Phase Two Environmental Site Assessment

12306 Chinguacousy Road

Caledon, Ontario

Prepared For:

Argo Development Corporation

4900 Palladium Way, Unit 105

Burlington, Ontario

L7M 0W7

DS Project No: 23-265-100

Date: 2024-04-11

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Executive Summary

DS Consultants Ltd. (DS) was retained by Argo Development Corporation (the "Client") to conduct a Phase Two Environmental Site Assessment (ESA) of the Property located at 12306 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 40.67-hectare (100.5 acres) parcel of land situated within a rural-residential neighbourhood in the Town of Caledon, Ontario. The Phase Two Property is located approximately 0.9 km northwest of the intersection of Chinguacousy Road and Mayfield Road and was occupied by multiple equipment barns, a residential dwelling, and agricultural fields at the time of this investigation.

The Phase One ESA completed in September 2023 indicated that the Phase Two Property was first developed for agricultural and residential purposes and has been used agricultural and residential purposes since the 1880s. A total of eleven (11) Potentially Contaminating Activities (PCAs) were identified in the Phase One Study Area. Ten (10) of the PCAs are considered to be contributing to ten (10) 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-1-1: 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	Northeast portion of Property	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-1**	OCPs, Metals, As, Sb, Se, CN-	Soil
APEC-2	Central Portion of the Property near Silos	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-3**	PHCs, BTEX, PAHs, VOCs	Soil and Groundwater
APEC-3	Central Portion of Property near Storage Barn 2	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-4**	PHCs, BTEX, PAHs, VOCs	Soil and Groundwater
APEC-4	Northeast boundary at house	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-5**	PHCs, BTEX, PAHs, VOCs	Soil and Groundwater
APEC-5	Central-North portion of Site near Structures	N/S – Inferred application of de-icing salts[1]	On Site **PCA-8**	EC, SAR	Soil
				Sodium, Cl-	Groundwater
APEC - 6	Central Portion of Property at Maintenance Barn	#52 – Storage, Maintenance, Fuelling and Repair of Equipment, Vehicles, and Material Used to Maintain Transportation Systems	On Site **PCA-7**	PHCs, VOCs, BTEX, Metals,	Soil and Groundwater
APEC-7	Northwest corner of the Property	#30 - Importation of Fill Material of Unknown Quality	On Site **PCA-6**	PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-8	Central Portion of Property at Storage Barn 1	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-9**	PHCs, BTEX, PAHs, VOCs	Soil and Groundwater
APEC-9	Central Portion of Property at	#28 - Gasoline and Associated Products	On Site **PCA-10**	PHCs, BTEX, PAHs, VOCs	Soil and Groundwater

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)
	Maintenance Barn	Storage in Fixed Tanks			
APEC-10	Entire Site	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-11**	OCPs, Metals, As, Sb, Se, CN-	Soil

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

1 - The area is subject to application of de-icing salts for road safety purposes. Per Section 49.1 (1) of O.Reg. 407/19, published December 4, 2019 "*If an applicable site condition standard is exceeded at a property solely because of one of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act*": "*…that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both*". Any potential impacts associated with EC and/or SAR in soil, and sodium and/or chloride in groundwater will be deemed not to exceed the MECP Site Conditions Standards for the area identified in APEC-5

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 and groundwater conditions on the Phase Two Property.

The Phase Two ESA was conducted in conjuncture of a Geotechnical investigation, and it involved the advancement of ten (10) boreholes, which was completed between August 10, 2023, and August 15, 2023. Four (4) additional boreholes were advanced on February 28 to 29, 2024 for environmental purposes. The boreholes were advanced to a maximum depth of 6.7 metres below ground surface (mbgs) under the supervision of DS personnel. Groundwater monitoring wells were installed in eight (8) of the boreholes to facilitate the collection of groundwater samples and the assessment of groundwater flow direction. The borehole locations were determined based on the findings of the Phase One ESA. All APECs were investigated with boreholes and/or monitoring wells in accordance with the requirements of O.Reg. 153/04 (as amended). Soil and groundwater samples were collected and submitted for analysis of all PCOCs, including: metals and other regulated parameters (ORPs), petroleum hydrocarbons (PHCs) including benzene, toluene, ethylbenzene and xylenes (BTEX), volatile organic compound (VOCs), polycyclic aromatic hydrocarbons (PAHs) and organochlorinated pesticides (OCPs).

The soil and groundwater analytical results were compared to the "Table 8: Generic Site Condition Standards for a Potable Groundwater Condition within 30 m of a Water Body 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 8 Standards*)* for coarse-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 380 mm in thickness was encountered in all of the boreholes advanced except BH23-210 and MW24-2 to MW24-4. Reworked fill material consisting of clayey silt with trace organics was encountered below the topsoil with the exception of BH23-210 and MW24-4. The reworked fill material was generally heterogeneous and ranged in thickness from 0.1 to 1.1 metres. Reworked sandy silt fill material was encountered in BH23-210 and MW24-3 to a depth ranging from 0.3 to 0.9 mbgs. MW24-2 encountered a surficial granular layer approximately 130 mm in thickness. The native overburden material encountered below the reworked fill material consisted of clayey silt till with trace amounts of sand and gravel. The clayey silt till unit extended to a maximum depth of 6.7 mbgs. Silt to silty sand till was encountered below the clayey silt till unit in BH23-201 and BH23-207 with a thickness of 0.5 m to borehole termination of 6.7 m.
- The depth to groundwater was measured in eight (8) monitoring wells installed during the course of this investigation. The monitoring wells were screened to intercept the groundwater water table. The groundwater levels were found to range between 0.24 to 1.65 mbgs, with corresponding elevations of 260.03 to 261.51 metres above sea level (masl) on March 4, 2024. Based on the groundwater elevations recorded, the groundwater flow direction appears to be south towards Fletcher's Creek on the southeast portion of the Site. The groundwater flow on the west portion of the Site appears to be influenced by the creek along the west boundary of the Site. 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 advanced on the Phase Two Property and submitted for analysis of metals and ORPs, PHCs including BTEX, VOCs, PAHs and OCPs. The results of the chemical analyses conducted indicated the following exceedances of the Table 8 Standards:

Table E-1-2: Summary of Soil Impacts Identified

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 8 Standard	Analytical Result
MW24-2 SS3	1.5-2.1	PHC F2	ug/g	10	**53**

- Groundwater samples were collected from the monitoring wells advanced on the Phase Two Property and submitted for analysis of metals and ORPs, PHCs including BTEX, VOCs, and PAHs. 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 groundwater samples indicate that the applicable Site Condition Standards have been met;
- The results of the chemical analyses conducted on soil samples indicated that sample MW24-2 SS3 at a depth of 1.5-2.1 mbgs exceeded the standards for PHC F2. This exceedance is likely due to the storage of oil in Storage Barn 1 (APEC-8). The impacts are anticipated to be localized within the sampling area.
- It is recommended that five (5) additional samples be collected with the sampling point of MW24-2 SS3 and tested for PHC F1 to F4 and PHC F2 concentrations averaged out as per O. Reg. 153/04, s. 48 (2). Alternatively, remediation of the PHC F2 impacted soil can be completed before an RSC 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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APPENDICES

1.0 Introduction

DS Consultants Ltd. (DS) was retained by Argo Development Corporation to complete a Phase Two Environmental Site Assessment (ESA) of the Property located at 12306 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 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 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 40.67-hectare (100.5 acres) parcel of land situated within a rural-residential neighbourhood in the Town of Caledon, Ontario. The Phase Two Property is located approximately 0.9 km northwest of the intersection of Chinguacousy Road and Mayfield Road and was occupied by multiple equipment barns, agricultural fields and a residential dwelling 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 Phase One Property dated March 11, 2022 and April 7, 2022, prepared by R-PE Surveying Ltd., an Ontario Land Surveyor, has been provided under Appendix A.

The Phase Two Property currently includes a residential dwelling with a stone foundation, a steel maintenance barn, three (3) steel equipment storage barns, and multiple steel silos.

The residential dwelling is a two-storey structure with one level of basement and was constructed in the 1880s. The house is approximately 145 m^2 in area. The house is serviced with a domestic water supply well and septic system. The septic system was located west of the house, and the domestic water supply well was observed between Storage Barn 1 and the silos.

Storage Barn 1 is approximately 175 m^2 in area with a concrete floor and is used for storage of old equipment and spare parts.

Storage Barn 2 is approximately 135 m^2 in area with a concrete floor and is used for storage of feed containers and spare parts.

Storage Barn 3 is approximately 135 m^2 in area with a dirt and gravel floor and is used for storage of agricultural equipment.

The Maintenance Barn is approximately 810 m^2 in area with a concrete floor and included an above-ground hydraulic hoist used for servicing farm equipment.

Access to the Site is through a gravel drive which enters the Site from Chinguacousy Road. The remaining balance of the Site is primarily comprised of agricultural fields, with the exception of a small woodlot located along the western property boundary.

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 1-1-1: Phase Two Property Information

Criteria	Information	Source
Legal Description	Part of Lot 19, Concession 3, West of Hurontario Street, (Chinguacousy), Designated As Parts 1 and 2, Plan 43R40664; Together with an Easement Over Part of Lot 19, Concession 3 Designated as Part 3, Plan 43R40664 As in LT2025556; Town of Caledon Part Lot 19, Concession 3, West of Hurontario Street, Chinguacousy, Part 1, Plan 43R-40453; Town of Caledon Part Lot 19 Concession 3, WHS Chinguacousy Pt 5, 43R13963; Caledon	Land Registry Office
Property Identification Number (PIN)	14252-1986 14252-1958 14252-0039	Land Registry Office
Current Site Occupants	Farm Tenant	Site Reconnaissance and Questionnaire
Site Area	40.67 hectares (100.5 acres)	Land Registry Office

1.2 Property Ownership

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

Table 1-1-2: Phase Two Property Ownership

Property Owner	Address	Contact
Argo Mayfield West II Ltd	4900 Palladium Way, Unit 105 Burlington, Ontario, L7M 0W7	Justin Marr Phone: 647-389-3326 Email: justin@argoland.com

1.3 Current and Proposed Future Use

The majority of the Phase Two Property is currently occupied by agricultural fields which is considered to be Agricultural 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 8 SCS: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Ground Water Condition for Residential/Parkland/Institutional Use 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 8 SCS".

The selection of the Table 8 SCS is considered appropriate based on the following rationale:

- A domestic monitoring wells is used as a potable water source at the Site.
- 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 located within 30 m of a water body as a creek traverses the west boundary.
- 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

A creek traverses the west boundary of the Phase Two Property.

The Natural Heritage Areas database published by the Ministry of Natural Resources (MNR) was reviewed 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.

According to the NHIC records and review of these records, Eastern Meadowlark, Wood Thrush, and Bobolink bird species are listed as threatened within 1km of the Phase One Property.

According to the MNRF, the Eastern Meadowlark is a medium sized migratory songbird commonly found in moderately tall grasslands, such as pastures and hayfields, but are also found in alfalfa fields, weedy borders of croplands, roadsides, orchards, airports, shrubby overgrown fields, or other open areas. Wood Thrushes are medium sized migratory songbirds commonly found in deciduous and mixed forests with undergrowth or small stands of trees with Sugar Maple and American Beech trees. Bobolink is medium sized songbird commonly found in grasslands and hayfields.

As the agricultural field at the Phase One Property is located within an agricultural area with small stands of trees, it is likely to provide a viable habitat for these species. If required, an environmental specialist could be retained to undertake a Site-specific ecological assessment, however at this time further assessment is not warranted.

2.1.2 Topography and Surface Water Draining Features

The Phase Two Property is located in a rural-residential setting, at an elevation of 257 metres above sea level (masl) along the northwest boundary, and 263 masl along the southeast boundary of the Site. 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 south. Surface water flow associated with precipitation events is anticipated to run overland and drain into the ditches along roadways and into the creek along the west boundary.

2.2 Past Investigations

2.2.1 Previous Report Summary

The following environmental report was provided for DS to review:

- "*Phase One Environmental Site Assessment, 12306 Chinguacousy Road, Caledon, Ontario"*, dated September 22, 2023, prepared for Argo Development Corporation, prepared by DS Consultants (DS 2023 Phase One ESA).

The DS 2023 Phase One ESA Report is summarized in Section 3.3.

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 14 boreholes on the Phase Two Property, to depths ranging between 3.7 to 6.7 mbgs. Eight (8) of the boreholes were instrumented with groundwater monitoring wells 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.

- Conducted groundwater level measurements in the monitoring wells in order to determine the groundwater elevation, and to establish the local groundwater flow direction.
- Surveyed all monitoring wells to a geodetic benchmark.
- Developed and purged all monitoring wells prior to sampling. Groundwater samples were collected for all COPCs identified in the Phase One ESA.
- Compared all soil and groundwater 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 3-3-1: 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	Included	Groundwater was identified as a media of potential impact in the Phase One ESA, based on the historical operations conducted on-Site.
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 3-3-2: Field Investigation of Media

Media	Methodology of Investigation
Soil	A total of 14 boreholes were advanced on the Phase Two Property, to a maximum depth of 6.7 mbgs. Soil samples were collected and submitted for analysis of all relevant PCOCs.
Groundwater	A total of eight (8) monitoring wells were installed on the Phase Two Property at the time of the investigation. Representative groundwater samples were collected from monitoring well MW23-210 and submitted for analysis of all relevant PCOCs on August 28, 2023 Representative groundwater samples were collected from monitoring wells MW24-1, MW24-2, MW24-3 and MW24-4 and submitted for analysis of all relevant PCOCs on March 4, 2024.

3.3 Phase One Conceptual Site Model

A Conceptual Site Model was developed for the Phase One Property, located at 12306 Chinguacousy Road, Caledon, Ontario. The Phase One Conceptual Site Model is presented in Figures 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	According to the Peel County Atlas from 1880, the Phase One Property contains an orchard on the southeast portion of the Site.	Yes – APEC-1
PCA-3	#28 – Gasoline and associated products storage in fixed tanks	One old gasoline tank is located beside the silos.	Yes – APEC-2
PCA-4	#28 – Gasoline and associated products storage in fixed tanks	A total of 5 ASTs (3 diesel and 2 fuel oil) are located beside Storage Barn 2, 2 of which were still in use.	Yes – APEC-3
PCA-5	#28 – Gasoline and associated products storage in fixed tanks	The house was formerly heated with an oil furnace.	Yes – APEC-4
PCA-6	#30 – Importation of Fill Material of Unknown Quality	The man-made pond on the southwest portion of the property was infilled.	Yes – APEC-7
PCA-7	#52 – Storage, Maintenance, Fuelling and Repair of Equipment, Vehicles, and Material Used to Maintain Transportation Systems	A hydraulic hoist is present in the Maintenance Garage.	Yes – APEC-6
PCA-8	#N/S – Inferred application of de-icing salts near the structures on Site	De-icing salts are likely used around the structures on Site.	Yes – APEC-5
PCA-9	#8 – Chemical Manufacturing, Processing and Bulk Storage	Waste oil storage was noted in Storage Barn 1.	Yes – APEC-8
PCA-10	#8 – Chemical Manufacturing, Processing and Bulk Storage	Waste oil and engine oil was noted in the Maintenance Barn.	Yes – APEC-9

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
PCA-11	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Pesticide application across agricultural fields.	Yes – APEC-10

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 including BTEX, VOCs, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, Na, Cl-, 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.

Underground utilities were identified at the Phase One Property, including water, septic system and electrical services to the existing Site Buildings. Plans were not available to confirm the depths of these utilities, however they are estimated to be installed at depths ranging from 2 to 3 metres below ground surface.

The depth to groundwater at the Phase One Property is inferred to be approximately 0.6 to 1.5 mbgs, therefore it is possible that the utility corridors and underground structures may 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 257 metres above sea level (masl) along the northwest boundary, and 263 masl along the southeast boundary of the Site. The topography within the Phase One Study Area generally slopes to the south. The groundwater flow direction within the Phase One Study Area is inferred to the south towards the Etobicoke Creek, located approximately 2 km from the Site. 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).

According to the TRCA online mapping system, there is a creek traversing the Phase One Property's northwest boundary flowing southwardly into a network of tributary of the Etobicoke Creek. The Phase One Property is located in the Etobicoke Creek Watershed.

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 4-4-1: Summary of Drilling Activities

Parameter	Details	Details
Drilling Contractor	Young Drilling	Kodiak Drilling
Drilling Dates	August 10 – 15, 2023	February 28-29, 2024
Drilling Equipment Used	Track-mounted CME 55	Mini-mole Beaver
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;	◆ 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;

Parameter	Details	Details
	◆ Use of dedicated and disposable nitrile gloves for the handling of soil samples. A new set of gloves was used for each sample.	◆ 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.	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.

4.3 Soil Sampling

Soil samples were collected using 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 4-4-2: 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
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 he 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 eight (8) the boreholes advanced on the Phase Two Property. The monitoring wells were constructed of 51-millimetre (2-inch) inner diameter (ID) flush-threaded schedule 40 polyvinyl chloride (PVC) risers, equipped with a 3.1 m length of No. 10 slot PVC screen. The well screens were 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 wells were 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.

The monitoring wells were developed on August 18, 2023 and March 1, 2024. In accordance with DS SOPs for monitoring well development, the wells were developed by removing a minimum of three standing water column volumes using dedicated inertial pumps comprised of Waterra polyethylene tubing and dedicated foot valves.

4.6 Groundwater Field Measurement of Water Quality Parameters

Field measurements of water quality parameters including temperature, specific conductivity, pH, turbidity, dissolved oxygen, oxidation-reduction potential and turbidity were collected using a flow-through cell and a YSI Water Quality Meter (YSI-556™). The YSI Water Quality Meter was calibrated by the supplier (Environe, Maxim) in accordance with the manufacturer's specifications.

The measurements were conducted at regular intervals in order to determine whether stabilized geochemical conditions had been established in the monitoring well, indicating representative groundwater conditions.

The field measurements have been archived and can be provided upon request.

4.7 Groundwater Sampling

Groundwater samples were collected a minimum of 24 hours after the development of the monitoring wells. Groundwater samples were collected using a "low flow" peristaltic pump with dedicated 6.4 mm ID polyethylene tubing.

