Phase Two Environmental Site Assessment

12156 Chinguacousy Road

Caledon, Ontario

Prepared For:

Mayfield West III

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Burlington, Ontario

L7M 0W7

DS Project No : 23-266-100

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Executive Summary

DS Consultants Ltd. (DS) was retained by Mayfield West III (the "Client") to conduct a Phase Two Environmental Site Assessment (ESA) of the Property located at 12156 Chinguacousy Road, Caledon, Ontario, herein referred to as the "Phase Two Property" or "Site". DS understands that this Phase Two ESA may be used to support the filing of a Record of Site Condition (RSC) as part of the proposed redevelopment of the Phase Two Property for residential purposes. It is further understood that the proposed development will consist of a low-rise development.

It is understood that the intended future property use (residential) is not considered to be a more sensitive property use as defined under O.Reg. 153/04 (as amended); therefore the filing of a Record of Site Condition (RSC) with the Ontario Ministry of Environment, Conservation and Parks (MECP) is not mandated under O.Reg. 153/04.

The Phase Two ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase Two ESA as described in Ontario Regulation 153/04 (as amended). The objective of this Phase Two ESA is to confirm whether contaminants are present, and at what concentration are they present on the Phase Two Property, as related to the Areas of Potential Environmental Concern (APEC) identified in the Phase One ESA.

The Phase Two Property is approximately 5.787-hectares (14.299 acres) parcel of land situated within a rural neighbourhood in the Town of Caledon, Ontario. The Phase Two Property is located approximately 490 m northwest of the intersection of Chinguacousy Road and Mayfield Road.

A Phase One ESA completed in September 2023 indicated that the Phase Two Property was first developed for residential purposes between 1989 and 1993, and has been used for agricultural and residential purposes since then. A total of five (5) Potentially Contaminating Activities (PCAs) were identified in the Phase One ESA. Four (4) of the PCAs were considered to be contributing to four (4) APECs on the Phase Two Property. A summary of the APECs, associated PCAs, and contaminants of potential concern (copc) identified is presented in the table below:

Table E-1: Summary of APECs

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	North portion of Site	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-1**	OCPs, Metals, As, Sb, Se, CN-	Soil
APEC-2A	North portion of Site	#N/S – Application of De-icing Agents	On Site **PCA-2**	EC, SAR	Soil
APEC-2B		#30 – Importation of Fill Material of Unknown Quality	On Site **PCA-3**	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-3	Entire Property	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-4**	OCPs, Metals, As, Sb, Se, CN-	Soil

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

Based on the findings of the Phase One ESA it was concluded that a Phase Two ESA is warranted in order to assess the soil conditions on the Phase Two Property.

The Phase Two ESA was completed in conjuncture of Geotechnical Investigation and involved the advancement of three (3) boreholes, which was completed on August 15, 2023, and five (5) hand dug test pits. The boreholes were advanced to a maximum depth of 6.7 metres below ground surface (mbgs) and test pits to 0.3 mbgs under the supervision of DS personnel. A groundwater monitoring well was installed in one (1) of the boreholes. The borehole and test pit locations were determined based on the findings of the Phase One ESA. All APECs were investigated with boreholes and/or test pits in accordance with the requirements of O.Reg. 153/04 (as amended). Soil samples were collected and submitted for analysis of all PCOCs, including: Metals, As, Sb, Se, CN-, pH, electrical conductivity (EC), sodium adsorption ration (SAR), petroleum hydrocarbons (PHCs) including benzene, toluene, ethylbenzene and xylenes (BTEX), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs) and organochlorine pesticides (OCPs).

The soil analytical results were compared to the "Table 2: Generic Site Condition Standards in a Potable Groundwater Condition for Residential/Parkland/ Institutional use" provided

in the MECP document entitled, "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*" dated April 15, 2011 *(*Table 2 Standards*)* for medium and fine-textured soils and residential/parkland/ institutional property use.

Based on the findings of the Phase Two ESA, DS presents the following findings:

- A surficial layer of topsoil approximately 200 to 250 mm in thickness was encountered in all of the boreholes and test pit advanced at the Site. Reworked native material consisting of clayey silt with trace organics was encountered below the topsoil. The reworked native material was generally heterogeneous and ranged in thickness from 0.5 to 2.1 metres. A silty sand seam was encountered in the reworked material in BH23-303 with a thickness of 0.7 m. The native overburden material encountered below the reworked native material and fill material consisted of clayey silt to silty clay till. The clayey silt to silty clay till unit extended to borehole termination at a maximum depth of 6.7 mbgs. Bedrock was not encountered at the end of the boreholes;
- The depth to groundwater was measured in one (1) monitoring well installed during the course of this investigation. The monitoring well was screened to intercept the groundwater water table. The groundwater levels were found to range from 1.73 to 2.29 mbgs on August 18 and 29, 2023, with a corresponding elevation of 257.66 and 258.22 metres above sea level (masl). The groundwater flow direction was inferred to be southeast, in a similar direction as the slope in the area, towards a tributary of Fletcher's Creek based on the Phase One ESA. It is possible that the groundwater levels may vary seasonally. The groundwater levels may also be impacted by other factors such as historical infilling activities, subsurface utility trenches, and similar subsurface anomalies. The groundwater flow direction can only be confirmed through long term monitoring.
- Soil samples were collected from the boreholes and test pits advanced on the Phase Two Property and submitted for analysis of Metals, PHC, BTEX, VOCS, PAHs and OCPs. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

Based on a review of the findings of this Phase Two ESA, DS presents the following conclusions and recommendations:

- The results of the chemical analyses conducted on soil samples indicate that the applicable Site Condition Standards have been met;

- Based on the findings of this Phase Two ESA, a Record of Site Condition may be filed for the Phase Two Property.
- All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

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1.0 Introduction

DS Consultants Ltd. (DS) was retained by Mayfield West III to complete a Phase Two Environmental Site Assessment (ESA) of the property located at 12156 Chinguacousy Road, Caledon, Ontario, herein referred to as the "Phase Two Property" or "Site". It is DS's understanding that this Phase Two ESA has been requested for due diligence purposes in association with the proposed redevelopment of the Property. DS understands that this Phase Two ESA may be used to support the filing of a Record of Site Condition (RSC) as part of the proposed redevelopment of the Site for residential purposes. It is further understood that the proposed development will consist of a low-rise development.

It is understood that the intended future property use (residential) is not considered to be a more sensitive property use as defined under O.Reg. 153/04 (as amended); therefore the filing of a Record of Site Condition (RSC) with the Ontario Ministry of Environment, Conservation and Parks (MECP) is not mandated under O.Reg. 153/04.

The Phase Two ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04 (as amended). The objective of this Phase Two ESA is to confirm whether contaminants are present, and at what concentration are they present on the Phase Two Property, as related to the Areas of Potential Environmental Concern (APEC) identified in the Phase One ESA.

1.1 Site Description

The Phase Two Property is approximately 5.787-hectares (14.299 acres) parcel of land situated within a rural-residential neighbourhood in the Town of Caledon, Ontario. The Phase Two Property is located approximately 490 m northwest of the intersection of Chinguacousy Road and Mayfield Road and was occupied by agricultural land and a residential house at the time of this investigation. A Site Location Plan is provided in Figure 1.

For the purposes of this report, Chinguacousy Road is assumed to be aligned in a southeast-northwest orientation, and Mayfield Road in a northeast-southwest orientation. A Plan of Survey for the Site was not provided at this time.

The Phase Two Property currently includes a two-storey brick house with a metal clad barn. The residential building contains one (1) level of basement and was constructed around the 1990s. The building is approximately 275 m^2 in area. The building is serviced with a

domestic well and septic system. The septic system was located southeast of the house and the domestic well was observed south of the house.

The metal clad barn is approximately 220 m^2 in area with a concrete floor and is used for storage of farming equipment.

Access to the Site is through an asphalt driveway which enters the Site from Chinguacousy Road. The remaining balance of the Site is primarily compromised of agricultural fields. A Site Plan depicting the orientation of the buildings on-site is provided in Figure 2.

Additional details regarding the Phase Two Property are provided in the table below.

Table 1-1: Phase Two Property Information

Criteria	Information	Source
Legal Description	Part of Lot 18 Concession 3 West of Hurontario Street Chinguacousy, Part 1 on 43R40488, Town of Caledon, Regional Municipality of Peel	Land Registry Office
Property Identification Number (PIN)	14252-1960	Land Registry Office
Current Site Occupants	Dave McClure (Farmer)	Questionnaire
Site Area	5.787 hectares (14.299 acres)	Google Earth

1.2 Property Ownership

The ownership details for the Phase Two Property are provided in the table below.

Table 1-2: Phase Two Property Ownership

Property Owner	Address	Contact
Argo Development Corporation	4900 Palladium Way, Unit 105 Burlington, ON, L7M 0W7	Justin Marr Phone: 647.389.3326 Email: justin@argoland.com

1.3 Current and Proposed Future Use

The Phase Two Property is currently occupied by agricultural fields, a barn and a residential building which is considered to be Agricultural and Other Property Use under O.Reg. 153/04 (as amended). It is DS's understanding that the Client intends to redevelop the Site for residential use.

1.4 Applicable Site Condition Standards

The applicable Site Condition Standards (SCS) for the Phase Two Property are considered by the Qualified Person (QP) to be the Table 2 SCS: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional Use with medium-fine textured soils as contained in the April 15, 2011 Ontario Ministry of

Environment, Conservation and Parks (MECP) document entitled "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", herein referred to as the "Table 2 SCS".

The selection of the Table 2 SCS is considered appropriate based on the following rationale:

- The Town of Caledon relies on groundwater as a potable water source;
- The Site is not considered to be environmentally sensitive, as defined under O.Reg. 153/04 (as amended);
- The proposed future use of the Phase Two Property will be Residential;
- The Site is not located within 30 m of a water body;
- The soils on Site are considered to be medium-fine textured;
- The pH of the soils analyzed during this Phase Two ESA are within the accepted range specified under O.Reg. 153/04 (as amended); and
- Bedrock was not encountered within 2 metres of the ground surface.

2.0 Background Information

2.1 Physical Setting

2.1.1 Water Bodies and Areas of Natural Significance

The nearest body of water to the Phase One Property is a tributary of Fletchers Creek, approximately 210 m southeast of the Site.

The Natural Heritage Areas database published by the Ministry of Natural Resources (MNR) was reviewed in order to identify the presence/absence of areas of natural significance including provincial parks, conservation reserves, areas of natural and scientific interest, wetlands, environmentally significant areas, habitats of threatened or endangered species, and wilderness areas. The regional and municipal Official Plans (Town of Caledon, and Peel Region Official Plans) were also reviewed as part of this assessment.

No areas of natural or scientific interest were identified within the Phase One Study Area.

2.1.2 Topography and Surface Water Draining Features

The Phase Two Property is located in a rural-residential setting, at an elevation of 258 metres above sea level (masl). The topography of the Phase Two Property is generally flat. The neighbouring property are generally at similar elevations, and the topography in the vicinity of the Phase Two Property generally slopes to the southeast. There are drainage features

such as ditches, are present on-Site. Surface water flow associated with precipitation events is anticipated to run overland and drain into the drainage features along the roadway.

2.2 Past Investigations

2.2.1 Previous Report Summary

The following environmental and geotechnical reports were provided for DS to review:

- "*Phase One Environmental Site Assessment, 12156 Chinguacousy Road, Caledon, Ontario",* dated September 7, 2023, prepared for Argo Development Corporation, prepared by DS Consultants (DS 2023 Phase One ESA).

A summary of the details pertinent to this investigation is provided below.

DS 2023 Phase One ESA

The DS 2023 Phase One ESA report was completed in accordance with O.Reg 153/04 (as amended). The purpose of the Phase One ESA was to identify contaminating activities on or around the Phase One Property. The investigation included a compilation and review of records available, interviews, and site reconnaissance. The following information was noted by DS from the Phase One ESA:

- The Site is used for agricultural purposes and has been since the 1880s;
- A residential dwelling was constructed on the Site between 1989 and 1993;
- An orchard was present on the 1880 Peel County Atlas which was potentially subject to application of environmentally persistent pesticides;
- Fill material was likely used for grading purposes for the driveway; and
- The driveway is likely subject to seasonal de-icing activities.

The report recommended a Phase Two ESA be completed to investigate the PCA's identified.

3.0 Scope of the Investigation

The scope of the Phase Two ESA was designed to investigate the portions of the Site determined in the Phase One ESA to be Areas of Potential Environmental Concern. This Phase Two ESA was conducted in general accordance with O.Reg. 153/04 (as amended). The scope of the investigation including the subsurface investigation, sampling, and laboratory analysis was based on the findings of the Phase One ESA and was limited to the portions of the Site which were accessible.

3.1 Overview of Site Investigation

The following tasks were completed as part of the Phase Two ESA:

- Preparation of a Health and Safety Plan to ensure that all work was executed safely;
- Clearance of public private underground utility services prior to commencement of subsurface investigative operations;
- Preparation of a Sampling and Analysis Plan (SAP);
- Retained a MECP licenced driller to advance a total of three (3) boreholes on the Phase Two Property, to depths 6.7 mbgs. One (1) of the boreholes were instrumented with a groundwater monitoring well upon completion. The soil lithology was logged during drilling, and representative soil samples were collected at regular intervals. The soil samples were screened for organic vapours using a RKI Eagle 2 MultiGas Detector, and examined for visual and olfactory indications of soil impacts;
- Submitted "worst case" soil samples collected from the boreholes for laboratory analysis of relevant contaminants of potential concern (COPCs) as identified in the Phase One ESA;
- Surveyed all monitoring wells to a geodetic benchmark;
- Compared all soil analytical data to the applicable MECP SCS; and
- Prepared a Phase Two ESA Report in general accordance with O.Reg. 153/04 (as amended).

3.2 Media Investigated

3.2.1 Rationale for Inclusion or Exclusion of Media

Table 3-1: Rationale of Sampling Media

Media	Included or Excluded	Rationale
Soil	Included	Soil was identified as a media of potential impact in the Phase One ESA, based on the historical operations conducted on-Site.
Groundwater	Excluded	Groundwater was not identified as a media of potential impact in the Phase One ESA.
Sediment	Excluded	Sediment is not present on the Phase Two Property.
Surface Water	Excluded	Surface water is not present on the Phase Two Property.

3.2.2 Overview of Field Investigation of Media

Table 3-2: Field Investigation of Media

Media	Methodology of Investigation
Soil	A total of three (3) boreholes were advanced on the Phase Two Property, to a maximum depth of 6.7 mbgs. and five (5) test pits to 0.3 mbgs Soil samples were collected and submitted for analysis of all relevant PCOCs.

3.3 Phase One Conceptual Site Model

A Conceptual Site Model was developed for the Phase One Property, located at 12156 Chinguacousy Road, Caledon, Ontario. The Phase One Conceptual Site Model is presented in Figure 2, 3, 4, and 5 and visually depict the following:

- Any existing buildings and structures
- Water bodies located in whole, or in part, on the Phase One Study Area
- Areas of natural significance located in whole, or in part, on the Phase One Study Area
- Water wells at the Phase One Property or within the Phase One Study Area
- Roads, including names, within the Phase One Study Area
- Uses of properties adjacent to the Phase One Property
- Areas where any PCAs have occurred, including location of any tanks
- Areas of Potential Environmental Concern

3.3.1 Potentially Contaminating Activity Affecting the Phase One Property

All PCAs identified within the Phase One Study Area are presented on Figure 4. The PCAs which are considered to contribute to APECs on, in or under the Phase One Property are summarized in the table below:

Table 3-3: Summary of PCAs Contributing to APECs

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
PCA-1	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	The Peel County Atlas shows an orchard on the north portion of the Site.	Yes – APEC-1
PCA-2	#N/S – Application of De-icing Agents	De-icing activities inferred along the driveway and paved areas.	Yes – APEC-2A
PCA-3	#30 – Importation of Fill Material of Unknown Quality	Possible fill material for grading under the asphalt driveway.	Yes – APEC-2B
PCA-4	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Pesticides are used on the agricultural fields on Site.	Yes – APEC-3

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

3.3.2 Contaminants of Potential Concern

The following contaminants of potential concern were identified for the Phase One Property: PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Na, Cl-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs, and OCPs.

3.3.3 Underground Utilities and Contaminant Distribution and Transport

Underground utilities can affect contaminant distribution and transport. Trenches excavated to install utility services, and the associated granular backfill may provide preferential pathways for horizontal contaminant migration in the shallow subsurface.

The depth to groundwater at the Phase One Property is inferred to be approximately 0.6 to 1.5 metres below ground surface, however, no underground utilities were identified on the Phase One Property, therefore utility trenches would not act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the Phase One Property.

3.3.4 Geological and Hydrogeological Information

The topography of the Phase One Property is generally flat, with a surface elevation of 258 metres above sea level (masl). The topography within the Phase One Study Area generally slopes to the southeast, towards a tributary of Fletchers Creek, located approximately 210 m southeast of the Phase One Property. The nearest body of water is a tributary of Fletchers Creek. Based on a review of the MECP well records, the depth to groundwater is approximately 0.6 – 1.5 mbgs.

The Site is situated within a drumlinized till plains physiographic region. The surficial geology within the majority of the Phase One Property is described as “clay to silt-textured till derived from glaciolacustrine deposits or shale” and as “Fine-textured glaciolacustrine deposits consisting of silt and clay, minor sand and gravel Interbedded silt and clay and gritty, pebbly flow till and rainout deposit” along the water bodies intersecting across the Property. The bedrock is described as “Shale, limestone, dolostone, siltstone and Queenston Formation”. Based on a review of “Bedrock Topography and Overburden Thickness Mapping, Southern Ontario, prepared by Ontario Geological Survey, published 2006,” the bedrock in the vicinity of the Site is anticipated to be encountered at a depth of approximately 20 to 25 metres below ground surface (mbgs).

3.3.5 Uncertainty and Absence of Information

DS has relied upon information obtained from federal, provincial, municipal, and private databases, in addition to records and summaries provided by ERIS. All information obtained was reviewed and assessed for consistency, however the conclusions drawn by DS are subject to the nature and accuracy of the records reviewed.

All reasonable inquiries were made to obtain reasonably accessible information, as mandated by O.Reg.153/04 (as amended). All responses to database requests were received prior to completion of this report. This report reflects the best judgement of DS based on the information available at the time of the investigation.

Information used in this report was evaluated based on proximity to the Phase One Property, anticipated direction of local groundwater flow, and the potential environmental impact on the Phase One Property as a result of potentially contaminating activities.

The QP has determined that the uncertainty does not affect the validity of the Phase One ESA Conceptual Site Model or the conclusions of this report.

3.4 Deviations from Sampling and Analysis Plan

The Phase Two ESA was completed in accordance with the SAP.

3.5 Impediments

DS was granted complete access to the Phase Two Property throughout the course of the investigation. No impediments were encountered.

4.0 Investigation Method

4.1 General

The Phase Two ESA followed the methodology outlined in the following documents:

- Ontario Ministry of the Environment "Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario" (December 1996);
- Ontario Ministry of the Environment "Guide for Completing Phase Two Environmental Site Assessments under Ontario regulation 153/04" (June 2011);
- Ontario Ministry of the Environment "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" (July 2011) (Analytical Protocol);

The methods used in the Phase Two ESA investigation did not differ from the associated standard operating procedures.

4.2 Drilling and Excavating

A Site visit was conducted prior to drilling in order to identify the borehole locations based on the APECs identified in the Phase One ESA. The selected borehole locations are presented on Figure 5. The borehole locations were cleared of underground public and private utility services prior to commencement of drilling. A summary of the drilling activities is provided in the table below.

Table 4-1: Summary of Drilling Activities

Parameter	Borehole Details	Test Pits Details
Drilling Contractor	Young Drilling	DS Consultants Ltd
Drilling Dates	August 15, 2023	August 18, 2023
Drilling Equipment Used	Track-mounted CME 55	Hand tools (shovel)
Measures taken to minimize the potential for cross contamination	◆ Soil sampling was conducted using a 50 mm stainless steel split spoon sampler. The split spoon sampler was brushed clean of soil, washed in municipal water containing phosphate free detergent, rinsed in municipal water, and then rinsed with distilled water for each sampling interval in order to reduce the potential for cross contamination; ◆ Use of dedicated and disposable nitrile gloves for the handling of soil samples. A new set of gloves was used for each sample.	◆ Soil sampling was conducted using hand tools. The tools were brushed clean of soil, washed in municipal water containing phosphate free detergent, rinsed in municipal water, and then rinsed with distilled water for each sampling interval in order to reduce the potential for cross contamination; ◆ Use of dedicated and disposable nitrile gloves for the handling of soil samples. A new set of gloves was used for each sample.
Sample collection frequency	Samples were collected at a frequency of every 0.6 m per 0.8 m from the ground surface to 3.1 mbgs, followed by one sample per 1.5 m to borehole termination depth.	1 sample for 0.3 m

4.3 Soil Sampling

Soil samples were collected using hand tools, solid stem augers and split spoon samplers. Discrete soil samples were collected from the split-spoon samplers by DS personnel using dedicated nitrile gloves.

A portion of each sample was placed in a resealable plastic bag for field screening, and the remaining portion was placed into laboratory supplied glass sampling jars. Samples intended for VOC and the F1 fraction of petroleum hydrocarbons analysis were collected

using a laboratory-supplied soil core sampler, placed into the vials containing methanol for preservation purposes and sealed using Teflon lined septa lids. All sample jars were stored in dedicated coolers with ice for storage, pending transport to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

The subsurface soil conditions were logged by DS personnel at the time of drilling, and recorded on field borehole logs. The borehole logs are presented under Appendix C. Additional detail regarding the lithology encountered in the boreholes is presented under Section 6.1.

4.4 Field Screening Measurements

All retrieved soil samples were screened in the field for visual and olfactory observations. No obvious visual or olfactory evidence of potential contamination were noted. No aesthetic impacts (e.g. cinders, slag, hydrocarbon odours) were encountered during this investigation. The soil sample headspace vapour concentrations for all soil samples recovered during the investigation were screened using portable organic vapour testing equipment in accordance with the procedure outlined in the MECP's '*Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario'.*

The soil samples were inspected and examined to assess soil type, ground water conditions, and possible chemical contamination by visual and olfactory observations or by organic vapour screening. Samples submitted for chemical analysis were collected from locations judged by the assessor to be most likely to exhibit the highest concentrations of contaminants based on several factors including (i) visual or olfactory observations, (ii) sample location, depth, and soil type (iii) ground water conditions and headspace reading. A summary of the equipment used for field screening is provided below:

Table 4-2: Field Screening Equipment

Parameter	Details
Make and Model of Field Screening Instrument	RKI Eagle 2, Model 5101-P2 Serial Number: E2G721
Chemicals the equipment can detect and associated detection limits	VOCs with dynamic range of 0 parts per million (ppm) to 2,000 ppm PHCs with range of 0 to 50, 000 ppm
Precision of the measurements	3 significant figures
Accuracy of the measurements	VOCs: ± 10% display reading + one digit Hydrocarbons: ± 5% display reading + one digit
Calibration reference standards	PID: Isobutylene CGD: Hexane

Parameter	Details
Procedures for checking calibration of equipment	In-field re-calibration of the CGI was conducted (using the gas standard in accordance with the operator's manual instructions) if the calibration check indicated that the calibration had drifted by more than +/- 10%.

A summary of the soil headspace measurements are provided in the borehole logs, provided under Appendix C.

4.5 Groundwater Monitoring Well Installation

Monitoring wells were installed upon completion of one (1) the borehole advanced on the Phase Two Property. The monitoring well was constructed of 51-millimetre (2-inch) inner diameter (ID) flush-threaded schedule 40 polyvinyl chloride (PVC) risers, equipped with a 1.5 m length of No. 10 slot PVC screen. The well screen was sealed at the bottom using a threaded cap and at the top with a lockable J-plug.

