UNITS	MW2	RDL	MDL	QC Batch
Calculated Parameters					
Chlordane (Total)	ug/L	<0.005	0.005	N/A	9593280
o,p-DDD + p,p-DDD	ug/L	<0.005	0.005	N/A	9593280
o,p-DDE + p,p-DDE	ug/L	<0.005	0.005	N/A	9593280
o,p-DDT + p,p-DDT	ug/L	<0.005	0.005	N/A	9593280
Total Endosulfan	ug/L	<0.005	0.005	N/A	9593280
Pesticides & Herbicides					
Aldrin	ug/L	<0.005	0.005	0.002	9601551
Dieldrin	ug/L	<0.005	0.005	0.0008	9601551
a-Chlordane	ug/L	<0.005	0.005	0.0007	9601551
g-Chlordane	ug/L	<0.005	0.005	0.0009	9601551
o,p-DDD	ug/L	<0.005	0.005	0.0007	9601551
p,p-DDD	ug/L	<0.005	0.005	0.0006	9601551
o,p-DDE	ug/L	<0.005	0.005	0.001	9601551
p,p-DDE	ug/L	<0.005	0.005	0.0005	9601551
o,p-DDT	ug/L	<0.005	0.005	0.0004	9601551
p,p-DDT	ug/L	<0.005	0.005	0.0007	9601551
Lindane	ug/L	<0.003	0.003	0.001	9601551
Endosulfan I (alpha)	ug/L	<0.005	0.005	0.001	9601551
Endosulfan II (beta)	ug/L	<0.005	0.005	0.0005	9601551
Endrin	ug/L	<0.005	0.005	0.0005	9601551
Heptachlor	ug/L	<0.005	0.005	0.0004	9601551
Heptachlor epoxide	ug/L	<0.005	0.005	0.001	9601551
Hexachlorobenzene	ug/L	<0.005	0.005	0.001	9601551
Hexachlorobutadiene	ug/L	<0.009	0.009	0.0008	9601551
Hexachloroethane	ug/L	<0.01	0.01	0.0006	9601551
Methoxychlor	ug/L	<0.01	0.01	0.002	9601551
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	70			9601551
Decachlorobiphenyl	%	96			9601551

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

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

O.REG 153 PAHS (WATER)

Bureau Veritas ID		AAQE88	AAQE89			
Sampling Date		2024/08/20	2024/08/20			
COC Number		N/A	N/A			
	UNITS	MW1	MW2	RDL	MDL	QC Batch
Calculated Parameters						
Methylnaphthalene, 2-(1-)	ug/L	<0.071	<0.071	0.071	N/A	9592889
Polyaromatic Hydrocarbons						
Acenaphthene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Acenaphthylene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Anthracene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Benzo(a)anthracene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Benzo(a)pyrene	ug/L	<0.0090	<0.0090	0.0090	0.0030	9595899
Benzo(b/j)fluoranthene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Chrysene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Dibenzo(a,h)anthracene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Fluoranthene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Fluorene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
1-Methylnaphthalene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
2-Methylnaphthalene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Naphthalene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Phenanthrene	ug/L	<0.030	<0.030	0.030	0.0030	9595899
Pyrene	ug/L	<0.050	<0.050	0.050	0.0030	9595899
Surrogate Recovery (%)						
D10-Anthracene	%	112	108			9595899
D14-Terphenyl (FS)	%	113	108			9595899
D8-Acenaphthylene	%	101	95			9595899

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

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

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

Bureau Veritas ID		AAQE88	AAQE89			
Sampling Date		2024/08/20	2024/08/20			
COC Number		N/A	N/A			
	UNITS	MW1	MW2	RDL	MDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	0.50	9592318
Volatile Organics						
Acetone (2-Propanone)	ug/L	<10	<10	10	1.0	9595220
Benzene	ug/L	<0.17	<0.17	0.17	0.020	9595220
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	0.050	9595220
Bromoform	ug/L	<1.0	<1.0	1.0	0.10	9595220
Bromomethane	ug/L	<0.50	<0.50	0.50	0.10	9595220
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	0.050	9595220
Chlorobenzene	ug/L	<0.20	<0.20	0.20	0.010	9595220
Chloroform	ug/L	<0.20	<0.20	0.20	0.050	9595220
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	0.050	9595220
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	0.050	9595220
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	0.050	9595220
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	0.050	9595220
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	0.050	9595220
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	0.050	9595220
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	0.020	9595220
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	0.050	9595220
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	0.050	9595220
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	0.050	9595220
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	0.050	9595220
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	0.050	9595220
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	0.050	9595220
Ethylbenzene	ug/L	<0.20	<0.20	0.20	0.010	9595220
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	0.050	9595220
Hexane	ug/L	<1.0	<1.0	1.0	0.10	9595220
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	0.10	9595220
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	0.50	9595220
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	0.10	9595220
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	0.050	9595220
Styrene	ug/L	<0.50	<0.50	0.50	0.050	9595220
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	0.050	9595220
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	0.050	9595220
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	0.050	9595220