Groundwater samples for metals analysis were field filtered using dedicated 0.45 micro in-line filters. The groundwater was transferred directly into laboratory supplied containers, and preserved as appropriate using the containers supplied by the analytical laboratory. The samples were placed in coolers upon completion of sampling and stored on ice for storage, pending transport to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

4.8 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.

4.9 Analytical Testing

The soil and groundwater 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).

4.10 Residue Management Procedures

4.10.1 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.

4.10.2 Water from Well Development and Purging

Excess water derived from well purging activities was stored in 20-L sealed plastic pails, and temporarily stored on Site. Upon receipt of the analytical results, it was determined that the purged groundwater meets the applicable Table 8 SCS. Based on this the purged groundwater was allowed to re-infiltrate adjacent to the monitoring wells.

4.10.3 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.

4.11 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.

4.12 Quality Assurance and Quality Control Measures

4.12.1 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 OCPs	120 mL or 250 mL unpreserved glass jar with Teflon™-lined lid.
Groundwater	PHCs F1 VOCs	40 mL glass vial with septum lid, containing sodium bisulphate preservative.
	PHCs F2-F4	250 mL amber glass bottle with sodium bisulphate preservative
	PAHs	250 mL amber glass bottle (unpreserved)
	Inorganics	500 mL high density polyethylene bottle (unpreserved)
Groundwater	Metals	125 mL high density polyethylene bottle containing nitric acid preservative
	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

Groundwater samples were collected using dedicated equipment for each well. Groundwater samples collected for analysis of dissolved metals, mercury and hexavalent chromium were filtered in the field using a dedicated 0.45-micron in-line filter. Each sample container was labelled with a unique sample identification, the project number, and the sampling date. All samples were placed in an ice-filled cooler upon completion of sampling, and kept under refrigerated conditions until the time of delivery to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

4.12.2 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 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.

Dedicated equipment was used for well development and sampling for further minimize the risk of 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.

4.12.3 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.

4.12.4 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 380 mm in thickness was encountered in all of the boreholes advanced except BH23-210 and MW24-2 to MW24-4. Reworked fill material consisting of clayey silt with trace organics was encountered below the topsoil with the exception of BH23-210 and MW24-4. The reworked fill material was generally heterogeneous and ranged in thickness from 0.1 to 1.1 metres. Reworked sandy silt fill material was encountered in BH23-210 and MW24-3 to a depth ranging from 0.3 to 0.9 mbgs. MW24-2 encountered a surficial granular layer approximately 130 mm in thickness. The native overburden material encountered below the reworked fill material consisted of clayey silt till with trace amounts of sand and gravel. The clayey silt till unit extended to a

maximum depth of 6.7 mbgs. Silt to silty sand till was encountered below the clayey silt till unit in BH23-201 and BH23-207 with a thickness of 0.5 m to borehole termination of 6.7 m.

Table 5-5-1: Summary of Geologic Units Investigated

Geologic Unit	Inferred Thickness (m)	Top Elevation (masl)	Bottom Elevation (masl)	Properties
Topsoil	0.2 – 0.38	262.9	257.5	Moisture content – 8-34%
Reworked Clayey Silt	0.1 – 1.1	262.6	256.8	Moisture Content – 14-24%, Water table encountered in BH23-202
Reworked Sandy Silt	0.9	261.6	260.7	Moisture content – 17-20%
Clayey Silt Till	2.2 – 5.9	262.1	251.1	Moisture content – 10-23%, Water table encountered in BH23-204, BH23-208 and BH23-210
Silt to Silty Sand Till	0.5	253.0	252.0	Moisture content – 11-18%

5.2 Ground Water Elevations and Flow Direction

5.2.1 Rationale for Monitoring Well Location and Well Screen Intervals

A total of eight (8) monitoring wells were installed on the Phase Two Property in order to assess the groundwater quality in relation to APEC-2 to APEC-4, APEC-5, APEC-6, APEC-8 and APEC-9. The COPCs associated with these APECs were PHCs including BTEX, VOCs, metals and ORPs, and PAHs. The monitoring wells were screened to intersect the first water bearing formation encountered, in order to allow for the assessment of LNAPL, and to provide information regarding the quality of the groundwater at the water table. The monitoring wells were screened within the clayey silt till unit encountered at an approximate depth of 0.2 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 range between 0.24 to 1.65 mbgs on March 4, 2024. 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. Generally, the groundwater elevation was found to range from 260.03 to 261.51 masl in the upper aquifer investigated.

5.2.5 Groundwater Flow Direction

The groundwater flow direction was interpreted using the groundwater elevations calculated for the monitoring wells installed on the Phase Two Property. Based on the groundwater elevations calculated, the groundwater flow direction is interpreted to be northwest on the west portion of the Site towards a creek traversing the west boundary, and southerly towards Fletcher's Creek on the east portion of the Site. The groundwater elevation contours, and flow direction are presented on Figure 6.

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 depths ranging from 0.25 to 1.65 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, no groundwater impacts were identified, therefore the potential for preferential migration of contaminants is not of concern at this time.

5.3 Ground Water Hydraulic Gradients

5.3.1 Horizontal Hydraulic Gradient

The horizontal hydraulic gradient was calculated based on the groundwater levels recorded on August 29, 2023.

Table 5-5-2: Summary of Horizontal Hydraulic Gradient Calculations

Hydrogeological Unit	Calculated Horizontal Hydraulic Gradient
Overburden – clayey silt till	Minimum: 0.00105 Average: 0.00526 Maximum: 0.01072

5.3.2 Vertical Hydraulic Gradient

The vertical hydraulic gradient was not calculated, as no groundwater impacts were identified on the Phase Two Property.

5.4 Fine-Medium Soil Texture

Not Applicable – the MECP Table 8 SCS applies to medium-fine and coarse textured soils. However, sieve analysis conducted on five (5) soil samples (BH23-202 SS6, BH23-204 SS7, BH23-208 SS5, BH23-210 SS3 and BH23-210 SS15) indicated at least 68% of the samples passed through a 0.075 mm sieve.

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 were 0 to 11 ppm. The CGD readings ranged between 0 and 25 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 5 through 9. A visual summary of the location of the sample locations is provided in Figures 7A through 7E. The laboratory certificates of analysis have been provided under Appendix D.

5.6.1 Metals and ORPs

A total of 18 samples, including two (2) field duplicates for QA/QC purposes were submitted for analysis of metals and ORPs with an additional two (2) samples submitted for pH anlysis.

The results of the analyses are tabulated in Table 5, and presented on Figure 7A. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 8 SCS.

5.6.2 Petroleum Hydrocarbons

A total of ten (10) samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of PHCs (incl. BTEX). The results of the analyses are tabulated in Table 6 and presented on Figure 7B.

The results of the chemical analyses conducted indicated the following exceedances of the Table 8 Standards

Table 5-3 PHC F2 Exceedance in Soil

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 8 Standard	Analytical Result
MW24-2 SS3	1.5-2.1	PHC F2	ug/g	10	**53**

The results of the chemical analyses conducted on the remaining samples indicated that the samples met the MECP Table 8 SCS.

5.6.3 Volatile Organic Compounds

A total of ten (10) samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of VOCs. The results of the analyses are tabulated in Table 7, and presented on Figure 7C. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 8 SCS.

5.6.4 Polycyclic Aromatic Hydrocarbons

A total of nine (9) samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of PAHs. The results of the analyses are tabulated in Table 8 and presented on Figure 7D. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 8 SCS.

5.6.1 Organochlorinated Pesticides

A total of 11 samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of OCPs. The results of the analyses are tabulated in Table 9, and presented on Figure 7E. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 8 SCS.

5.6.2 Commentary on Soil Quality

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

It is recommended that five (5) additional samples be collected with the sampling point of MW24-2 SS3 and tested for PHC F1 to F4 and PHC F2 concentrations averaged out as per O. Reg. 153/04, s. 48 (2).

It should be noted that the PHC F2 impacted material must be mitigated or remediation before an RSC may be filed for the Phase Two Property

5.7 Ground Water Quality

The results of the chemical analyses conducted are presented in Tables 10 through 13. A visual summary of the location of the sample locations is provided in Figures 8A through 8D. The laboratory certificates of analysis have been provided under Appendix D.

5.7.1 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 ORPs. The results of the analyses are tabulated in Table 10, and presented on Figure 8A. The groundwater samples transferred into the metals, mercury, and hexavalent chromium bottles were field filtered using a 0.45-micron in-line filter. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 8 SCS.

5.7.2 Petroleum Hydrocarbons

A total of six (6) samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of PHCs (incl. BTEX). In addition, two (2) trip blank samples were submitted for PHC F1 and BTEX analysis. The results of the analyses are tabulated in Table 11 and presented on Figure 8B. The results of the chemical analyses indicated the following exceedances of the Table 8 SCS:

5.7.3 Volatile Organic Compounds

A total of five (5) samples were submitted for analysis of VOCs. In addition, two (2) trip blank samples were submitted for VOC analysis. The results of the analyses are tabulated in Table 12 and presented on Figure 8C. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 8 SCS.

5.7.4 Polycyclic Aromatic Hydrocarbons

A total of six (6) samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of PAHs. The results of the analyses are tabulated in Table 13, and presented on Figure 8D. The results of the chemical analyses conducted indicated that all samples analyzed met the MECP Table 8 SCS.

5.7.5 Commentary on Groundwater Quality

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

No evidence of NAPL was observed in the samples recovered during the field investigation. All samples analyzed were well below the corresponding free-product threshold values.

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 5-5-4: Summary of QA/QC Results

Sample ID	QA/QC duplicate	Medium	Parameter Analyzed	QA/QC Result
DUP-1	BH23-210 SS2	Soil	PHCs, VOCs	All results were within the analytical protocol criteria for RPD.
DUP-2	BH23-201 SS1	Soil	PAHs	All results were within the analytical protocol criteria for RPD.
DUP-3	S3	Soil	Metals, OCPs	All results were within the analytical protocol criteria for RPD.
DUP-1	MW23-210	Groundwater	PHCs, BTEX, PAHs	All results were within the analytical protocol criteria for RPD.
DUP-4	MW24-3 SS1	Soil	M&I	All results were within the analytical protocol criteria for RPD.
DUP-4	MW24-3	Groundwater	M&I, VOCs	All results were within the analytical protocol criteria for RPD with the exceptions below.

The following exceptions in the RPD protocols were identified:

- The RPD value for DUP-4 (MW24-3 SS1) of 33% exceeded the recommended 30% RPD limit for antimony, and chromium, 42% exceeded the recommended 30% RPD limit for nickel, and 32% exceeded the recommended 30% for vanadium. The variance in the analytical result between the parent and duplicate sample are attributed to the heterogeneity of the fill material analyzed.

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 C3P0398 – The PAH analysis for BH23-210 SS1 required dilution due to sample matrix. The detection limits were adjusted accordingly. 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;
- Laboratory Certificate C3P0398 – Sodium was not detected in samples BH23-201 SS1. The sodium detection limit was used to calculate the SAR and therefore represents a

maximum ratio. As such, DS does not consider this result to be an issue of significant concern and it has no impact on the overall interpretation of the analytical data;

- Laboratory Certificate C3P2571 – The OCP analysis for S1 required dilution due to high moisture content. The detection limits were adjusted accordingly. 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;
- Laboratory Certificate C3P2571 – The recovery for DDT was above the upper control limit. This may represent a high bias in some results, however will have no impact on the non-detect parameters. The overall QA/QC met acceptability 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;
- Laboratory Certificate C461883 – The matrix spike recovery was below the lower control limit for chromium VI. BV notes this may be due to the reducing environment of the sample. The matrix spike was reanalyzed to confirm the result. 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;Laboratory Certificate C464663 – The detection limit was raised for fluorene due to matrix interferences. The overall QA/QC met acceptability 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 C464663 – The duplicate results exceeded the RPD acceptance criteria for PHC F3. The sample extract was reanalyzed with the same results. BV notes this is likely due to the heterogeneity of the sample. The overall quality control met acceptable 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.

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 was conducted in conjuncture of geotechnical investigation. It involved that advancement of 14 boreholes, the installation of eight (8) monitoring wells on the Phase Two Property, and the collection of soil and groundwater samples for analysis of the potential contaminants of concern, including: Metals, As, Sb, Se, CN-, B-HWS, EC, SAR, pH, PHCs and 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 380 mm in thickness was encountered in all of the boreholes advanced except BH23-210 and MW24-2 to MW24-4. Reworked fill material consisting of clayey silt with trace organics was encountered below the topsoil with the exception of BH23-210 and MW24-4. The reworked fill material was generally heterogeneous and ranged in thickness from 0.1 to 1.1 metres. Reworked sandy silt fill material was encountered in BH23-210 and MW24-3 to a depth ranging from 0.3 to 0.9 mbgs. MW24-2 encountered a surficial granular layer approximately 130 mm in thickness. The native overburden material encountered below the reworked fill material consisted of clayey silt till with trace amounts of sand and gravel. The clayey silt till unit extended to a maximum depth of 6.7 mbgs. Silt to silty sand till was encountered below the clayey silt till unit in BH23-201 and BH23-207 with a thickness of 0.5 m to borehole termination of 6.7 m.
- The groundwater flow direction is interpreted to be northwesterly on the west portion of the Site towards the creek traversing the west boundary, and southerly on the east portion of the Site towards Fletcher's Creek.
- The results of the chemical analyses conducted on groundwater samples indicate that the applicable Site Condition Standards have been met.
- The results of the chemical analyses conducted on soil samples indicated that sample MW24-2 SS3 at a depth of 1.5-2.1 mbgs exceeded the standards for PHC F2. This exceedance is likely due to the storage of oil in Storage Barn 1 (APEC-8). The impacts are anticipated to be localized within the sampling area.
- It is recommended that five (5) additional samples be collected with the sampling point of MW24-2 SS3 and tested for PHC F1 to F4 and PHC F2 concentrations

averaged out as per O. Reg. 153/04, s. 48 (2). Alternatively, remediation of the PHC F2 impacted soil can be completed before an RSC may be filed for the Phase Two Property.

- All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

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 15 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.

6.2 Signatures

This Phase Two ESA was conducted under the supervision of Mr. 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

6.3 Limitations

This report was prepared for the sole use of Argo Development Corporation and is intended to provide an assessment of the environmental condition on the property located at 12306 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.
- Chapman, L.J. and Putnam, D.F. 2007. *The Physiography of Southern Ontario*. Ontario Geological Survey, Miscellaneous Release--Data 228.
- Freeze, R. Allen and Cherry, John A., 1979. *Ground water*. Page 29.
- Ontario Ministry of the Environment, December 1996. *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario.*
- Ontario Ministry of Environment, 15 April 2011. *Soil, Ground Water and Sediment Standards for use under part XV.1of the Environmental Protection Act.*
- Ontario Ministry of the Environment, June 2011. *Guide for Completing Phase Two Environmental Site Assessments under Ontario regulation 153/04.*
- Ontario Ministry of the Environment, July 2011. *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.*
- The Ontario Geological Survey. 2003. *Surficial Geology of Southern Ontario*.
- "*Phase One Environmental Site Assessment, 12306 Chinguacousy Road, Caledon, Ontario"*, dated September 22, 2023, prepared for Argo Development Corporation, prepared by DS Consultants.

Figures

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 1 - Site Location Plan.qgs Sep-06 10:23

Legend

Property Boundary

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12306 Chinguacousy, Caledon, ON

Title: **SITE LOCATION PLAN**

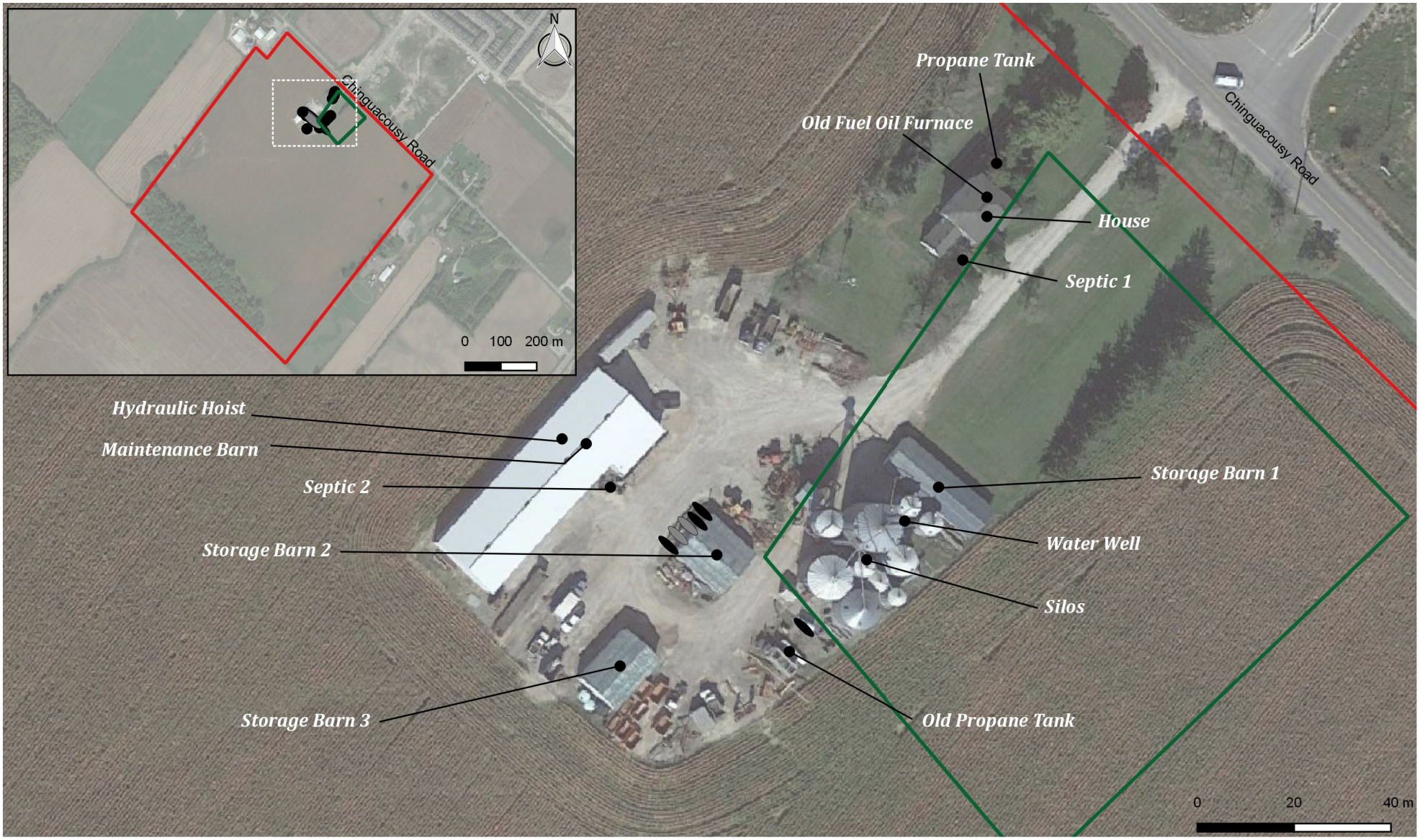
N

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	September 2023
Rev: 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: 1