Silica sand was placed around and up to 0.6m above the well screen to act as a filter pack. Bentonite was placed from the ground surface to the top of the sand pack. The well was completed with protective aboveground monument casings.

Details regarding the monitoring well construction can be found in Table 1, and on the borehole logs provided in Appendix C.

Disposable nitrile gloves were used to minimize the potential for cross-contamination during well installation. Dedicated equipment was used for well development and sampling for further minimize the risk of cross contamination.

4.6 Groundwater Sampling

Groundwater was not identified as a media of concern on the Phase Two Property at the time of this investigation. Groundwater sampling was not conducted as a result.

4.7 Sediment Sampling

No sediment as defined under O.Reg. 153/04 (as amended) was present on the Phase Two Property at the time of this investigation. Sediment sampling was not conducted as a result.

4.8 Analytical Testing

The soil samples collected were submitted to Bureau Veritas (BV) under chain of custody protocols. BV is an independent laboratory accredited by the Canadian Association for Laboratory Accreditation. BV conducted the analyses in accordance with the MECP

document "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" dated March 9, 2004 (revised on July 1, 2011).

4.9 Residue Management Procedures

4.9.1 Soil Cuttings From Drilling and Excavations

The soil cuttings generated by the borehole drilling program were stored in 205 L drums, and left on-Site for disposal by a MECP approved waste-hauler for disposal at a MECP-approved waste management facility.

4.9.2 Fluids from Equipment Cleaning

Excess equipment cleaning fluids were stored in 20-L sealed plastic pails and temporarily stored on Site for disposal by a MECP approved waste-hauler for disposal at a MECP-approved waste management facility.

4.10 Elevation Surveying

The ground surface elevations of the boreholes/monitoring wells were surveyed using a Sokkia GCX-2 GNSS RTK receiver, based on global positioning systems satellites.

The ground surface elevations can be found on the borehole logs presented in Appendix C.

4.11 Quality Assurance and Quality Control Measures

4.11.1 Sample containers, preservation, labelling, handling and custody for samples submitted for laboratory analysis, including any deviations from the SAP

All soil and groundwater samples were stored in laboratory-supplied sample containers in accordance with the MECP Analytical Protocol. A summary of the preservatives supplied by the laboratory is provided in the table below.

Table 4-3: Summary of Sample Bottle Preservatives

Media	Parameter	Sample Container
Soil	PHCs F1 VOCs	40 mL methanol preserved glass vial with septum lid.
	PHCs F2-F4 metals and ORPs PAHs	120 mL or 250 mL unpreserved glass jar with Teflon™-lined lid.
	Hexavalent Chromium	125 mL high density polyethylene bottle containing ammonium sulphate/ammonium hydroxide preservative
	Mercury	125 mL glass bottle containing hydrochloric acid preservative
	Cyanide	125 mL high density polyethylene bottle containing sodium hydroxide preservative

4.11.2 Description of equipment cleaning procedures followed during all sampling

Dedicated, disposable nitrile gloves were used for each sampling event to reduce the potential for cross-contamination.

The split spoon sampler and hand tools was brushed clean of soil, washed in municipal water containing phosphate free detergent, rinsed in municipal water, and then rinsed with distilled water for each sampling interval in order to reduce the potential for cross contamination.

Non-dedicated equipment (i.e. interface probe) was cleaned before initial use and between all measurement points with a solution of Alconox™ and distilled water. The Alconox™ solution was rinsed off using distilled water.

4.11.3 Description of how the field quality control measures referred to in subsection 3 (3) were carried out

Field duplicate samples were collected at the time of sampling. In accordance with O.Reg. 153/04, one duplicate sample was analyzed per ten samples submitted for analysis. A laboratory prepared trip blank accompanied the groundwater samples during each sampling event and was submitted for laboratory analysis of VOCs.

All field screening devices (i.e. PID, CGD, YSI Water Quality Meter) were calibrated prior to use by the supplier. Calibration checks were completed, and re-calibrations were conducted as required.

4.11.4 Description of, and rational for, any deviations from the procedures set out in the quality assurance and quality control program set out in the SAP

There were no deviations from the QA/QC program described in the SAP.

5.0 Review and Evaluation

5.1 Geology

A summary of the subsurface conditions is presented below. Additional details may be found in the borehole logs appended in Appendix C. The boundaries of soil indicated on the borehole logs and described below are intended to reflect transition zones for the purpose of environmental assessment and should not be interpreted as exact planes of geological change.

A surficial layer of topsoil approximately 200 to 250 mm in thickness was encountered in all of the boreholes advanced. Reworked native material consisting of clayey silt with trace

organics was encountered below the topsoil. The reworked native material was generally heterogeneous and ranged in thickness from 0.5 to 2.1 metres. A silty sand seam was encountered in the reworked material in BH23-303 with a thickness of 0.7 m. The native overburden material encountered below the reworked native and fill material consisted of clayey silt to silty clay till. The clayey silt to silty clay till unit extended to borehole termination at a maximum depth of 6.7 mbgs. Bedrock was not encountered an the maximum borehole depth of 6.7mbgs.

Table 5-1: Summary of Geologic Units Investigated

Geologic Unit	Inferred Thickness (m)	Top Elevation (masl)	Bottom Elevation (masl)	Properties
Topsoil	0.20 – 0.25	260.0	258.9	Moisture Content: 15-27%
Reworked Clayey Silt	0.5 – 2.1	259.8	257.7	Water table encountered
Clayey Silt Till	4.4 – 5.9	258.5	252.5	Moisture Content: 11-24%

5.2 Ground Water Elevations and Flow Direction

5.2.1 Rationale for Monitoring Well Location and Well Screen Intervals

One (1) monitoring well was installed on the Phase Two Property. The monitoring wells were screened to intersect the first water bearing formation encountered. The monitoring well was screened within the clayey silt to silty clay till unit encountered at an approximate depth of 0.20 to 6.7 mbgs. This unit is inferred to be an unconfined aquifer.

5.2.2 Results of Interface Probe Measurements

A summary of the groundwater level measurements is provided in Table 1. The groundwater level measurements were collected using a Solinst interface probe (model 122). The depth to groundwater was found to be 2.29 and 1.73 mbgs on August 18 and 29, 2023, respectively. There was no indication of DNAPL or LNAPL in the monitoring wells at this time.

5.2.3 Product Thickness and Free Flowing Product

No evidence of product was observed in the monitoring wells at the time of the investigation.

5.2.4 Groundwater Elevation

The groundwater elevation was calculated by subtracting the depth to groundwater from the surface elevation determined by the surface elevation survey conducted as part of this investigation. A summary of the groundwater elevations calculated is presented in Table 1.

The groundwater elevation was found to be 257.66 and 258.22 masl on August 18 and 29, 2023, respectively, in the upper aquifer investigated.

5.2.5 Groundwater Flow Direction

The groundwater flow direction was not calculated at this time. The groundwater flow direction was inferred to be southeast towards a tributary of Fletcher's Creek based on the Phase One ESA.

5.2.6 Assessment of Potential for Temporal Variability in Groundwater Flow Direction

The shallow aquifer investigated is inferred to be an unconfined aquifer, based on the soil stratigraphy observed in the boreholes advanced on the Phase Two Property. It is possible that temporal variations in groundwater elevations may occur on the Phase Two Property in response to seasonal weather patterns.

Temporal variability in groundwater level has the ability to influence the groundwater flow direction. The degree of variation in groundwater levels on the Phase Two Property can only be confirmed with long-term monitoring.

5.2.7 Evaluation of Potential Interaction Between Buried Utilities and the Water Table

The groundwater table was encountered at a depth of 1.73 to 2.29 mbgs on the Phase Two Property. Buried utility services are present on the Phase Two Property, and are inferred to be situated at depths ranging between 2 and 3 mbgs. Based on this there is the potential for the utility trenches to act as preferential pathways. However groundwater was not identified as a media of concern at this time.

5.3 Ground Water Hydraulic Gradients

5.3.1 Horizontal Hydraulic Gradient

The horizontal hydraulic gradient was not calculated, as groundwater was not identified as a media of concern on the Phase Two Property.

5.3.2 Vertical Hydraulic Gradient

The vertical hydraulic gradient was not calculated, as groundwater was not identified as a media of concern on the Phase Two Property.

5.4 Fine-Medium Soil Texture

The soils encountered on the Phase Two Property are considered to be medium-fine textured. For the purposes of evaluating the SCS, all soils on the Phase Two Property are considered medium-fine textured.

5.4.1 Rational for use of Fine-Medium Soil Texture Category

A total of three (3) grain size analyses were conducted as part of the concurrent geotechnical investigation. The results of the grain size analyses indicate that more than two-thirds of the soils encountered are medium to fine textured.

5.4.2 Results of Grain Size Analysis

A summary of the soil samples analyzed and the corresponding grain size results is presented in the table below:

Table 5-2: Summary of Grain Size Analyses

Sample	% Gravel	% Sand	% Silt	% Clay	Classification
BH23-301 SS3	1	16	44	39	Medium-fine textured
BH23-302 SS4	3	16	56	25	Medium-fine textured
BH23-303 SS6	3	23	44	30	Medium-fine textured

5.4.3 Rational for the Number of Samples Collected and Analyzed

The grain size analyses were conducted for the purposes of this Phase Two ESA, in addition to a geotechnical investigation which was conducted concurrently. At least one sample was analyzed per stratigraphic unit encountered in order to characterize the various strata encountered.

5.5 Soil Field Screening

Soil vapour headspace readings were collected at the time of sample collection, the results of which are presented on the borehole logs (Appendix C). The soil vapour headspace readings were collected using a PID and CGD in methane elimination mode. The PID readings was non-detect (0 ppm). The CGD readings ranged between 0 and 20 ppm.

The soil samples were also screened for visual and olfactory indicators of impacts (e.g. staining, odours). No visual or olfactory impacts were observed.

5.6 Soil Quality

The results of the chemical analyses conducted are presented in Tables 4 and 5. A visual summary of the location of the sample locations is provided in Figures 6A and 6B. The laboratory certificates of analysis have been provided under Appendix D.

Note that two (2) samples were assigned the sample ID S4 with corresponding sampling dates of August 18, 2023 and September 25, 2023. The sampling points are distinguished by the laboratory analytical reference of C3P2568 and C3T5693 respectively. For the appended tables and figures the samples are identified as S4 and S4 (September) respectively.

5.6.1 Metals and ORPs

A total of six (6) samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of metals, and an additional two (2) samples were submitted for pH. The results of the analyses are tabulated in Table 4, and presented on Figure 6A. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 2 SCS.

5.6.2 Petroleum Hydrocarbons

One (1) sample, was submitted for analysis of PHCs including BTEX. The results of the analyses are tabulated in Table 5, and presented on Figure 6B. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 2 SCS.

5.6.3 Volatile Organic Compounds

One (1) sample, was submitted for analysis of VOCs. The results of the analyses are tabulated in Table 6, and presented on Figure 6C. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 2 SCS.

5.6.4 Polycyclic Aromatic Hydrocarbons

One (1) sample, was submitted for analysis of PAHs. The results of the analyses are tabulated in Table 7, and presented on Figure 6D. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 2 SCS.

5.6.5 Organochlorinated Pesticides

A total of five (5) samples, including one (1) field duplicates for QA/QC purposes were submitted for analysis of OCPs. The results of the analyses are tabulated in Table 8, and presented on Figure 6E. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 2 SCS.

5.6.6 Commentary on Soil Quality

No evidence of chemical or biological transformations of the parameters analyzed was observed.

5.7 Ground Water Quality

Groundwater was not identified as a media of concern at the time of this investigation.

5.8 Sediment Quality

No sediment was present on the Phase Two Property at the time of the investigation.

5.9 Quality Assurance and Quality Control Results

Collection of soil and groundwater samples was conducted in general accordance with the MECP *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*. As described in Section 5.12, dedicated equipment was used where possible, and all non-dedicated equipment was decontaminated before and between sampling events. All soil and groundwater samples were transferred directly into laboratory-supplied containers. The laboratory containers were prepared by the laboratory with suitable preservative, as required. All samples were stored and transported under refrigerated conditions. Chain of custody protocols were maintained from the time of sampling to delivery to the analytical laboratory.

The field QA/QC program involved the collection of field duplicate soil and groundwater samples, and the use of a trip blank for each groundwater sampling event (when suitable). In addition to the controls listed above, the analytical laboratory employed method blanks, internal laboratory duplicates, surrogate spike samples, matrix spike samples, and standard reference materials.

A summary of the field duplicate samples analyzed and an interpretation of the efficacy of the QA/QC program is provided in the table below.

Table 5-3: Summary of QA/QC Results

Sample ID	QA/QC duplicate	Medium	Parameter Analyzed	QA/QC Result
DUP-1	S3	Soil	OCPs, Metals	All results were within the analytical protocol criteria for RPD.

Based on the interpretation of the laboratory results and the QA/QC program, it is the opinion of the QP that the laboratory analytical data can be relied upon.

All samples were handled in accordance with the MECP Analytical Protocol regarding sample holding time, preservation methods, storage requirements, and type of container.

BV routinely conducts internal QA/QC analyses in order to satisfy regulatory QA/QC requirements. The results of the BV QA/QC analyses for the submitted soil samples are summarized in the laboratory Certificates of Analyses provided in Appendix D.

The following comments were provided by BV on the laboratory Certificates of Analysis. Commentary on the comments has been provided below:

- Laboratory Certificate C3P2568 – The sample S2 required dilution due to the sample matrix for OCP analysis. The detection limits were adjusted accordingly. The overall QA/QC analysis met acceptable laboratory criteria. As such, DS does not consider this to be an issue of significant concern and it has no impact on the overall interpretation of the analytical data; and
- Laboratory Certificate C3P2568 – The analyte Aroclor 1254 was detected in the method blank at a level marginally above the detection limit which may represent a high bias in results unless the results were non-detect. As the results were non-detect, DS does not consider this to be an issue of significant concern and it has no impact on the overall interpretation of the analytical data.

With respect to subsection 47(3) of O.Reg 153/04 (as amended), all certificates of analysis or analytical reports pursuant to clause 47(2) (b) of the regulation comply with subsection 47(3). A certificate of analysis has been received for each sample submitted for analysis and have been provided (in full) in Appendix D.

A review of the QA/QC sample results indicated that no issues were identified with respect to both the field collection methodology and the laboratory reporting. It is the opinion of the QP that the analytical data obtained are representative of the soil and groundwater conditions at the Phase Two Property for the purpose of assessing whether the soil and groundwater at the Phase Property meets the applicable MECP SCS.

5.10 Phase Two Conceptual Site Model

The Phase Two Conceptual Site Model is presented under Appendix E.

6.0 Conclusions

This Phase Two ESA involved that advancement of three (3) boreholes, five (5) test pits, the installation of one (1) monitoring well on the Phase Two Property, and the collection of soil

samples for analysis of the potential contaminants of concern, including: Metals, As, Sb, Se, CN-, pH, EC, SAR, PHCs including BTEX, VOCs, PAHs and OCPs.

Based on the results of the information gathered through the course of the investigation, DS presents the following conclusions:

- A surficial layer of topsoil approximately 200 to 250 mm in thickness was encountered in all of the boreholes and test pit advanced at the Site. Reworked native material consisting of clayey silt with trace organics was encountered below the topsoil. The reworked native material was generally heterogeneous and ranged in thickness from 0.5 to 2.1 metres. A silty sand seam was encountered in the reworked material in BH23-303 with a thickness of 0.7 m. The native overburden material encountered below the reworked native material and fill material consisted of clayey silt to silty clay till. The clayey silt to silty clay till unit extended to borehole termination at a maximum depth of 6.7 mbgs. Bedrock was not encountered at the end of the boreholes.
- The groundwater flow direction was inferred to be southeast, in a similar direction as the slope in the area, towards a tributary of Fletcher's Creek based on the Phase One ESA.
- The results of the chemical analyses conducted on soil samples indicate that the applicable Site Condition Standards have been met;
- All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

It is the opinion of the QP_{ESA} that the applicable SCS for the soil and groundwater at the Phase Two Property have been met as of the Certification Date of October 6, 2023. No further sub-surface investigation is required regarding the environmental quality of the soil and groundwater at the Phase Two Property.

6.1 Qualifications of the Assessors

Megan Bender, B.E.S, EPt

Ms. Bender is an Environmental Specialist with DS Consultants Ltd. Megan holds a Bachelor's degree in Environmental Studies, specializing in environmental assessments, a minor in geography from the University of Waterloo and a Post Graduate Certificate in Environmental Engineering Applications from Conestoga College. Megan is registered as an Environmental Professional in training (EPt) with ECO Canada. Megan has been involved with Phase One and Phase Two Environmental Site Assessments, data interpretation and reporting, and geotechnical projects.

Efuange Khumbah, M.Sc., P.Eng, QP$_{ESA}$

Efuange is a Senior Project Manager, providing environmental services at DS Consultants Ltd. He is the line of communication between clients, customers, and businesses to get projects done. With over 12 years working for the public and private sectors, Efuange has experience serving clients in constructional, financial institutions, insurance companies, legal firms, manufacturing industries, oil/gas/petrochemical as well as municipal, provincial and federal agencies. In Canada he has managed projects in British Columbia, Alberta, Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island, and Newfound land. His area of expertise includes, environmental site assessment, soil and groundwater remediation, litigation support, excess soil management, senior review of environmental reports, and air quality monitoring. Reports prepared by Efuange have been published by the Town of Newmarket, City of Mississauga, and the Ontario Ministry of Environment Conservation and Parks. Efuange hold a M.Sc. degree in Environmental Science and Resource management.

Mr. Patrick (Rick) Fioravanti, B.Sc., P.Geo., QP$_{ESA}$

Mr. Patrick (Rick) Fioravanti is an Environmental Geoscientist specializing in Environmental Site Assessments, Brownfields Remediation Projects and Excess Soil Management. He holds an Honours Bachelor of Science with distinction in Toxicology from the University of Guelph and is a practicing member of the Association of Professional Geoscientists of Ontario (APGO). Rick is the Manager of Environmental Services with DS, responsible for the supervision and management of Phase One and Two Environmental Site Assessments, assessment of soil/fill management for import/export of soils, soil vapour and indoor air quality assessments, and remediation.

Rick has over ten years of environmental consulting experience and has conducted and/or managed hundreds of projects in his professional experience. Rick has extensive experience conducting Phase One and Phase Two Environmental Site Assessments in support of brownfields redevelopment in urban settings, and been involved in numerous remediation and risk assessments projects. Rick specializes in utilizing emerging technologies such as high-resolution site characterization and contaminant forensics to help Clients achieve their development objectives. Rick is a Qualified Person (QP) to conduct Environmental Site Assessments as defined by Ontario Regulation 153/04 (as amended) and Ontario Regulation 406/19 and has successfully filed numerous Records of Site Condition with the Ministry of Environment, Conservation and Parks.

6.2 Signatures

This Phase Two ESA was conducted under the supervision of Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA} in accordance with the requirements of O.Reg. 153/04 (as amended). The findings and conclusions presented have been determined based on the information obtained at the time of the investigation, and on an assessment of the conditions of the Site at this time.

We trust this report meets with your requirements. Should you have any questions regarding the information presented, please do not hesitate to contact our office.

Yours truly,

DS Consultants Ltd

Prepared By:

Megan Bender, B.E.S., EPt
Environmental Specialist

Reviewed By:

Efuange Khumbah, M.Sc., P.Eng., QP_{ESA}
Senior Project Manager-Environmental Services

Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA}
Manager – Environmental Services

6.3 Limitations

This report was prepared for the sole use of Mayfield West III and is intended to provide an assessment of the environmental condition on the property located at 12156 Chinguacousy Road, Caledon, Ontario. The information presented in this report is based on information collected during the completion of the Phase Two Environmental Site Assessment by DS Consultants Ltd. The material in this report reflects DS' judgment in light of the information available at the time of report preparation. This report may not be relied upon by any other person or entity without the written authorization of DS Consultants Ltd. The scope of services performed in the execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or reuse of this documents or findings, conclusions and recommendations represented herein, is at the sole risk of said users.

The conclusions drawn from the Phase Two ESA were based on information at selected observation and sampling locations. Conditions between and beyond these locations may become apparent during future investigations or on-Site work, which could not be detected or anticipated at the time of this investigation. The sampling locations were chosen based upon a cursory historical search, visual observations and limited information provided by persons knowledgeable about past and current activities on this Site during the Phase Two ESA activities. As such, DS Consultants Ltd. cannot be held responsible for environmental conditions at the Site that was not apparent from the available information.

7.0 References

- Armstrong, D.K. and Dodge, J.E.P. *Paleozoic Geology Map of Southern Ontario*. Ontario Geological Survey, Miscellaneous Release--Data 219.
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- The Ontario Geological Survey. 2003. *Surficial Geology of Southern Ontario*.
- "*Phase One Environmental Site Assessment, 12156 Chinguacousy Road, Caledon, Ontario",* dated September 7, 2023, prepared for Argo Development Corporation, prepared by DS Consultants.