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas Job #: C4Q0567
Report Date: 2024/08/28

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AS

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

Bureau Veritas ID		AAQE88	AAQE89			
Sampling Date		2024/08/20	2024/08/20			
COC Number		N/A	N/A			
	UNITS	MW1	MW2	RDL	MDL	QC Batch
Toluene	ug/L	<0.20	<0.20	0.20	0.010	9595220
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	0.050	9595220
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	0.050	9595220
Trichloroethylene	ug/L	<0.20	<0.20	0.20	0.050	9595220
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	0.10	9595220
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	0.050	9595220
p+m-Xylene	ug/L	<0.20	<0.20	0.20	0.010	9595220
o-Xylene	ug/L	<0.20	<0.20	0.20	0.010	9595220
Total Xylenes	ug/L	<0.20	<0.20	0.20	0.010	9595220
F1 (C6-C10)	ug/L	<25	<25	25	20	9595220
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	20	9595220
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	50	9595901
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	70	9595901
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	50	9595901
Reached Baseline at C50	ug/L	Yes	Yes			9595901
Surrogate Recovery (%)						
o-Terphenyl	%	97	97			9595901
4-Bromofluorobenzene	%	98	100			9595220
D4-1,2-Dichloroethane	%	101	103			9595220
D8-Toluene	%	95	94			9595220

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		AAQE90				AAQE90			
Sampling Date		2024/08/20				2024/08/20			
COC Number		N/A				N/A			
	UNITS	DUPW1	RDL	MDL	QC Batch	DUPW1 Lab-Dup	RDL	MDL	QC Batch
Calculated Parameters									
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	0.50	9592318				
Volatile Organics									
Acetone (2-Propanone)	ug/L	<10	10	1.0	9596194	<10	10	1.0	9596194
Benzene	ug/L	<0.20	0.20	0.020	9596194	<0.20	0.20	0.020	9596194
Bromodichloromethane	ug/L	<0.50	0.50	0.050	9596194	<0.50	0.50	0.050	9596194
Bromoform	ug/L	<1.0	1.0	0.10	9596194	<1.0	1.0	0.10	9596194
Bromomethane	ug/L	<0.50	0.50	0.10	9596194	<0.50	0.50	0.10	9596194
Carbon Tetrachloride	ug/L	<0.19	0.19	0.050	9596194	<0.19	0.19	0.050	9596194
Chlorobenzene	ug/L	<0.20	0.20	0.010	9596194	<0.20	0.20	0.010	9596194
Chloroform	ug/L	<0.20	0.20	0.050	9596194	<0.20	0.20	0.050	9596194
Dibromochloromethane	ug/L	<0.50	0.50	0.050	9596194	<0.50	0.50	0.050	9596194
1,2-Dichlorobenzene	ug/L	<0.40	0.40	0.050	9596194	<0.40	0.40	0.050	9596194
1,3-Dichlorobenzene	ug/L	<0.40	0.40	0.050	9596194	<0.40	0.40	0.050	9596194
1,4-Dichlorobenzene	ug/L	<0.40	0.40	0.050	9596194	<0.40	0.40	0.050	9596194
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	0.050	9596194	<1.0	1.0	0.050	9596194
1,1-Dichloroethane	ug/L	<0.20	0.20	0.050	9596194	<0.20	0.20	0.050	9596194
1,2-Dichloroethane	ug/L	<0.49	0.49	0.020	9596194	<0.49	0.49	0.020	9596194
1,1-Dichloroethylene	ug/L	<0.20	0.20	0.050	9596194	<0.20	0.20	0.050	9596194
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	0.050	9596194	<0.50	0.50	0.050	9596194
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	0.050	9596194	<0.50	0.50	0.050	9596194
1,2-Dichloropropane	ug/L	<0.20	0.20	0.050	9596194	<0.20	0.20	0.050	9596194
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	0.050	9596194	<0.30	0.30	0.050	9596194
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	0.050	9596194	<0.40	0.40	0.050	9596194
Ethylbenzene	ug/L	<0.20	0.20	0.010	9596194	<0.20	0.20	0.010	9596194
Ethylene Dibromide	ug/L	<0.19	0.19	0.050	9596194	<0.19	0.19	0.050	9596194
Hexane	ug/L	<1.0	1.0	0.10	9596194	<1.0	1.0	0.10	9596194
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	0.10	9596194	<2.0	2.0	0.10	9596194
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	0.50	9596194	<10	10	0.50	9596194
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	0.10	9596194	<5.0	5.0	0.10	9596194
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	0.050	9596194	<0.50	0.50	0.050	9596194
Styrene	ug/L	<0.40	0.40	0.050	9596194	<0.40	0.40	0.050	9596194
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	0.050	9596194	<0.50	0.50	0.050	9596194
1,1,2,2-Tetrachloroethane	ug/L	<0.40	0.40	0.050	9596194	<0.40	0.40	0.050	9596194
Tetrachloroethylene	ug/L	<0.20	0.20	0.050	9596194	<0.20	0.20	0.050	9596194