Image/Map Source: *Google Streetmap Image*

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 2 - Phase One Property Site Plan.qgs Sep-06 10:24



Legend

- Property Boundary
- Approximate location of former orchard
- AST Location (Abandoned)
- Diesel AST Location (Active)

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12306 Chinguacousy, Caledon, ON

Title: **PHASE ONE PROPERTY SITE PLAN**

N

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	September 2023
Rev: 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: 2

Image/Map Source: *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 3 - Phase One Study Area.qgs Sep-06 10:26

Legend

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

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12306 Chinguacousy, Caledon, ON

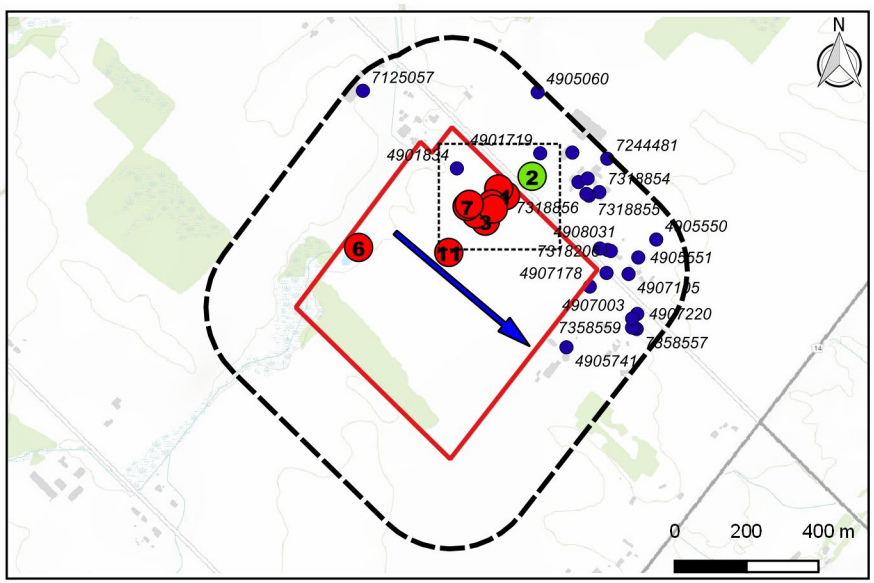
Title: **PHASE ONE STUDY AREA**

N

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	September 2023
Rev: 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: 3

Image/Map Source: *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 4 - PCAs within Phase One Study Area.qgs Sep-06 10:27



Legend

- Property Boundary
- 250m Buffer
- PCA Not Contributing to APEC
- PCA Contributing to APEC
- Registered Water Well (MECP WWR)
- Inferred Groundwater Flow Direction

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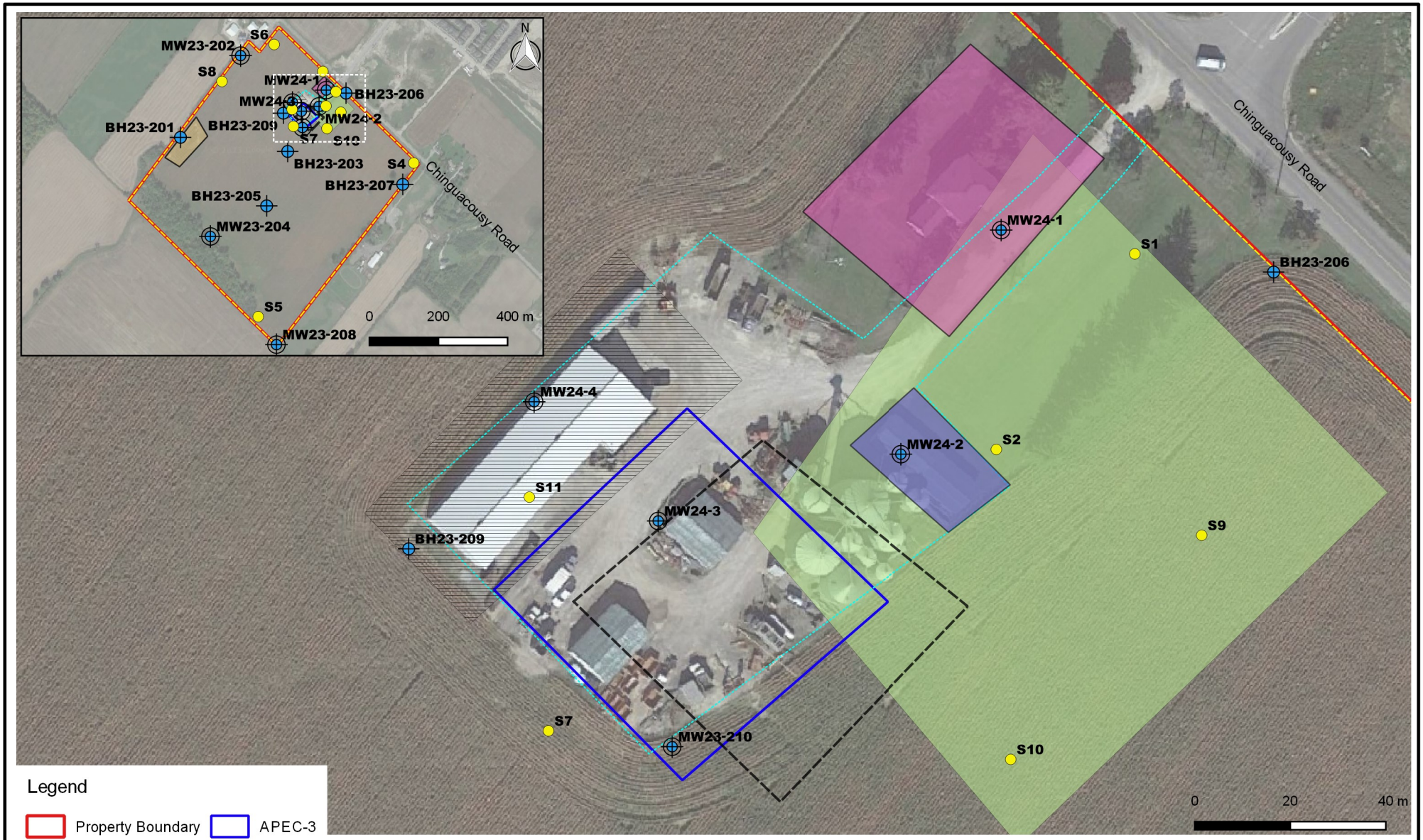
Title: **PCAs WITHIN PHASE ONE STUDY AREA**

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	September 2023
Rev: 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: 4

Image/Map Source: *Esri Topo Image*

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 5 - Borehole-Monitoring Well Location Plan with APECs.qgs Mar-11 14:26



Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- APEC-1
- APEC-10
- APEC-2
- APEC-3
- APEC-4
- APEC-5
- APEC-6
- APEC-9
- APEC-7
- APEC-8

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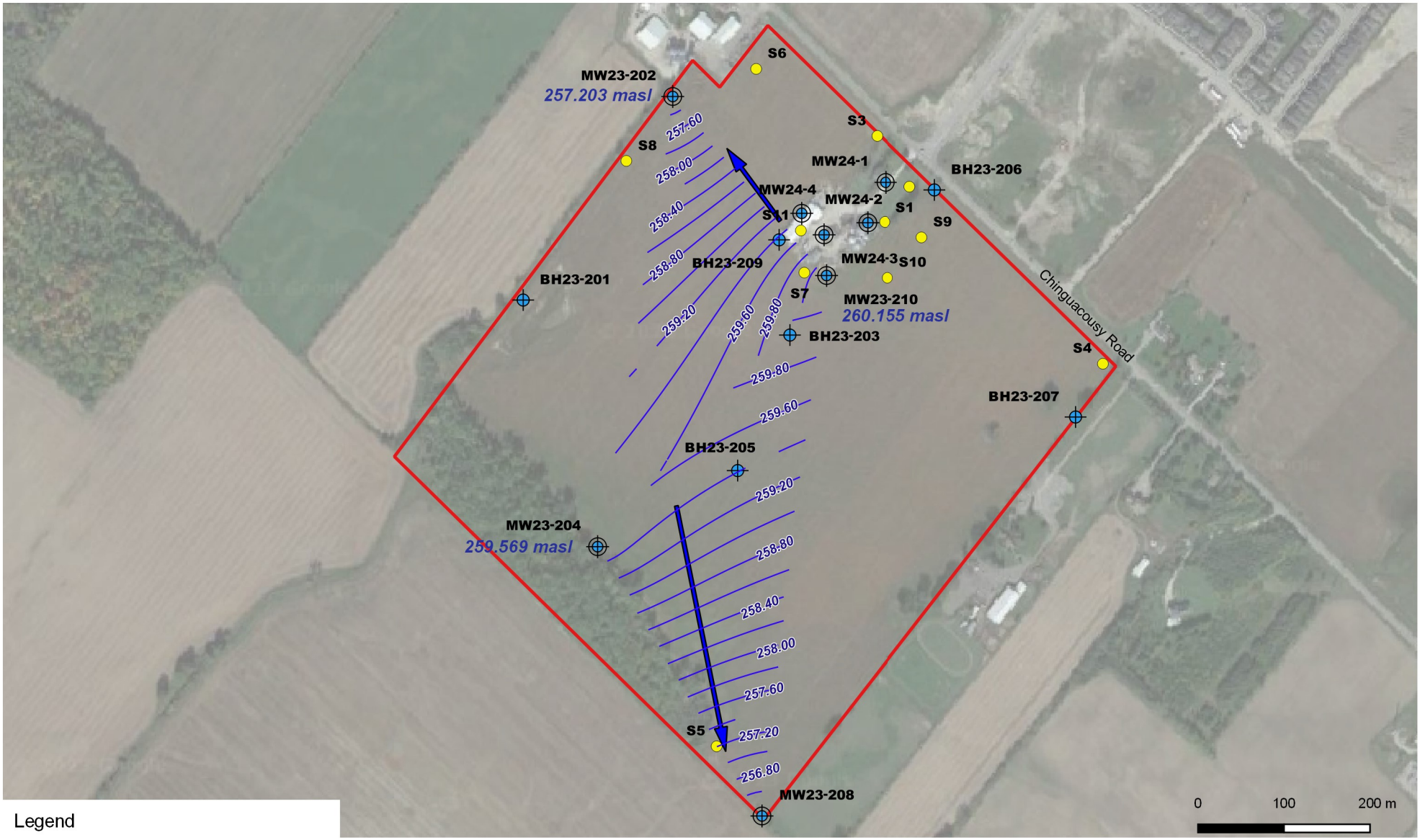
Title: **BOREHOLE/MONITORING WELL LOCATION PLAN WITH APECs**

N

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	March 2024
Rev: 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: 5

Image/Map Source: *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 6 - Groundwater Elevation Contours and Flow Direction.qgs Mar-11 12:38



Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- Groundwater Elevation Contours
- Interpreted Groundwater Flow Direction

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Title: **GROUNDWATER ELEVATION CONTOURS AND FLOW DIRECTION**

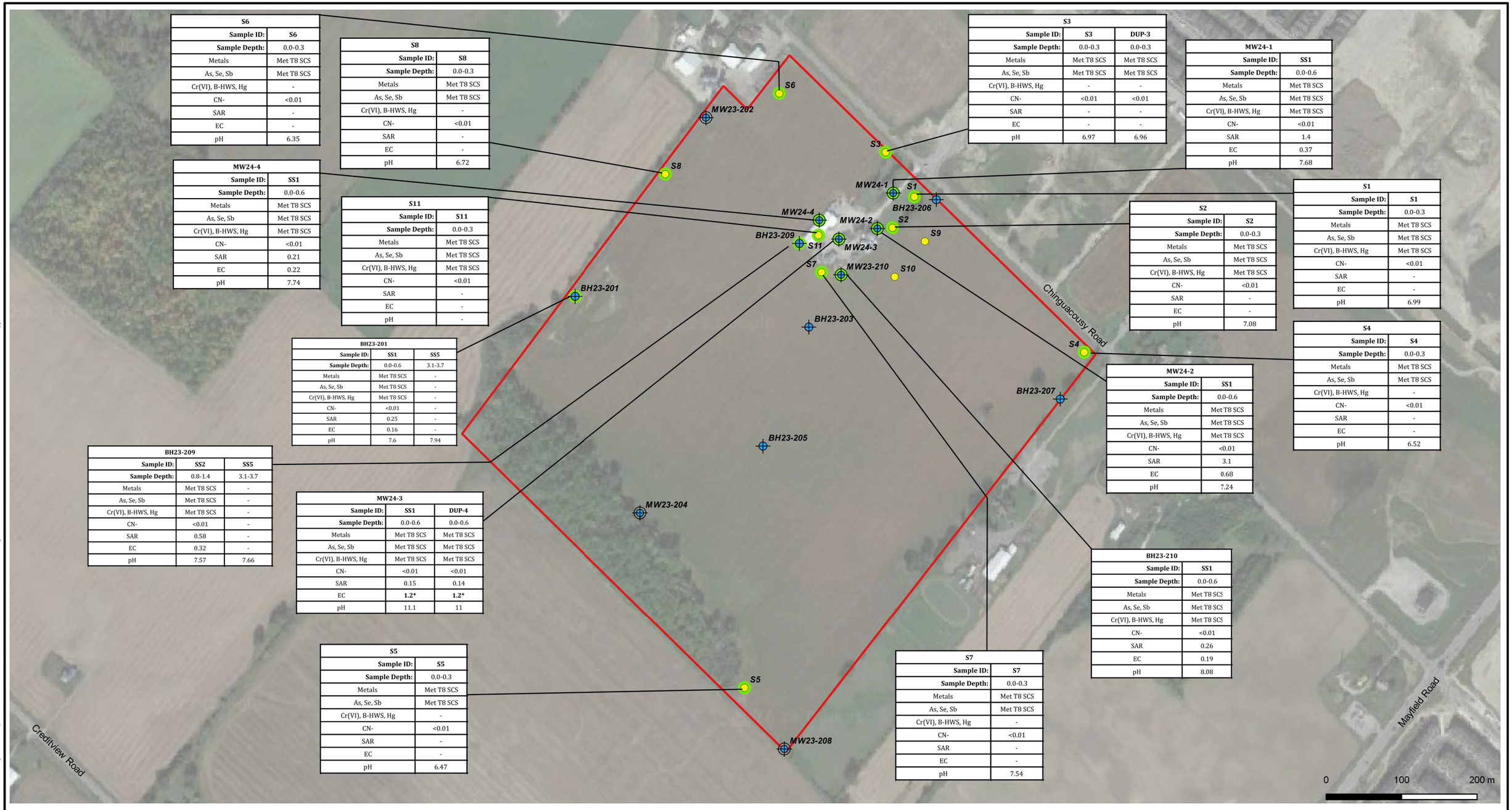
N

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By:	Drawn By:	Date:
8.5 x 11	R.F	P.P	March 2024
Rev: 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: 6

Image/Map Source: *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 7A - Soil Characterization - Metals and ORPs.qgs Mar-21 13:48



S6	
Sample ID:	**S6**
Sample Depth:	0.0-0.3
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	-
CN-	<0.01
SAR	-
EC	-
pH	6.35

S8	
Sample ID:	**S8**
Sample Depth:	0.0-0.3
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	-
CN-	<0.01
SAR	-
EC	-
pH	6.72

S3		
Sample ID:	**S3**	**DUP-3**
Sample Depth:	0.0-0.3	0.0-0.3
Metals	Met T8 SCS	Met T8 SCS
As, Se, Sb	Met T8 SCS	Met T8 SCS
Cr(VI), B-HWS, Hg	-	-
CN-	<0.01	<0.01
SAR	-	-
EC	-	-
pH	6.97	6.96

MW24-1	
Sample ID:	**SS1**
Sample Depth:	0.0-0.6
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	Met T8 SCS
CN-	<0.01
SAR	1.4
EC	0.37
pH	7.68

MW24-4	
Sample ID:	**SS1**
Sample Depth:	0.0-0.6
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	Met T8 SCS
CN-	<0.01
SAR	0.21
EC	0.22
pH	7.74

S11	
Sample ID:	**S11**
Sample Depth:	0.0-0.3
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	Met T8 SCS
CN-	<0.01
SAR	-
EC	-
pH	-

S2	
Sample ID:	**S2**
Sample Depth:	0.0-0.3
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	Met T8 SCS
CN-	<0.01
SAR	-
EC	-
pH	7.08

S1	
Sample ID:	**S1**
Sample Depth:	0.0-0.3
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	Met T8 SCS
CN-	<0.01
SAR	-
EC	-
pH	6.99

BH23-201		
Sample ID:	**SS1**	**SS5**
Sample Depth:	0.0-0.6	3.1-3.7
Metals	Met T8 SCS	-
As, Se, Sb	Met T8 SCS	-
Cr(VI), B-HWS, Hg	Met T8 SCS	-
CN-	<0.01	-
SAR	0.25	-
EC	0.16	-
pH	7.6	7.94

S4	
Sample ID:	**S4**
Sample Depth:	0.0-0.3
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	-
CN-	<0.01
SAR	-
EC	-
pH	6.52