Figures

J:\-GIS\2023 PROJECTS\23-266-100 - 12156 Chinguacousy, Caledon, ON\1-QGIS\Phase Two\Figure 1 - Site Location Plan.qgs Oct-10 16:37

Legend

Property Boundary

DS CONSULTANTS LTD.
6221 Highway 7, UNIT 16
Vaughan, Ontario L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Project:	PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 12156 Chinguacousy Road, Caledon, ON
Title:	SITE LOCATION PLAN
Client:	MAYFIELD WEST III
Size:	8.5 x 11
Rev:	0
Approved By:	R.F
Drawn By:	P.P
Date:	October 2023
Scale:	As Shown
Project No.:	23-266-100
Figure No.:	1
Image/Map Source:	*Google Streetmap Image*

J:\-GIS\2023 PROJECTS\23-266-100 - 12156 Chinguacousy, Caledon, ON\1-QGIS\Phase Two\Figure 2 - Phase One Property Site Plan.qgs Oct-10 16:36

Legend

Property Boundary

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12156 Chinguacousy Road, Caledon, ON

Title: **PHASE ONE PROPERTY SITE PLAN**

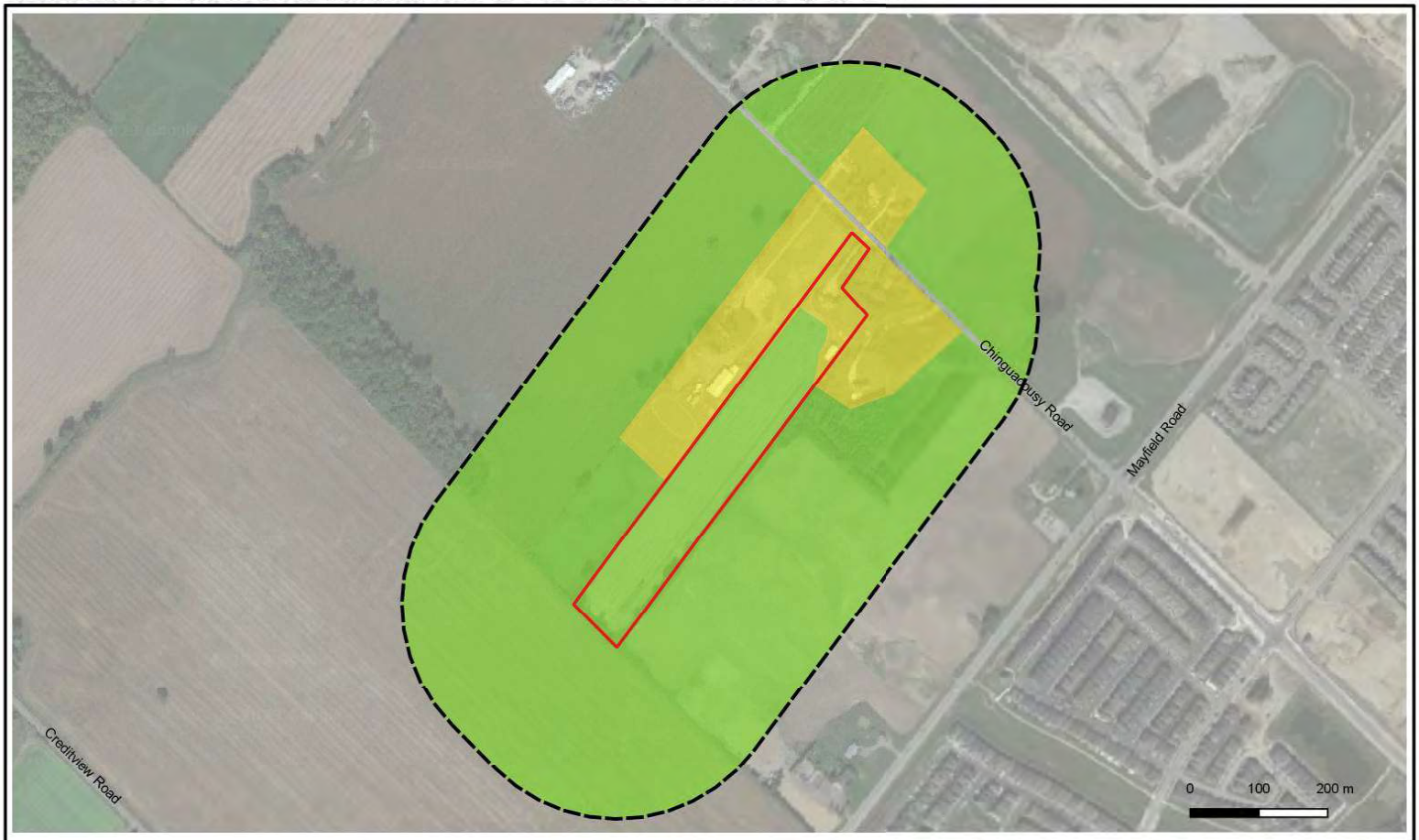
N

Client: MAYFIELD WEST III

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	October 2023
Rev: 0	Scale: As Shown	Project No.: 23-266-100	Figure No.: **2**

Image/Map Source *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-266-100 - 12156 Chinguacousy, Caledon, ON\1-QGIS\Phase Two\Figure 3 - Phase One Study Area.qgs Oct-10 16:36



Legend

- Property Boundary
- 250m Buffer
- Agricultural Use
- Residential Use

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12156 Chinguacousy Road, Caledon, ON

Title: **PHASE ONE STUDY AREA**

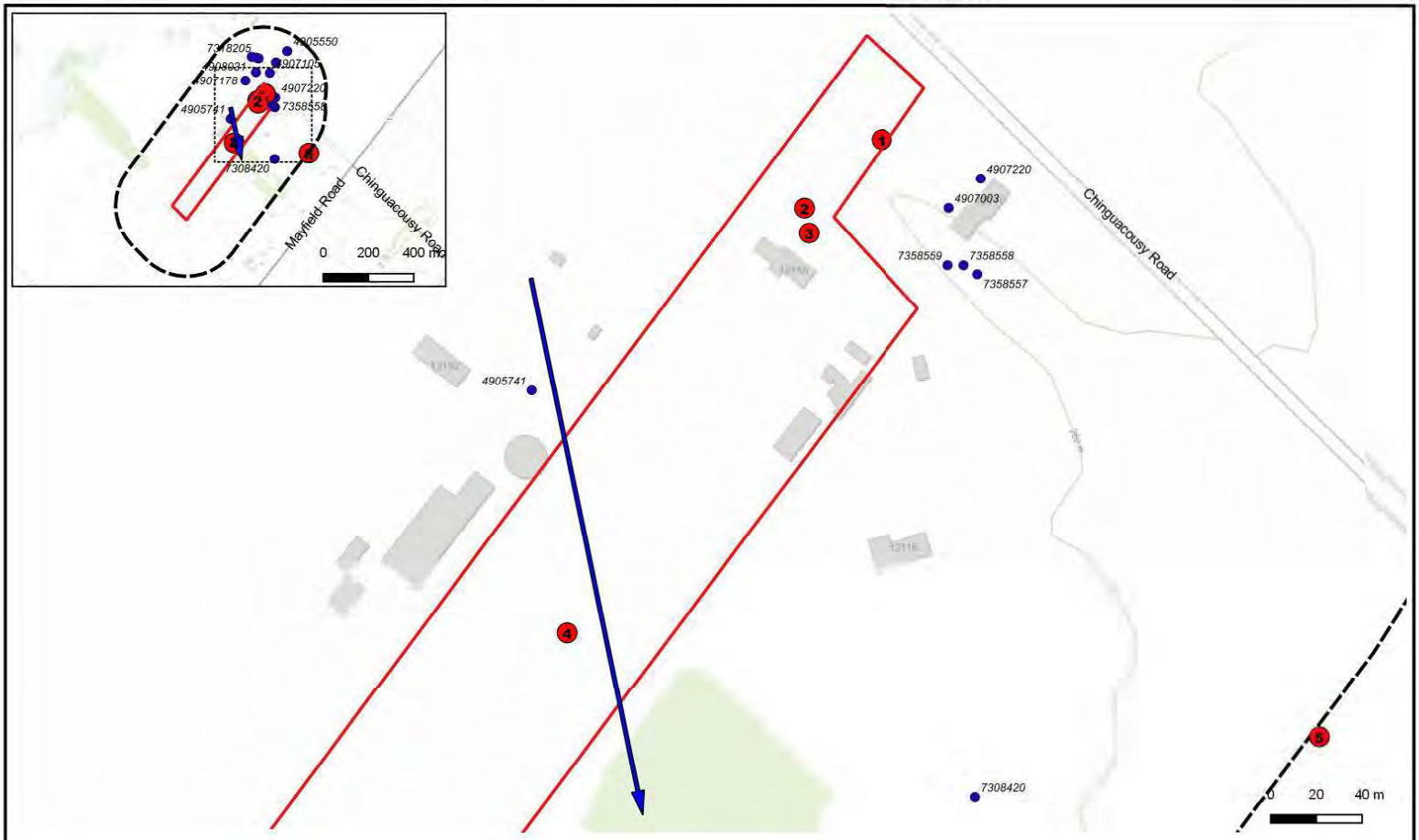
N

Client: MAYFIELD WEST III

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	October 2023
Rev: 0	Scale: As Shown	Project No.: 23-266-100	Figure No.: 3

Image/Map Source *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-266-100 - 12156 Chinguacousy, Caledon, ON\1-QGIS\Phase Two\Figure 4 - PCAs within Phase One Study Area.qgs Oct-10 16:35



Legend

- Property Boundary
- 250m Buffer
- PCA Contributing to APEC
- Registered Water Well (MECP WWR)
- Inferred Groundwater Flow Direction

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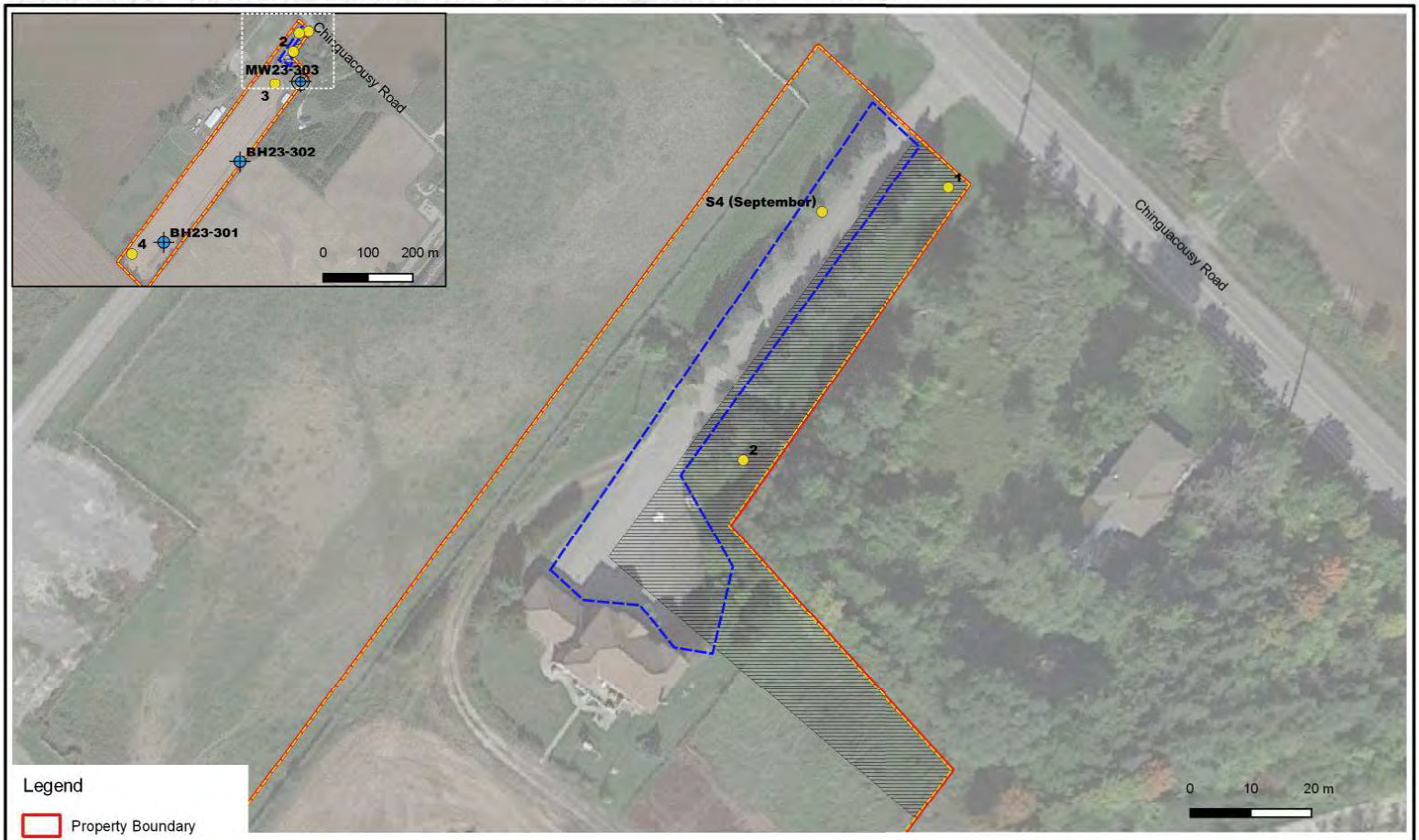
Project:	PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 12156 Chinguacousy Road, Caledon, ON			N
Title:	**PCAs WITHIN PHASE ONE STUDY AREA**			
Client: MAYFIELD WEST III	Size: 8.5 x 11	Approved By: R.F	Drawn By: P.P	Date: October 2023
	Rev: 0	Scale: As Shown	Project No.: 23-266-100	Figure No.: **4**
		Image/Map Source *Esri Topo Image*		

J:\-GIS\2023 PROJECTS\23-266-100 - 12156 Chinguacousy, Caledon, ON\1-QGIS\Phase Two\Figure 5 - Borehole Location Plan with APECs.qgs Oct-13 15:01



Legend

- Property Boundary
- Borehole
- Monitoring Well
- OCP Samples
- APEC-1
- APEC-2A and APEC-2B
- APEC-3

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12156 Chinguacousy Road, Caledon, ON

Title: **BOREHOLE LOCATION PLAN WITH APECs**

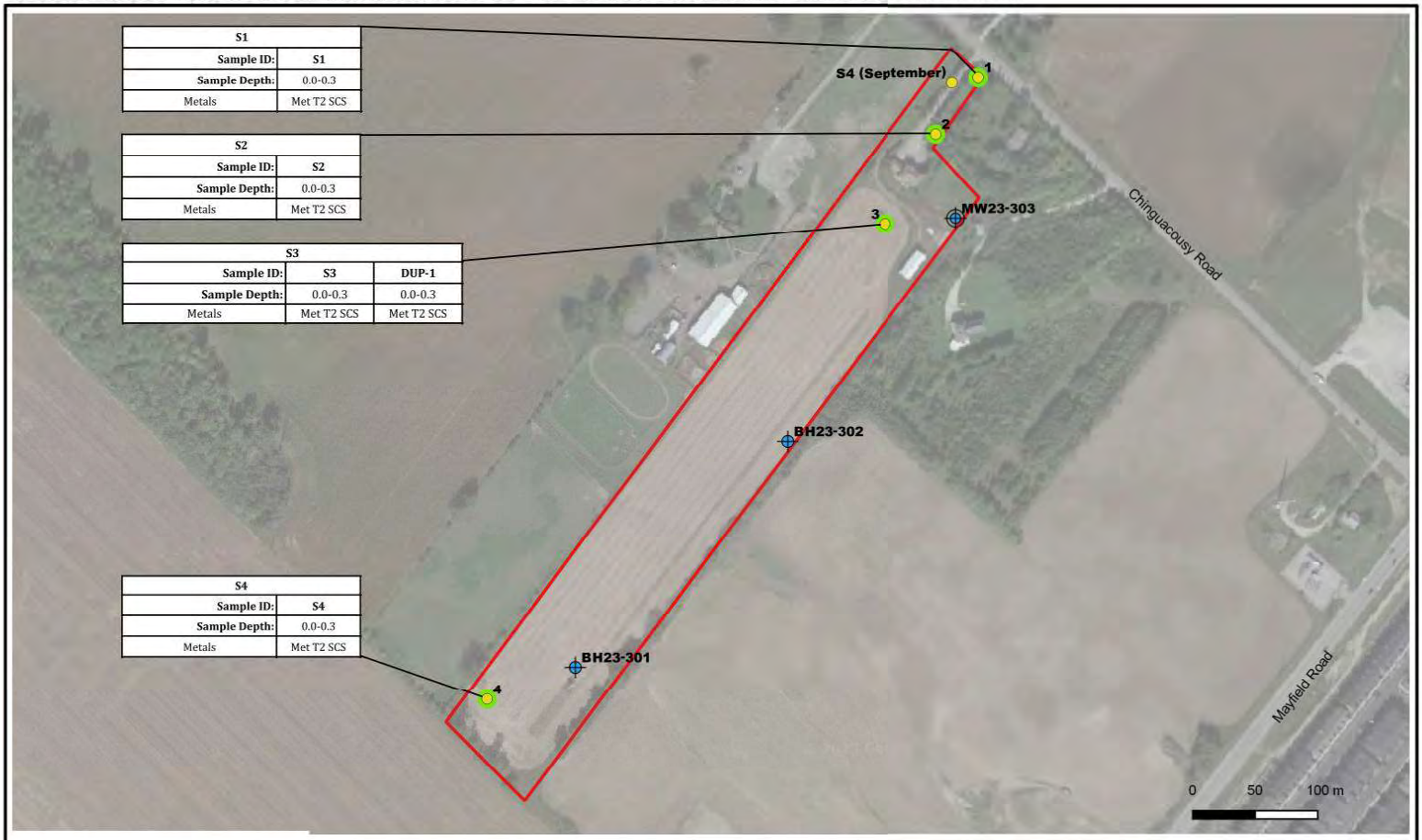
N

Client: MAYFIELD WEST III

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	October 2023
Rev: 0	Scale: As Shown	Project No.: 23-266-100	Figure No.: 5

Image/Map Source *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-266-100 - 12156 Chinguacousy, Caledon, ON\1-QGIS\Phase Two\Figure 6A - Soil Characterization - Metals and ORPs.qgs Oct-10 16:27



Legend

- Property Boundary
- Borehole
- Monitoring Well
- OCP Samples
- Sample Met Applicable Standards

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12156 Chinguacousy Road, Caledon, ON

Title: **SOIL CHARACTERIZATION - METALS AND ORPs**

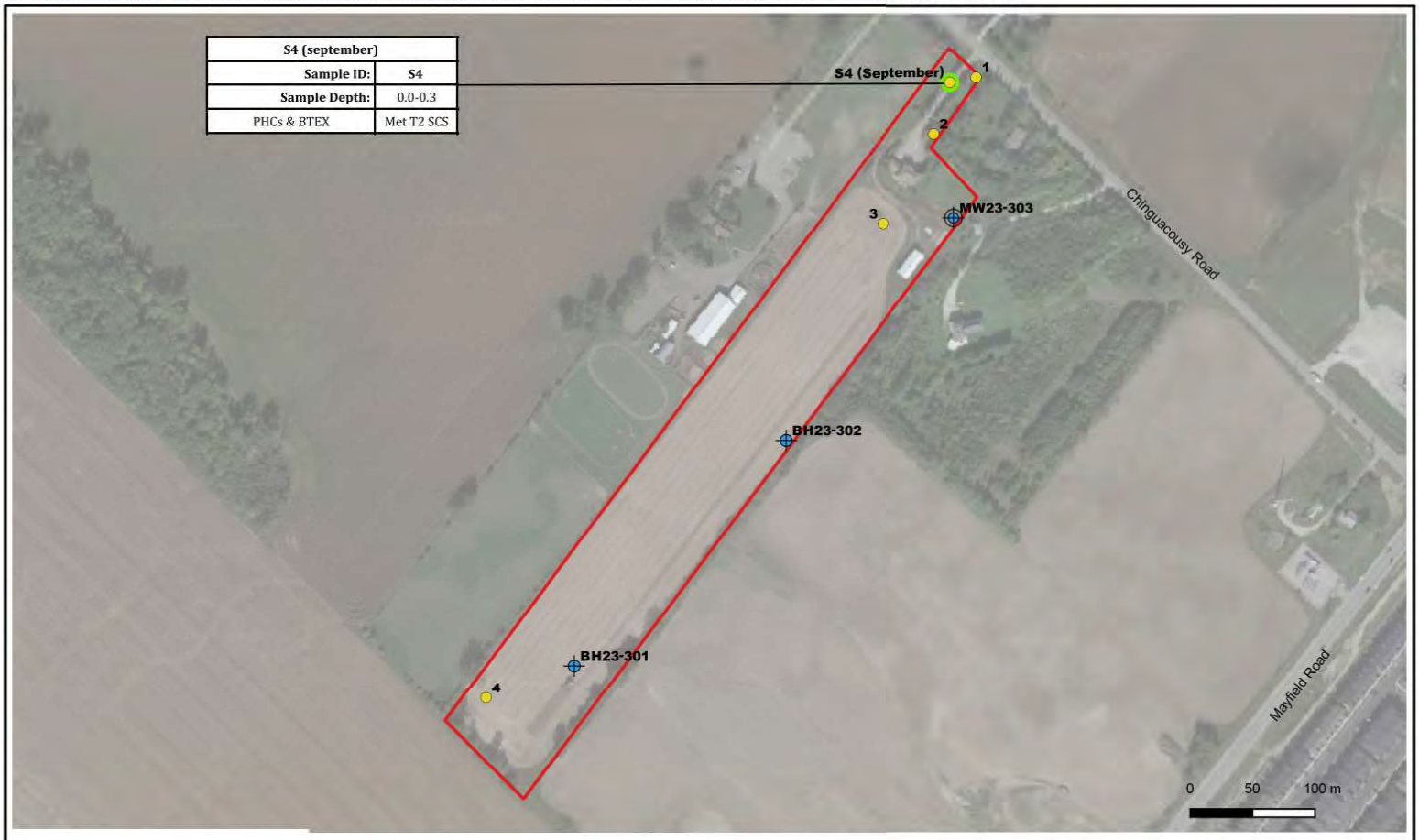
N

Client: MAYFIELD WEST III

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	October 2023
Rev: 0	Scale: As Shown	Project No.: 23-266-100	Figure No.: **6A**

Image/Map Source *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-266-100 - 12156 Chinguacousy, Caledon, ON\1-QGIS\Phase Two\Figure 6B - Soil Characterization - PHCs and BTEX.qgs Oct-10 16:30



Legend

- Property Boundary
- Borehole
- Monitoring Well
- OCP Samples
- Sample Met Applicable Standards

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12156 Chinguacousy Road, Caledon, ON

Title: **SOIL CHARACTERIZATION - PHCs AND BTEX**

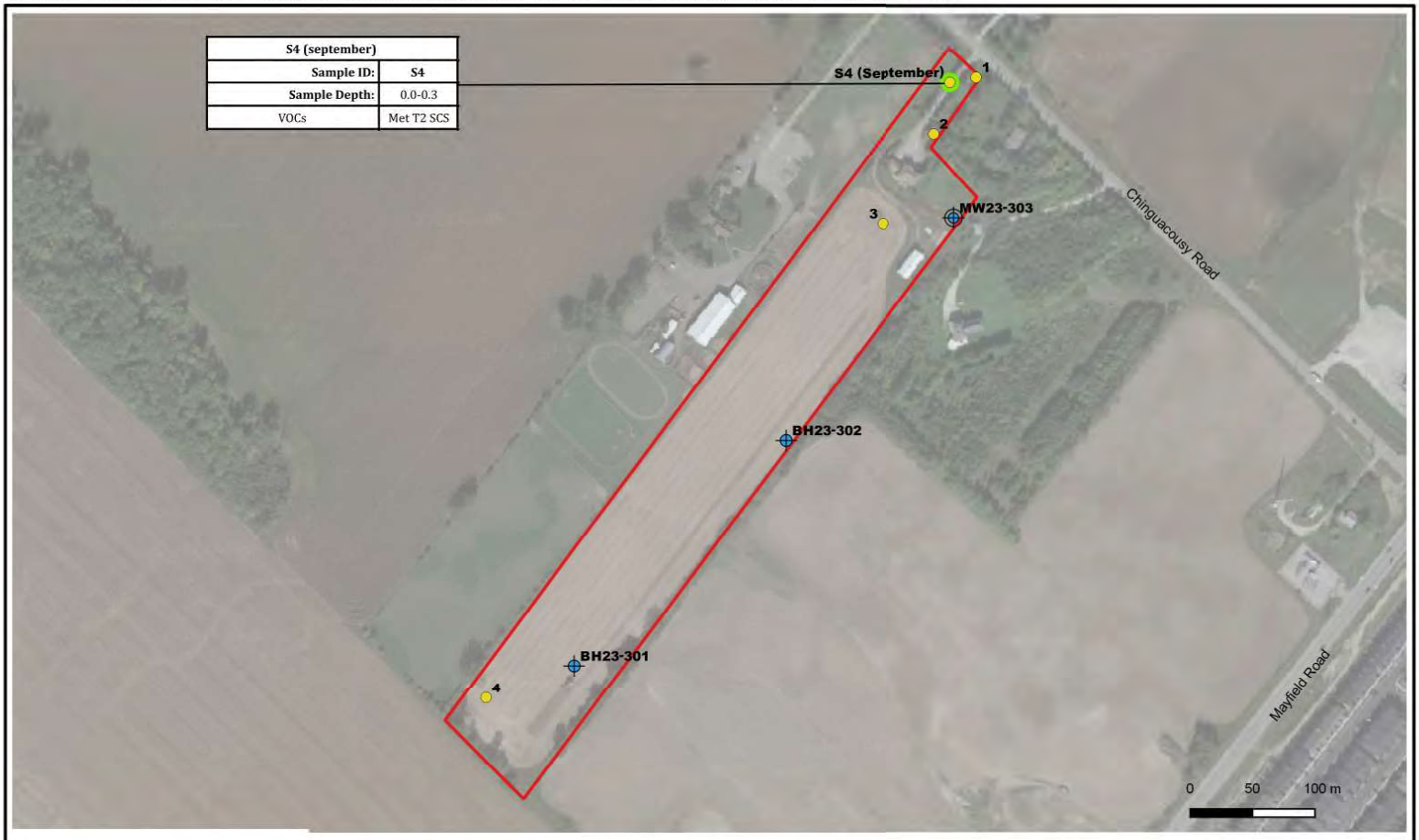
N

Client: MAYFIELD WEST III

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	October 2023
Rev: 0	Scale: As Shown	Project No.: 23-266-100	Figure No.: **6B**