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

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

O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		AAQE90				AAQE90			
Sampling Date		2024/08/20				2024/08/20			
COC Number		N/A				N/A			
	UNITS	DUPW1	RDL	MDL	QC Batch	DUPW1 Lab-Dup	RDL	MDL	QC Batch
Toluene	ug/L	<0.20	0.20	0.010	9596194	<0.20	0.20	0.010	9596194
1,1,1-Trichloroethane	ug/L	<0.20	0.20	0.050	9596194	<0.20	0.20	0.050	9596194
1,1,2-Trichloroethane	ug/L	<0.40	0.40	0.050	9596194	<0.40	0.40	0.050	9596194
Trichloroethylene	ug/L	<0.20	0.20	0.050	9596194	<0.20	0.20	0.050	9596194
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	0.10	9596194	<0.50	0.50	0.10	9596194
Vinyl Chloride	ug/L	<0.20	0.20	0.050	9596194	<0.20	0.20	0.050	9596194
p+m-Xylene	ug/L	<0.20	0.20	0.010	9596194	<0.20	0.20	0.010	9596194
o-Xylene	ug/L	<0.20	0.20	0.010	9596194	<0.20	0.20	0.010	9596194
Total Xylenes	ug/L	<0.20	0.20	0.010	9596194	<0.20	0.20	0.010	9596194
Surrogate Recovery (%)									
4-Bromofluorobenzene	%	98			9596194	96			9596194
D4-1,2-Dichloroethane	%	101			9596194	104			9596194
D8-Toluene	%	91			9596194	92			9596194

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

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

O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		AAQE91			
Sampling Date		2024/08/20			
COC Number		N/A			
	UNITS	TRIPBLANK	RDL	MDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	0.50	9592318
Volatile Organics					
Acetone (2-Propanone)	ug/L	<10	10	1.0	9596194
Benzene	ug/L	<0.20	0.20	0.020	9596194
Bromodichloromethane	ug/L	<0.50	0.50	0.050	9596194
Bromoform	ug/L	<1.0	1.0	0.10	9596194
Bromomethane	ug/L	<0.50	0.50	0.10	9596194
Carbon Tetrachloride	ug/L	<0.19	0.19	0.050	9596194
Chlorobenzene	ug/L	<0.20	0.20	0.010	9596194
Chloroform	ug/L	<0.20	0.20	0.050	9596194
Dibromochloromethane	ug/L	<0.50	0.50	0.050	9596194
1,2-Dichlorobenzene	ug/L	<0.40	0.40	0.050	9596194
1,3-Dichlorobenzene	ug/L	<0.40	0.40	0.050	9596194
1,4-Dichlorobenzene	ug/L	<0.40	0.40	0.050	9596194
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	0.050	9596194
1,1-Dichloroethane	ug/L	<0.20	0.20	0.050	9596194
1,2-Dichloroethane	ug/L	<0.49	0.49	0.020	9596194
1,1-Dichloroethylene	ug/L	<0.20	0.20	0.050	9596194
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	0.050	9596194
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	0.050	9596194
1,2-Dichloropropane	ug/L	<0.20	0.20	0.050	9596194
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	0.050	9596194
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	0.050	9596194
Ethylbenzene	ug/L	<0.20	0.20	0.010	9596194
Ethylene Dibromide	ug/L	<0.19	0.19	0.050	9596194
Hexane	ug/L	<1.0	1.0	0.10	9596194
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	0.10	9596194
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	0.50	9596194
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	0.10	9596194
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	0.050	9596194
Styrene	ug/L	<0.40	0.40	0.050	9596194
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	0.050	9596194
1,1,2,2-Tetrachloroethane	ug/L	<0.40	0.40	0.050	9596194
Tetrachloroethylene	ug/L	<0.20	0.20	0.050	9596194

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas Job #: C4Q0567
Report Date: 2024/08/28