MW24-2	
Sample ID:	**SS1**
Sample Depth:	0.0-0.6
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	Met T8 SCS
CN-	<0.01
SAR	3.1
EC	0.68
pH	7.24

BH23-209		
Sample ID:	**SS2**	**SS5**
Sample Depth:	0.8-1.4	3.1-3.7
Metals	Met T8 SCS	-
As, Se, Sb	Met T8 SCS	-
Cr(VI), B-HWS, Hg	Met T8 SCS	-
CN-	<0.01	-
SAR	0.58	-
EC	0.32	-
pH	7.57	7.66

MW24-3		
Sample ID:	**SS1**	**DUP-4**
Sample Depth:	0.0-0.6	0.0-0.6
Metals	Met T8 SCS	Met T8 SCS
As, Se, Sb	Met T8 SCS	Met T8 SCS
Cr(VI), B-HWS, Hg	Met T8 SCS	Met T8 SCS
CN-	<0.01	<0.01
SAR	0.15	0.14
EC	**1.2***	**1.2***
pH	11.1	11

BH23-210	
Sample ID:	**SS1**
Sample Depth:	0.0-0.6
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	Met T8 SCS
CN-	<0.01
SAR	0.26
EC	0.19
pH	8.08

S5	
Sample ID:	**S5**
Sample Depth:	0.0-0.3
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	-
CN-	<0.01
SAR	-
EC	-
pH	6.47

S7	
Sample ID:	**S7**
Sample Depth:	0.0-0.3
Metals	Met T8 SCS
As, Se, Sb	Met T8 SCS
Cr(VI), B-HWS, Hg	-
CN-	<0.01
SAR	-
EC	-
pH	7.54

Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- Sample Met Applicable Standards

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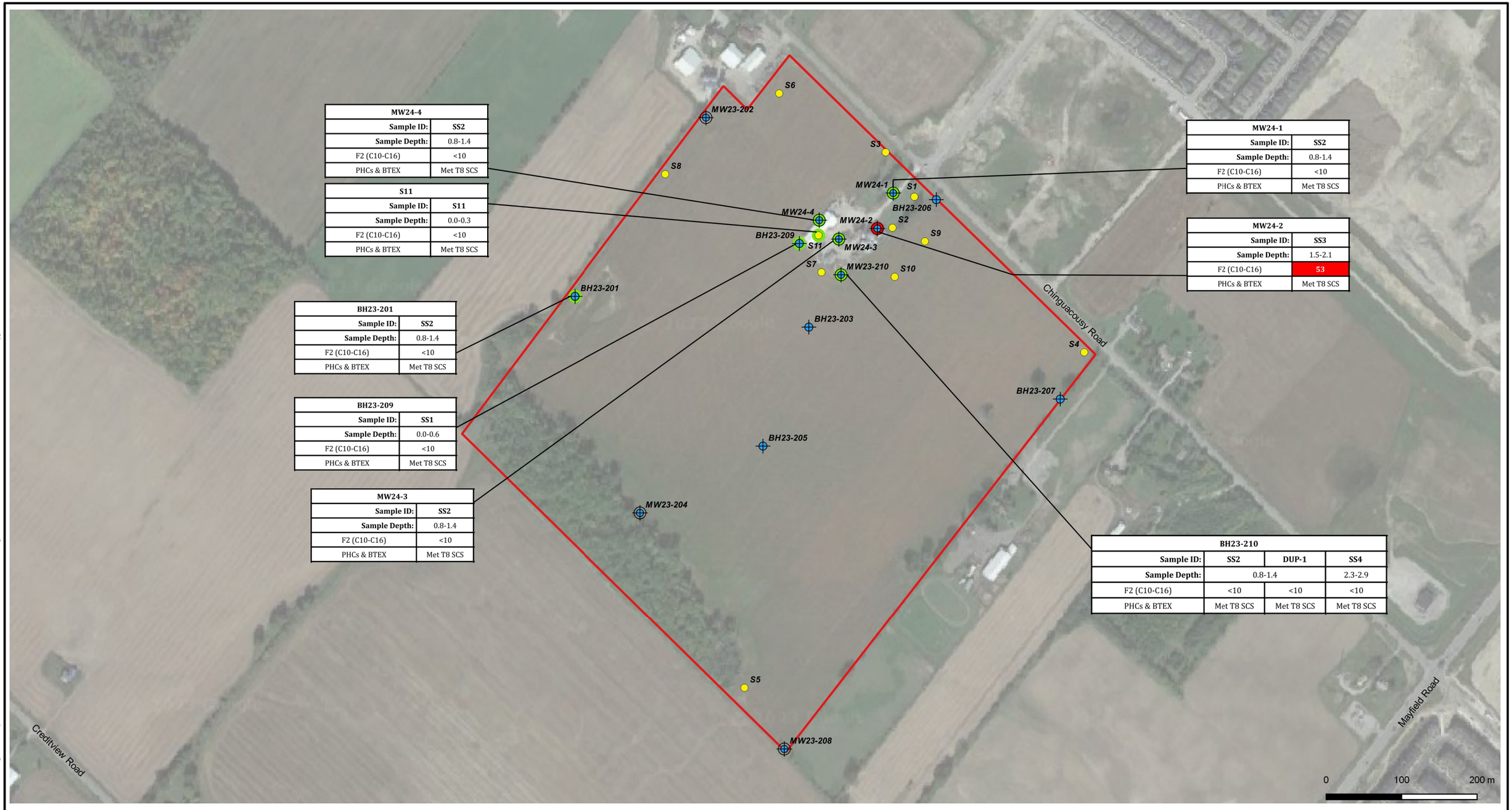
Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12306 Chinguacousy, Caledon, ON

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

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By:	Drawn By:	Date:
11x17	R.F	P.P	March 2024
Rev. 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: **7A**

Image/Map Source: *Google Satellite Image*



MW24-4	
Sample ID:	SS2
Sample Depth:	0.8-1.4
F2 (C10-C16)	<10
PHCs & BTEX	Met T8 SCS

S11	
Sample ID:	S11
Sample Depth:	0.0-0.3
F2 (C10-C16)	<10
PHCs & BTEX	Met T8 SCS

MW24-1	
Sample ID:	SS2
Sample Depth:	0.8-1.4
F2 (C10-C16)	<10
PHCs & BTEX	Met T8 SCS

MW24-2	
Sample ID:	SS3
Sample Depth:	1.5-2.1
F2 (C10-C16)	53
PHCs & BTEX	Met T8 SCS

BH23-201	
Sample ID:	SS2
Sample Depth:	0.8-1.4
F2 (C10-C16)	<10
PHCs & BTEX	Met T8 SCS

BH23-209	
Sample ID:	SS1
Sample Depth:	0.0-0.6
F2 (C10-C16)	<10
PHCs & BTEX	Met T8 SCS

MW24-3	
Sample ID:	SS2
Sample Depth:	0.8-1.4
F2 (C10-C16)	<10
PHCs & BTEX	Met T8 SCS

BH23-210			
Sample ID:	SS2	DUP-1	SS4
Sample Depth:	0.8-1.4		2.3-2.9
F2 (C10-C16)	<10	<10	<10
PHCs & BTEX	Met T8 SCS	Met T8 SCS	Met T8 SCS

Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- Sample Met Applicable Standards
- Sample Exceeds Applicable Standards

Parameter	Table 8 SCS
F2 (C10-C16)	10

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12306 Chinguacousy, Caledon, ON

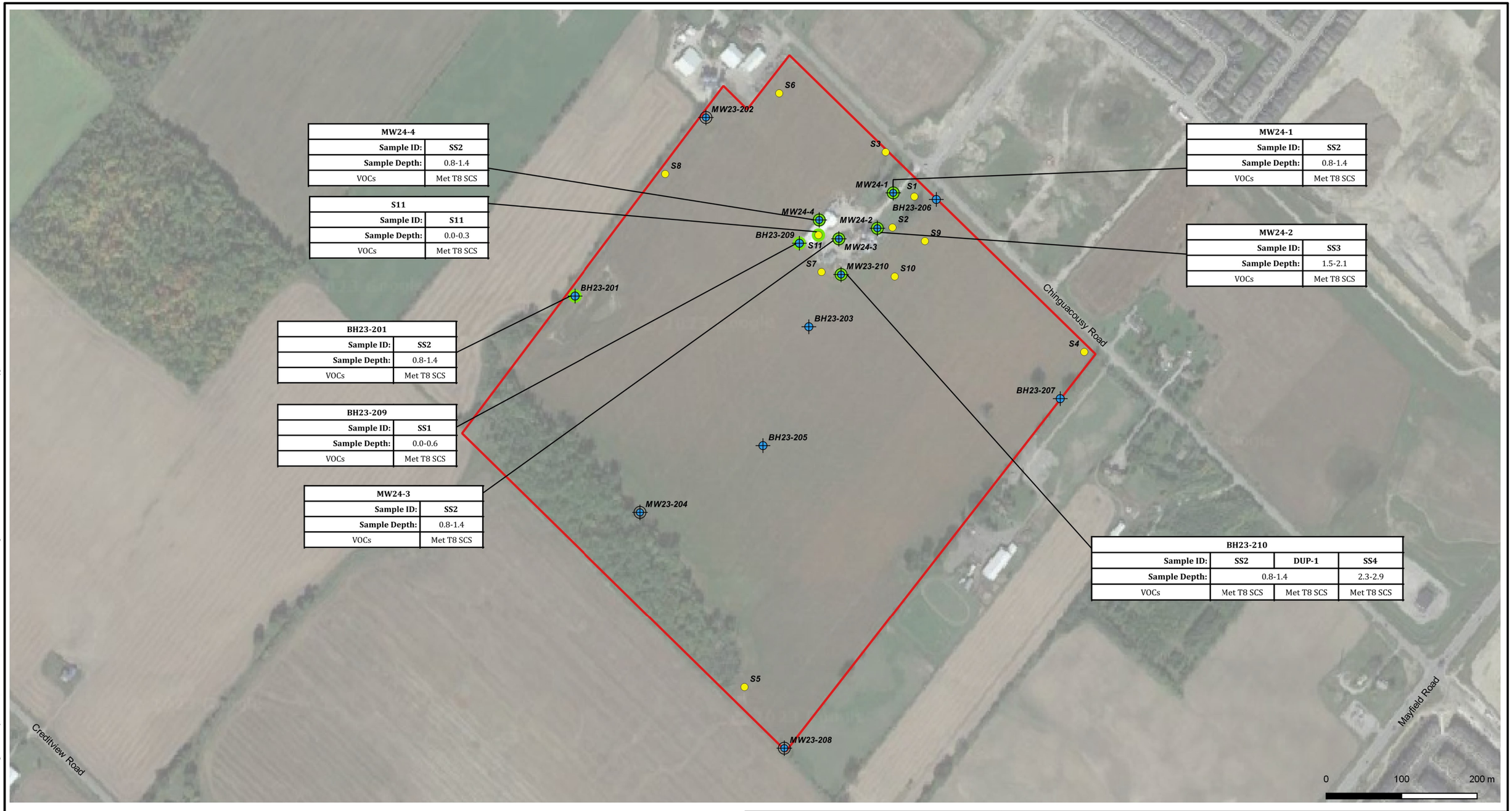
Title: **SOIL CHARACTERIZATION - PHCs & BTEX**

N

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By: R.F	Drawn By: P.P	Date: March 2024
11x17	Scale: As Shown	Project No.: 23-265-100	Figure No.: **7B**
Rev. 0	Image/Map Source: *Google Satellite Image*		

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 7B - Soil Characterization - PHCs & BTEX.qgs Mar-22 08:41



MW24-4	
Sample ID:	SS2
Sample Depth:	0.8-1.4
VOCs	Met T8 SCS

S11	
Sample ID:	S11
Sample Depth:	0.0-0.3
VOCs	Met T8 SCS

BH23-201	
Sample ID:	SS2
Sample Depth:	0.8-1.4
VOCs	Met T8 SCS

BH23-209	
Sample ID:	SS1
Sample Depth:	0.0-0.6
VOCs	Met T8 SCS

MW24-3	
Sample ID:	SS2
Sample Depth:	0.8-1.4
VOCs	Met T8 SCS

MW24-1	
Sample ID:	SS2
Sample Depth:	0.8-1.4
VOCs	Met T8 SCS

MW24-2	
Sample ID:	SS3
Sample Depth:	1.5-2.1
VOCs	Met T8 SCS

BH23-210			
Sample ID:	SS2	DUP-1	SS4
Sample Depth:	0.8-1.4		2.3-2.9
VOCs	Met T8 SCS	Met T8 SCS	Met T8 SCS

Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- Sample Met Applicable Standards

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12306 Chinguacousy, Caledon, ON

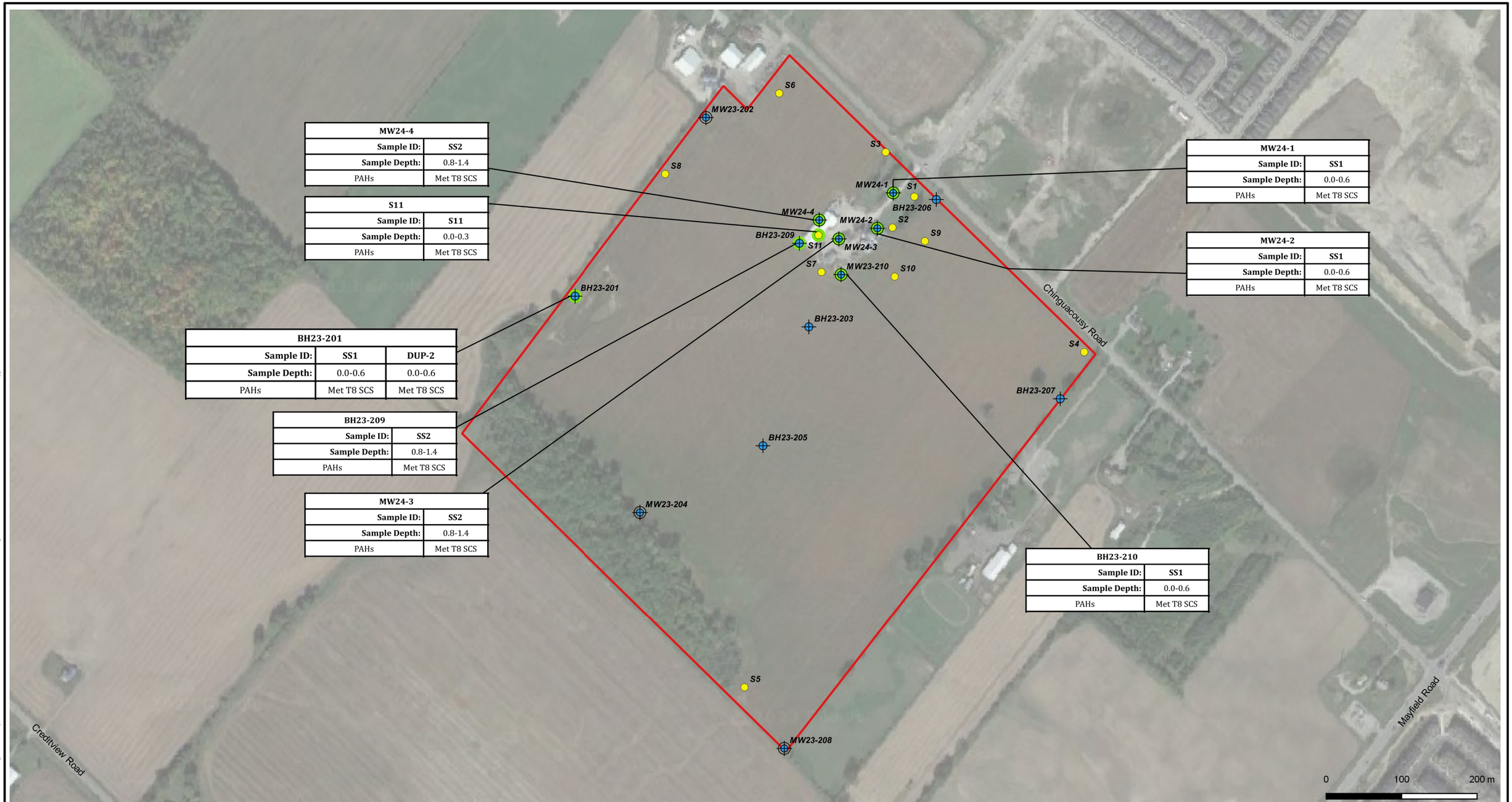
Title: **SOIL CHARACTERIZATION - VOCs**

N

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By: R.F	Drawn By: P.P	Date: March 2024
11x17	Scale: As Shown	Project No.: 23-265-100	Figure No.: **7C**
Rev. 0	Image/Map Source: *Google Satellite Image*		

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 7C - Soil Characterization - VOCs.qgs Mar-21 13:55



MW24-4	
Sample ID:	**SS2**
Sample Depth:	0.8-1.4
PAHs	Met T8 SCS

S11	
Sample ID:	**S11**
Sample Depth:	0.0-0.3
PAHs	Met T8 SCS

MW24-1	
Sample ID:	**SS1**
Sample Depth:	0.0-0.6
PAHs	Met T8 SCS

MW24-2	
Sample ID:	**SS1**
Sample Depth:	0.0-0.6
PAHs	Met T8 SCS

BH23-201		
Sample ID:	**SS1**	**DUP-2**
Sample Depth:	0.0-0.6	0.0-0.6
PAHs	Met T8 SCS	Met T8 SCS

BH23-209	
Sample ID:	**SS2**
Sample Depth:	0.8-1.4
PAHs	Met T8 SCS

MW24-3	
Sample ID:	**SS2**
Sample Depth:	0.8-1.4
PAHs	Met T8 SCS

BH23-210	
Sample ID:	**SS1**
Sample Depth:	0.0-0.6
PAHs	Met T8 SCS

Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- Sample Met Applicable Standards

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12306 Chinguacousy, Caledon, ON