Image/Map Source *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-266-100 - 12156 Chinguacousy, Caledon, ON\1-QGIS\Phase Two\Figure 6C - Soil Characterization - VOCs.qgs Oct-10 16:31



Legend

- Property Boundary
- Borehole
- Monitoring Well
- OCP Samples
- Sample Met Applicable Standards

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12156 Chinguacousy Road, Caledon, ON

Title: **SOIL CHARACTERIZATION - VOCs**

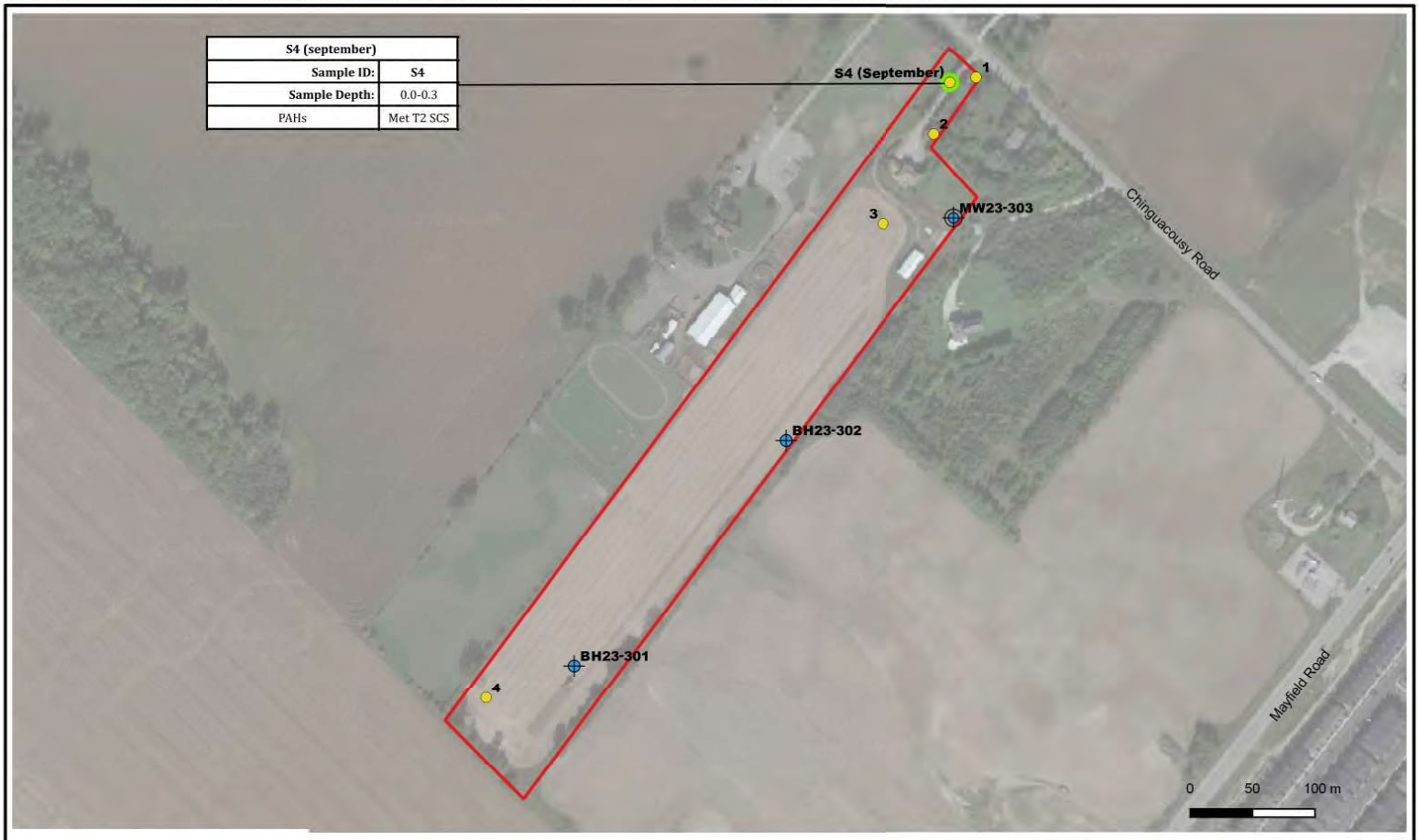
N

Client: MAYFIELD WEST III

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	October 2023
Rev: 0	Scale: As Shown	Project No.: 23-266-100	Figure No.: **6C**

Image/Map Source *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-266-100 - 12156 Chinguacousy, Caledon, ON\1-QGIS\Phase Two\Figure 6D - Soil Characterization - PAHs.qgs Oct-10 16:32



Legend

- Property Boundary
- Borehole
- Monitoring Well
- OCP Samples
- Sample Met Applicable Standards

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12156 Chinguacousy Road, Caledon, ON

Title: **SOIL CHARACTERIZATION - PAHs**

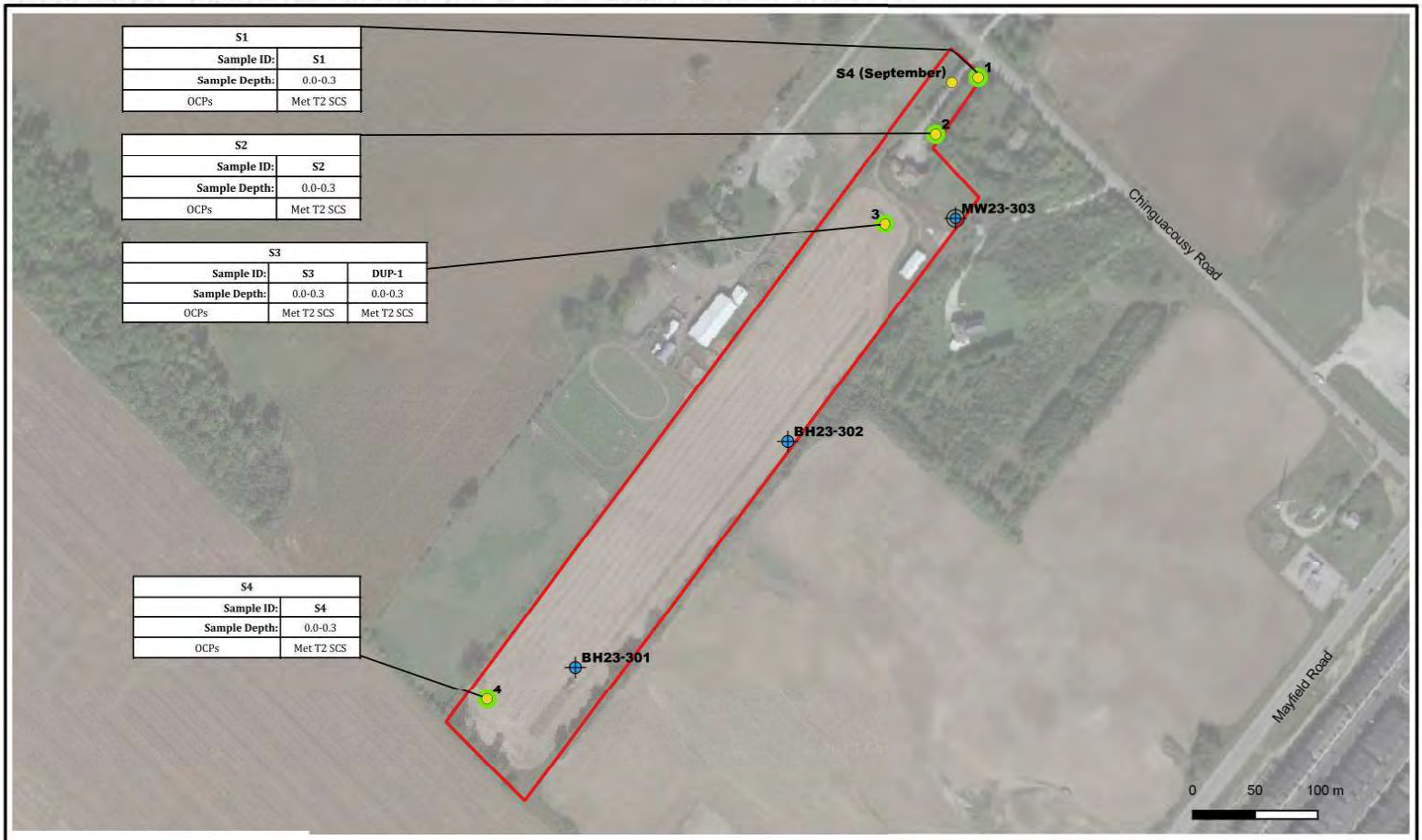
N

Client: MAYFIELD WEST III

Size: 8.5 x 11	Approved By:	R.F	Drawn By:	P.P	Date: October 2023
Rev: 0	Scale:	As Shown	Project No.:	23-266-100	Figure No.: **6D**

Image/Map Source *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-266-100 - 12156 Chinguacousy, Caledon, ON\1-QGIS\Phase Two\Figure 6E - Soil Characterization - OCPs.qgs Oct-10 16:33



Legend

- Property Boundary
- Borehole
- Monitoring Well
- OCP Samples
- Sample Met Applicable Standards

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12156 Chinguacousy Road, Caledon, ON

Title: **SOIL CHARACTERIZATION - OCPs**

N

Client: MAYFIELD WEST III

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	October 2023
Rev: 0	Scale: As Shown	Project No.: 23-266-100	Figure No.: **6E**

Image/Map Source *Google Satellite Image*

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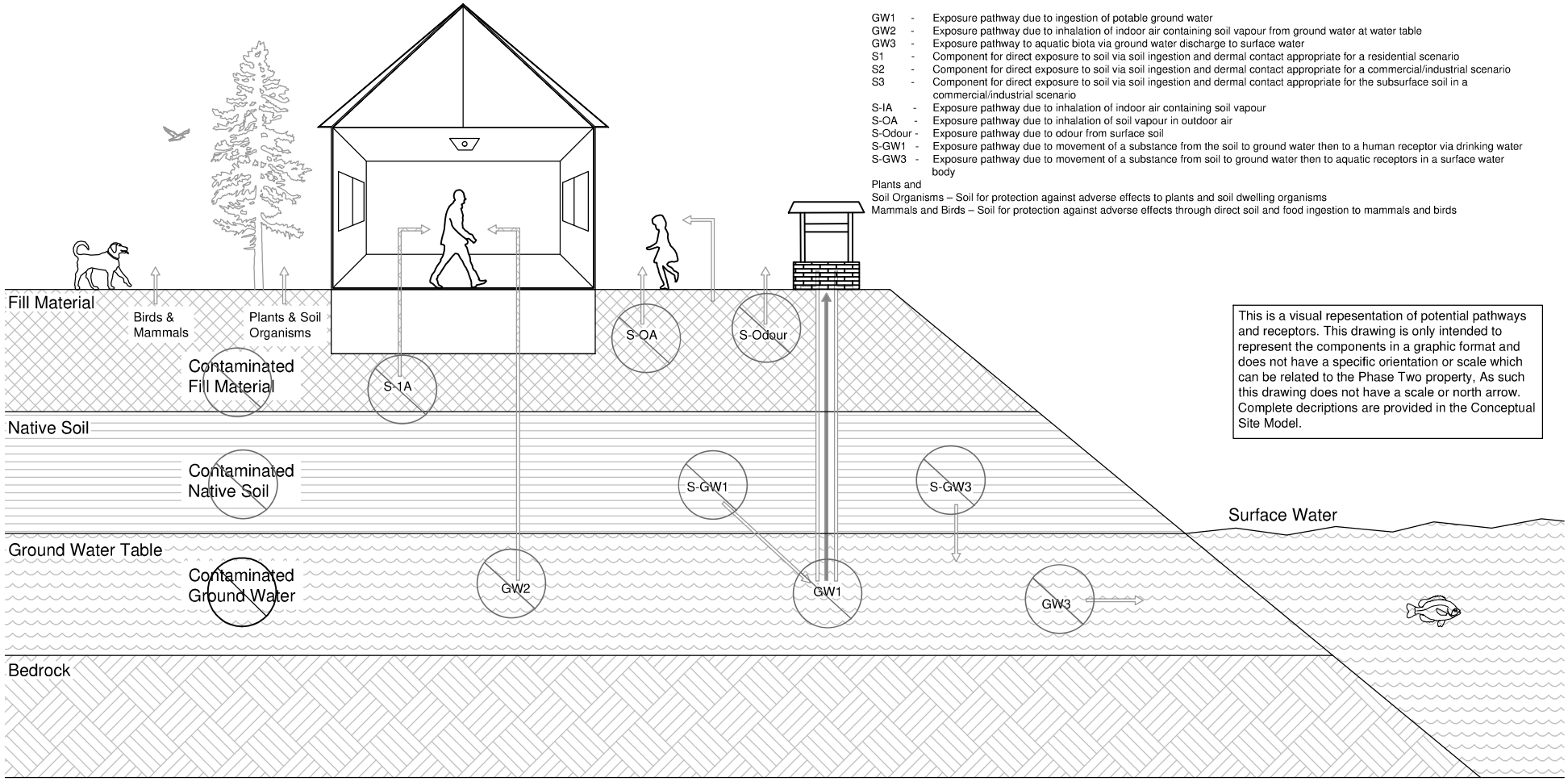

Not Identified

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12156 Chinguacousy Road, Caledon, ON

Title: **CONTAMINANT TRANSPORT DIAGRAM**

Client:	Size:	Approved By:	Drawn By:	Date:
Argo Development Corporation	8.5 x 11	R.F	M.B	September 2023
	Rev.	Scale: N.T.S	Project No: 23-266-100	Figure No. 7

Tables

Table 1: Summary of Monitoring Well Installation and Groundwater Data

Well ID			BH23-303
Installed By:			DS
Installation Date:			15-Aug-23
Well Status:			Active
EastUTM17			592564.893
NorthUTM17			4840992.384
Inner Diameter		(mm)	50
Surface Elevation		(masl)	259.95
Bottom of Concrete Seal/Top of Bentonite Seal		mbgs	0.30
		masl	259.65
Bottom of Bentonite Seal/Top of Sand Pack		mbgs	2.50
		masl	257.45
Top of Well Screen		mbgs	3.10
		masl	256.85
Well Screen Length		m	3.00
Bottom of Well Screen		mbgs	6.10
		masl	253.85
GW Monitoring			
18-Aug-23	Depth to GW	mbgs	2.29
	GW Elevation	masl	257.66
29-Aug-23	Depth to GW	mbgs	1.73
	GW Elevation	masl	258.22

For Table Notes see **Notes for Soil and Groundwater Summary Tables,** included at the end of this Section.

Table 2: Summary of Soil Samples Submitted for Chemical Analysis

Borehole ID	Sample No.	Sample Depth (mbgs)	Soil Description	Parameter Analyzed	APEC Investigated
BH23-301	SS5	3.1-3.7	Clayey Silt Till	pH	APEC-3
BH23-303	SS5	3.1-3.7	Clayey Silt Till	pH	
S1	S1	0.0-0.3	Topsoil	Metals, OCPs	APEC-1, APEC-3
S2	S2	0.0-0.3	Topsoil	Metals, OCPs	
S3	S3	0.0-0.3	Topsoil	Metals, OCPs	APEC-3
	DUP-1			Metals, OCPs	
S4	S4	0.0-0.3	Topsoil	Metals, OCPs	
S4 (september)	S4	0.0-0.3	Topsoil	Metals, PHCs, VOCs, PAHs	APEC-2A, APEC-2B

For Table Notes see **Notes for Soil and Groundwater Summary Tables,** included at the end of this Section**.**

Table 3: Summary of APECs Investigated

APEC	Description	PCOCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-1	The 1880 Peel County Atlas shows an orchard on the north portion of the Site.	OCPs, Metals, As, Sb, Se, CN-	Soil	S1	S1	Metals, OCPs
				S2	S2	Metals, OCPs
APEC-2A	The driveway and roadway on the north portion of the Site are likely subject to seasonal de-icing agents.	EC, SAR	Soil	S4 (september)	S4	EC, SAR
APEC-2B	The driveway on the north portion of the Site may have fill material of unknown quality for grading purposes.	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, Low or high pH, SAR, PAHs	Soil	S4 (september)	S4	M&I, PHCs, VOCs, PAHs
APEC-3	Pesticides are used on the agricultural fields on Site.	OCPs, Metals, As, Sb, Se, CN-	Soil	S1	S1	Metals, OCPs
				S2	S2	Metals, OCPs
				S3	S3	Metals, OCPs
					DUP-1	Metals, OCPs
				S4	S4	Metals, OCPs
				BH23-301	SS5	pH
				BH23-303	SS5	pH

For Table Notes see **Notes for Soil and Groundwater Summary Tables,** included at the end of this Section

Table 4: Summary of Metals and ORPs in Soil

Parameter	MECP Table 2 SCS	BH23-301 SS5	BH23-303 SS5	S1	S2	S3	DUP-1 (S3)	S4	S4 (September)
Date of Collection		15-Aug-23	15-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	25-Sep-23
Date Reported		23-Aug-23	23-Aug-23	29-Aug-23	29-Aug-23	29-Aug-23	29-Aug-23	29-Aug-23	6-Oct-23
Sampling Depth (mbgs)		3.1-3.7	3.1-3.7	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3
Analytical Report Reference No.		C3P0410	C3P0410	C3P2568	C3P2568	C3P2568	C3P2568	C3P2568	C3T5693
Antimony	7.5	-	-	<0.20	0.22	<0.20	<0.20	<0.20	<0.20
Arsenic	18	-	-	3.7	3.2	3.9	3.7	3.8	3.9
Barium	390	-	-	55	62	68	67	79	59
Beryllium	5	-	-	0.59	0.52	0.7	0.71	0.7	0.52
Boron	120	-	-	-	-	-	-	-	<5.0
Boron (Hot Water Soluble)	1.5	-	-	<5.0	6.4	<5.0	<5.0	5.9	0.24
Cadmium	1.2	-	-	0.18	0.15	0.17	0.17	0.17	0.18
Chromium	160	-	-	18	18	20	20	21	18
Chromium VI	10	-	-	-	-	-	-	-	<0.18
Cobalt	22	-	-	7.7	7.2	8.8	8.9	11	7.6
Copper	180	-	-	17	21	21	21	23	19
Cyanide	0.051	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Lead	120	-	-	16	28	13	13	11	13
Mercury	1.8	-	-	-	-	-	-	-	<0.050
Molybdenum	6.9	-	-	<0.50	<0.50	<0.50	<0.50	<0.50	0.8
Nickel	130	-	-	16	16	18	18	22	16
Selenium	2.4	-	-	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	25	-	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	-	-	-	-	-	-	-	0.1
Uranium	23	-	-	0.1	0.087	0.13	0.11	0.13	0.61
Vanadium	86	-	-	0.64	0.6	0.65	0.63	0.54	27
Zinc	340	-	-	26	25	30	30	30	55
Electrical Conductivity (2:1)	0.7	-	-	56	71	70	68	64	0.22
Sodium Adsorption Ratio	5	-	-	-	-	-	-	-	0.54
pH, 2:1 CaCl2 Extraction	NV	7.76	7.72	7.05	7.3	7.39	-	7.53	7.19

For Table Notes see **Notes for Soil and Groundwater Summary Tables,** included at the end of this Section

Table 5: Summary of PHCs and BTEX in Soil

Parameter	MECP Table 2 SCS	S4 (september)
Date of Collection		25-Sep-23
Date Reported		6-Oct-23
Screen Interval (mbgs)		0.0-0.3
Analytical Report Reference No.		C3T5693
Benzene	0.21	<0.0060
Ethylbenzene	1.1	<0.010
Toluene	2.3	<0.020
Xylenes	3.1	<0.020
F1 (C6-C10) - BTEX	55	<10
F2 (C10-C16)	98	<10
F3 (C16-C34)	300	<50
F4 (C34-C50)	2800	<50

For Table Notes see **Notes for Soil and Groundwater Summary Tables,** included at the end of this Section.

Table 6: Summary of VOCs in Soil

Parameter	MECP Table 2 SCS	S4 (september)
Date of Collection		25-Sep-23
Date Reported		6-Oct-23
Screen Interval (mbgs)		0.0-0.3
Analytical Report Reference No.		C3T5693
Acetone	16	<0.49
Bromodichloromethane	1.5	<0.040
Bromoform	0.27	<0.040
Bromomethane	0.05	<0.040
Carbon Tetrachloride	0.05	<0.040
Chlorobenzene	2.4	<0.040
Chloroform	0.05	<0.040
Dibromochloromethane	2.3	<0.040
1,2-Dichlorobenzene	1.2	<0.040
1,3-Dichlorobenzene	4.8	<0.040
1,4-Dichlorobenzene	0.083	<0.040
1,1-Dichloroethane	0.47	<0.040
1,2-Dichloroethane	0.05	<0.049
1,1-Dichloroethylene	0.05	<0.040
Cis-1,2-Dichloroethylene	1.9	<0.040
Trans-1,2-Dichloroethylene	0.084	<0.040
1,2-Dichloropropane	0.05	<0.040
Cis-1,3-Dichloropropylene	NV	<0.030
Trans-1,3-Dichloropropylene	NV	<0.040
Ethylene Dibromide	0.05	<0.040
Methyl Ethyl Ketone	16	<0.40
Methylene Chloride	0.1	<0.049
Methyl Isobutyl Ketone	1.7	<0.40
Methyl-t-Butyl Ether	0.75	<0.040
Styrene	0.7	<0.040
1,1,1,2-Tetrachloroethane	0.058	<0.040
1,1,2,2-Tetrachloroethane	0.05	<0.040
Tetrachloroethylene	0.28	<0.040
1,1,1-Trichloroethane	0.38	<0.040
1,1,2-Trichloroethane	0.05	<0.040
Trichloroethylene	0.061	<0.010
Vinyl Chloride	0.02	<0.019
Dichlorodifluoromethane	16	<0.040
Hexane(n)	2.8	<0.040
Trichlorofluoromethane	4	<0.040
1,3-Dichloropropene (cis + trans)	0.05	<0.050

For Table Notes see **Notes for Soil and Groundwater Summary Tables,** included at the end of this Section.

Table 7: Summary of PAHs in Soil

Parameter	MECP Table 2 SCS	S4 (september)
Date of Collection		25-Sep-23
Date Reported		6-Oct-23
Screen Interval (mbgs)		0.0-0.3
Analytical Report Reference No.		C3T5693
Acenaphthene	7.9	<0.0050
Acenaphthylene	0.15	<0.0050
Anthracene	0.67	<0.0050
Benzo(a)anthracene	0.5	<0.0050
Benzo(a)pyrene	0.3	<0.0050
Benzo(b/j)fluoranthene	0.78	0.0079
Benzo(ghi)perylene	6.6	0.0052
Benzo(k)fluoranthene	0.78	<0.0050
Chrysene	7	<0.0050
Dibenzo(a,h)anthracene	0.1	<0.0050
Fluoranthene	0.69	0.0083
Fluorene	62	<0.0050
Indeno(1,2,3-cd)pyrene	0.38	0.0061
Naphthalene	0.6	<0.0050
Phenanthrene	6.2	<0.0050
Pyrene	78	0.0077
Methylnaphthalene, 2-(1-)	0.99	<0.0071

For Table Notes see **Notes for Soil and Groundwater Summary Tables,** included at the end of this Section.