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AS

O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		AAQE91			
Sampling Date		2024/08/20			
COC Number		N/A			
	UNITS	TRIPBLANK	RDL	MDL	QC Batch
Toluene	ug/L	<0.20	0.20	0.010	9596194
1,1,1-Trichloroethane	ug/L	<0.20	0.20	0.050	9596194
1,1,2-Trichloroethane	ug/L	<0.40	0.40	0.050	9596194
Trichloroethylene	ug/L	<0.20	0.20	0.050	9596194
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	0.10	9596194
Vinyl Chloride	ug/L	<0.20	0.20	0.050	9596194
p+m-Xylene	ug/L	<0.20	0.20	0.010	9596194
o-Xylene	ug/L	<0.20	0.20	0.010	9596194
Total Xylenes	ug/L	<0.20	0.20	0.010	9596194
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	100			9596194
D4-1,2-Dichloroethane	%	99			9596194
D8-Toluene	%	94			9596194

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas Job #: C4Q0567
Report Date: 2024/08/28

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AS

TEST SUMMARY

Bureau Veritas ID: AAQE88
Sample ID: MW1
Matrix: Water

Collected: 2024/08/20
Shipped:
Received: 2024/08/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9592889	N/A	2024/08/26	Automated Statchk
1,3-Dichloropropene Sum	CALC	9592318	N/A	2024/08/26	Automated Statchk
Chromium (VI) in Water	IC	9599291	N/A	2024/08/26	Surleen Kaur Romana
Free (WAD) Cyanide	SKAL/CN	9595007	N/A	2024/08/23	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9595901	2024/08/23	2024/08/25	Ksenia Trofimova
Mercury	CV/AA	9595301	2024/08/23	2024/08/23	Aswathy Neduveli Suresh
Dissolved Metals by ICPMS	ICP/MS	9596201	N/A	2024/08/26	Nan Raykha
OC Pesticides (Selected) & PCB	GC/ECD	9601551	2024/08/27	2024/08/28	Li Peng
OC Pesticides Summed Parameters	CALC	9593280	N/A	2024/08/23	Automated Statchk
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9595899	2024/08/23	2024/08/24	Jiaxuan (Simon) Xi
pH	AT	9594631	2024/08/22	2024/08/23	Kien Tran
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9595220	N/A	2024/08/23	Juan Pangilinan

Bureau Veritas ID: AAQE88 Dup
Sample ID: MW1
Matrix: Water

Collected: 2024/08/20
Shipped:
Received: 2024/08/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	9596201	N/A	2024/08/26	Nan Raykha
OC Pesticides (Selected) & PCB	GC/ECD	9601551	2024/08/27	2024/08/28	Li Peng

Bureau Veritas ID: AAQE89
Sample ID: MW2
Matrix: Water

Collected: 2024/08/20
Shipped:
Received: 2024/08/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9592889	N/A	2024/08/26	Automated Statchk
1,3-Dichloropropene Sum	CALC	9592318	N/A	2024/08/26	Automated Statchk
Chromium (VI) in Water	IC	9599291	N/A	2024/08/26	Surleen Kaur Romana
Free (WAD) Cyanide	SKAL/CN	9595007	N/A	2024/08/23	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9595901	2024/08/23	2024/08/25	Ksenia Trofimova
Mercury	CV/AA	9599292	2024/08/26	2024/08/26	Maitri PATIL
Dissolved Metals by ICPMS	ICP/MS	9596201	N/A	2024/08/26	Nan Raykha
OC Pesticides (Selected) & PCB	GC/ECD	9601551	2024/08/27	2024/08/28	Li Peng
OC Pesticides Summed Parameters	CALC	9593280	N/A	2024/08/26	Automated Statchk
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9595899	2024/08/23	2024/08/24	Jiaxuan (Simon) Xi
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9595220	N/A	2024/08/23	Juan Pangilinan

Bureau Veritas ID: AAQE90
Sample ID: DUPW1
Matrix: Water

Collected: 2024/08/20
Shipped:
Received: 2024/08/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9592318	N/A	2024/08/27	Automated Statchk

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

Bureau Veritas Job #: C4Q0567
Report Date: 2024/08/28

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AS

TEST SUMMARY

Bureau Veritas ID: AAQE90
Sample ID: DUPW1
Matrix: Water

Collected: 2024/08/20
Shipped:
Received: 2024/08/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds in Water	GC/MS	9596194	N/A	2024/08/26	Narayan Ghimire

Bureau Veritas ID: AAQE90 Dup
Sample ID: DUPW1
Matrix: Water

Collected: 2024/08/20
Shipped:
Received: 2024/08/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds in Water	GC/MS	9596194	N/A	2024/08/26	Narayan Ghimire

Bureau Veritas ID: AAQE91
Sample ID: TRIPBLANK
Matrix: Water

Collected: 2024/08/20
Shipped:
Received: 2024/08/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9592318	N/A	2024/08/27	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	9596194	N/A	2024/08/26	Narayan Ghimire