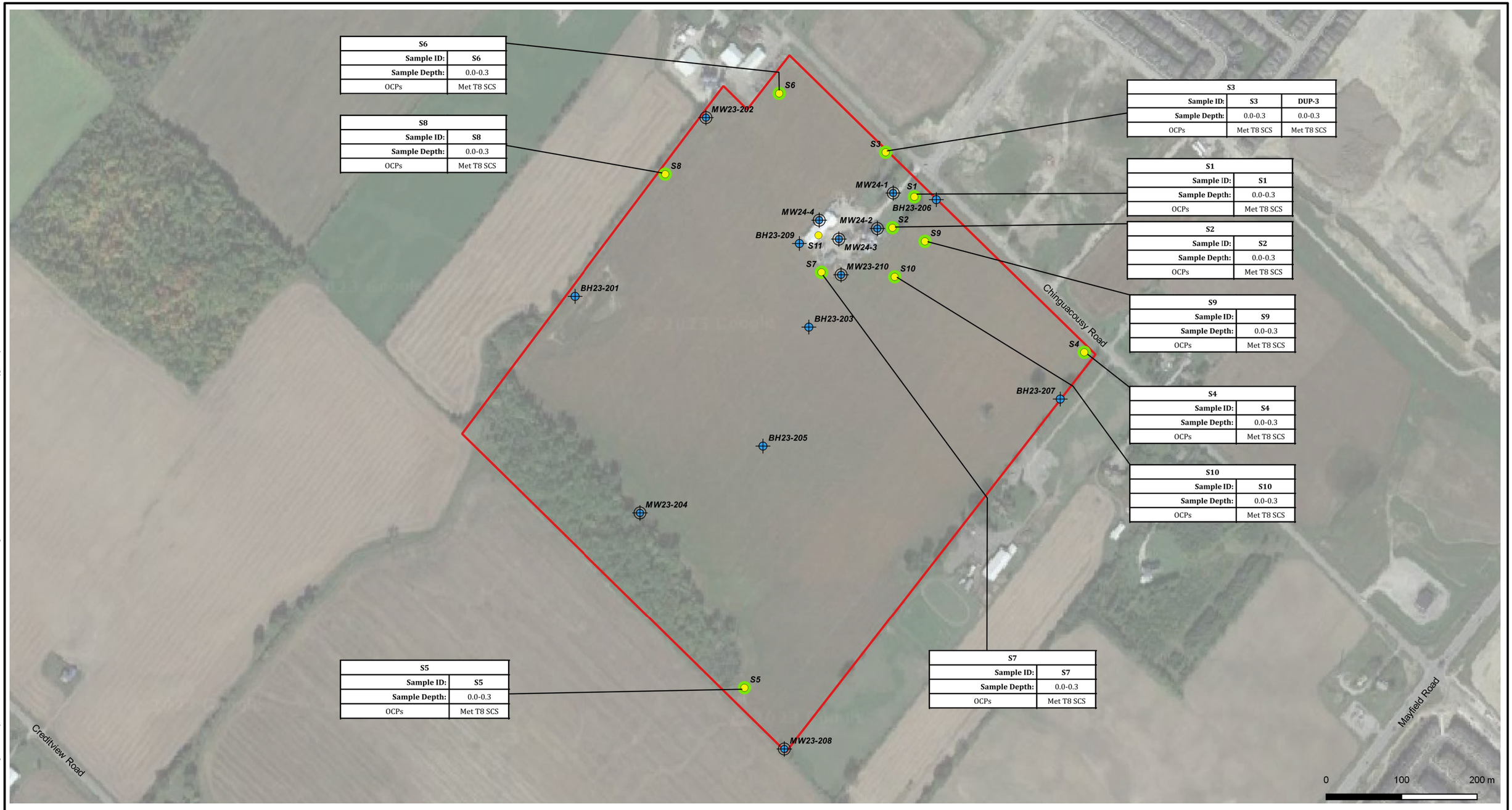
Title: **SOIL CHARACTERIZATION - PAHs**

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By:	Drawn By:	Date:
11x17	R.F	P.P	March 2024
Rev. 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: **7D**

Image/Map Source: *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 7D - Soil Characterization - PAHs.qgs Mar-22 08:39



Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- Sample Met Applicable Standards

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12306 Chinguacousy, Caledon, ON

Title: **SOIL CHARACTERIZATION - OCPs**

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By:	Drawn By:	Date:
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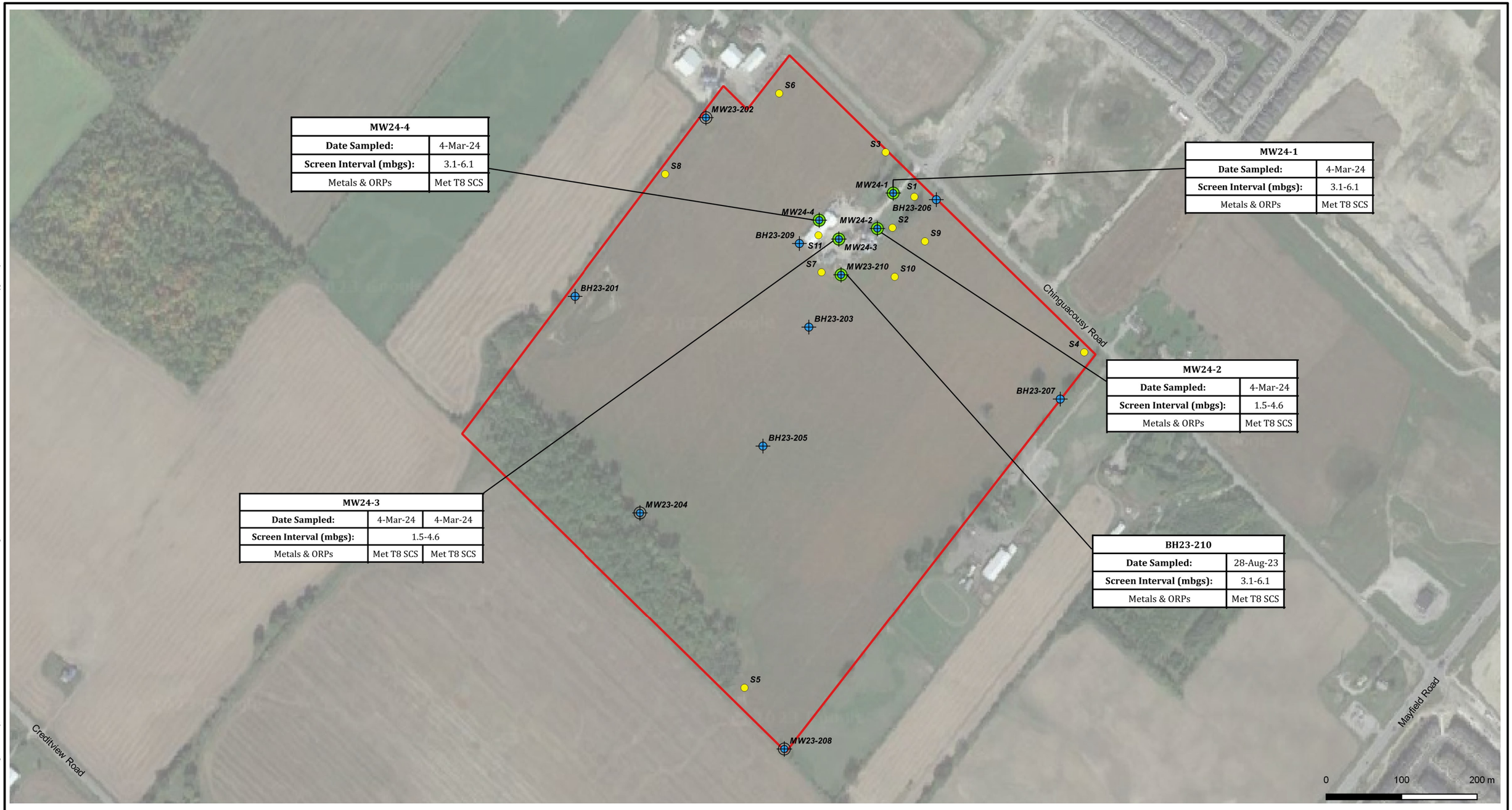
Rev. 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: **7E**

Image/Map Source: *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 7E - Soil Characterization - OCPs.qgs Apr-11 08:33

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 8A - Groundwater Characterization - Metals and ORPs.qgs Apr-11 08:39



MW24-4	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	3.1-6.1
Metals & ORPs	Met T8 SCS

MW24-1	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	3.1-6.1
Metals & ORPs	Met T8 SCS

MW24-2	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	1.5-4.6
Metals & ORPs	Met T8 SCS

MW24-3		
Date Sampled:	4-Mar-24	4-Mar-24
Screen Interval (mbgs):	1.5-4.6	
Metals & ORPs	Met T8 SCS	Met T8 SCS

BH23-210	
Date Sampled:	28-Aug-23
Screen Interval (mbgs):	3.1-6.1
Metals & ORPs	Met T8 SCS

Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- Sample Met Applicable Standards

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12306 Chinguacousy, Caledon, ON

Title: **GROUNDWATER CHARACTERIZATION - Metals & ORPs**

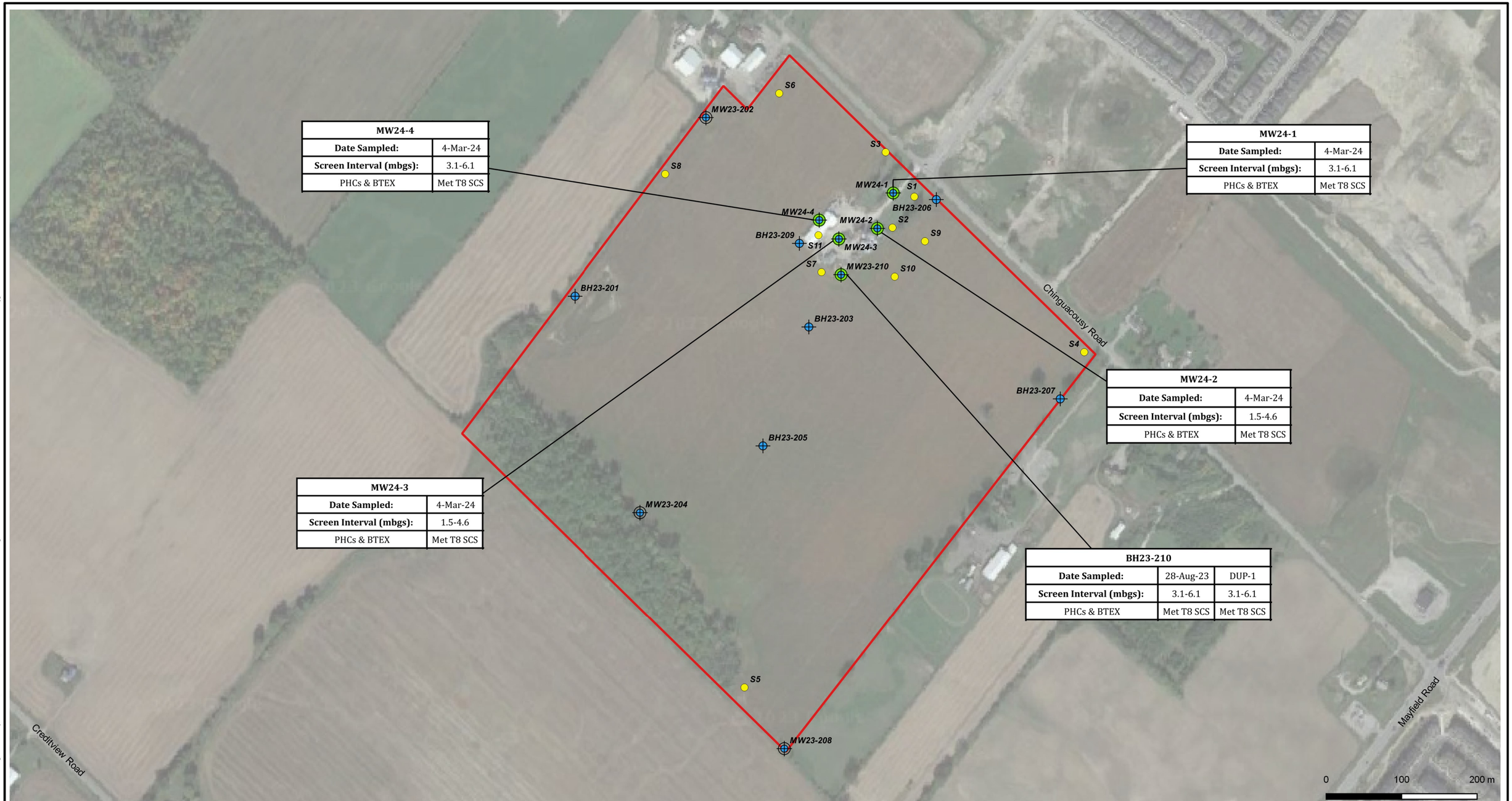
N

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By:	Drawn By:	Date:
11x17	R.F	P.P	March 2024
Rev. 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: **8A**

Image/Map Source: *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 8B - Groundwater Characterization - PHCs & BTEX.qgs Mar-21 14:03



MW24-4	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	3.1-6.1
PHCs & BTEX	Met T8 SCS

MW24-1	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	3.1-6.1
PHCs & BTEX	Met T8 SCS

MW24-2	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	1.5-4.6
PHCs & BTEX	Met T8 SCS

MW24-3	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	1.5-4.6
PHCs & BTEX	Met T8 SCS

BH23-210		
Date Sampled:	28-Aug-23	DUP-1
Screen Interval (mbgs):	3.1-6.1	3.1-6.1
PHCs & BTEX	Met T8 SCS	Met T8 SCS

Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- Sample Met Applicable Standards

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12306 Chinguacousy, Caledon, ON

Title: **GROUNDWATER CHARACTERIZATION - PHCs & BTEX**

N

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By: R.F	Drawn By: P.P	Date: March 2024
11x17	Scale: As Shown	Project No.: 23-265-100	Figure No.: **8B**
Rev. 0	Image/Map Source: *Google Satellite Image*		

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 8C - Groundwater Characterization - VOCs.qgs Mar-21 14:05

MW24-4	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	3.1-6.1
VOCs	Met T8 SCS

MW24-1	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	3.1-6.1
VOCs	Met T8 SCS

MW24-2	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	1.5-4.6
VOCs	Met T8 SCS

MW24-3	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	1.5-4.6
VOCs	Met T8 SCS

BH23-210	
Date Sampled:	28-Aug-23
Screen Interval (mbgs):	3.1-6.1
VOCs	Met T8 SCS

Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- Sample Met Applicable Standards

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12306 Chinguacousy, Caledon, ON

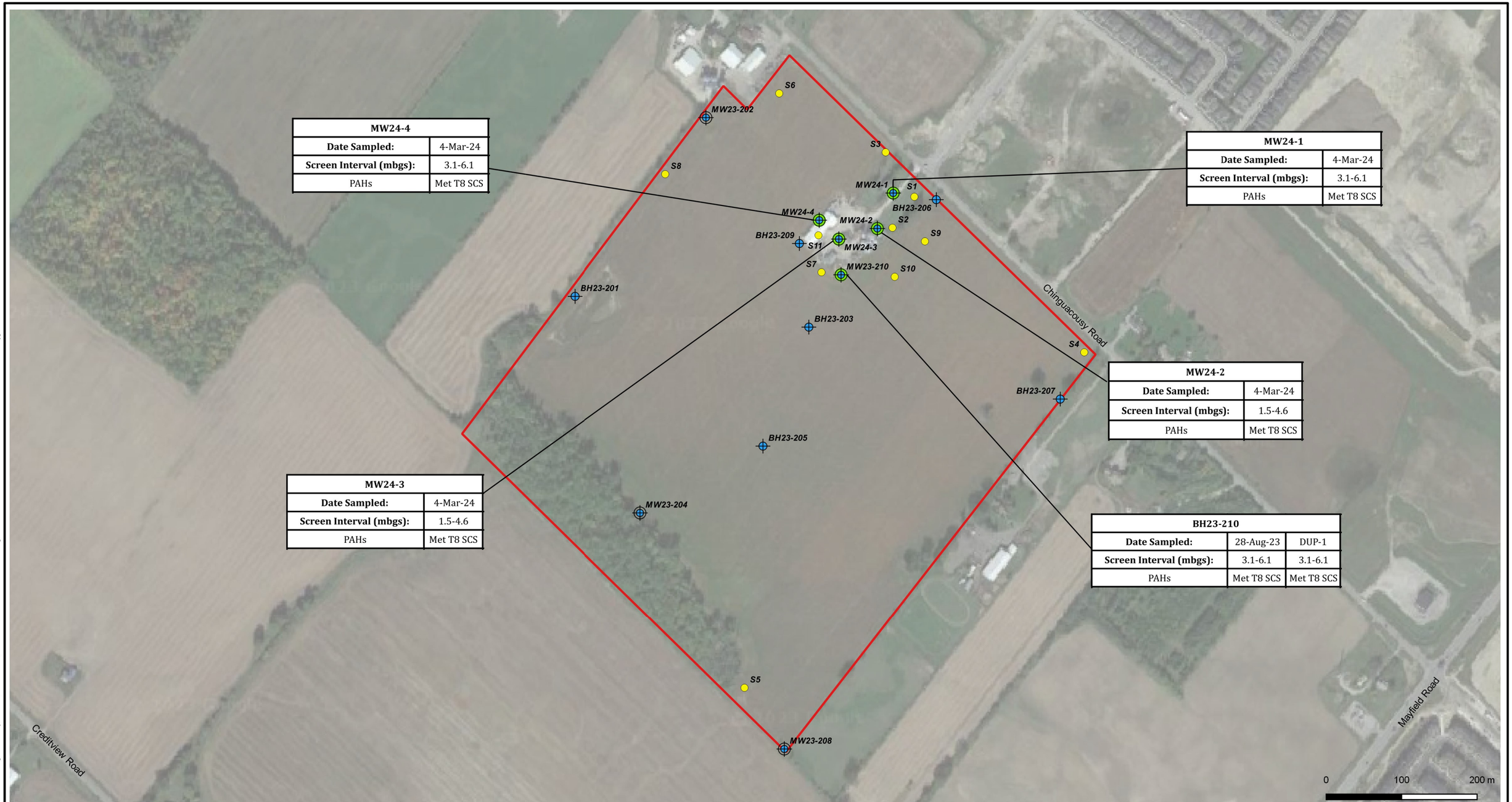
Title: **GROUNDWATER CHARACTERIZATION - VOCs**