Table 8: Summary of OCPs in Soil

Parameter	MECP Table 2 SCS	S1	S2	S3	DUP-1 (S3)	S4
Date of Collection		18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23
Date Reported		29-Aug-23	29-Aug-23	29-Aug-23	29-Aug-23	29-Aug-23
Screen Interval (mbgs)		0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3
Analytical Report Reference No.		C3P2568	C3P2568	C3P2568	C3P2568	C3P2568
Aldrin	0.05	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Chlordane	0.05	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
DDD	3.3	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
DDE	0.33	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
DDT	1.4	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Dieldrin	0.05	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Endosulfan	0.04	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Endrin	0.04	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Hexachlorocyclohexane Gamma-	0.063	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Heptachlor	0.15	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Heptachlor Epoxide	0.05	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Hexachlorobenzene	0.52	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Hexachlorobutadiene	0.014	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Hexachloroethane	0.071	<0.0020	<0.010	<0.0020	<0.0020	<0.0020
Methoxychlor	0.13	<0.0050	<0.025	<0.0050	<0.0050	<0.0050
PCBs	0.35	<0.015	<0.075	<0.015	<0.015	<0.015

For Table Notes see **Notes for Soil and Groundwater Summary Tables,** included at the end of this Section.

Table 9: Summary of Maximum Concentrations in Soil

	Parameter	Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	7.5	0.22	S2
	Arsenic	18	3.9	S3
	Barium	390	79	S4
	Beryllium	5	0.71	DUP-1 (S3)
	Boron	120	-	All Samples
	Boron (Hot Water Soluble)	1.5	6.4	S2
	Cadmium	1.2	0.18	S1
	Chromium	160	21	S4
	Chromium VI	10	-	All Samples
	Cobalt	22	11	S4
	Copper	180	23	S4
	Cyanide	0.051	-	All Samples
	Lead	120	28	S2
	Mercury	1.8	-	All Samples
	Molybdenum	6.9	0.8	S4 (September)
	Nickel	130	22	S4
	Selenium	2.4	-	All Samples
	Silver	25	-	All Samples
	Thallium	1	0.1	S4 (September)
	Uranium	23	0.61	S4 (September)
	Vanadium	86	27	S4 (September)
	Zinc	340	55	S4 (September)
	Electrical Conductivity (2:1)	0.7	71	S2
	Sodium Adsorption Ratio	5	0.54	S4 (September)
	pH, 2:1 CaCl2 Extraction	NV	7.76	BH23-301 SS5
PHCs	Benzene	0.21	<0.0060	All Samples
	Ethylbenzene	1.1	<0.010	All Samples
	Toluene	2.3	<0.020	All Samples
	Xylenes	3.1	<0.020	All Samples
	F1 (C6-C10) - BTEX	55	<10	All Samples
	F2 (C10-C16)	98	<10	All Samples
	F3 (C16-C34)	300	<50	All Samples
	F4 (C34-C50)	2800	<50	All Samples
	Acetone	16	<0.49	All Samples
	Bromodichloromethane	1.5	<0.040	All Samples
	Bromoform	0.27	<0.040	All Samples
	Bromomethane	0.05	<0.040	All Samples
	Carbon Tetrachloride	0.05	<0.040	All Samples
	Chlorobenzene	2.4	<0.040	All Samples
	Chloroform	0.05	<0.040	All Samples
	Dibromochloromethane	2.3	<0.040	All Samples
	1,2-Dichlorobenzene	1.2	<0.040	All Samples
	1,3-Dichlorobenzene	4.8	<0.040	All Samples
	1,4-Dichlorobenzene	0.083	<0.040	All Samples
	1,1-Dichloroethane	0.47	<0.040	All Samples

Table 9: Summary of Maximum Concentrations in Soil

	Parameter	Standard	Maximum Concentration	Location
VOCs	1,2-Dichloroethane	0.05	<0.049	All Samples
	1,1-Dichloroethylene	0.05	<0.040	All Samples
	Cis-1,2-Dichloroethylene	1.9	<0.040	All Samples
	Trans-1,2-Dichloroethylene	0.084	<0.040	All Samples
	1,2-Dichloropropane	0.05	<0.040	All Samples
	Cis-1,3-Dichloropropylene	NV	<0.030	All Samples
	Trans-1,3-Dichloropropylene	NV	<0.040	All Samples
	Ethylene Dibromide	0.05	<0.040	All Samples
	Methyl Ethyl Ketone	16	<0.40	All Samples
	Methylene Chloride	0.1	<0.049	All Samples
	Methyl Isobutyl Ketone	1.7	<0.40	All Samples
	Methyl-t-Butyl Ether	0.75	<0.040	All Samples
	Styrene	0.7	<0.040	All Samples
	1,1,1,2-Tetrachloroethane	0.058	<0.040	All Samples
	1,1,2,2-Tetrachloroethane	0.05	<0.040	All Samples
	Tetrachloroethylene	0.28	<0.040	All Samples
	1,1,1-Trichloroethane	0.38	<0.040	All Samples
	1,1,2-Trichloroethane	0.05	<0.040	All Samples
	Trichloroethylene	0.061	<0.010	All Samples
	Vinyl Chloride	0.02	<0.019	All Samples
	Dichlorodifluoromethane	16	<0.040	All Samples
	Hexane(n)	2.8	<0.040	All Samples
	Trichlorofluoromethane	4	<0.040	All Samples
	1,3-Dichloropropene (cis + trans)	0.05	<0.050	All Samples
PAHs	Acenaphthene	7.9	<0.0050	All Samples
	Acenaphthylene	0.15	<0.0050	All Samples
	Anthracene	0.67	<0.0050	All Samples
	Benzo(a)anthracene	0.5	<0.0050	All Samples
	Benzo(a)pyrene	0.3	<0.0050	All Samples
	Benzo(b/j)fluoranthene	0.78	0.0079	S4 (september)
	Benzo(ghi)perylene	6.6	0.0052	S4 (september)
	Benzo(k)fluoranthene	0.78	<0.0050	All Samples
	Chrysene	7	<0.0050	All Samples
	Dibenzo(a,h)anthracene	0.1	<0.0050	All Samples
	Fluoranthene	0.69	0.0083	S4 (september)
	Fluorene	62	<0.0050	All Samples
	Indeno(1,2,3-cd)pyrene	0.38	0.0061	S4 (september)
	Naphthalene	0.6	<0.0050	All Samples
	Phenanthrene	6.2	<0.0050	All Samples
	Pyrene	78	0.0077	S4 (september)
	Methylnaphthalene, 2-(1-)	0.99	<0.0071	All Samples
	Aldrin	0.05	<0.0020	All Samples
	Chlordane	0.05	<0.0020	All Samples
	DDD	3.3	<0.0020	All Samples
	DDE	0.33	<0.0020	All Samples

Table 9: Summary of Maximum Concentrations in Soil

	Parameter	Standard	Maximum Concentration	Location
OCPs	DDT	1.4	<0.0020	All Samples
	Dieldrin	0.05	<0.0020	All Samples
	Endosulfan	0.04	<0.0020	All Samples
	Endrin	0.04	<0.0020	All Samples
	Hexachlorocyclohexane Gamma-	0.063	<0.0020	All Samples
	Heptachlor	0.15	<0.0020	All Samples
	Heptachlor Epoxide	0.05	<0.0020	All Samples
	Hexachlorobenzene	0.52	<0.0020	All Samples
	Hexachlorobutadiene	0.014	<0.0020	All Samples
	Hexachloroethane	0.071	<0.0020	All Samples
	Methoxychlor	0.13	<0.0050	All Samples
	PCBs	0.35	<0.015	All Samples

For Table Notes see **Notes for Soil and Groundwater Summary Tables,** included at the end of this Section**.**

Notes for Soil and Groundwater Summary Tables

	For soil and groundwater analytical results, concentration exceeds the applicable Standards.
	For soil and groundwater analytical results, laboratory detection limits exceed the applicable Standards.
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
masl	Meters above sea level
MECP Table 2 SCS	Generic Condition Standards in a Potable Groundwater Condition forResidential/Parkland/Institutional use and medium-fine textured soils as contained in Table 2 of the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", published by the MECP on April 15, 2011.
mbgs	Meters below ground surface
NM	Not Monitored
NA	Not Available
OCPs	Organochlorine Pesticides
ORPs	Other Regulated Parameters
PAHs	Polycyclic Aromatic Hydrocarbons
PHCs	Petroleum Hydrocarbons
VOCs	Volatile Organic Compounds
Units	Units for all soil analyses are in µg/g (ppm) unless otherwise indicated

Appendix A

PLAN OF SURVEY OF PART OF LOT 18, CONCESSION 3 WEST OF HURONTARIO STREET

(GEOGRAPHIC TOWNSHIP OF CHINGUACOUSY)

TOWN OF CALEDON

REGIONAL MUNICIPALITY OF PEEL

SCALE 1:1000

10m 0m 10m 20m 30m 40m 50m 60m 70m 80m 90m 100 metres

R-PE SURVEYING LTD., O.L.S.

METRIC

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

NOTES

SIB	DENOTES STANDARD IRON BAR
IB	DENOTES IRON BAR
IP	DENOTES IRON PIPE
P.I.N.	DENOTES PROPERTY IDENTIFIER NUMBER
PL1	DENOTES PLAN OF SURVEY BY C. PEAT, O.L.S. DATED OCTOBER 30, 1961
PL2	DENOTES SURVEYOR'S REAL PROPERTY REPORT BY VAN HARTEN SURVEYING INC. O.L.S., DATED SEPTEMBER 3, 2015
PL3	DENOTES PLAN 43R-37043
PL4	DENOTES PLAN OF SURVEY BY D. J. CULLEN LIMITED., O.L.S., DATED MARCH 13, 1986
PL5	DENOTES PLAN OF SURVEY BY M. M. FENTON LIMITED., O.L.S., DATED JANUARY 5, 1983
PL6	DENOTES BUILDING LOCATION SURVEY BY D. P. McLEAN, O.L.S. DATED MAY 13, 1955
PL7	DENOTES EXPROPRIATION PLAN PR3683135
D1	DENOTES INST. No. RO1101303
D2	DENOTES INST. No. RO585738
D3	DENOTES INST. No. RO736244
D4	DENOTES INST. No. RO589103
(MEC)	DENOTES C. PEAT, O.L.S.
(TMI)	DENOTES I. L. THOMPSON., O.L.S.
(1021)	DENOTES DOLLIVER SURVEYING LTD., O.L.S.
(vh)	DENOTES VAN HARTEN SURVEYING INC., O.L.S.
(M)	DENOTES MEASURED
(R)	DENOTES OBSERVED REFERENCE POINT
W.H.S.	DENOTES WEST OF HURONTARIO STREET
P/F	DENOTES POST AND WIRE FENCE

INTEGRATION NOTE

BEARINGS ARE GRID, UTM, NAD83 (CSRS:CBNVR:2010.0), DERIVED FROM OBSERVED REFERENCE POINTS (R) AND (R) USING REAL TIME NETWORK (RTN) No. PRS402698094688 (NORTHING 4854714.46, EASTING 596022.62).

COORDINATES ARE UTM, ZONE 17, NAD83 (CSRS:CBNVR:2010.0), TO URBAN ACCURACY PER SEC. 14 (2) OF O.REG. 216/10, AND CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES

POINT	NORTHING	EASTING
ORP (R)	4840528.39	592218.74
ORP (R)	4841128.37	592571.79

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999970.

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 11th DAY OF MARCH 2022.

DATE APRIL 7th 2022

A. U. KUMARANAYAKE
ONTARIO LAND SURVEYOR

I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.

DATE APRIL 7th 2022

A. U. KUMARANAYAKE O.L.S.

PLAN 43R-

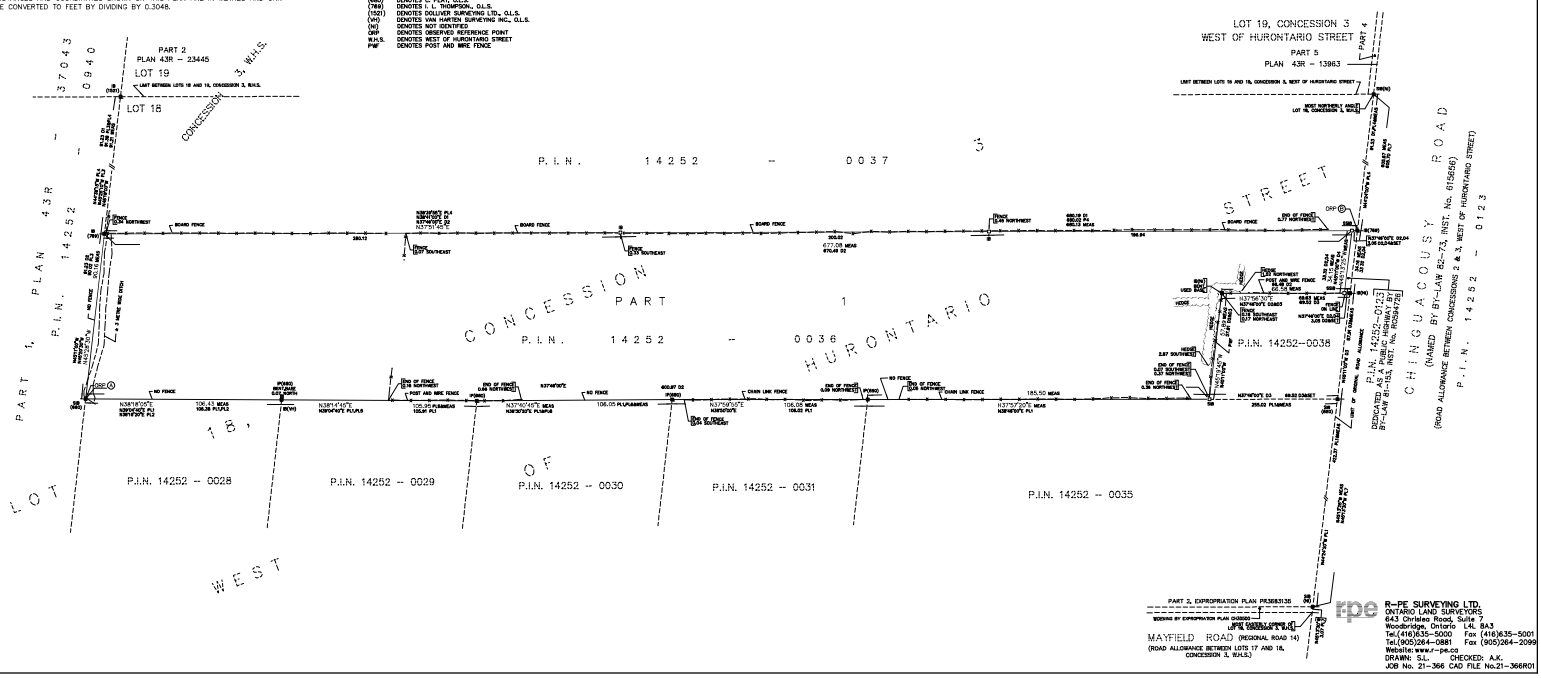
RECEIVED AND DEPOSITED

DATE _____, 2022

REPRESENTATIVE FOR LAND REGISTRAR FOR THE LAND TITLES DIVISION OF PEEL (No.43)

SCHEDULE

PART	LOT	CONCESSION	P.I.N.
1	PART OF 18	3, WEST OF HURONTARIO STREET	ALL OF 14252-0036



R-PE SURVEYING LTD.
ONTARIO LAND SURVEYORS
643 Chrislea Road, Suite 7
Woodbridge, Ontario L4L 8A3
Tel.(416)635-5000 Fax (416)635-5001
Tel.(905)264-0881 Fax (905)264-2099
Website: www.r-pe.co

DRAWN: S.L. CHECKED: A.K.

JOB No. 21-366 CAD FILE No.21-366R01

Appendix B

23-266-100 **July 25, 2023**

Argo Development Corporation
4900 Palladium Way, Unit 105
Burlington, Ontario
L7M 0W7
via email: justin@argoland.com

Attention: Justin Marr

Re: Sampling and Analysis Plan – Phase Two Environmental Site Assessment
12156 Chinguacousy Road, Caledon, Ontario

1. Introduction

DS Consultants Limited (DS) is pleased to present the Sampling and Analysis Plan (SAP) for the proposed Phase Two Environmental Site Assessment of 12156 Chinguacousy Road, Caledon, Ontario, (the Site). The purpose of the proposed Phase Two ESA program is to assess the current subsurface environmental conditions in support of the proposed redevelopment of the Site.

The Phase Two ESA will involve intrusive investigation in the areas determined in the Site visit to be Areas of Potential Environmental Concern (APECs), and will be completed in general accordance with O.Reg 153/04. Based on the findings of the field and laboratory analyses, a Phase Two ESA report will be prepared.

2. Background

Based on the Phase One Environmental Site Assessment completed by DS in September 2023, it is DS's understanding that the Site is a 5.787-hectare (14.299 acres) parcel of land which is currently used for residential and agricultural purposes. The first developed use of the Site is interpreted to be Residential based on the findings of the Phase One ESA. A total of four (4) potentially contaminating activities were identified on the Phase One Property or on neighbouring properties within the Phase One Study Area which are considered to be contributing to Areas of Potential Environmental Concern (APECs) on the Phase Two Property. A summary of the APECs identified, the potential contaminants of concern, and the media potentially impacted is presented in Table 1 below:

Table 1: Areas of Potential Environmental Concern

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	North portion of Site	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-1**	OCPs, Metals, As, Sb, Se, CN-	Soil
APEC-2A	North portion of Site	#N/S – Application of De-icing Agents	On Site **PCA-2**	EC, SAR	Soil
APEC-2B		#30 – Importation of Fill Material of Unknown Quality	On Site **PCA-3**	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-3	Entire Property	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-4**	OCPs, Metals, As, Sb, Se, CN-	Soil

Notes:
1. N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04
2. PHC (F1-F4) = Petroleum Hydrocarbons in the F1-F4 fraction ranges
3. VOCs = Volatile Organic Compounds
4. PAHs = Polycyclic Aromatic Hydrocarbons
5. OCPs = Organochlorinated Pesticides

3. Site Investigation Program

The proposed field investigation will involve the advancement of boreholes and test pits, the installation of monitoring wells, and periodic monitoring of the installed wells. A total of two (2) boreholes, one monitoring well, and five (5) test pit locations have been identified. Details regarding the proposed boreholes/monitoring wells are provided in the following table:

Table 3-1: Summary of Proposed Investigation Program

ID	Proposed Depth	Well Installation (Y/N)	Well Install Depth	Purpose
BH23-301	6 m	N	N/A	Geotechnical

ID	Proposed Depth	Well Installation (Y/N)	Well Install Depth	Purpose
BH23-302	6 m	N	N/A	Geotechnical
MW23-303	6 m	Y	6 m	Geotechnical and Groundwater Monitoring
S1	0.3	N	N/A	Assess APEC-1, APEC-3
S2	0.3	N	N/A	Assess APEC-1, APEC-3
S3	0.3	N	N/A	Assess APEC-3
S4	0.3	N	N/A	Assess APEC-3
S4 (September)	0.3	N	N/A	Assess APEC-2A and APEC-2B

Prior to mobilizing a drilling rig, we will lay out the proposed borehole and clear the buried utilities and services by using Ontario One Call System in addition to private utility locates.

The borings will be advanced to the indicated depths using a track mounted continuous flight auger machine. Samples will be retrieved by means of a 50 mm O.D. split-spoon barrel sampler at 0.75 metre intervals in the upper 3 metres and at 1.5 metres intervals below this level. The monitoring well will be constructed using 50 mm I.D. PVC pipe, equipped with 3.1 m slotted screens and finished at the ground surface with monument well casings. A geodetic benchmark will be used to establish the elevation of each borehole. Drilling and sampling will conform to standard practice. The test pits will be advanced using hand tools.

The Phase Two ESA involves the following principal tasks:

- Retain the services of public and private utility locaters to identify the locations of buried and overhead utility services prior to any excavation or demolition activities;
    - Certain underground utilities (such as those constructed or encased in plastic, fibreglass, clay, concrete pipe, untraceable cast iron, steel, and/or repaired services) cannot be traced by standard locating practices. DS will review all available Site Plans and/or "As Built" figures in an attempt to identify the locations of potential untraceable services. DS will not be held responsible for any damages to utility services that are not on the figures provided or cannot be located by standard utility locating practices;
- Advancement of boreholes as specified in Table 3-1. The proposed boreholes will be used to facilitate the collection of representative soil and groundwater samples, and to provide information regarding the Site-specific geological and hydrogeological conditions;
- All soil samples recovered during the proposed drilling activities will be field screened for visual and olfactory evidence of deleterious impacts and for the presence of petroleum hydrocarbon (PHC) and volatile organic compound (VOC) derived vapours using either a

combustible gas detector (CGD) calibrated to hexane or a photo-ionization detector (PID) calibrated to isobutylene or equivalent;

- Measure the depth to groundwater levels in the monitoring wells installed, and monitor the wells for the presence/absence of non-aqueous phase liquid using an interface probe;
- Survey each of the monitoring wells to a geodetic datum;
- Develop and purge all of the monitoring wells installed;
- Submit soil samples from the newly advanced boreholes as follows:

Table 3-2: Summary of proposed soil chemical analyses

Borehole	Sample No	Sample Depth (mbgs)	Lab Analysis	Purpose
BH23-301	SS5	3.1-3.7	pH	Assess pH
BH23-303	SS5	3.1-3.7	pH	Assess pH
S1	S1	0.0-0.3	Metals, OCPs	Assess APEC-1, APEC-3
S2	S2	0.0-0.3	Metals, OCPs	Assess APEC-1, APEC-3
S3	S3	0.0-0.3	Metals, OCPs	Assess APEC-3
S4	S4	0.0-0.3	Metals, OCPs	Assess APEC-3
S4 (September)	S4	0.0-0.3	M&I, PHCs, VOCs, PAHs	Assess APEC-2A and APEC-2B

- Submit groundwater samples from the monitoring wells as follows:

A summary of the proposed soil analytical program is presented in the following table:

Table 3-3: Summary of Soil and Groundwater Analytical Program

Soil
• 5 Samples for analysis of metals and inorganics • 2 Samples for analysis of PHCs • 2 Samples for analysis of VOCs • 2 Samples for analysis of PAHs • 4 Samples for analysis of OC Pesticides • 2 Subsurface soil samples for pH analysis • 2 Duplicate samples

- A Quality Assurance and Quality Control (QAQC) program will be implemented, involving the collection and analysis of duplicate soil and groundwater samples and trip blanks at the frequency specified under O.Reg. 153/04 (as amended);
- A Phase Two ESA Report will be prepared upon receipt of all analytical results and groundwater monitoring data. The Phase Two ESA Report will be completed in general accordance with O.Reg. 153/04 (as amended).

It should be noted that drilling activities may result in some disturbance to the ground surface at the site. Precautions will be taken by the drilling contractor to minimize any damage. The Client will be notified should there be cause to extend the borehole termination depth based on field observations. It is assumed that the site can be accessed at our convenience, during regular business hours. Prior notice will be sent to the client and site representative

It is noted that if the Phase Two ESA reveals parameter concentrations greater than the applicable standards set out in *Ontario Regulation 153/04,* then additional work (i.e., supplemental delineation, additional drilling, sampling, analysis, and/or site remediation activities) will be deemed necessary prior to RSC filing, should an RSC be required. The costs for any additional work, if necessary, are beyond the current scope of work.

The SAP was created based on the request to complete a Phase Two ESA in support of the proposed redevelopment of the Site. The SAP was compiled to collect data to provide information on soil and/or groundwater quality in each APEC.