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

Bureau Veritas Job #: C4Q0567
Report Date: 2024/08/28

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AS

GENERAL COMMENTS

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

Package 1	3.0°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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

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
9595220	4-Bromofluorobenzene	2024/08/23	100	70 - 130	100	70 - 130	106	%		
9595220	D4-1,2-Dichloroethane	2024/08/23	110	70 - 130	105	70 - 130	98	%		
9595220	D8-Toluene	2024/08/23	107	70 - 130	104	70 - 130	102	%		
9595899	D10-Anthracene	2024/08/23	112	50 - 130	104	50 - 130	105	%		
9595899	D14-Terphenyl (FS)	2024/08/23	111	50 - 130	103	50 - 130	104	%		
9595899	D8-Acenaphthylene	2024/08/23	103	50 - 130	95	50 - 130	93	%		
9595901	o-Terphenyl	2024/08/24	97	60 - 140	99	60 - 140	101	%		
9596194	4-Bromofluorobenzene	2024/08/26	101	70 - 130	100	70 - 130	102	%		
9596194	D4-1,2-Dichloroethane	2024/08/26	101	70 - 130	98	70 - 130	102	%		
9596194	D8-Toluene	2024/08/26	101	70 - 130	103	70 - 130	90	%		
9601551	2,4,5,6-Tetrachloro-m-xylene	2024/08/28	66	50 - 130	61	50 - 130	62	%		
9601551	Decachlorobiphenyl	2024/08/28	95	50 - 130	101	50 - 130	102	%		
9594631	pH	2024/08/23			102	98 - 103			0.0019	N/A
9595007	WAD Cyanide (Free)	2024/08/23	102	80 - 120	107	80 - 120	<1	ug/L	NC	20
9595220	1,1,1,2-Tetrachloroethane	2024/08/23	119	70 - 130	112	70 - 130	<0.50	ug/L	NC	30
9595220	1,1,1-Trichloroethane	2024/08/23	104	70 - 130	101	70 - 130	<0.20	ug/L	NC	30
9595220	1,1,2,2-Tetrachloroethane	2024/08/23	106	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9595220	1,1,2-Trichloroethane	2024/08/23	112	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
9595220	1,1-Dichloroethane	2024/08/23	105	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
9595220	1,1-Dichloroethylene	2024/08/23	108	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
9595220	1,2-Dichlorobenzene	2024/08/23	107	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
9595220	1,2-Dichloroethane	2024/08/23	114	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
9595220	1,2-Dichloropropane	2024/08/23	105	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
9595220	1,3-Dichlorobenzene	2024/08/23	100	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9595220	1,4-Dichlorobenzene	2024/08/23	104	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
9595220	Acetone (2-Propanone)	2024/08/23	108	60 - 140	100	60 - 140	<10	ug/L	NC	30
9595220	Benzene	2024/08/23	108	70 - 130	103	70 - 130	<0.17	ug/L	NC	30
9595220	Bromodichloromethane	2024/08/23	106	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9595220	Bromoform	2024/08/23	105	70 - 130	98	70 - 130	<1.0	ug/L	NC	30
9595220	Bromomethane	2024/08/23	90	60 - 140	86	60 - 140	<0.50	ug/L	NC	30
9595220	Carbon Tetrachloride	2024/08/23	113	70 - 130	109	70 - 130	<0.20	ug/L	NC	30