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By:	Drawn By:	Date:
11x17	R.F	P.P	March 2024
Rev. 0	Scale: As Shown	Project No.: 23-265-100	Figure No.: **8C**

Image/Map Source: *Google Satellite Image*

J:\-GIS\2023 PROJECTS\23-265-100 - 12306 Chinguacousy Road, Caledon, ON\1-QGIS\Phase Two\Figure 8D - Groundwater Characterization - PAHs.qgs Mar-21 14:07



MW24-4	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	3.1-6.1
PAHs	Met T8 SCS

MW24-1	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	3.1-6.1
PAHs	Met T8 SCS

MW24-2	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	1.5-4.6
PAHs	Met T8 SCS

MW24-3	
Date Sampled:	4-Mar-24
Screen Interval (mbgs):	1.5-4.6
PAHs	Met T8 SCS

BH23-210		
Date Sampled:	28-Aug-23	DUP-1
Screen Interval (mbgs):	3.1-6.1	3.1-6.1
PAHs	Met T8 SCS	Met T8 SCS

Legend

- Property Boundary
- Borehole
- Monitoring Well
- Grab Sample
- Sample Met Applicable Standards

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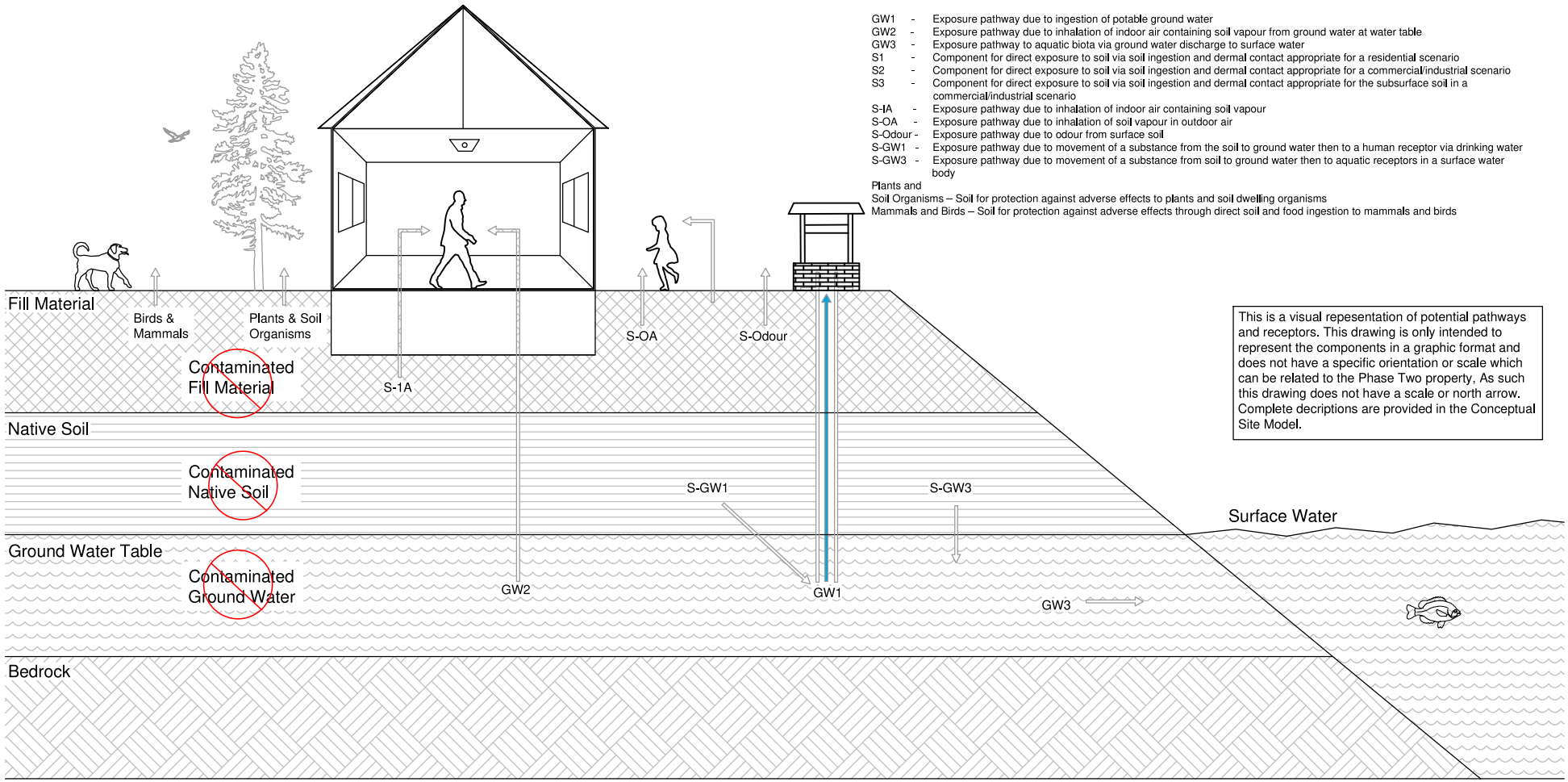
Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12306 Chinguacousy, Caledon, ON

Title: **GROUNDWATER CHARACTERIZATION - PAHs**

Client: ARGO DEVELOPMENT CORPORATION

Size:	Approved By: R.F	Drawn By: P.P	Date: March 2024
11x17	Scale: As Shown	Project No.: 23-265-100	Figure No.: **8D**
Rev. 0	Image/Map Source: *Google Satellite Image*		



Not Identified

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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
12306 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: 23-265-100	Figure No. 9

Tables

Table 1: Summary of Monitoring Well Installation and Groundwater Data

Well ID			BH/MW23-202	BH/MW23-204	BH/MW23-208	BH/MW23-210	BH/MW24-1	BH/MW24-2	BH/MW24-3	BH/MW24-4
Installed By:			DS	DS	DS	DS	DS	DS	DS	DS
Installation Date:			14-Aug-23	14-Aug-23	10-Aug-23	15-Aug-23	28-Feb-24	29-Feb-24	28-Feb-24	28-Feb-24
Well Status:			Active	Active	Active	Active	Active	Active	Active	Active
EastUTM17			591984.973	591897.59	592085.56	592163.926	592233.52	592212.82	592161.428	592135.684
NorthUTM17			4841502.904	4840979.238	4840661.721	4841294.662	4841403.52	4841356.17	4841342.465	4841367.588
Inner Diameter		(mm)	50	50	50	50	50	50	50	50
Surface Elevation		(masl)	257.77	262.65	260.76	261.56	261.68	261.75	261.99	261.74
Bottom of Concrete Seal/Top of Bentonite Seal		mbgs	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
		masl	257.47	262.35	260.46	261.26	261.38	261.45	261.69	261.44
Bottom of Bentonite Seal/Top of Sand Pack		mbgs	2.50	2.50	1.20	2.50	2.50	0.92	0.92	2.50
		masl	255.27	260.15	259.56	259.06	259.18	260.83	261.07	259.24
Top of Well Screen		mbgs	3.10	3.10	1.90	3.10	3.10	1.52	1.52	3.10
		masl	254.67	259.55	258.86	258.46	258.58	260.23	260.47	258.64
Well Screen Length		m	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Bottom of Well Screen		mbgs	6.10	6.10	4.90	6.10	6.10	4.57	4.57	6.10
		masl	251.67	256.55	255.86	255.46	255.58	257.18	257.42	255.64
GW Monitoring										
18-Aug-23	Depth to GW	mbgs	0.59	NM	5.58	0.91	NI	NI	NI	NI
	GW Elevation	masl	257.18		255.18	260.65				
28-Aug-23	Depth to GW	mbgs	NM	NM	NM	0.84	NI	NI	NI	NI
	GW Elevation	masl				260.72				
29-Aug-23	Depth to GW	mbgs	0.57	3.08	4.45	1.40	NI	NI	NI	NI
	GW Elevation	masl	257.20	259.57	256.31	260.16				
1-Mar-24	Depth to GW	mbgs	NM	NM	NM	NM	0.71	0.25	0.27	1.50
	GW Elevation	masl					260.97	261.50	261.72	260.24
4-Mar-24	Depth to GW	mbgs	0.33	NM	NM	1.15	1.65	0.24	0.36	0.42
	GW Elevation	masl	257.44			260.41	260.03	261.51	261.63	261.32

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
BH23-201	SS1	0.0-0.6	Fill - Clayey Silt	M&I, PAHs	APEC-7
	DUP-2			PAHs	
	SS2	0.8-1.4	Clayey Silt Till	PHCs, VOCs	
	SS5	3.1-3.7	Clayey Silt Till	pH	
BH23-209	SS1	0.0-0.6	Fill - Clayey Silt	PHCs, VOCs	APEC-5, APEC-6, APEC-9
	SS2	0.8-1.4	Clayey Silt Till	M&I, PAHs	
	SS5	3.1-3.7	Clayey Silt Till	pH	
BH23-210	SS1	0.0-0.6	Fill - Sandy Silt	M&I, PAHs	APEC-2, APEC-3
	SS2	0.8-1.4	Silty Clay Till	PHCs, VOCs	
	DUP-1			PHCs, VOCs	
	SS4	2.3-2.9	Silty Clay Till	PHCs, VOCs	
S1	S1	0.0-0.3	Topsoil	Metals, OCPs	APEC-1, APEC-10
S2	S2	0.0-0.3	Topsoil	Metals, OCPs	
S3	S3	0.0-0.3	Topsoil	Metals, OCPs	APEC-10
	DUP-3			Metals, OCPs	
S4	S4	0.0-0.3	Topsoil	Metals, OCPs	
S5	S5	0.0-0.3	Topsoil	Metals, OCPs	
S6	S6	0.0-0.3	Topsoil	Metals, OCPs	
S7	S7	0.0-0.3	Topsoil	Metals, OCPs	
S8	S8	0.0-0.3	Topsoil	Metals, OCPs	
MW24-1	SS1	0.0-0.6	Topsoil	M&I, PAHs	APEC-4
	SS2	0.8-1.4	Clayey Silt	PHCs, VOCs	
MW24-2	SS1	0.0-0.6	Fill - Clayey Silt	M&I, PAHs	APEC-8
	SS3	1.5-2.1	Clayey Silt	PHCs, VOCs	
MW24-3	SS1	0.0-0.6	Fill - Silty Sand	M&I	APEC-3
	DUP-4			M&I	
	SS2	0.8-1.4	Clayey Silt	PHCs, VOCs, PAHs	
MW24-4	SS1	0.0-0.6	Clayey Silt	M&I	APEC-6, APEC-9
	SS2	0.8-1.4	Clayey Silt	PHCs, VOCs, PAHs	
S9	S9	0.0-0.3	Topsoil	OCPs	APEC-1
S10	S10	0.0-0.3	Topsoil	OCPs	
S11	S11	0.0-0.3	Topsoil	M&I, PHCs, VOCs, PAHs	APEC-6, APEC-9

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

Table 3: Summary of Groundwater Samples Submitted for Chemical Analysis

Well ID	Well Screen Interval (masl)			Sample Date	Parameter Analyzed	APEC Investigated
BH/MW23-210	255.46	-	258.46	28-Aug-23	Metals, PHCs, VOCs, PAHs	APEC-2, APEC-3
DUP-1					PHCs, PAHs	
BH/MW24-1	255.58	-	258.58	4-Mar-24	Metals, PHCs, VOCs, PAHs	APEC-4
BH/MW24-2	257.18	-	260.23	4-Mar-24	Metals, PHCs, VOCs, PAHs	APEC-8
BH/MW24-3	257.42	-	260.47	4-Mar-24	Metals, PHCs, VOCs, PAHs	APEC-3
DUP-4					M&I	
BH/MW24-4	255.64	-	258.64	4-Mar-24	Metals, PHCs, VOCs, PAHs	APEC-6, APEC-9

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

Table 4: Summary of APECs Investigated

APEC	Description	PCOCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-1	According to the Peel County Atlas from 1880, the Phase One Property contains an orchard on the southeast portion of the Site.	Metals, As, Sb, Se, CN-, OCPs	Soil	S1	S1	Metals, OCPs
				S2	S2	Metals, OCPs
				S9	S9	OCPs
				S10	S10	OCPs
APEC-2	One abandoned gasoline tank is located beside the silos in rusty but fair condition.	PHCs, BTEX, PAHs, VOCs	Soil	BH23-210	SS1	M&I, PAHs
					SS2	PHCs, VOCs
					DUP-1	PHCs, VOCs
					SS4	PHCs, VOCs
			Groundwater	MW23-210	MW23-210	Metals, PHCs, VOCs, PAHs
					DUP-1	PHCs, PAHs
APEC-3	A total of 5 ASTs (3 diesel and 2 fuel oil) are located beside Storage Barn 2, 2 of which were still in use.	PHCs, BTEX, PAHs, VOCs	Soil	BH23-210	SS1	M&I, PAHs
					SS2	PHCs, VOCs
					DUP-1	PHCs, VOCs
					SS4	PHCs, VOCs
				MW24-3	SS1	M&I
					DUP-4	M&I
					SS2	PHCs, VOCs, PAHs
			Groundwater	MW23-210	MW23-210	Metals, PHCs, VOCs, PAHs
					DUP-1	PHCs, PAHs
				MW24-3	MW24-3	M&I, PHCs, VOCs, PAHs
					DUP-4	M&I
APEC-4	The house on Site was formerly heated with an oil furnace.	PHCs, BTEX, PAHs, VOCs	Soil	MW24-1	SS1	M&I, PAHs
					SS2	PHCs, VOCs
			Groundwater	MW24-1	MW24-1	M&I, PHCs, VOCs, PAHs
APEC-5	De-icing salts are likely used around the structures on Site.	EC, SAR	Soil	BH23-209	SS1	PHCs, VOCs
					SS2	M&I, PAHs
					SS5	pH
				MW24-3	SS1	M&I
					DUP-4	M&I
					SS2	PHCs, VOCs, PAHs
APEC-6	A hydraulic hoist is present in the Maintenance Garage.	Metals, PHCs, BTEX, VOCs	Soil	MW23-4	SS1	M&I
					SS2	PHCs, VOCs, PAHs
				S11	S11	M&I, PHCs, VOCs, PAHs
APEC-7	The man-made pond on the southwest portion of the property was infilled.	PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, low or high pH, SAR, pH	Soil	BH23-201	SS1	M&I, PAHs
					DUP-2	PAHs
					SS2	PHCs, VOCs
					SS5	pH

Table 4: Summary of APECs Investigated

APEC	Description	PCOCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-8	Waste oil storage was observed in Storage Barn 1.	PHCs, BTEX, PAHs, VOCs	Soil	MW24-2	SS1	M&I, PAHs
					SS3	PHCs, VOCs
			Groundwater	MW24-2	MW24-2	M&I, PHCs, VOCs, PAHs
APEC-9	Waste oil and engine oil was noted in the Maintenance Barn.	PHCs, BTEX, PAHs, VOCs	Soil	MW23-4	SS1	M&I
					SS2	PHCs, VOCs, PAHs
				S11	S11	M&I, PHCs, VOCs, PAHs
APEC-10	Pesticide application across agricultural fields.	Metals, As, Sb, Se, CN-, OCPs	Soil	S1	S1	Metals, OCPs
				S2	S2	Metals, OCPs
				S3	S3	Metals, OCPs
					DUP-3	Metals, OCPs
				S4	S4	Metals, OCPs
				S5	S5	Metals, OCPs
				S6	S6	Metals, OCPs
				S7	S7	Metals, OCPs
				S8	S8	Metals, OCPs
				S9	S9	OCPs
				S10	S10	OCPs

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

Table 5: Summary of Metals and ORPs in Soil

Parameter	MECP Table 8 SCS	BH23-201 SS1	BH23-201 SS5	BH23-209 SS2	BH23-209 SS5	BH23-210 SS1	S1	S2
Date of Collection		15-Aug-23	15-Aug-23	15-Aug-23	15-Aug-23	15-Aug-23	18-Aug-23	18-Aug-23
Date Reported		28-Aug-23	28-Aug-23	28-Aug-23	28-Aug-23	28-Aug-23	30-Aug-23	30-Aug-23
Sampling Depth (mbgs)		0.0-0.6	3.1-3.7	0.8-1.4	3.1-3.7	0.0-0.6	0.0-0.3	0.0-0.3
Analytical Report Reference No.		C3P0398	C3P0398	C3P0398	C3P0398	C3P0398	C3P2571	C3P2571
Antimony	1.3	<0.20	-	<0.20	-	0.26	0.2	<0.20
Arsenic	18	6.8	-	4.3	-	3.7	3.4	3.2
Barium	220	110	-	110	-	57	72	58
Beryllium	2.5	0.71	-	0.89	-	0.49	0.64	0.53
Boron	36	5.6	-	9.3	-	6.7	5.5	<5.0
Boron (Hot Water Soluble)	1.5	0.31	-	0.17	-	0.53	-	-
Cadmium	1.2	0.18	-	<0.10	-	0.23	0.17	0.14
Chromium	70	19	-	27	-	21	20	18
Chromium VI	0.66	<0.18	-	<0.18	-	<0.18	-	-
Cobalt	22	9.4	-	13	-	7.4	6.2	6.6
Copper	92	30	-	24	-	20	17	13
Cyanide	0.051	<0.01	-	<0.01	-	<0.01	<0.01	<0.01
Lead	120	11	-	10	-	18	23	17
Mercury	0.27	<0.050	-	<0.050	-	<0.050	-	-
Molybdenum	2	0.9	-	<0.50	-	0.74	<0.50	<0.50
Nickel	82	19	-	29	-	15	16	15
Selenium	1.5	<0.50	-	<0.50	-	<0.50	<0.50	<0.50
Silver	0.5	<0.20	-	<0.20	-	<0.20	<0.20	<0.20
Thallium	1	0.11	-	0.16	-	0.11	0.12	0.12
Uranium	2.5	0.7	-	0.89	-	0.59	0.57	0.46
Vanadium	86	33	-	38	-	27	28	27
Zinc	290	56	-	63	-	100	63	62
Electrical Conductivity (2:1)	0.7	0.16	-	0.32	-	0.19	-	-
Sodium Adsorption Ratio	5	0.25	-	0.58	-	0.26	-	-
pH, 2:1 CaCl2 Extraction	NV	7.6	7.94	7.57	7.66	8.08	6.99	7.08