Additional delineation may be required following the implementation of this SAP to meet the requirements of O.Reg. 153/04 which requires delineation of all areas where concentrations are above the applicable SCS such as in the following conditions:

- Unexpected contamination not previously discovered, or not related to identified APECs, is discovered which will require further delineation to identify source(s); and
- If the sampling results indicate that the soil and/or groundwater impacts are deeper than initially expected.

4. Closure

We trust that this Sampling and Analysis Plan meets the objectives of the Client. If further assistance is required on this matter please do not hesitate to contact the undersigned.

Yours Very Truly,

DS Consultants Ltd.

Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA}

Manager – Environmental Services
647-234-5131
rfioravanti@dsconsultants.ca

Appendix C

DS CONSULTANTS LTD.
Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology

LOG OF BOREHOLE BH23-301

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12156 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: Refer to Drawing 5 N 4840633.05 E 592259.73

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Aug-15-2023

REF. NO.: 23-266-100
ENCL NO.: 2

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS / 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors PID (ppm)	Soil Head Space Vapors CGD (ppm)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
259.2													
0.0 / 258.9	**TOPSOIL:** 250mm												
0.3 / 258.4	**REWORKED:** clayey silt, trace organics, trace rootlets, brown, moist, soft (weathered/disturbed)		1	SS	2								
0.8	**CLAYEY SILT TO SILTY CLAY TILL:** some sand, trace gravel, brown, moist, stiff to very stiff		2	SS	19								
			3	SS	18								1 16 44 39
			4	SS	27								
			5	SS	29								pH
	grey below 4.6m		6	SS	14								
252.5			7	SS	11								
6.7	**END OF BOREHOLE:** Notes: 1) Borehole wet at the bottom upon completion.												

DS ENVIRO 0~50 PPM-2021 23-266-100ENV.GPJ DS.GDT 23-9-15

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES: +³, ×³: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

DS CONSULTANTS LTD.
Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology

LOG OF BOREHOLE BH23-302

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12156 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: Refer to Drawing 5 N 4840813.66 E 592429.91

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Aug-15-2023

REF. NO.: 23-266-100
ENCL NO.: 3

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS / 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors PID (ppm)	Soil Head Space Vapors CGD (ppm)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
259.3													
259.1 0.0	**TOPSOIL:** 200mm												
0.2	**REWORKED:** clayey silt, trace organics, trace rootlets, brown, moist, firm (weathered/disturbed)		1	SS	4		259						
258.5													
0.8	**CLAYEY SILT TO SILTY CLAY TILL:** some sand, trace gravel, brown, moist, stiff to very stiff		2	SS	22		258						
			3	SS	19								
			4	SS	20		257						3 16 56 25
	grey below 3.1m		5	SS	20		256						
			6	SS	10		255						
			7	SS	20		254						
252.6							253						
6.7	**END OF BOREHOLE:** Notes: 1) Borehole wet at the bottom upon completion.												

PID and CGD scales: 10 20 30 40
WATER CONTENT (%) scale: 10 20 30

DS ENVIRO 0~50 PPM-2021 23-266-100ENV.GPJ DS.GDT 23-9-15

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

GRAPH NOTES: $+^{3}$, $\times^{3}$: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

DS CONSULTANTS LTD.
Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology

LOG OF BOREHOLE BH23-303

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12156 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: Refer to Drawing 5 N 4840992.38 E 592564.89

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Aug-15-2023

REF. NO.: 23-266-100
ENCL NO.: 4

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	BLOWS/0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors PID (ppm)	CGD (ppm)	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT w_P w w_L WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
260.0													
259.8 0.0	**TOPSOIL:** 200mm												
0.2 / 259.2	**FILL:** clayey silt, trace organics, trace rootlets, brown, moist, firm		1	SS	6								
1 0.8 / 258.5	**FILL:** silty sand, trace organics, some clay, brown, moist, very loose		2	SS	2		259						
1.5 / 257.7	**FILL:** silty clay, trace organics, brown to dark brown, moist, firm		3	SS	6	▽							
2.3	**CLAYEY SILT TO SILTY CLAY TILL:** some sand to sandy, trace gravel, brown, moist, very stiff to hard		4	SS	30		W. L. 258.2 masl Aug 29, 2023						
			5	SS	50/100mm		W. L. 257.7 masl Aug 18, 2023						pH
							257						
							256						
	sandy below 4.6m												
	grey below 4.8m		6	SS	21		255						3 23 44 30
							254						
253.3			7	SS	23								
6.7	**END OF BOREHOLE:**												

Notes:
1) 50mm dia. monitoring well installed upon completion.
2) Water Level Readings:

Date:	Water Level (mbgs):
Aug 18, 2023	2.29
Aug 29, 2023	1.73

GROUNDWATER ELEVATIONS
Measurement 1st ▽ 2nd ▼ 3rd ▼ 4th ▼

GRAPH NOTES: + 3, × 3: Numbers refer to Sensitivity; ○ ε=3% Strain at Failure

DS ENVIRO 0~50 PPM-2021 23-266-100ENV.GPJ DS.GDT 23-9-15

Appendix D

www.BVNA.com

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266

CHAIN OF CUSTODY RECORD

ENV COC - 00014v2

17-Aug-23 15:14
Ashton Gibson
C3P0410
DLK ENV 1545

Invoice Information		Report Information (if differs from invoice)		Project Information	
Invoice to (requires report) ☐					
Company:	DS Consultants Ltd.	Company:	DS Consultants Ltd	Quotation #:	
Contact Name:	Bindu Goel	Contact Name:	Megan Bender	P.O. #/ AFE#:	
Street Address:	6221 Hwy 7, Unit 16	Street Address:	6221 Hwy 7, Unit 16	Project #:	23-266-100
City: Vaughan Prov: ON Postal Code: L4H0K8		City: Vaughan Prov: ON Postal Code: L4H0K8		Site #:	12156 Chinguacousy Rd
Phone:	905-264-9393	Phone:	905-264-9393	Site Location:	
Email:	accounting@dsconsultants.ca	Email:		Site Location Province:	Ontario
Copies:		Copies:	mbender@dsconsultants.ca	Sampled By:	Megan Bender

Regulatory Criteria

REG 153: ☐ Table 1 ☑ Res/Park ☐ Med/Fine ☑ Table 2 ☐ Ind/Comm ☐ Course ☐ Table 3 ☐ Agri/other ☐ For RSC ☐ Table _____

OTHER: ☐ CCME ☐ Reg 406, Table: _____ ☐ Reg 558* ☐ Sanitary Sewer Bylaw *min 3 day TAT ☐ Storm Sewer Bylaw ☐ MISA Municipality _____ ☐ PWQO ☐ Other:

Include Criteria on Certificate of Analysis (check if yes): ☑

SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Regular Turnaround Time (TAT)
☑ 5 to 7 Day ☐ 10 Day

Rush Turnaround Time (TAT) Surcharges apply
☐ Same Day ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 4 Day
Date Required: YY MM DD
Comments

	Sample Identification	Date Sampled YY	MM	DD	Time (24hr) HH	MM	Matrix	1 FIELD FILTERED	2 FIELD PRESERVED	3 LAB FILTRATION REQUIRED	4 BTEX/ F1	5 F2 - F4	6 VOCs	7 Reg 153 metals and inorganics	8 Reg 153 ICPMS metals	9 Reg 153 metals (Hg, Cr VI, ICPMS metals, HWS - B)	10 PAHs	11 OCPs	12 SPLP Metals and Hydrides	13 PCBs	14	15	16	17	18	19	20	21 # OF CONTAINERS SUBMITTED	22 HOLD - DO NOT ANALYZE
1	BH23-301 SS5	23	08	15	P	M	S														✓							1	
2	BH23-303 SS5	23	08	15	P	M	S														✓							1	
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

*UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS AND CONDITIONS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/TERMS-AND-CONDITIONS OR BY CALLING THE LABORATORY LISTED ABOVE TO OBTAIN A COPY

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present						
Seal intact	//		7	4	10	
Cooling media present						

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present						
Seal intact						
Cooling media present						

LAB USE ONLY	Yes	No	°C	1	2	3	Temperature reading by:
Seal present							
Seal intact							
Cooling media present							

	Relinquished by: (Signature/ Print)	Date YY	MM	DD	Time HH	MM	Received by: (Signature/ Print)	Date YY	MM	DD	Time HH	MM	Special Instructions
1	Omitted												
2	Megan Bender	23	08	17									

Your Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Your C.O.C. #: n/a

Attention: Megan Bender

DS Consultants Limited
6221 Highway 7, Unit 16
Vaughan, ON
CANADA L4H 0K8

Report Date: 2023/08/29
Report #: R7787668
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3P2568
Received: 2023/08/18, 16:26

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Free (WAD) Cyanide	5	2023/08/23	2023/08/23	CAM SOP-00457	OMOE E3015 m
Acid Extractable Metals by ICPMS	1	2023/08/23	2023/08/24	CAM SOP-00447	EPA 6020B m
Acid Extractable Metals by ICPMS	4	2023/08/23	2023/08/25	CAM SOP-00447	EPA 6020B m
Moisture	5	N/A	2023/08/22	CAM SOP-00445	Carter 2nd ed 51.2 m
OC Pesticides (Selected) & PCB (1)	5	2023/08/25	2023/08/26	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides Summed Parameters	5	N/A	2023/08/24	CAM SOP-00307	EPA 8081B/ 8082A
pH CaCl2 EXTRACT	4	2023/08/24	2023/08/24	CAM SOP-00413	EPA 9045 D 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, MELCCFP, EPA, APHA.

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

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 #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Your C.O.C. #: n/a

Attention: Megan Bender

DS Consultants Limited
6221 Highway 7, Unit 16
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CANADA L4H 0K8

Report Date: 2023/08/29
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CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3P2568
Received: 2023/08/18, 16:26

Encryption Key

Bureau Veritas
29 Aug 2023 15:19:28

Please direct all questions regarding this Certificate of Analysis to:
Ashton Gibson, Project Manager
Email: Ashton.Gibson@bureauveritas.com
Phone# (905)817-5765

==========

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

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Bureau Veritas Job #: C3P2568
Report Date: 2023/08/29

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Sampler Initials: MB

O.REG 153 ICPMS METALS (SOIL)

Bureau Veritas ID			WSX776		WSX777		WSX778	WSX779		
Sampling Date			2023/08/18		2023/08/18		2023/08/18	2023/08/18		
COC Number			n/a		n/a		n/a	n/a		
	UNITS	Criteria	S1	QC Batch	S2	QC Batch	S3	S4	RDL	QC Batch
Metals										
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	8870528	0.22	8870849	<0.20	<0.20	0.20	8870528
Acid Extractable Arsenic (As)	ug/g	18	3.7	8870528	3.2	8870849	3.9	3.8	1.0	8870528
Acid Extractable Barium (Ba)	ug/g	220	55	8870528	62	8870849	68	79	0.50	8870528
Acid Extractable Beryllium (Be)	ug/g	2.5	0.59	8870528	0.52	8870849	0.70	0.70	0.20	8870528
Acid Extractable Boron (B)	ug/g	36	<5.0	8870528	6.4	8870849	<5.0	5.9	5.0	8870528
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.18	8870528	0.15	8870849	0.17	0.17	0.10	8870528
Acid Extractable Chromium (Cr)	ug/g	70	18	8870528	18	8870849	20	21	1.0	8870528
Acid Extractable Cobalt (Co)	ug/g	21	7.7	8870528	7.2	8870849	8.8	11	0.10	8870528
Acid Extractable Copper (Cu)	ug/g	92	17	8870528	21	8870849	21	23	0.50	8870528
Acid Extractable Lead (Pb)	ug/g	120	16	8870528	28	8870849	13	11	1.0	8870528
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	8870528	<0.50	8870849	<0.50	<0.50	0.50	8870528
Acid Extractable Nickel (Ni)	ug/g	82	16	8870528	16	8870849	18	22	0.50	8870528
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	8870528	<0.50	8870849	<0.50	<0.50	0.50	8870528
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	8870528	<0.20	8870849	<0.20	<0.20	0.20	8870528
Acid Extractable Thallium (Tl)	ug/g	1	0.10	8870528	0.087	8870849	0.13	0.13	0.050	8870528
Acid Extractable Uranium (U)	ug/g	2.5	0.64	8870528	0.60	8870849	0.65	0.54	0.050	8870528
Acid Extractable Vanadium (V)	ug/g	86	26	8870528	25	8870849	30	30	5.0	8870528
Acid Extractable Zinc (Zn)	ug/g	290	56	8870528	71	8870849	70	64	5.0	8870528

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Bureau Veritas Job #: C3P2568
Report Date: 2023/08/29

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Sampler Initials: MB

O.REG 153 ICPMS METALS (SOIL)

Bureau Veritas ID			WSX780		
Sampling Date			2023/08/18		
COC Number			n/a		
	UNITS	Criteria	DUP-1	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.20	8870528
Acid Extractable Arsenic (As)	ug/g	18	3.7	1.0	8870528
Acid Extractable Barium (Ba)	ug/g	220	67	0.50	8870528
Acid Extractable Beryllium (Be)	ug/g	2.5	0.71	0.20	8870528
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	8870528
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.17	0.10	8870528
Acid Extractable Chromium (Cr)	ug/g	70	20	1.0	8870528
Acid Extractable Cobalt (Co)	ug/g	21	8.9	0.10	8870528
Acid Extractable Copper (Cu)	ug/g	92	21	0.50	8870528
Acid Extractable Lead (Pb)	ug/g	120	13	1.0	8870528
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	8870528
Acid Extractable Nickel (Ni)	ug/g	82	18	0.50	8870528
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	8870528
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	8870528
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.050	8870528
Acid Extractable Uranium (U)	ug/g	2.5	0.63	0.050	8870528
Acid Extractable Vanadium (V)	ug/g	86	30	5.0	8870528
Acid Extractable Zinc (Zn)	ug/g	290	68	5.0	8870528

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Bureau Veritas Job #: C3P2568
Report Date: 2023/08/29

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Sampler Initials: MB

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			WSX776		WSX777		WSX778	WSX779	WSX780		
Sampling Date			2023/08/18		2023/08/18		2023/08/18	2023/08/18	2023/08/18		
COC Number			n/a		n/a		n/a	n/a	n/a		
	UNITS	Criteria	S1	RDL	S2	RDL	S3	S4	DUP-1	RDL	QC Batch
Calculated Parameters											
Chlordane (Total)	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8864845
o,p-DDD + p,p-DDD	ug/g	-	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8864845
o,p-DDE + p,p-DDE	ug/g	-	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8864845
o,p-DDT + p,p-DDT	ug/g	-	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8864845
Total Endosulfan	ug/g	-	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8864845
Total PCB	ug/g	0.3	<0.015	0.015	<0.075	0.075	<0.015	<0.015	<0.015	0.015	8864845
Pesticides & Herbicides											
Aldrin	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
a-Chlordane	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
g-Chlordane	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
o,p-DDD	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
p,p-DDD	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
o,p-DDE	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
p,p-DDE	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
o,p-DDT	ug/g	1.4	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
p,p-DDT	ug/g	1.4	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Dieldrin	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Lindane	ug/g	0.01	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Endosulfan I (alpha)	ug/g	0.04	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Endosulfan II (beta)	ug/g	0.04	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Endrin	ug/g	0.04	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Heptachlor	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Heptachlor epoxide	ug/g	0.05	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Hexachlorobenzene	ug/g	0.01	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Hexachlorobutadiene	ug/g	0.01	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Hexachloroethane	ug/g	0.01	<0.0020	0.0020	<0.010	0.010	<0.0020	<0.0020	<0.0020	0.0020	8877937
Methoxychlor	ug/g	0.05	<0.0050	0.0050	<0.025	0.025	<0.0050	<0.0050	<0.0050	0.0050	8877937
Aroclor 1242	ug/g	-	<0.015	0.015	<0.075	0.075	<0.015	<0.015	<0.015	0.015	8877937
Aroclor 1248	ug/g	-	<0.015	0.015	<0.075	0.075	<0.015	<0.015	<0.015	0.015	8877937

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Bureau Veritas Job #: C3P2568
Report Date: 2023/08/29

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Sampler Initials: MB

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			WSX776		WSX777		WSX778	WSX779	WSX780		
Sampling Date			2023/08/18		2023/08/18		2023/08/18	2023/08/18	2023/08/18		
COC Number			n/a		n/a		n/a	n/a	n/a		
	UNITS	Criteria	S1	RDL	S2	RDL	S3	S4	DUP-1	RDL	QC Batch
Aroclor 1254	ug/g	-	<0.015	0.015	<0.075	0.075	<0.015	<0.015	<0.015	0.015	8877937
Aroclor 1260	ug/g	-	<0.015	0.015	<0.075	0.075	<0.015	<0.015	<0.015	0.015	8877937
Surrogate Recovery (%)											
2,4,5,6-Tetrachloro-m-xylene	%	-	95		95		88	84	86		8877937
Decachlorobiphenyl	%	-	124		114		112	112	114		8877937

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

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Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Bureau Veritas Job #: C3P2568
Report Date: 2023/08/29

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Sampler Initials: MB

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID			WSX776	WSX777	WSX778	WSX779		WSX780		
Sampling Date			2023/08/18	2023/08/18	2023/08/18	2023/08/18		2023/08/18		
COC Number			n/a	n/a	n/a	n/a		n/a		
	UNITS	Criteria	S1	S2	S3	S4	QC Batch	DUP-1	RDL	QC Batch
Inorganics										
Moisture	%	-	23	18	19	21	8871035	18	1.0	8871035
Available (CaCl2) pH	pH	-	7.05	7.30	7.39	7.53	8873477			
WAD Cyanide (Free)	ug/g	0.051	<0.01	<0.01	<0.01	<0.01	8870632	<0.01	0.01	8870632

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Bureau Veritas Job #: C3P2568
Report Date: 2023/08/29

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: WSX776
Sample ID: S1
Matrix: Soil

Collected: 2023/08/18
Shipped:
Received: 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870632	2023/08/23	2023/08/23	Prgya Panchal
Acid Extractable Metals by ICPMS	ICP/MS	8870528	2023/08/23	2023/08/25	Daniel Teclu
Moisture	BAL	8871035	N/A	2023/08/22	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8877937	2023/08/25	2023/08/26	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8873477	2023/08/24	2023/08/24	Gurparteek KAUR

Bureau Veritas ID: WSX777
Sample ID: S2
Matrix: Soil

Collected: 2023/08/18
Shipped:
Received: 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870632	2023/08/23	2023/08/23	Prgya Panchal
Acid Extractable Metals by ICPMS	ICP/MS	8870849	2023/08/23	2023/08/24	Indira HarryPaul
Moisture	BAL	8871035	N/A	2023/08/22	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8877937	2023/08/25	2023/08/26	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8873477	2023/08/24	2023/08/24	Gurparteek KAUR

Bureau Veritas ID: WSX778
Sample ID: S3
Matrix: Soil

Collected: 2023/08/18
Shipped:
Received: 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870632	2023/08/23	2023/08/23	Prgya Panchal
Acid Extractable Metals by ICPMS	ICP/MS	8870528	2023/08/23	2023/08/25	Daniel Teclu
Moisture	BAL	8871035	N/A	2023/08/22	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8877937	2023/08/25	2023/08/26	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8873477	2023/08/24	2023/08/24	Gurparteek KAUR

Bureau Veritas ID: WSX779
Sample ID: S4
Matrix: Soil

Collected: 2023/08/18
Shipped:
Received: 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870632	2023/08/23	2023/08/23	Prgya Panchal
Acid Extractable Metals by ICPMS	ICP/MS	8870528	2023/08/23	2023/08/25	Daniel Teclu
Moisture	BAL	8871035	N/A	2023/08/22	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8877937	2023/08/25	2023/08/26	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8873477	2023/08/24	2023/08/24	Gurparteek KAUR

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 #: C3P2568
Report Date: 2023/08/29

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: WSX780
Sample ID: DUP-1
Matrix: Soil

Collected: 2023/08/18
Shipped:
Received: 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870632	2023/08/23	2023/08/23	Prgya Panchal
Acid Extractable Metals by ICPMS	ICP/MS	8870528	2023/08/23	2023/08/25	Daniel Teclu
Moisture	BAL	8871035	N/A	2023/08/22	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8877937	2023/08/25	2023/08/26	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk

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GENERAL COMMENTS

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

Package 1	17.0°C

Sample WSX777 [S2] : OC Pesticide Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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Bureau Veritas Job #: C3P2568
Report Date: 2023/08/29