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

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
9595220	Chlorobenzene	2024/08/23	101	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9595220	Chloroform	2024/08/23	108	70 - 130	102	70 - 130	<0.20	ug/L	NC	30
9595220	cis-1,2-Dichloroethylene	2024/08/23	108	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
9595220	cis-1,3-Dichloropropene	2024/08/23	113	70 - 130	96	70 - 130	<0.30	ug/L	NC	30
9595220	Dibromochloromethane	2024/08/23	117	70 - 130	106	70 - 130	<0.50	ug/L	NC	30
9595220	Dichlorodifluoromethane (FREON 12)	2024/08/23	73	60 - 140	78	60 - 140	<1.0	ug/L	NC	30
9595220	Ethylbenzene	2024/08/23	109	70 - 130	104	70 - 130	<0.20	ug/L	0	30
9595220	Ethylene Dibromide	2024/08/23	112	70 - 130	101	70 - 130	<0.20	ug/L	NC	30
9595220	F1 (C6-C10) - BTEX	2024/08/23					<25	ug/L	NC	30
9595220	F1 (C6-C10)	2024/08/23	103	60 - 140	95	60 - 140	<25	ug/L	NC	30
9595220	Hexane	2024/08/23	118	70 - 130	116	70 - 130	<1.0	ug/L	NC	30
9595220	Methyl Ethyl Ketone (2-Butanone)	2024/08/23	111	60 - 140	102	60 - 140	<10	ug/L	NC	30
9595220	Methyl Isobutyl Ketone	2024/08/23	126	70 - 130	106	70 - 130	<5.0	ug/L	NC	30
9595220	Methyl t-butyl ether (MTBE)	2024/08/23	105	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
9595220	Methylene Chloride(Dichloromethane)	2024/08/23	119	70 - 130	111	70 - 130	<2.0	ug/L	NC	30
9595220	o-Xylene	2024/08/23	107	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
9595220	p+m-Xylene	2024/08/23	109	70 - 130	102	70 - 130	<0.20	ug/L	1.3	30
9595220	Styrene	2024/08/23	85	70 - 130	83	70 - 130	<0.50	ug/L	NC	30
9595220	Tetrachloroethylene	2024/08/23	107	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
9595220	Toluene	2024/08/23	106	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
9595220	Total Xylenes	2024/08/23					<0.20	ug/L	1.3	30
9595220	trans-1,2-Dichloroethylene	2024/08/23	111	70 - 130	106	70 - 130	<0.50	ug/L	NC	30
9595220	trans-1,3-Dichloropropene	2024/08/23	115	70 - 130	108	70 - 130	<0.40	ug/L	NC	30
9595220	Trichloroethylene	2024/08/23	104	70 - 130	101	70 - 130	<0.20	ug/L	1.7	30
9595220	Trichlorofluoromethane (FREON 11)	2024/08/23	103	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
9595220	Vinyl Chloride	2024/08/23	97	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
9595301	Mercury (Hg)	2024/08/23	90	75 - 125	95	80 - 120	<0.10	ug/L	NC	20
9595899	1-Methylnaphthalene	2024/08/23	114	50 - 130	107	50 - 130	<0.050	ug/L	3.0	30
9595899	2-Methylnaphthalene	2024/08/23	113	50 - 130	106	50 - 130	<0.050	ug/L	2.3	30
9595899	Acenaphthene	2024/08/23	106	50 - 130	100	50 - 130	<0.050	ug/L	NC	30
9595899	Acenaphthylene	2024/08/23	105	50 - 130	99	50 - 130	<0.050	ug/L	NC	30

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

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
9595899	Anthracene	2024/08/23	107	50 - 130	101	50 - 130	<0.050	ug/L	NC	30
9595899	Benzo(a)anthracene	2024/08/23	104	50 - 130	100	50 - 130	<0.050	ug/L	NC	30
9595899	Benzo(a)pyrene	2024/08/23	102	50 - 130	102	50 - 130	<0.0090	ug/L	NC	30
9595899	Benzo(b/j)fluoranthene	2024/08/23	103	50 - 130	100	50 - 130	<0.050	ug/L	NC	30
9595899	Benzo(g,h,i)perylene	2024/08/23	97	50 - 130	95	50 - 130	<0.050	ug/L	NC	30
9595899	Benzo(k)fluoranthene	2024/08/23	102	50 - 130	100	50 - 130	<0.050	ug/L	NC	30
9595899	Chrysene	2024/08/23	99	50 - 130	101	50 - 130	<0.050	ug/L	NC	30
9595899	Dibenzo(a,h)anthracene	2024/08/23	99	50 - 130	97	50 - 130	<0.050	ug/L	NC	30
9595899	Fluoranthene	2024/08/23	117	50 - 130	112	50 - 130	<0.050	ug/L	NC	30
9595899	Fluorene	2024/08/23	104	50 - 130	101	50 - 130	<0.050	ug/L	3.3	30
9595899	Indeno(1,2,3-cd)pyrene	2024/08/23	101	50 - 130	97	50 - 130	<0.050	ug/L	NC	30
9595899	Naphthalene	2024/08/23	105	50 - 130	97	50 - 130	<0.050	ug/L	4.1	30
9595899	Phenanthrene	2024/08/23	107	50 - 130	100	50 - 130	<0.030	ug/L	NC	30
9595899	Pyrene	2024/08/23	108	50 - 130	103	50 - 130	<0.050	ug/L	NC	30
9595901	F2 (C10-C16 Hydrocarbons)	2024/08/25	101	60 - 140	105	60 - 140	<100	ug/L	0	30
9595901	F3 (C16-C34 Hydrocarbons)	2024/08/25	107	60 - 140	111	60 - 140	<200	ug/L	NC	30
9595901	F4 (C34-C50 Hydrocarbons)	2024/08/25	92	60 - 140	99	60 - 140	<200	ug/L	NC	30
9596194	1,1,1,2-Tetrachloroethane	2024/08/26	109	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
9596194	1,1,1-Trichloroethane	2024/08/26	95	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9596194	1,1,2,2-Tetrachloroethane	2024/08/26	98	70 - 130	85	70 - 130	<0.40	ug/L	NC	30
9596194	1,1,2-Trichloroethane	2024/08/26	105	70 - 130	92	70 - 130	<0.40	ug/L	NC	30
9596194	1,1-Dichloroethane	2024/08/26	96	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
9596194	1,1-Dichloroethylene	2024/08/26	99	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9596194	1,2-Dichlorobenzene	2024/08/26	103	70 - 130	93	70 - 130	<0.40	ug/L	NC	30
9596194	1,2-Dichloroethane	2024/08/26	104	70 - 130	95	70 - 130	<0.49	ug/L	NC	30
9596194	1,2-Dichloropropane	2024/08/26	101	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9596194	1,3-Dichlorobenzene	2024/08/26	101	70 - 130	93	70 - 130	<0.40	ug/L	NC	30
9596194	1,4-Dichlorobenzene	2024/08/26	102	70 - 130	95	70 - 130	<0.40	ug/L	NC	30
9596194	Acetone (2-Propanone)	2024/08/26	111	60 - 140	99	60 - 140	<10	ug/L	NC	30
9596194	Benzene	2024/08/26	100	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9596194	Bromodichloromethane	2024/08/26	103	70 - 130	91	70 - 130	<0.50	ug/L	NC	30