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

Table 5: Summary of Metals and ORPs in Soil

Parameter	MECP Table 8 SCS	S3	DUP-3 (S3)	S4	S5	S6	S7	S8
Date of Collection		18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23
Date Reported		30-Aug-23	30-Aug-23	30-Aug-23	30-Aug-23	30-Aug-23	30-Aug-23	30-Aug-23
Sampling Depth (mbgs)		0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3
Analytical Report Reference No.		C3P2571	C3P2571	C3P2571	C3P2571	C3P2571	C3P2571	C3P2571
Antimony	1.3	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.2
Arsenic	18	4.4	4.5	3.9	3.5	4.3	4	3.8
Barium	220	85	82	66	62	86	83	86
Beryllium	2.5	0.84	0.85	0.66	0.63	0.95	0.8	0.79
Boron	36	7.2	6.7	5.1	5.1	7.7	9.3	8.1
Boron (Hot Water Soluble)	1.5	-	-	-	-	-	-	-
Cadmium	1.2	0.15	0.24	0.18	0.21	0.19	0.22	0.26
Chromium	70	25	27	20	20	28	25	24
Chromium VI	0.66	-	-	-	-	-	-	-
Cobalt	22	12	13	8.8	8.1	14	11	11
Copper	92	17	18	18	13	16	21	19
Cyanide	0.051	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Lead	120	17	17	14	16	17	17	17
Mercury	0.27	-	-	-	-	-	-	-
Molybdenum	2	<0.50	<0.50	<0.50	<0.50	0.6	0.51	<0.50
Nickel	82	22	23	18	16	23	21	21
Selenium	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.13	0.13	0.13	0.13	0.17	0.13	0.13
Uranium	2.5	0.8	0.8	0.78	0.51	1.1	0.87	0.98
Vanadium	86	37	38	30	31	40	36	34
Zinc	290	78	85	76	70	92	110	89
Electrical Conductivity (2:1)	0.7	-	-	-	-	-	-	-
Sodium Adsorption Ratio	5	-	-	-	-	-	-	-
pH, 2:1 CaCl2 Extraction	NV	6.97	6.96	6.52	6.47	6.35	7.54	6.72

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

Table 5: Summary of Metals and ORPs in Soil

Parameter	MECP Table 8 SCS	MW24-1 SS1	MW24-2 SS1	MW24-3 SS1	DUP-4 (MW24-3 SS1)	MW24-4 SS1
Date of Collection		28-Feb-24	29-Feb-24	28-Feb-24	28-Feb-24	28-Feb-24
Date Reported		6-Mar-24	6-Mar-24	6-Mar-24	6-Mar-24	6-Mar-24
Sampling Depth (mbgs)		0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6
Analytical Report Reference No.		C461883	C461883	C461883	C461883	C461883
Antimony	1.3	<0.20	<0.20	<0.20	0.3	<0.20
Arsenic	18	4.6	2.8	4.3	3.9	4.3
Barium	220	110	48	28	36	61
Beryllium	2.5	1	0.36	0.24	0.32	0.67
Boron	36	10	5.3	11	13	6.9
Boron (Hot Water Soluble)	1.5	0.29	0.4	0.54	0.7	0.25
Cadmium	1.2	0.11	0.37	0.24	0.21	0.21
Chromium	70	29	16	18	27	21
Chromium VI	0.66	<0.18	<0.18	<0.18	<0.18	<0.18
Cobalt	22	12	5.9	2.7	3.8	9.6
Copper	92	25	14	20	21	19
Cyanide	0.051	<0.01	<0.01	<0.01	<0.01	<0.01
Lead	120	16	92	17	21	18
Mercury	0.27	<0.050	<0.050	<0.050	<0.050	<0.050
Molybdenum	2	<0.50	0.69	0.93	1.2	<0.50
Nickel	82	29	10	7	12	19
Selenium	1.5	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.18	0.084	0.065	0.068	0.13
Uranium	2.5	0.57	0.35	0.42	0.45	0.5
Vanadium	86	39	17	19	28	31
Zinc	290	63	95	77	98	92
Electrical Conductivity (2:1)	0.7	0.37	0.68	**1.2***	**1.2***	0.22
Sodium Adsorption Ratio	5	1.4	3.1	0.15	0.14	0.21
pH, 2:1 CaCl2 Extraction	NV	7.68	7.24	11.1	11	7.74

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

Table 6: Summary of PHCs in Soil

Parameter	MECP Table 8 SCS	BH23-201 SS2	BH23-209 SS1	BH23-210 SS2	DUP-1 (BH23-210 SS2)	BH23-210 SS4	MW24-1 SS2	MW24-2 SS3	MW24-3 SS2	MW24- 4 SS2	S11
Date of Collection		15-Aug-23	15-Aug-23	15-Aug-23	15-Aug-23	15-Aug-23	28-Feb-24	29-Feb-24	28-Feb-24	28-Feb-24	28-Feb-24
Date Reported		28-Aug-23	28-Aug-23	28-Aug-23	28-Aug-23	28-Aug-23	6-Mar-24	6-Mar-24	6-Mar-24	6-Mar-24	6-Mar-24
Sampling Depth (mbgs)		0.8-1.4	0.0-0.6	0.8-1.4	0.8-1.4	2.3-2.9	0.8-1.4	1.5-2.1	0.8-1.4	0.8-1.4	0.0-0.3
Analytical Report Reference No.		C3P0398	C3P0398	C3P0398	C3P0398	C3P0398	C461883	C461883	C461883	C461883	C461883
Benzene	0.02	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Ethylbenzene	0.05	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Toluene	0.2	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Xylenes (Total)	0.05	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
F1 (C6-C10) -BTEX	25	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
F2 (C10-C16)	10	<10	<10	<10	<10	<10	<10	53	<10	<10	<10
F3 (C16-C34)	240	<50	<50	<50	<50	<50	<50	210	<50	<50	77
F4 (C34-C50)	120	<50	<50	<50	<50	<50	<50	99	<50	<50	58

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

Table 7: Summary of VOCs in Soil

Parameter	MECP Table 8 SCS	BH23-201 SS2	BH23-209 SS1	BH23-210 SS2	DUP-1 (BH23-210 SS2)	BH23-210 SS4	MW24-1 SS2
Date of Collection		15-Aug-23	15-Aug-23	15-Aug-23	15-Aug-23	15-Aug-23	28-Feb-24
Date Reported		28-Aug-23	28-Aug-23	28-Aug-23	28-Aug-23	28-Aug-23	6-Mar-24
Sampling Depth (mbgs)		0.8-1.4	0.0-0.6	0.8-1.4	0.8-1.4	2.3-2.9	0.8-1.4
Analytical Report Reference No.		C3P0398	C3P0398	C3P0398	C3P0398	C3P0398	C461883
Acetone	0.5	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49
Bromodichloromethane	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Bromoform	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Bromomethane	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Carbon Tetrachloride	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Chlorobenzene	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Chloroform	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dibromochloromethane	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,2-Dichlorobenzene	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,3-Dichlorobenzene	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,4-Dichlorobenzene	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,1-Dichloroethane	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,2-Dichloroethane	0.05	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049
1,1-Dichloroethylene	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Cis-1,2-Dichloroethylene	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trans-1,2-Dichloroethylene	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,2-Dichloropropane	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Cis-1,3-Dichloropropylene	NV	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Trans-1,3-Dichloropropylene	NV	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Ethylene Dibromide	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Methyl Ethyl Ketone	0.5	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Methylene Chloride	0.05	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049
Methyl Isobutyl Ketone	0.5	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Methyl-t-Butyl Ether	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Styrene	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,1,1,2-Tetrachloroethane	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,1,2,2-Tetrachloroethane	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Tetrachloroethylene	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,1,1-Trichloroethane	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,1,2-Trichloroethane	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trichloroethylene	0.05	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Vinyl Chloride	0.02	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019
Dichlorodifluoromethane	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Hexane(n)	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trichlorofluoromethane	0.25	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,3-Dichloropropene (cis + trans)	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

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

Table 7: Summary of VOCs in Soil

Parameter	MECP Table 8 SCS	MW24-2 SS3	MW24-3 SS2	MW24- 4 SS2
Date of Collection		29-Feb-24	28-Feb-24	28-Feb-24
Date Reported		6-Mar-24	6-Mar-24	6-Mar-24
Sampling Depth (mbgs)		1.5-2.1	0.8-1.4	0.8-1.4
Analytical Report Reference No.		C461883	C461883	C461883
Acetone	0.5	<0.49	<0.49	<0.49
Bromodichloromethane	0.05	<0.040	<0.040	<0.040
Bromoform	0.05	<0.040	<0.040	<0.040
Bromomethane	0.05	<0.040	<0.040	<0.040
Carbon Tetrachloride	0.05	<0.040	<0.040	<0.040
Chlorobenzene	0.05	<0.040	<0.040	<0.040
Chloroform	0.05	<0.040	<0.040	<0.040
Dibromochloromethane	0.05	<0.040	<0.040	<0.040
1,2-Dichlorobenzene	0.05	<0.040	<0.040	<0.040
1,3-Dichlorobenzene	0.05	<0.040	<0.040	<0.040
1,4-Dichlorobenzene	0.05	<0.040	<0.040	<0.040
1,1-Dichloroethane	0.05	<0.040	<0.040	<0.040
1,2-Dichloroethane	0.05	<0.049	<0.049	<0.049
1,1-Dichloroethylene	0.05	<0.040	<0.040	<0.040
Cis-1,2-Dichloroethylene	0.05	<0.040	<0.040	<0.040
Trans-1,2-Dichloroethylene	0.05	<0.040	<0.040	<0.040
1,2-Dichloropropane	0.05	<0.040	<0.040	<0.040
Cis-1,3-Dichloropropylene	NV	<0.030	<0.030	<0.030
Trans-1,3-Dichloropropylene	NV	<0.040	<0.040	<0.040
Ethylene Dibromide	0.05	<0.040	<0.040	<0.040
Methyl Ethyl Ketone	0.5	<0.40	<0.40	<0.40
Methylene Chloride	0.05	<0.049	<0.049	<0.049
Methyl Isobutyl Ketone	0.5	<0.40	<0.40	<0.40
Methyl-t-Butyl Ether	0.05	<0.040	<0.040	<0.040
Styrene	0.05	<0.040	<0.040	<0.040
1,1,1,2-Tetrachloroethane	0.05	<0.040	<0.040	<0.040
1,1,2,2-Tetrachloroethane	0.05	<0.040	<0.040	<0.040
Tetrachloroethylene	0.05	<0.040	<0.040	<0.040
1,1,1-Trichloroethane	0.05	<0.040	<0.040	<0.040
1,1,2-Trichloroethane	0.05	<0.040	<0.040	<0.040
Trichloroethylene	0.05	<0.010	<0.010	<0.010
Vinyl Chloride	0.02	<0.019	<0.019	<0.019
Dichlorodifluoromethane	0.05	<0.040	<0.040	<0.040
Hexane(n)	0.05	<0.040	<0.040	<0.040
Trichlorofluoromethane	0.25	<0.040	<0.040	<0.040
1,3-Dichloropropene (cis + trans)	0.05	<0.050	<0.050	<0.050

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

Table 8: Summary of PAHs in Soil

Parameter	MECP Table 8 SCS	BH23-201 SS1	DUP-2 (BH23-201	BH23-209 SS2	BH23-210 SS1	MW24-1 SS1	MW24-2 SS1	MW24-3 SS2	MW24- 4 SS2	S11
Date of Collection		15-Aug-23	15-Aug-23	15-Aug-23	15-Aug-23	28-Feb-24	29-Feb-24	28-Feb-24	28-Feb-24	28-Feb-24
Date Reported		28-Aug-23	28-Aug-23	28-Aug-23	28-Aug-23	6-Mar-24	6-Mar-24	6-Mar-24	6-Mar-24	6-Mar-24
Sampling Depth (mbgs)		0.0-0.6	0.0-0.6	0.8-1.4	0.0-0.6	0.0-0.6	0.0-0.6	0.8-1.4	0.8-1.4	0.0-0.3
Analytical Report Reference No.		C3P0398	C3P0398	C3P0398	C3P0398	C461883	C461883	C461883	C461883	C461883
Methylnaphthalene, 2-(1-)	0.59	<0.0071	<0.0071	<0.0071	<0.071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071
Acenaphthene	0.072	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthylene	0.093	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.01	<0.0050	<0.0050	<0.0050
Anthracene	0.22	<0.0050	<0.0050	<0.0050	<0.050	0.021	0.016	<0.0050	<0.0050	<0.0050
Benz(a)anthracene	0.36	<0.0050	<0.0050	<0.0050	0.076	0.037	0.076	<0.0050	<0.0050	0.0053
Benzo(a)pyrene	0.3	<0.0050	<0.0050	<0.0050	0.088	0.037	0.075	<0.0050	<0.0050	0.0069
Benzo(b+j)fluoranthene	0.47	<0.0050	<0.0050	<0.0050	0.12	0.048	0.092	<0.0050	<0.0050	0.01
Benzo(g,h,i)perylene	0.68	<0.0050	<0.0050	<0.0050	0.11	0.027	0.048	<0.0050	<0.0050	0.0096
Benzo(k)fluoranthene	0.48	<0.0050	<0.0050	<0.0050	<0.050	0.016	0.036	<0.0050	<0.0050	<0.0050
Chrysene	2.8	<0.0050	<0.0050	<0.0050	0.09	0.031	0.067	<0.0050	<0.0050	0.0053
Dibenz(a,h)anthracene	0.1	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	0.014	<0.0050	<0.0050	<0.0050
Fluoranthene	0.69	<0.0050	<0.0050	<0.0050	0.18	0.095	0.18	<0.0050	<0.0050	0.012
Fluorene	0.19	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Indeno(1,2,3-cd)pyrene	0.23	<0.0050	<0.0050	<0.0050	0.07	0.025	0.051	<0.0050	<0.0050	0.0072
Naphthalene	0.09	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Phenanthrene	0.69	<0.0050	<0.0050	<0.0050	0.067	0.018	0.081	<0.0050	<0.0050	<0.0050
Pyrene	1	<0.0050	<0.0050	<0.0050	0.15	0.078	0.14	<0.0050	<0.0050	0.0099

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

Table 9: Summary of OCPs in Soil

Parameter	MECP Table 8 SCS	S1	S2	S3	DUP-3 (S3)	S4	S5	S6	S7	S8	S9	S10
Date of Collection		18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	18-Aug-23	29-Feb-24	29-Feb-24
Date Reported		30-Aug-23	30-Aug-23	30-Aug-23	30-Aug-23	30-Aug-23	30-Aug-23	30-Aug-23	30-Aug-23	30-Aug-23	6-Mar-24	6-Mar-24
Screen Interval (mbgs)		0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3	0.0-0.3
Analytical Report Reference No.		C3P2571	C3P2571	C3P2571	C3P2571	C3P2571	C3P2571	C3P2571	C3P2571	C3P2571	C461883	C461883
Aldrin	0.05	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Chlordane	0.05	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
DDD	0.05	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
DDE	0.05	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
DDT	1.4	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Dieldrin	0.05	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Endosulfan	0.04	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Endrin	0.04	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Hexachlorocyclohexane Gamma-	0.01	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Heptachlor	0.05	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Heptachlor Epoxide	0.05	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Hexachlorobenzene	0.02	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Hexachlorobutadiene	0.01	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Hexachloroethane	0.01	<0.0040	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Methoxychlor	0.05	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
PCBs	0.3	<0.030	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<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 10: Summary of Metals and ORPs in Groundwater

Parameter	MECP Table 8 SCS	Units	MW23-210	MW24-1	MW24-2	MW24-3	DUP-4 (MW24-3)	MW24-4
Date of Collection			28-Aug-23	4-Mar-24	4-Mar-24	4-Mar-24	4-Mar-24	4-Mar-24
Date Reported			5-Sep-23	8-Mar-24	8-Mar-24	8-Mar-24	8-Mar-24	8-Mar-24
Screen Interval (mbgs)			3.1-6.1	3.1-6.1	1.5-4.6	1.5-4.6	1.5-4.6	3.1-6.1
Analytical Report Reference No.			C3Q2144	C464663	C464663	C464663	C464663	C464663
Antimony	6	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Arsenic	25	µg/L	<1.0	2.5	<1.0	1.1	1	2.7
Barium	1000	µg/L	58	53	180	54	55	28
Beryllium	4	µg/L	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Boron (total)	5000	µg/L	120	170	40	68	65	240
Cadmium	2.1	µg/L	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Chromium Total	50	µg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chromium VI	25	µg/L	-	<0.50	<0.50	<0.50	<0.50	<0.50
Cobalt	3.8	µg/L	0.72	1.3	0.85	<0.50	<0.50	2.4
Copper	69	µg/L	2.5	1.3	1.2	1.5	1.3	1.4
Cyanide	52	µg/L	-	<1	<1	<1	<1	<1
Chloride	790	mg/L	-	600	650	140	140	14
Lead	10	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Mercury	0.29	µg/L	-	<0.10	<0.10	<0.10	<0.10	<0.10
Molybdenum	0.5	µg/L	2.1	3.4	1.2	9.8	9.6	2.7
Nickel	1	µg/L	1.5	2.4	2.2	1	1.1	2.5
Selenium	10	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Silver	1.2	µg/L	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Sodium	490000	µg/L	45000	140000	110000	62000	63000	70000
Thallium	2	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Uranium	20	µg/L	6.6	14	3.2	4.8	4.9	5.5
Vanadium	6.2	µg/L	0.71	0.54	<0.50	0.98	1	<0.50
Zinc	890	µg/L	<5.0	5.3	5.1	<5.0	<5.0	9