QUALITY ASSURANCE REPORT

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Sampler Initials: MB

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8877937	2,4,5,6-Tetrachloro-m-xylene	2023/08/29	90	50 - 130	83	50 - 130	81	%		
8877937	Decachlorobiphenyl	2023/08/29	114	50 - 130	108	50 - 130	114	%		
8870528	Acid Extractable Antimony (Sb)	2023/08/25	92	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
8870528	Acid Extractable Arsenic (As)	2023/08/25	97	75 - 125	98	80 - 120	<1.0	ug/g	1.9	30
8870528	Acid Extractable Barium (Ba)	2023/08/25	NC	75 - 125	101	80 - 120	<0.50	ug/g	1.3	30
8870528	Acid Extractable Beryllium (Be)	2023/08/25	103	75 - 125	99	80 - 120	<0.20	ug/g	1.5	30
8870528	Acid Extractable Boron (B)	2023/08/25	103	75 - 125	96	80 - 120	<5.0	ug/g	3.4	30
8870528	Acid Extractable Cadmium (Cd)	2023/08/25	98	75 - 125	96	80 - 120	<0.10	ug/g	0.46	30
8870528	Acid Extractable Chromium (Cr)	2023/08/25	96	75 - 125	95	80 - 120	<1.0	ug/g	2.3	30
8870528	Acid Extractable Cobalt (Co)	2023/08/25	93	75 - 125	95	80 - 120	<0.10	ug/g	1.5	30
8870528	Acid Extractable Copper (Cu)	2023/08/25	96	75 - 125	106	80 - 120	<0.50	ug/g	2.1	30
8870528	Acid Extractable Lead (Pb)	2023/08/25	93	75 - 125	99	80 - 120	<1.0	ug/g	4.0	30
8870528	Acid Extractable Molybdenum (Mo)	2023/08/25	98	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
8870528	Acid Extractable Nickel (Ni)	2023/08/25	92	75 - 125	96	80 - 120	<0.50	ug/g	2.3	30
8870528	Acid Extractable Selenium (Se)	2023/08/25	94	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
8870528	Acid Extractable Silver (Ag)	2023/08/25	99	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
8870528	Acid Extractable Thallium (Tl)	2023/08/25	95	75 - 125	99	80 - 120	<0.050	ug/g	4.1	30
8870528	Acid Extractable Uranium (U)	2023/08/25	93	75 - 125	95	80 - 120	<0.050	ug/g	0.35	30
8870528	Acid Extractable Vanadium (V)	2023/08/25	94	75 - 125	95	80 - 120	<5.0	ug/g	1.9	30
8870528	Acid Extractable Zinc (Zn)	2023/08/25	NC	75 - 125	95	80 - 120	<5.0	ug/g	2.8	30
8870632	WAD Cyanide (Free)	2023/08/23	91	75 - 125	98	80 - 120	<0.01	ug/g	NC	35
8870849	Acid Extractable Antimony (Sb)	2023/08/24	95	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
8870849	Acid Extractable Arsenic (As)	2023/08/24	110	75 - 125	103	80 - 120	<1.0	ug/g	8.4	30
8870849	Acid Extractable Barium (Ba)	2023/08/24	NC	75 - 125	101	80 - 120	<0.50	ug/g	1.9	30
8870849	Acid Extractable Beryllium (Be)	2023/08/24	107	75 - 125	96	80 - 120	<0.20	ug/g	0.29	30
8870849	Acid Extractable Boron (B)	2023/08/24	99	75 - 125	96	80 - 120	<5.0	ug/g	4.7	30
8870849	Acid Extractable Cadmium (Cd)	2023/08/24	107	75 - 125	97	80 - 120	<0.10	ug/g	NC	30
8870849	Acid Extractable Chromium (Cr)	2023/08/24	NC	75 - 125	100	80 - 120	<1.0	ug/g	5.9	30
8870849	Acid Extractable Cobalt (Co)	2023/08/24	109	75 - 125	99	80 - 120	<0.10	ug/g	6.5	30
8870849	Acid Extractable Copper (Cu)	2023/08/24	99	75 - 125	98	80 - 120	<0.50	ug/g	0.83	30
8870849	Acid Extractable Lead (Pb)	2023/08/24	107	75 - 125	101	80 - 120	<1.0	ug/g	2.2	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8870849	Acid Extractable Molybdenum (Mo)	2023/08/24	109	75 - 125	98	80 - 120	<0.50	ug/g	NC	30
8870849	Acid Extractable Nickel (Ni)	2023/08/24	NC	75 - 125	102	80 - 120	<0.50	ug/g	6.8	30
8870849	Acid Extractable Selenium (Se)	2023/08/24	112	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
8870849	Acid Extractable Silver (Ag)	2023/08/24	108	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
8870849	Acid Extractable Thallium (Tl)	2023/08/24	109	75 - 125	102	80 - 120	<0.050	ug/g	6.0	30
8870849	Acid Extractable Uranium (U)	2023/08/24	113	75 - 125	101	80 - 120	<0.050	ug/g	2.4	30
8870849	Acid Extractable Vanadium (V)	2023/08/24	NC	75 - 125	100	80 - 120	<5.0	ug/g	4.1	30
8870849	Acid Extractable Zinc (Zn)	2023/08/24	NC	75 - 125	102	80 - 120	<5.0	ug/g	5.7	30
8871035	Moisture	2023/08/23							2.3	20
8873477	Available (CaCl2) pH	2023/08/24			101	97 - 103			0.43	N/A
8877937	a-Chlordane	2023/08/26	92	50 - 130	84	50 - 130	<0.0020	ug/g	NC	40
8877937	Aldrin	2023/08/26	83	50 - 130	77	50 - 130	<0.0020	ug/g	NC	40
8877937	Aroclor 1242	2023/08/26					<0.015	ug/g	NC	40
8877937	Aroclor 1248	2023/08/26					<0.015	ug/g	NC	40
8877937	Aroclor 1254	2023/08/26					0.022, RDL=0.015 (1)	ug/g	NC	40
8877937	Aroclor 1260	2023/08/26					<0.015	ug/g	NC	40
8877937	Dieldrin	2023/08/26	116	50 - 130	115	50 - 130	<0.0020	ug/g	NC	40
8877937	Endosulfan I (alpha)	2023/08/26	96	50 - 130	114	50 - 130	<0.0020	ug/g	NC	40
8877937	Endosulfan II (beta)	2023/08/26	113	50 - 130	106	50 - 130	<0.0020	ug/g	NC	40
8877937	Endrin	2023/08/26	113	50 - 130	110	50 - 130	<0.0020	ug/g	NC	40
8877937	g-Chlordane	2023/08/26	89	50 - 130	83	50 - 130	<0.0020	ug/g	NC	40
8877937	Heptachlor epoxide	2023/08/26	98	50 - 130	104	50 - 130	<0.0020	ug/g	NC	40
8877937	Heptachlor	2023/08/26	91	50 - 130	85	50 - 130	<0.0020	ug/g	NC	40
8877937	Hexachlorobenzene	2023/08/26	89	50 - 130	71	50 - 130	<0.0020	ug/g	NC	40
8877937	Hexachlorobutadiene	2023/08/26	88	50 - 130	90	50 - 130	<0.0020	ug/g	NC	40
8877937	Hexachloroethane	2023/08/26	66	50 - 130	70	50 - 130	<0.0020	ug/g	NC	40
8877937	Lindane	2023/08/26	84	50 - 130	79	50 - 130	<0.0020	ug/g	NC	40
8877937	Methoxychlor	2023/08/26	111	50 - 130	115	50 - 130	<0.0050	ug/g	NC	40
8877937	o,p-DDD	2023/08/26	108	50 - 130	103	50 - 130	<0.0020	ug/g	NC	40
8877937	o,p-DDE	2023/08/26	99	50 - 130	104	50 - 130	<0.0020	ug/g	NC	40

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8877937	o,p-DDT	2023/08/26	99	50 - 130	92	50 - 130	<0.0020	ug/g	NC	40
8877937	p,p-DDD	2023/08/26	108	50 - 130	110	50 - 130	<0.0020	ug/g	NC	40
8877937	p,p-DDE	2023/08/26	98	50 - 130	97	50 - 130	<0.0020	ug/g	NC	40
8877937	p,p-DDT	2023/08/26	103	50 - 130	94	50 - 130	<0.0020	ug/g	NC	40

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) Analyte was detected in the method blank at a level marginally above the detection limit. This may represent a high bias in some results. For results that were not detected (ND), this potential bias has no impact.

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Bureau Veritas Job #: C3P2568
Report Date: 2023/08/29

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Sampler Initials: MB

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 {0}, {1} responsible for {2} {3} laboratory operations.

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Bureau Veritas Job #: C3P2568
Report Date: 2023/08/29

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD
Sampler Initials: MB

Exceedance Summary Table – Reg153/04 T1-Soil/Res

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/6

CHAIN OF CUSTODY RECORD

Page 1 of 1

Invoice Information
Company Name: DS Consultants
Contact Name: Accounting.
Address:
Phone: Fax:
Email:

Report Information (if differs from invoice)
Company Name: DS Consultants
Contact Name: Megan Bender
Address:
Phone: Fax:
Email: mbender@dsconsultants.ca

Project Information (where applicable)
Quotation #:
P.O. #/ AFE#:
Project #: 23-266-100
Site Location: 12156 Chinguacousy Rd
Site #:
Site Location Province:
Sampled By: Megan

Turnaround Time (TAT) Required
[x] Regular TAT (5-7 days) Most analyses
PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PRO
Rush TAT (Surcharges will be applied)
1 Day 2 Days 3-4 Days
Date Required:
Rush Confirmation #:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153
Table 1 [x] Res/Park Med/ Fine
[x] Table 2 Ind/Comm Coarse
Table 3 Agri/ Other
Table ____
FOR RSC (PLEASE CIRCLE) Y / N

Other Regulations
CCME Sanitary Sewer Bylaw
MISA Storm Sewer Bylaw
PWQO Region
Other (Specify)
REG 558 (MIN. 3 DAY TAT REQUIRED)
REG 406 Table

Include Criteria on Certificate of Analysis: (Y) / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Analysis Requested

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	PAHs	OCPs	metals, As, Sb, Se, CN	pH					HOLD- DO NOT ANALYZE	COMMENTS
1	S1	2023/08/18	PM	S	2									✓	✓	✓						
2	S2	↓	↓	S	2									✓	✓	✓						
3	S3			S	2									✓	✓	✓						
4	S4			S	2									✓	✓	✓						
5	DUP-1			S	2									✓	✓							
6																						
7																						
8																						
9																						
10																						

LABORATORY USE ONLY
CUSTODY SEAL (Y) / N — Present / Intact
COOLER TEMPERATU
18/16/17
COOLING MEDIA PRESENT: (Y) / N

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Megan Bender	2023/08/18		Ashton Gibson / ASHTON GIBSON	2023/08/18	16:26

18-Aug-23 16:26
Ashton Gibson
C3P2568
SPJ ENV-1763

Your Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY ROAD
Your C.O.C. #: n/a

Attention: Megan Bender

DS Consultants Limited
6221 Highway 7, Unit 16
Vaughan, ON
CANADA L4H 0K8

Report Date: 2023/10/06
Report #: R7848601
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3T5693
Received: 2023/09/25, 16:44

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	1	N/A	2023/10/02	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	1	2023/09/29	2023/09/29	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	1	N/A	2023/09/29		EPA 8260C m
Free (WAD) Cyanide	1	2023/09/28	2023/09/28	CAM SOP-00457	OMOE E3015 m
Conductivity	1	2023/09/29	2023/09/29	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	1	2023/09/28	2023/09/29	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	1	2023/09/27	2023/09/29	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	1	2023/09/28	2023/09/29	CAM SOP-00447	EPA 6020B m
Moisture	1	N/A	2023/09/27	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	1	2023/09/28	2023/09/29	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	1	2023/09/28	2023/09/28	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	1	N/A	2023/10/02	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	1	N/A	2023/09/28	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, MELCCFP, EPA, APHA.

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

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

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

Your Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY ROAD
Your C.O.C. #: n/a

Attention: Megan Bender

DS Consultants Limited
6221 Highway 7, Unit 16
Vaughan, ON
CANADA L4H 0K8

Report Date: 2023/10/06
Report #: R7848601
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3T5693
Received: 2023/09/25, 16:44

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) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Bureau Veritas
06 Oct 2023 12:29:35

Please direct all questions regarding this Certificate of Analysis to:
Ashton Gibson, Project Manager
Email: Ashton.Gibson@bureauveritas.com
Phone# (905)817-5765

==========

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

Bureau Veritas Job #: C3T5693
Report Date: 2023/10/06

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY ROAD
Sampler Initials: MW

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			XCA269		
Sampling Date			2023/09/25 08:30		
COC Number			n/a		
	UNITS	Criteria	S4	RDL	QC Batch
Calculated Parameters					
Sodium Adsorption Ratio	N/A	5.0	0.54		8939542
Inorganics					
Conductivity	mS/cm	0.7	0.22	0.002	8949562
Available (CaCl2) pH	pH	-	7.19		8947313
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	8946594
Chromium (VI)	ug/g	8	<0.18	0.18	8948326
Metals					
Hot Water Ext. Boron (B)	ug/g	1.5	0.24	0.050	8949653
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	0.20	8947878
Acid Extractable Arsenic (As)	ug/g	18	3.9	1.0	8947878
Acid Extractable Barium (Ba)	ug/g	390	59	0.50	8947878
Acid Extractable Beryllium (Be)	ug/g	4	0.52	0.20	8947878
Acid Extractable Boron (B)	ug/g	120	<5.0	5.0	8947878
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.18	0.10	8947878
Acid Extractable Chromium (Cr)	ug/g	160	18	1.0	8947878
Acid Extractable Cobalt (Co)	ug/g	22	7.6	0.10	8947878
Acid Extractable Copper (Cu)	ug/g	140	19	0.50	8947878
Acid Extractable Lead (Pb)	ug/g	120	13	1.0	8947878
Acid Extractable Molybdenum (Mo)	ug/g	6.9	0.80	0.50	8947878
Acid Extractable Nickel (Ni)	ug/g	100	16	0.50	8947878
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	0.50	8947878
Acid Extractable Silver (Ag)	ug/g	20	<0.20	0.20	8947878
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.050	8947878
Acid Extractable Uranium (U)	ug/g	23	0.61	0.050	8947878
Acid Extractable Vanadium (V)	ug/g	86	27	5.0	8947878
Acid Extractable Zinc (Zn)	ug/g	340	55	5.0	8947878

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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 #: C3T5693
Report Date: 2023/10/06

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY ROAD
Sampler Initials: MW

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			XCA269		
Sampling Date			2023/09/25 08:30		
COC Number			n/a		
	UNITS	Criteria	S4	RDL	QC Batch
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	8947878

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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O.REG 153 PAHS (SOIL)

Bureau Veritas ID			XCA269		
Sampling Date			2023/09/25 08:30		
COC Number			n/a		
	UNITS	Criteria	S4	RDL	QC Batch
Calculated Parameters					
Methylnaphthalene, 2-(1-)	ug/g	-	<0.0071	0.0071	8939568
Polyaromatic Hydrocarbons					
Acenaphthene	ug/g	7.9	<0.0050	0.0050	8946524
Acenaphthylene	ug/g	0.15	<0.0050	0.0050	8946524
Anthracene	ug/g	0.67	<0.0050	0.0050	8946524
Benzo(a)anthracene	ug/g	0.5	<0.0050	0.0050	8946524
Benzo(a)pyrene	ug/g	0.3	<0.0050	0.0050	8946524
Benzo(b/j)fluoranthene	ug/g	0.78	0.0079	0.0050	8946524
Benzo(g,h,i)perylene	ug/g	6.6	0.0052	0.0050	8946524
Benzo(k)fluoranthene	ug/g	0.78	<0.0050	0.0050	8946524
Chrysene	ug/g	7	<0.0050	0.0050	8946524
Dibenzo(a,h)anthracene	ug/g	0.1	<0.0050	0.0050	8946524
Fluoranthene	ug/g	0.69	0.0083	0.0050	8946524
Fluorene	ug/g	62	<0.0050	0.0050	8946524
Indeno(1,2,3-cd)pyrene	ug/g	0.38	0.0061	0.0050	8946524
1-Methylnaphthalene	ug/g	0.99	<0.0050	0.0050	8946524
2-Methylnaphthalene	ug/g	0.99	<0.0050	0.0050	8946524
Naphthalene	ug/g	0.6	<0.0050	0.0050	8946524
Phenanthrene	ug/g	6.2	<0.0050	0.0050	8946524
Pyrene	ug/g	78	0.0077	0.0050	8946524
Surrogate Recovery (%)					
D10-Anthracene	%	-	88		8946524
D14-Terphenyl (FS)	%	-	92		8946524
D8-Acenaphthylene	%	-	72		8946524

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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

Bureau Veritas ID			XCA269		
Sampling Date			2023/09/25 08:30		
COC Number			n/a		
	UNITS	Criteria	S4	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	0.050	8939095
Volatile Organics					
Acetone (2-Propanone)	ug/g	16	<0.49	0.49	8944660
Benzene	ug/g	0.21	<0.0060	0.0060	8944660
Bromodichloromethane	ug/g	1.5	<0.040	0.040	8944660
Bromoform	ug/g	0.27	<0.040	0.040	8944660
Bromomethane	ug/g	0.05	<0.040	0.040	8944660
Carbon Tetrachloride	ug/g	0.05	<0.040	0.040	8944660
Chlorobenzene	ug/g	2.4	<0.040	0.040	8944660
Chloroform	ug/g	0.05	<0.040	0.040	8944660
Dibromochloromethane	ug/g	2.3	<0.040	0.040	8944660
1,2-Dichlorobenzene	ug/g	1.2	<0.040	0.040	8944660
1,3-Dichlorobenzene	ug/g	4.8	<0.040	0.040	8944660
1,4-Dichlorobenzene	ug/g	0.083	<0.040	0.040	8944660
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.040	0.040	8944660
1,1-Dichloroethane	ug/g	0.47	<0.040	0.040	8944660
1,2-Dichloroethane	ug/g	0.05	<0.049	0.049	8944660
1,1-Dichloroethylene	ug/g	0.05	<0.040	0.040	8944660
cis-1,2-Dichloroethylene	ug/g	1.9	<0.040	0.040	8944660
trans-1,2-Dichloroethylene	ug/g	0.084	<0.040	0.040	8944660
1,2-Dichloropropane	ug/g	0.05	<0.040	0.040	8944660
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	0.030	8944660
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	0.040	8944660
Ethylbenzene	ug/g	1.1	<0.010	0.010	8944660
Ethylene Dibromide	ug/g	0.05	<0.040	0.040	8944660
Hexane	ug/g	2.8	<0.040	0.040	8944660
Methylene Chloride(Dichloromethane)	ug/g	0.1	<0.049	0.049	8944660

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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

Bureau Veritas ID			XCA269		
Sampling Date			2023/09/25 08:30		
COC Number			n/a		
	UNITS	Criteria	S4	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.40	0.40	8944660
Methyl Isobutyl Ketone	ug/g	1.7	<0.40	0.40	8944660
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.040	0.040	8944660
Styrene	ug/g	0.7	<0.040	0.040	8944660
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.040	0.040	8944660
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	0.040	8944660
Tetrachloroethylene	ug/g	0.28	<0.040	0.040	8944660
Toluene	ug/g	2.3	<0.020	0.020	8944660
1,1,1-Trichloroethane	ug/g	0.38	<0.040	0.040	8944660
1,1,2-Trichloroethane	ug/g	0.05	<0.040	0.040	8944660
Trichloroethylene	ug/g	0.061	<0.010	0.010	8944660
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.040	0.040	8944660
Vinyl Chloride	ug/g	0.02	<0.019	0.019	8944660
p+m-Xylene	ug/g	-	<0.020	0.020	8944660
o-Xylene	ug/g	-	<0.020	0.020	8944660
Total Xylenes	ug/g	3.1	<0.020	0.020	8944660
F1 (C6-C10)	ug/g	55	<10	10	8944660
F1 (C6-C10) - BTEX	ug/g	55	<10	10	8944660
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	10	8944316
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	50	8944316
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	50	8944316
Reached Baseline at C50	ug/g	-	Yes		8944316
Surrogate Recovery (%)					
o-Terphenyl	%	-	99		8944316
4-Bromofluorobenzene	%	-	98		8944660
D10-o-Xylene	%	-	97		8944660
D4-1,2-Dichloroethane	%	-	100		8944660

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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

Bureau Veritas ID			XCA269		
Sampling Date			2023/09/25 08:30		
COC Number			n/a		
	UNITS	Criteria	S4	RDL	QC Batch
D8-Toluene	%	-	92		8944660

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Bureau Veritas Job #: C3T5693
Report Date: 2023/10/06

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY ROAD
Sampler Initials: MW

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		XCA269		
Sampling Date		2023/09/25 08:30		
COC Number		n/a		
	UNITS	S4	RDL	QC Batch
Inorganics				
Moisture	%	12	1.0	8944118

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C3T5693
Report Date: 2023/10/06

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY ROAD
Sampler Initials: MW

TEST SUMMARY

Bureau Veritas ID: XCA269
Sample ID: S4
Matrix: Soil

Collected: 2023/09/25
Shipped:
Received: 2023/09/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8939568	N/A	2023/10/02	Automated Statchk
Hot Water Extractable Boron	ICP	8949653	2023/09/29	2023/09/29	Japneet Gill
1,3-Dichloropropene Sum	CALC	8939095	N/A	2023/09/29	Automated Statchk
Free (WAD) Cyanide	TECH	8946594	2023/09/28	2023/09/28	Prgya Panchal
Conductivity	AT	8949562	2023/09/29	2023/09/29	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	8948326	2023/09/28	2023/09/29	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8944316	2023/09/27	2023/09/29	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	8947878	2023/09/28	2023/09/29	Prempal Bhatti
Moisture	BAL	8944118	N/A	2023/09/27	Shivani Desai
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8946524	2023/09/28	2023/09/29	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8947313	2023/09/28	2023/09/28	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	8939542	N/A	2023/10/02	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8944660	N/A	2023/09/28	Blair Gannon

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GENERAL COMMENTS

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

Package 1	2.0°C

Results relate only to the items tested.

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Bureau Veritas Job #: C3T5693
Report Date: 2023/10/06

QUALITY ASSURANCE REPORT

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY ROAD
Sampler Initials: MW

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8944316	o-Terphenyl	2023/09/28	102	60 - 130	104	60 - 130	102	%		
8944660	4-Bromofluorobenzene	2023/09/28	100	60 - 140	100	60 - 140	96	%		
8944660	D10-o-Xylene	2023/09/28	95	60 - 130	105	60 - 130	93	%		
8944660	D4-1,2-Dichloroethane	2023/09/28	95	60 - 140	98	60 - 140	104	%		
8944660	D8-Toluene	2023/09/28	104	60 - 140	103	60 - 140	92	%		
8946524	D10-Anthracene	2023/09/28	89	50 - 130	98	50 - 130	106	%		
8946524	D14-Terphenyl (FS)	2023/09/28	98	50 - 130	106	50 - 130	106	%		
8946524	D8-Acenaphthylene	2023/09/28	71	50 - 130	83	50 - 130	79	%		
8944118	Moisture	2023/09/27							1.1	20
8944316	F2 (C10-C16 Hydrocarbons)	2023/09/29	102	60 - 130	104	80 - 120	<10	ug/g	NC	30
8944316	F3 (C16-C34 Hydrocarbons)	2023/09/29	104	60 - 130	106	80 - 120	<50	ug/g	NC (1)	30
8944316	F4 (C34-C50 Hydrocarbons)	2023/09/29	106	60 - 130	109	80 - 120	<50	ug/g	NC (1)	30
8944660	1,1,1,2-Tetrachloroethane	2023/09/28	94	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8944660	1,1,1-Trichloroethane	2023/09/28	98	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8944660	1,1,2,2-Tetrachloroethane	2023/09/28	90	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8944660	1,1,2-Trichloroethane	2023/09/28	90	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8944660	1,1-Dichloroethane	2023/09/28	97	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8944660	1,1-Dichloroethylene	2023/09/28	96	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8944660	1,2-Dichlorobenzene	2023/09/28	90	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8944660	1,2-Dichloroethane	2023/09/28	86	60 - 140	90	60 - 130	<0.049	ug/g	NC	50
8944660	1,2-Dichloropropane	2023/09/28	91	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8944660	1,3-Dichlorobenzene	2023/09/28	94	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8944660	1,4-Dichlorobenzene	2023/09/28	101	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
8944660	Acetone (2-Propanone)	2023/09/28	89	60 - 140	94	60 - 140	<0.49	ug/g	NC	50
8944660	Benzene	2023/09/28	87	60 - 140	88	60 - 130	<0.0060	ug/g	NC	50
8944660	Bromodichloromethane	2023/09/28	99	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
8944660	Bromoform	2023/09/28	81	60 - 140	84	60 - 130	<0.040	ug/g	NC	50
8944660	Bromomethane	2023/09/28	99	60 - 140	98	60 - 140	<0.040	ug/g	NC	50
8944660	Carbon Tetrachloride	2023/09/28	96	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8944660	Chlorobenzene	2023/09/28	94	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8944660	Chloroform	2023/09/28	99	60 - 140	99	60 - 130	<0.040	ug/g	NC	50

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8944660	cis-1,2-Dichloroethylene	2023/09/28	95	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8944660	cis-1,3-Dichloropropene	2023/09/28	89	60 - 140	93	60 - 130	<0.030	ug/g	NC	50
8944660	Dibromochloromethane	2023/09/28	90	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8944660	Dichlorodifluoromethane (FREON 12)	2023/09/28	89	60 - 140	87	60 - 140	<0.040	ug/g	NC	50
8944660	Ethylbenzene	2023/09/28	84	60 - 140	85	60 - 130	<0.010	ug/g	NC	50
8944660	Ethylene Dibromide	2023/09/28	89	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8944660	F1 (C6-C10) - BTEX	2023/09/28					<10	ug/g	NC	30
8944660	F1 (C6-C10)	2023/09/28	77	60 - 140	80	80 - 120	<10	ug/g	NC	30
8944660	Hexane	2023/09/28	88	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8944660	Methyl Ethyl Ketone (2-Butanone)	2023/09/28	88	60 - 140	94	60 - 140	<0.40	ug/g	NC	50
8944660	Methyl Isobutyl Ketone	2023/09/28	79	60 - 140	89	60 - 130	<0.40	ug/g	NC	50
8944660	Methyl t-butyl ether (MTBE)	2023/09/28	90	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8944660	Methylene Chloride(Dichloromethane)	2023/09/28	94	60 - 140	96	60 - 130	<0.049	ug/g	NC	50
8944660	o-Xylene	2023/09/28	78	60 - 140	80	60 - 130	<0.020	ug/g	NC	50
8944660	p+m-Xylene	2023/09/28	87	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
8944660	Styrene	2023/09/28	93	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8944660	Tetrachloroethylene	2023/09/28	96	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8944660	Toluene	2023/09/28	92	60 - 140	92	60 - 130	<0.020	ug/g	NC	50
8944660	Total Xylenes	2023/09/28					<0.020	ug/g	NC	50
8944660	trans-1,2-Dichloroethylene	2023/09/28	94	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
8944660	trans-1,3-Dichloropropene	2023/09/28	92	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8944660	Trichloroethylene	2023/09/28	97	60 - 140	96	60 - 130	<0.010	ug/g	NC	50
8944660	Trichlorofluoromethane (FREON 11)	2023/09/28	101	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8944660	Vinyl Chloride	2023/09/28	98	60 - 140	96	60 - 130	<0.019	ug/g	NC	50
8946524	1-Methylnaphthalene	2023/09/28	93	50 - 130	109	50 - 130	<0.0050	ug/g	NC	40
8946524	2-Methylnaphthalene	2023/09/28	83	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
8946524	Acenaphthene	2023/09/28	79	50 - 130	91	50 - 130	<0.0050	ug/g	42 (2)	40
8946524	Acenaphthylene	2023/09/28	73	50 - 130	84	50 - 130	<0.0050	ug/g	NC	40
8946524	Anthracene	2023/09/28	78	50 - 130	96	50 - 130	<0.0050	ug/g	23	40
8946524	Benzo(a)anthracene	2023/09/28	78	50 - 130	93	50 - 130	<0.0050	ug/g	1.6	40
8946524	Benzo(a)pyrene	2023/09/28	71	50 - 130	88	50 - 130	<0.0050	ug/g	0.86	40