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

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
9596194	Bromoform	2024/08/26	103	70 - 130	87	70 - 130	<1.0	ug/L	NC	30
9596194	Bromomethane	2024/08/26	84	60 - 140	78	60 - 140	<0.50	ug/L	NC	30
9596194	Carbon Tetrachloride	2024/08/26	100	70 - 130	97	70 - 130	<0.19	ug/L	NC	30
9596194	Chlorobenzene	2024/08/26	94	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9596194	Chloroform	2024/08/26	99	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9596194	cis-1,2-Dichloroethylene	2024/08/26	103	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
9596194	cis-1,3-Dichloropropene	2024/08/26	95	70 - 130	86	70 - 130	<0.30	ug/L	NC	30
9596194	Dibromochloromethane	2024/08/26	105	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
9596194	Dichlorodifluoromethane (FREON 12)	2024/08/26	80	60 - 140	75	60 - 140	<1.0	ug/L	NC	30
9596194	Ethylbenzene	2024/08/26	97	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9596194	Ethylene Dibromide	2024/08/26	102	70 - 130	91	70 - 130	<0.19	ug/L	NC	30
9596194	Hexane	2024/08/26	109	70 - 130	108	70 - 130	<1.0	ug/L	NC	30
9596194	Methyl Ethyl Ketone (2-Butanone)	2024/08/26	115	60 - 140	101	60 - 140	<10	ug/L	NC	30
9596194	Methyl Isobutyl Ketone	2024/08/26	110	70 - 130	96	70 - 130	<5.0	ug/L	NC	30
9596194	Methyl t-butyl ether (MTBE)	2024/08/26	102	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
9596194	Methylene Chloride(Dichloromethane)	2024/08/26	98	70 - 130	92	70 - 130	<2.0	ug/L	NC	30
9596194	o-Xylene	2024/08/26	107	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
9596194	p+m-Xylene	2024/08/26	99	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9596194	Styrene	2024/08/26	100	70 - 130	95	70 - 130	<0.40	ug/L	NC	30
9596194	Tetrachloroethylene	2024/08/26	95	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9596194	Toluene	2024/08/26	101	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9596194	Total Xylenes	2024/08/26					<0.20	ug/L	NC	30
9596194	trans-1,2-Dichloroethylene	2024/08/26	105	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
9596194	trans-1,3-Dichloropropene	2024/08/26	103	70 - 130	92	70 - 130	<0.40	ug/L	NC	30
9596194	Trichloroethylene	2024/08/26	100	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9596194	Trichlorofluoromethane (FREON 11)	2024/08/26	97	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
9596194	Vinyl Chloride	2024/08/26	92	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
9596201	Dissolved Antimony (Sb)	2024/08/26	99	80 - 120	96	80 - 120	<0.50	ug/L	NC	20
9596201	Dissolved Arsenic (As)	2024/08/26	102	80 - 120	100	80 - 120	<1.0	ug/L	3.2	20
9596201	Dissolved Barium (Ba)	2024/08/26	100	80 - 120	97	80 - 120	<2.0	ug/L	1.0	20
9596201	Dissolved Beryllium (Be)	2024/08/26	101	80 - 120	96	80 - 120	<0.40	ug/L	NC	20