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8946524	Benzo(b/j)fluoranthene	2023/09/28	78	50 - 130	93	50 - 130	<0.0050	ug/g	2.0	40
8946524	Benzo(g,h,i)perylene	2023/09/28	84	50 - 130	101	50 - 130	<0.0050	ug/g	2.3	40
8946524	Benzo(k)fluoranthene	2023/09/28	76	50 - 130	89	50 - 130	<0.0050	ug/g	3.5	40
8946524	Chrysene	2023/09/28	82	50 - 130	92	50 - 130	<0.0050	ug/g	2.6	40
8946524	Dibenzo(a,h)anthracene	2023/09/28	89	50 - 130	90	50 - 130	<0.0050	ug/g	13	40
8946524	Fluoranthene	2023/09/28	65	50 - 130	99	50 - 130	<0.0050	ug/g	11	40
8946524	Fluorene	2023/09/28	81	50 - 130	90	50 - 130	<0.0050	ug/g	30	40
8946524	Indeno(1,2,3-cd)pyrene	2023/09/28	80	50 - 130	98	50 - 130	<0.0050	ug/g	2.6	40
8946524	Naphthalene	2023/09/28	68	50 - 130	87	50 - 130	<0.0050	ug/g	75 (2)	40
8946524	Phenanthrene	2023/09/28	59	50 - 130	91	50 - 130	<0.0050	ug/g	20	40
8946524	Pyrene	2023/09/28	66	50 - 130	100	50 - 130	<0.0050	ug/g	12	40
8946594	WAD Cyanide (Free)	2023/09/28	98	75 - 125	102	80 - 120	<0.01	ug/g	NC	35
8947313	Available (CaCl2) pH	2023/09/28			100	97 - 103			0.71	N/A
8947878	Acid Extractable Antimony (Sb)	2023/09/29	110	75 - 125	110	80 - 120	<0.20	ug/g	NC	30
8947878	Acid Extractable Arsenic (As)	2023/09/29	98	75 - 125	101	80 - 120	<1.0	ug/g	7.2	30
8947878	Acid Extractable Barium (Ba)	2023/09/29	NC	75 - 125	100	80 - 120	<0.50	ug/g	1.5	30
8947878	Acid Extractable Beryllium (Be)	2023/09/29	98	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
8947878	Acid Extractable Boron (B)	2023/09/29	97	75 - 125	97	80 - 120	<5.0	ug/g	11	30
8947878	Acid Extractable Cadmium (Cd)	2023/09/29	100	75 - 125	99	80 - 120	<0.10	ug/g	NC	30
8947878	Acid Extractable Chromium (Cr)	2023/09/29	102	75 - 125	98	80 - 120	<1.0	ug/g	12	30
8947878	Acid Extractable Cobalt (Co)	2023/09/29	95	75 - 125	97	80 - 120	<0.10	ug/g	4.9	30
8947878	Acid Extractable Copper (Cu)	2023/09/29	101	75 - 125	103	80 - 120	<0.50	ug/g	5.4	30
8947878	Acid Extractable Lead (Pb)	2023/09/29	94	75 - 125	96	80 - 120	<1.0	ug/g	4.4	30
8947878	Acid Extractable Mercury (Hg)	2023/09/29	100	75 - 125	102	80 - 120	<0.050	ug/g		
8947878	Acid Extractable Molybdenum (Mo)	2023/09/29	105	75 - 125	100	80 - 120	<0.50	ug/g	4.7	30
8947878	Acid Extractable Nickel (Ni)	2023/09/29	95	75 - 125	99	80 - 120	<0.50	ug/g	4.1	30
8947878	Acid Extractable Selenium (Se)	2023/09/29	97	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
8947878	Acid Extractable Silver (Ag)	2023/09/29	100	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
8947878	Acid Extractable Thallium (Tl)	2023/09/29	94	75 - 125	98	80 - 120	<0.050	ug/g	0.55	30
8947878	Acid Extractable Uranium (U)	2023/09/29	94	75 - 125	95	80 - 120	<0.050	ug/g	5.9	30
8947878	Acid Extractable Vanadium (V)	2023/09/29	100	75 - 125	98	80 - 120	<5.0	ug/g	10	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8947878	Acid Extractable Zinc (Zn)	2023/09/29	NC	75 - 125	96	80 - 120	<5.0	ug/g	3.5	30
8948326	Chromium (VI)	2023/09/29	86	70 - 130	93	80 - 120	<0.18	ug/g	NC	35
8949562	Conductivity	2023/09/29			101	90 - 110	<0.002	mS/cm	3.2	10
8949653	Hot Water Ext. Boron (B)	2023/09/29	124	75 - 125	104	75 - 125	<0.050	ug/g	3.6	40

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) Detection limit was raised due to background interference.

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

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Bureau Veritas Job #: C3T5693
Report Date: 2023/10/06

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY ROAD
Sampler Initials: MW

VALIDATION SIGNATURE PAGE

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

Anastassia Hamanov, Scientific Specialist

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Bureau Veritas Job #: C3T5693
Report Date: 2023/10/06

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY ROAD
Sampler Initials: MW

Exceedance Summary Table – Reg153/04 T2-Soil/Res-C

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266

CHAIN OF CUSTODY RECORD

ENV COC - 00014v2

25-Sep-23 16:44
Ashton Gibson
C3T5693
AN4 ENV-1693

Invoice Information	Invoice to (requires report) ☐	Report Information (if differs from Invoice)		Project Information	
Company :	DS Consultants Ltd.	Company:	DS Consultants Ltd	Quotation #:	
Contact Name:	Bindu Goel	Contact Name:	Megan Bender	P.O. #/ AFE#:	
Street Address:	6221 Hwy 7, Unit 16	Street Address:	6221 Hwy 7, Unit 16	Project #:	23-266-100
City: Vaughan	Prov: ON Postal Code: L4H0K8	City: Vaughan	Prov: ON Postal Code: L4H0K8	Site #:	
Phone:	905-264-9393	Phone:	905-264-9393	Site Location:	12156 Chinguacousy Road
Email:	accounting@dsconsultants.ca	Email:	MBender@dsconsultants.ca	Site Location Province:	Ontario
Copies:		Copies:		Sampled By:	

Regulatory Criteria

REG 153: ☐ Table 1 ☒ Res/Park ☐ Med/Fine ☐ Table 2 ☐ Ind/Comm ☐ Course ☐ Table 3 ☐ Agri/other ☐ For RSC ☐ Table: _____

OTHER: ☐ COME ☐ Reg 406, Table: _____ ☐ Reg 558* ☐ Sanitary Sewer Bylaw *min 3 day TAT ☐ Storm Sewer Bylaw ☐ MISA Municipality _____ ☐ PWQO ☐ Other:

Include Criteria on Certificate of Analysis (check if yes): ☑

SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

	Sample Identification	Date Sampled YY	MM	DD	Time (24hr) HH	MM	Matrix	1 FIELD FILTERED	2 FIELD PRESERVED	3 LAB FILTRATION REQUIRED	4 BTEX/ F1	5 F2 - F4	6 VOCs	7 Reg 153 metals and inorganics	8 Reg 153 ICPMS metals	9 Reg 153 metals (Hg, CrVI, ICPMS metals, HWS - B)	10 PAHs	11 OCPs	12 SPLP Metals and Hydrides	13 PCBs	14	15	16	17	18	19	20	21 # OF CONTAINERS SUBMITTED	22 HOLD - DO NOT ANALYZE
1	S4	23	09	25	08	30	Soil				X	X	X	X			X												
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

Regular Turnaround Time (TAT): ☒ 5 to 7 Day ☐ 10 Day

Rush Turnaround Time (TAT) Surcharges apply: ☐ Same Day ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 4 Day

Date Required: YY MM DD

Comments

*UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS AND CONDITIONS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/TERMS-AND-CONDITIONS OR BY CALLING THE LABORATORY LISTED ABOVE TO OBTAIN A COPY

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present		✓				
Seal intact						
Cooling media present				1	2	3

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present						
Seal intact						
Cooling media present				1	2	3

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present						
Seal intact						
Cooling media present				1	2	3

Temperature reading by:

	Relinquished by: (Signature/ Print)	Date YY	MM	DD	Time HH	MM	Received by: (Signature/ Print)	Date YY	MM	DD	Time HH	MM
1	MISHAEL WILCOX	23	09	25	17	00	1		09	25	16	44
2							2					

Special Instructions

Your Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD.
Your C.O.C. #: n/a

Attention: Megan Bender

DS Consultants Limited
6221 Highway 7, Unit 16
Vaughan, ON
CANADA L4H 0K8

Report Date: 2023/08/23
Report #: R7778072
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3P0410
Received: 2023/08/17, 15:14

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
pH CaCl2 EXTRACT	2	2023/08/22	2023/08/22	CAM SOP-00413	EPA 9045 D 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, MELCCFP, EPA, APHA.

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

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

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

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

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Your Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD.
Your C.O.C. #: n/a

Attention: Megan Bender

DS Consultants Limited
6221 Highway 7, Unit 16
Vaughan, ON
CANADA L4H 0K8

Report Date: 2023/08/23
Report #: R7778072
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3P0410
Received: 2023/08/17, 15:14

Encryption Key

Bureau Veritas
23 Aug 2023 15:40:24

Please direct all questions regarding this Certificate of Analysis to:
Ashton Gibson, Project Manager
Email: Ashton.Gibson@bureauveritas.com
Phone# (905)817-5765

==========

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Bureau Veritas Job #: C3P0410
Report Date: 2023/08/23

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD.
Sampler Initials: MB

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WSM809	WSM810	
Sampling Date		2023/08/15	2023/08/15	
COC Number		n/a	n/a	
	UNITS	BH23-301 SS5	BH23-303 SS5	QC Batch
Inorganics				
Available (CaCl2) pH	pH	7.76	7.72	8868526
QC Batch = Quality Control Batch				

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Bureau Veritas Job #: C3P0410
Report Date: 2023/08/23

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD.
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: WSM809
Sample ID: BH23-301 SS5
Matrix: Soil

Collected: 2023/08/15
Shipped:
Received: 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	8868526	2023/08/22	2023/08/22	Gurparteek KAUR

Bureau Veritas ID: WSM810
Sample ID: BH23-303 SS5
Matrix: Soil

Collected: 2023/08/15
Shipped:
Received: 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	8868526	2023/08/22	2023/08/22	Gurparteek KAUR

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Bureau Veritas Job #: C3P0410
Report Date: 2023/08/23

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD.
Sampler Initials: MB

GENERAL COMMENTS

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

Package 1	7.0°C

Results relate only to the items tested.

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Bureau Veritas Job #: C3P0410
Report Date: 2023/08/23

QUALITY ASSURANCE REPORT

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD.
Sampler Initials: MB

			SPIKED BLANK		RPD	
QC Batch	**Parameter**	**Date**	**% Recovery**	**QC Limits**	**Value (%)**	**QC Limits**
8868526	Available (CaCl2) pH	2023/08/22	100	97 - 103	0.018	N/A

N/A = Not Applicable

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

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.

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Bureau Veritas Job #: C3P0410
Report Date: 2023/08/23

DS Consultants Limited
Client Project #: 23-266-100
Site Location: 12156 CHINGUACOUSY RD.
Sampler Initials: MB

VALIDATION SIGNATURE PAGE

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

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

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Appendix E

Phase Two Conceptual Site Model

This Phase Two Conceptual Site Model has been prepared for the property comprised of 12156 Chinguacousy Road, Caledon, Ontario, herein referred to as the "Site". This Phase Two CSM was developed through a synthesis of the information obtained through the completion of the Phase One ESA, and the data collected as part of the Phase Two ESA. The Phase Two CSM is comprised of the following Figures and text.

FIGURES

Figure 1 – Site Location Plan
Figure 2 – Phase Two Property Site Plan
Figure 3 – Phase One Study Area
Figure 4 – PCA within Phase One Study Area
Figure 5 – Borehole/Monitoring Well location plan with APECs
Figure 6A – Soil Characterization – Metals and ORPs
Figure 6B – Soil Characterization – PHCs and BTEX
Figure 6C – Soil Characterization – VOCs
Figure 6D - Soil Characterization – PAHs
Figure 6E – Soil Characterization – OCPs
Figure 7 – Contaminant Transport Diagram

The Phase Two Property is an approximately 5.787-hectares (14.299 acres) parcel of land situated within a rural-residential neighbourhood in the Town of Caledon, Ontario. The Phase Two Property is located approximately 490 m northwest of the intersection of Chinguacousy Road and Mayfield Road.

The Phase Two Property currently includes a two-storey brick house with a metal clad barn. The residential building contains one (1) level of basement and was constructed around the 1990s. The house is approximately 275 m^2 in area. The building is serviced with a domestic well and septic system. The septic system was located southeast of the building and the domestic well was observed south of the house.

The metal clad barn is approximately 220 m^2 in area with a concrete floor and is used for storage of farming equipment.

Access to the Site is through an asphalt driveway which enters the Site from Chinguacousy Road. The remaining balance of the Site is primarily compromised of agricultural fields. A Site Plan depicting the orientation of the buildings on-site is provided in Figure 2.

A Phase One ESA was completed in September 2023. The results of the Phase One ESA identified three (3) areas of potential environmental concern on the Property associated with the following historical and current uses:

- The former presence of an orchard which was potentially subject to application of environmentally persistent pesticides;
- Fill material was likely used for grading purposes for the driveway; and
- The driveway is likely subject to seasonal de-icing activities.

The environmental soil conditions on the Site were investigated through the completion of three (3) boreholes on August 15, 2023 and five (5) test pits. The boreholes were advanced to a maximum depth of 6.7 metres below ground surface (mbgs) under the supervision of DS personnel and the test pits to a depth of 0.3 mbgs. A groundwater monitoring well was installed in one (1) of the boreholes. The borehole locations were determined based on the findings of the Phase One ESA. All APECs were investigated with boreholes and/or test pits in accordance with the requirements of O.Reg. 153/04 (as amended). Soil samples were collected and submitted for analysis of all PCOCs, including: Metals, As, Sb, Se, CN-, pH, EC, SAR, and OCPs.

The soil and groundwater analytical results were compared to the "Table 2: Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/ Institutional use" provided in the MECP document entitled, "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*" dated April 15, 2011 *(*Table 2 Standards*)* for medium and fine-textured soils and residential/parkland/ institutional property use.

Based on the results of the Phase Two ESA, it was concluded that the soil quality on the Site met the applicable MECP Table 2 SCS as of the Certification Date of October 6, 2023.

I. Description and Assessment of:

A. <u>Areas where potentially contaminating activity has occurred</u>

A total of five (5) PCAs were identified in the Phase One ESA. A summary of the PCAs considered to be contributing to APECs on the Phase Two Property is provided in the table below.

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
PCA-1	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	The Peel County Atlas shows an orchard on the north portion of the Site.	Yes – APEC-1
PCA-2	#N/S – Application of De-icing Agents	De-icing activities inferred along the driveway and roadway.	Yes – APEC-2A
PCA-3	#30 – Importation of Fill Material of Unknown Quality	Possible fill material for grading under the asphalt driveway.	Yes – APEC-2B
PCA-4	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Pesticides are used on the agricultural fields on Site.	Yes – APEC-3

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

B. Areas of potential environmental concern

A total of four (4) APECs were identified to be present on the Phase Two Property through the completion of the Phase One ESA. A summary of the APECs identified, and the associated PCOCs is provided in the table below.

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	North portion of Site	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-1**	OCPs, Metals, As, Sb, Se, CN-	Soil
APEC-2A	North portion of Site	#N/S – Application of De-icing Agents	On Site **PCA-2**	EC, SAR	Soil
APEC-2B		#30 – Importation of Fill Material of Unknown Quality	On Site **PCA-3**	PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-3	Entire Property	#40 – Pesticides Manufacturing, Processing,	On Site **PCA-4**	OCPs, Metals, As, Sb, Se, CN-	Soil

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
		Bulk Storage and Large-Scale Applications			

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

C. <u>Any subsurface structures and utilities on, in or under the Phase Two Property that may affect contaminant distribution and transport</u>

The depth to groundwater at the Phase One Property is inferred to be approximately 1.73 to 2.29 metres below ground surface, however, no underground utilities were identified on the Phase One Property, therefore utility trenches would not act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the Phase One Property.

II. Description of, and as appropriate, figures illustrating, the physical setting of the Phase Two Property and any areas under it including:

A. <u>Stratigraphy from ground surface to the deepest aquifer or aquitard investigated</u>

A surficial layer of topsoil approximately 200 to 250 mm in thickness was encountered in all of the boreholes advanced. Reworked native material consisting of clayey silt with trace organics was encountered below the topsoil. The reworked native material was generally heterogeneous and ranged in thickness from 0.5 to 2.1 metres. A silty sand seam was encountered in the reworked material in BH23-303 with a thickness of 0.7 m. The native overburden material encountered below the reworked native and fill material consisted of clayey silt to silty clay till. The clayey silt to silty clay till unit extended to borehole termination at a maximum depth of 6.7 mbgs. Bedrock was not encountered an the maximum borehole depth of 6.7mbgs.

The borehole and test pit locations are depicted on Figure 5.

B. <u>Hydrogeological Characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants is present</u>

at concentrations above the applicable site condition standards, lateral and vertical gradients

The groundwater table was encountered in a clayey silt to silty clay till unit encountered at an approximate depth of 0.2 to 6.7 mbgs, which is considered to be an unconfined aquifer.

The groundwater flow direction was not calculated at this time. The groundwater flow direction was inferred to be southeast towards a tributary of Fletcher's Creek based on the Phase One ESA.

The horizontal and vertical hydraulic gradient was not calculated, as groundwater was not identified as a media of concern on the Phase Two Property.

C. Depth to bedrock

Bedrock was not encountered in this investigation, however, based on the "Bedrock Topography and Overburden Thickness Mapping, Southern Ontario, prepared by Ontario Geological Survey, published 2006," the bedrock is anticipated to be encountered at a depth of approximately 20 to 25 mbgs.

D. Approximate depth to water table

The depth to groundwater was found to be 2.29 and 1.73 mbgs on August 18, 2023 and August 29, 2023, respectively.

E. Any respect in which sections 35, 41 or 43.1 of the regulation applies to the property

Section 35

Section 35 does not apply to the Site as the Town of Caledon relies on groundwater for potable water.

Section 41

The pH values measured for both surface and sub-surface soil samples were within the acceptable limits for non-sensitive sites. There are no areas of natural significance on the Phase Two Property, or within 30 m of the Phase Two Property. As such the Phase Two Property is not considered to be environmentally sensitive as defined by Section 41.

Section 43.1

The Phase Two Property is not considered a shallow soil property and is not within 30 m of a body of water. Section 43.1 is not applicable.

F. Areas on, in or under the Phase Two Property where excess soil is finally placed

Fill material may have been used for grading purposes under the asphalt driveway.

G. Approximate locations, if known, of any proposed buildings and other structures

It is our understanding that redevelopment of the Site for residential purposes has been proposed, and that the development will feature a low-rise subdivision. It is further understood that the proposed development will occupy the entirety of the Phase Two Property.

III. Where a contaminant is present on, in or under the Phase Two Property at a concentration greater than the applicable site condition standard, identification of

H. Each area where a contaminant is present on, in or under the Phase Two Property at a concentration greater than the applicable SCS

All of the soil samples analyzed met the MECP Table 2 SCS. Plans depicting the sample locations and chemical analyses are provided in Figures 6A and 6E.

I. The contaminants associated with each of the areas

All of the soil samples met the MECP Table 2 SCS.

J. Medium that contaminants were identified in

All of the soil samples met the MECP Table 2 SCS.

K. Description and assessment of what is know about each of the areas

APEC-1 was identified at the Site relating to the presence of a historical orchard on the north portion of the Site. The soil quality met within APEC-1 met the MECP Table 2 SCS.

APEC-2A was identified on the Site relating to the inferred use of de-icing agents on the driveway and adjacent roadway, and APEC-2B is in relation to the possible fill material used for grading under the asphalt driveway. The soil quality within APEC-2A and APEC-2B met the MECP Table 2 SCS.

APEC-3 was identified on the Site relating to the use of pesticides on the agricultural fields across the Site. The soil quality within APEC-3 met the MECP Table 2 SCS.

L. Distribution in which the areas of each contaminant is present in the area at a concentration greater than the applicable SCS, for each medium in which the contaminant is present, together with figures showing the distribution

Not applicable – All of the soil samples analyzed met the MECP Table 2 SCS.

M. Anything know about the reason for the discharge of the contaminants present on, in or under the Phase Two Property at a concentrations greater than the applicable SCS

Not applicable – All of the soil samples analyzed met the MECP Table 2 SCS.

N. Anything known about migration of the contaminants present on, in or under the phase two property at a concentration greater than the applicable SCS away from any area of potential environmental concern, including the identification of any preferential pathways

Not applicable – Contaminant concentrations were below the MECP Table 2 SCS. Contaminant migration is not considered to be an issue of concern with respect to the soil and groundwater quality at the Site.

O. Climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in groundwater levels

Soil and groundwater impacts were not identified on the Site, as such, temporal fluctuations in groundwater levels are not considered to be of concern with respect to contaminant distribution and/or migration of contaminants.

P. <u>Information concerning soil vapour intrusion of the contaminants into buildings</u>

No volatile parameters were identified at concentrations greater than the applicable SCS, therefore vapour intrusion is not considered to be an exposure pathway at this time.

IV. Where contaminants on, in or under the Phase Two Property are present at concentrations greater than the applicable SCS, one or more cross-sections showing

Q. <u>The lateral and vertical distribution of a contaminant in each area where the contaminants are present at concentrations greater than the applicable SCS in soil, groundwater and sediment</u>

R. <u>Approximate depth to water table</u>

S. <u>Stratigraphy from ground surface to the deepest aquifer or aquitard investigated</u>

T. <u>Any subsurface structures and utilities that may affect contaminants distribution and transport</u>

Contaminants were not identified at levels in excess of the applicable MECP Table 2 SCS.

V. For each area where a contaminant is present on, in or under the property at a concentration greater than the applicable SCS for the contaminant, a diagram identifying, with narrative explanatory notes

U. The release mechanisms

V. Contaminant transport pathway

W. The human and ecological receptors located on, in or under the phase two property

X. Receptor exposure points

Y. Routes of exposure

A visual representation of potential contaminant transport pathways is provided in Figure 7.