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

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
9596201	Dissolved Boron (B)	2024/08/26	91	80 - 120	88	80 - 120	<10	ug/L	3.5	20
9596201	Dissolved Cadmium (Cd)	2024/08/26	94	80 - 120	91	80 - 120	<0.090	ug/L	NC	20
9596201	Dissolved Chromium (Cr)	2024/08/26	102	80 - 120	101	80 - 120	<5.0	ug/L	NC	20
9596201	Dissolved Cobalt (Co)	2024/08/26	100	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
9596201	Dissolved Copper (Cu)	2024/08/26	101	80 - 120	97	80 - 120	<0.90	ug/L	0.79	20
9596201	Dissolved Lead (Pb)	2024/08/26	94	80 - 120	94	80 - 120	<0.50	ug/L	NC	20
9596201	Dissolved Molybdenum (Mo)	2024/08/26	105	80 - 120	102	80 - 120	<0.50	ug/L	1.3	20
9596201	Dissolved Nickel (Ni)	2024/08/26	95	80 - 120	96	80 - 120	<1.0	ug/L	NC	20
9596201	Dissolved Selenium (Se)	2024/08/26	97	80 - 120	99	80 - 120	<2.0	ug/L	NC	20
9596201	Dissolved Silver (Ag)	2024/08/26	94	80 - 120	94	80 - 120	<0.090	ug/L	NC	20
9596201	Dissolved Sodium (Na)	2024/08/26	NC	80 - 120	102	80 - 120	<100	ug/L	2.4	20
9596201	Dissolved Thallium (Tl)	2024/08/26	94	80 - 120	93	80 - 120	<0.050	ug/L	NC	20
9596201	Dissolved Uranium (U)	2024/08/26	93	80 - 120	94	80 - 120	<0.10	ug/L	1.3	20
9596201	Dissolved Vanadium (V)	2024/08/26	106	80 - 120	103	80 - 120	<0.50	ug/L	2.6	20
9596201	Dissolved Zinc (Zn)	2024/08/26	99	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
9599291	Chromium (VI)	2024/08/26	NC	80 - 120	99	80 - 120	<0.50	ug/L	0.55	20
9599292	Mercury (Hg)	2024/08/26	100	75 - 125	97	80 - 120	<0.10	ug/L	NC	20
9601551	a-Chlordane	2024/08/28	89	50 - 130	96	50 - 130	<0.005	ug/L	NC	30
9601551	Aldrin	2024/08/28	83	50 - 130	88	50 - 130	<0.005	ug/L	NC	30
9601551	Dieldrin	2024/08/28	97	50 - 130	107	50 - 130	<0.005	ug/L	NC	30
9601551	Endosulfan I (alpha)	2024/08/28	90	50 - 130	102	50 - 130	<0.005	ug/L	NC	30
9601551	Endosulfan II (beta)	2024/08/28	83	50 - 130	89	50 - 130	<0.005	ug/L	NC	30
9601551	Endrin	2024/08/28	97	50 - 130	104	50 - 130	<0.005	ug/L	NC	30
9601551	g-Chlordane	2024/08/28	91	50 - 130	98	50 - 130	<0.005	ug/L	NC	30
9601551	Heptachlor epoxide	2024/08/28	87	50 - 130	94	50 - 130	<0.005	ug/L	NC	30
9601551	Heptachlor	2024/08/28	76	50 - 130	81	50 - 130	<0.005	ug/L	NC	30
9601551	Hexachlorobenzene	2024/08/28	78	50 - 130	81	50 - 130	<0.005	ug/L	NC	30
9601551	Hexachlorobutadiene	2024/08/28	75	50 - 130	78	50 - 130	<0.009	ug/L	NC	30
9601551	Hexachloroethane	2024/08/28	66	50 - 130	69	50 - 130	<0.01	ug/L	NC	30
9601551	Lindane	2024/08/28	84	50 - 130	90	50 - 130	<0.003	ug/L	NC	30
9601551	Methoxychlor	2024/08/28	86	50 - 130	90	50 - 130	<0.01	ug/L	NC	30

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

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
9601551	o,p-DDD	2024/08/28	99	50 - 130	106	50 - 130	<0.005	ug/L	NC	30
9601551	o,p-DDE	2024/08/28	94	50 - 130	99	50 - 130	<0.005	ug/L	NC	30
9601551	o,p-DDT	2024/08/28	88	50 - 130	93	50 - 130	<0.005	ug/L	NC	30
9601551	p,p-DDD	2024/08/28	97	50 - 130	105	50 - 130	<0.005	ug/L	NC	30
9601551	p,p-DDE	2024/08/28	97	50 - 130	108	50 - 130	<0.005	ug/L	NC	30
9601551	p,p-DDT	2024/08/28	85	50 - 130	91	50 - 130	<0.005	ug/L	NC	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) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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

Bureau Veritas Job #: C4Q0567
Report Date: 2024/08/28

Soil Engineers Ltd
Client Project #: 1910-E004
Site Location: MILTON
Sampler Initials: AS

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.

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