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

Table 11: Summary of PHCs & BTEX in Groundwater

Parameter	MECP Table 8 SCS	MW23-210	DUP-1 (MW23-210)	Trip Blank	MW24-1	MW24-2	MW24-3	MW24-4	Trip Blank
Date of Collection		28-Aug-23	28-Aug-23	28-Aug-23	4-Mar-24	4-Mar-24	4-Mar-24	4-Mar-24	4-Mar-24
Date Reported		5-Sep-23	5-Sep-23	5-Sep-23	8-Mar-24	8-Mar-24	8-Mar-24	8-Mar-24	8-Mar-24
Screen Interval (mbgs)		3.1-6.1	3.1-6.1	-	3.1-6.1	1.5-4.6	1.5-4.6	3.1-6.1	-
Analytical Report Reference No.		C3Q2144	C3Q2144	C3Q2144	C464663	C464663	C464663	C464663	C464663
Benzene	0.02	<0.17	-	<0.20	<0.17	<0.17	<0.17	<0.17	<0.20
Ethylbenzene	0.05	<0.20	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	0.2	<0.20	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Xylenes (Total)	0.05	<0.20	-	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
F1 (C6 to C10) minus BTEX	420	<25	-	-	<25	<25	<25	<25	-
F2 (C10 to C16)	150	<100	<100	-	<100	<100	<100	<100	-
F3 (C16 to C34)	500	<200	<200	-	<200	<200	<200	<200	-
F4 (C34 to C50) minus PAHs	500	<200	<200	-	<200	<200	<200	<200	-

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

Table 12: Summary of VOCs in Groundwater

Parameter	MECP Table 8 SCS	MW23-210	Trip Blank	MW24-1	MW24-2	MW24-3	MW24-4	Trip Blank
Date of Collection		28-Aug-23	28-Aug-23	4-Mar-24	4-Mar-24	4-Mar-24	4-Mar-24	4-Mar-24
Date Reported		5-Sep-23	5-Sep-23	8-Mar-24	8-Mar-24	8-Mar-24	8-Mar-24	8-Mar-24
Screen Interval (mbgs)		3.1-6.1	-	3.1-6.1	1.5-4.6	1.5-4.6	3.1-6.1	-
Analytical Report Reference No.		C3Q2144	C3Q2144	C464663	C464663	C464663	C464663	C464663
Acetone	2700	<10	<10	<10	<10	11	12	<10
Bromodichloromethane	16	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform	25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	0.79	<0.20	<0.19	<0.20	<0.20	<0.20	<0.20	<0.19
Chlorobenzene	30	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	2.4	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	25	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	3	<0.50	<0.40	<0.50	<0.50	<0.50	<0.50	<0.40
1,3-Dichlorobenzene	59	<0.50	<0.40	<0.50	<0.50	<0.50	<0.50	<0.40
1,4-Dichlorobenzene	1	<0.50	<0.40	<0.50	<0.50	<0.50	<0.50	<0.40
1,1-Dichloroethane	5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	1.6	<0.50	<0.49	<0.50	<0.50	<0.50	<0.50	<0.49
1,1-Dichloroethylene	1.6	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cis-1,2-Dichloroethylene	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trans-1,2-Dichloroethylene	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cis-1,3-Dichloropropylene	NV	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Trans-1,3-Dichloropropylene	NV	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Ethylene Dibromide	0.2	<0.20	<0.19	<0.20	<0.20	<0.20	<0.20	<0.19
Methyl Ethyl Ketone	1800	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methyl Isobutyl Ketone	640	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl-t-Butyl Ether	15	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Styrene	5.4	<0.50	<0.40	<0.50	<0.50	<0.50	<0.50	<0.40
1,1,1,2-Tetrachloroethane	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	1	<0.50	<0.40	<0.50	<0.50	<0.50	<0.50	<0.40
Tetrachloroethylene	1.6	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	200	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,2-Trichloroethane	4.7	<0.50	<0.40	<0.50	<0.50	<0.50	<0.50	<0.40
Trichloroethylene	1.6	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl Chloride	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichlorodifluoromethane	590	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Hexane(n)	51	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	150	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropene (cis + trans)	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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

Table 13: Summary of PAHs in Groundwater

Parameter	MECP Table 8 SCS	MW23-210	DUP-1 (MW23-210)	MW24-1	MW24-2	MW24-3	MW24-4
Date of Collection		28-Aug-23	28-Aug-23	4-Mar-24	4-Mar-24	4-Mar-24	4-Mar-24
Date Reported		5-Sep-23	5-Sep-23	8-Mar-24	8-Mar-24	8-Mar-24	8-Mar-24
Screen Interval (mbgs)		3.1-6.1	3.1-6.1	3.1-6.1	1.5-4.6	1.5-4.6	3.1-6.1
Analytical Report Reference No.		C3Q2144	C3Q2144	C464663	C464663	C464663	C464663
Methylnaphthalene, 2-(1-)	3.2	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071
Acenaphthene	4.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benz(a)anthracene	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	0.01	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090
Benzo(b+j)fluoranthene	0.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	0.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	0.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chrysene	0.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	0.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluoranthene	0.41	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Fluorene	120	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	0.2	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Naphthalene	11	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Phenanthrene	1	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Pyrene	4.1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

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

Table 14: Summary of Maximum Concentrations in Soil

	Parameter	Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	1.3	0.34	S11
	Arsenic	18	6.8	BH23-201 SS1
	Barium	220	110	BH23-201 SS1
	Beryllium	2.5	1	MW24-1 SS1
	Boron	36	13	DUP-4 (MW24-3 SS1)
	Boron (Hot Water Soluble)	1.5	0.7	DUP-4 (MW24-3 SS1)
	Cadmium	1.2	0.38	S11
	Chromium	70	29	MW24-1 SS1
	Chromium VI	0.66	<0.18	All Samples
	Cobalt	22	14	S6
	Copper	92	30	BH23-201 SS1
	Cyanide	0.051	<0.01	All Samples
	Lead	120	92	MW24-2 SS1
	Mercury	0.27	<0.050	All Samples
	Molybdenum	2	1.2	DUP-4 (MW24-3 SS1)
	Nickel	82	29	BH23-209 SS2
	Selenium	1.5	<0.50	All Samples
	Silver	0.5	<0.20	All Samples
	Thallium	1	0.18	MW24-1 SS1
	Uranium	2.5	1.1	S6
	Vanadium	86	40	S6
	Zinc	290	120	S11
	Electrical Conductivity (2:1)	0.7	0.68	MW24-2 SS1
	Sodium Adsorption Ratio	5	3.1	MW24-2 SS1
	pH, 2:1 CaCl2 Extraction	NV	11.1	MW24-3 SS1
PHCs	Benzene	0.02	<0.0060	All Samples
	Ethylbenzene	0.05	<0.010	All Samples
	Toluene	0.2	<0.020	All Samples
	Xylenes (Total)	0.05	<0.020	All Samples
	F1 (C6-C10) -BTEX	25	<10	All Samples
	F2 (C10-C16)	10	**53**	MW24-2 SS3
	F3 (C16-C34)	240	210	MW24-2 SS3
	F4 (C34-C50)	120	99	MW24-2 SS3
	Acetone	0.5	<0.49	All Samples
	Bromodichloromethane	0.05	<0.040	All Samples
	Bromoform	0.05	<0.040	All Samples
	Bromomethane	0.05	<0.040	All Samples
	Carbon Tetrachloride	0.05	<0.040	All Samples
	Chlorobenzene	0.05	<0.040	All Samples
	Chloroform	0.05	<0.040	All Samples
	Dibromochloromethane	0.05	<0.040	All Samples
	1,2-Dichlorobenzene	0.05	<0.040	All Samples
	1,3-Dichlorobenzene	0.05	<0.040	All Samples
	1,4-Dichlorobenzene	0.05	<0.040	All Samples
	1,1-Dichloroethane	0.05	<0.040	All Samples

Table 14: 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	0.05	<0.040	All Samples
	Trans-1,2-Dichloroethylene	0.05	<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	0.5	<0.40	All Samples
	Methylene Chloride	0.05	<0.049	All Samples
	Methyl Isobutyl Ketone	0.5	<0.40	All Samples
	Methyl-t-Butyl Ether	0.05	<0.040	All Samples
	Styrene	0.05	<0.040	All Samples
	1,1,1,2-Tetrachloroethane	0.05	<0.040	All Samples
	1,1,2,2-Tetrachloroethane	0.05	<0.040	All Samples
	Tetrachloroethylene	0.05	<0.040	All Samples
	1,1,1-Trichloroethane	0.05	<0.040	All Samples
	1,1,2-Trichloroethane	0.05	<0.040	All Samples
	Trichloroethylene	0.05	<0.010	All Samples
	Vinyl Chloride	0.02	<0.019	All Samples
	Dichlorodifluoromethane	0.05	<0.040	All Samples
	Hexane(n)	0.05	<0.040	All Samples
	Trichlorofluoromethane	0.25	<0.040	All Samples
	1,3-Dichloropropene (cis + trans)	0.05	<0.050	All Samples
PAHs	Methylnaphthalene, 2-(1-)	0.59	<0.0071	All Samples
	Acenaphthene	0.072	<0.0050	All Samples
	Acenaphthylene	0.093	0.01	MW24-2 SS1
	Anthracene	0.22	0.021	MW24-1 SS1
	Benz(a)anthracene	0.36	0.076	BH23-210 SS1
	Benzo(a)pyrene	0.3	0.088	BH23-210 SS1
	Benzo(b+j)fluoranthene	0.47	0.12	BH23-210 SS1
	Benzo(g,h,i)perylene	0.68	0.11	BH23-210 SS1
	Benzo(k)fluoranthene	0.48	0.036	MW24-2 SS1
	Chrysene	2.8	0.09	BH23-210 SS1
	Dibenz(a,h)anthracene	0.1	0.014	MW24-2 SS1
	Fluoranthene	0.69	0.18	BH23-210 SS1
	Fluorene	0.19	<0.0050	All Samples
	Indeno(1,2,3-cd)pyrene	0.23	0.07	BH23-210 SS1
	Naphthalene	0.09	<0.0050	All Samples
	Phenanthrene	0.69	0.081	MW24-2 SS1
	Pyrene	1	0.15	BH23-210 SS1
	Aldrin	0.05	<0.0040	All Samples
	Chlordane	0.05	<0.0040	All Samples
	DDD	0.05	<0.0040	All Samples
	DDE	0.05	<0.0040	All Samples

Table 14: Summary of Maximum Concentrations in Soil

	Parameter	Standard	Maximum Concentration	Location
OCPs	DDT	1.4	<0.0040	All Samples
	Dieldrin	0.05	<0.0040	All Samples
	Endosulfan	0.04	<0.0040	All Samples
	Endrin	0.04	<0.0040	All Samples
	Hexachlorocyclohexane Gamma-	0.01	<0.0040	All Samples
	Heptachlor	0.05	<0.0040	All Samples
	Heptachlor Epoxide	0.05	<0.0040	All Samples
	Hexachlorobenzene	0.02	<0.0040	All Samples
	Hexachlorobutadiene	0.01	<0.0040	All Samples
	Hexachloroethane	0.01	<0.0040	All Samples
	Methoxychlor	0.05	<0.010	All Samples
	PCBs	0.3	<0.030	All Samples

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

Table 15: Summary of Maximum Concentrations in Groundwater

	Parameter	Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	6	<0.50	All Samples
	Arsenic	25	2.7	MW24-4
	Barium	1000	180	MW24-2
	Beryllium	4	<0.40	All Samples
	Boron (total)	5000	240	MW24-4
	Cadmium	2.1	<0.090	All Samples
	Chromium Total	50	<5.0	All Samples
	Cobalt	3.8	2.4	MW24-4
	Copper	69	2.5	MW23-210
	Lead	10	<0.50	All Samples
	Molybdenum	0.5	9.8	MW24-3
	Nickel	1	2.5	MW24-4
	Selenium	10	<2.0	All Samples
	Silver	1.2	<0.090	All Samples
	Sodium	490000	140000	MW24-1
	Thallium	2	<0.050	All Samples
	Uranium	20	14	MW24-1
	Vanadium	6.2	1	DUP-4 (MW24-3)
	Zinc	890	9	MW24-4
PHCs	Benzene	0.02	<0.17	All Samples
	Ethylbenzene	0.05	<0.20	All Samples
	Toluene	0.2	<0.20	All Samples
	Xylenes (Total)	0.05	<0.20	All Samples
	F1 (C6 to C10) minus BTEX	420	<25	All Samples
	F2 (C10 to C16)	150	<100	All Samples
	F3 (C16 to C34)	500	<200	All Samples
	F4 (C34 to C50) minus PAHs	500	<200	All Samples
VOCs	Acetone	2700	12	MW24-4
	Bromodichloromethane	16	<0.50	All Samples
	Bromoform	25	<1.0	All Samples
	Bromomethane	0.89	<0.50	All Samples
	Carbon Tetrachloride	0.79	<0.20	All Samples
	Chlorobenzene	30	<0.20	All Samples
	Chloroform	2.4	<0.20	All Samples
	Dibromochloromethane	25	<0.50	All Samples
	1,2-Dichlorobenzene	3	<0.50	All Samples
	1,3-Dichlorobenzene	59	<0.50	All Samples
	1,4-Dichlorobenzene	1	<0.50	All Samples
	1,1-Dichloroethane	5	<0.20	All Samples
	1,2-Dichloroethane	1.6	<0.50	All Samples
	1,1-Dichloroethylene	1.6	<0.20	All Samples
	Cis-1,2-Dichloroethylene	1.6	<0.50	All Samples
	Trans-1,2-Dichloroethylene	1.6	<0.50	All Samples
	1,2-Dichloropropane	5	<0.20	All Samples
	Cis-1,3-Dichloropropylene	NV	<0.30	All Samples
	Trans-1,3-Dichloropropylene	NV	<0.40	All Samples
	Ethylene Dibromide	0.2	<0.20	All Samples
	Methyl Ethyl Ketone	1800	<10	All Samples
	Methylene Chloride	50	<2.0	All Samples

Table 15: Summary of Maximum Concentrations in Groundwater

	Parameter	Standard	Maximum Concentration	Location
	Methyl Isobutyl Ketone	640	<5.0	All Samples
	Methyl-t-Butyl Ether	15	<0.50	All Samples
	Styrene	5.4	<0.50	All Samples
	1,1,1,2-Tetrachloroethane	1.1	<0.50	All Samples
	1,1,2,2-Tetrachloroethane	1	<0.50	All Samples
	Tetrachloroethylene	1.6	<0.20	All Samples
	1,1,1-Trichloroethane	200	<0.20	All Samples
	1,1,2-Trichloroethane	4.7	<0.50	All Samples
	Trichloroethylene	1.6	<0.20	All Samples
PAHs	Methylnaphthalene, 2-(1-)	3.2	<0.071	All Samples
	Acenaphthene	4.1	<0.050	All Samples
	Acenaphthylene	1	<0.050	All Samples
	Anthracene	1	<0.050	All Samples
	Benz(a)anthracene	1	<0.050	All Samples
	Benzo(a)pyrene	0.01	<0.0090	All Samples
	Benzo(b+j)fluoranthene	0.1	<0.050	All Samples
	Benzo(g,h,i)perylene	0.2	<0.050	All Samples
	Benzo(k)fluoranthene	0.1	<0.050	All Samples
	Chrysene	0.1	<0.050	All Samples
	Dibenz(a,h)anthracene	0.2	<0.050	All Samples
	Fluoranthene	0.41	<0.050	All Samples
	Fluorene	120	<0.050	All Samples
	Indeno(1,2,3-cd)pyrene	0.2	<0.050	All Samples
	Naphthalene	11	<0.050	All Samples
	Phenanthrene	1	<0.030	All Samples
	Pyrene	4.1	<0.050	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, Xylene
masl	Meters above sea level
MECP Table 8 SCS	Generic Condition Standards in a Potable Groundwater Condition for Use within 30 m of a Water Body as contained in Table 8 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
OCP	Organochlorine Pesticide
ORP	Other Regulated Parameter
PAH	Polyaromatic Hydrocarbon
PHC	Petroleum Hydrocarbon
VOC	Volatile Organic Compound
Units	Units for all soil analyses are in µg/g (ppm) unless otherwise indicated
Units	Units for all groundwater analyses are in µg/L (ppb) unless otherwise indicated

Appendix A

PLAN OF SURVEY OF PART OF LOT 19, 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.

INTEGRATION NOTE

BEARINGS ARE GRID, UTM, NAD83 (CSRS:CBNV6:2010.0), DERIVED FROM OBSERVED REFERENCE POINTS (A) AND (B) USING REAL TIME NETWORK (RTN) No. PRS402698094688 (NORTHING 4854714.46, EASTING 596022.52).

COORDINATES ARE UTM, ZONE 17, NAD83 (CSRS:CBNV6:2010.0), 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 (A)	4841090.24	591658.48
ORP (B)	4840873.13	591874.23

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999670.

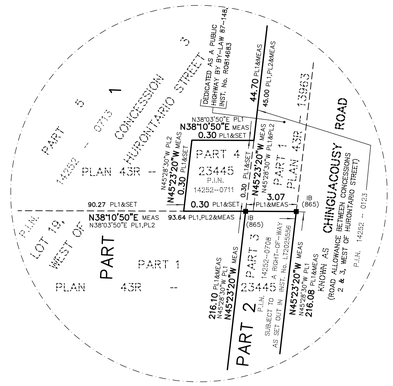
SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

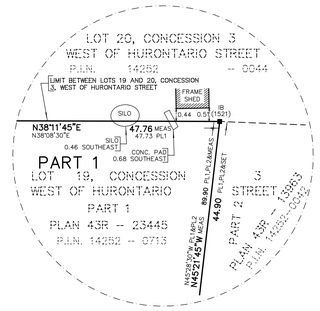
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 11th DAY OF MARCH 2022.

DATE APRIL 7th 2022

PUSHPA KUMARANAYAKE
A. U. KUMARANAYAKE
ONTARIO LAND SURVEYOR



DETAIL 'B' (NOT TO SCALE)



DETAIL 'A' (NOT TO SCALE)

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

DATE APRIL 7th, 2022

PUSHPA KUMARANAYAKE
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)

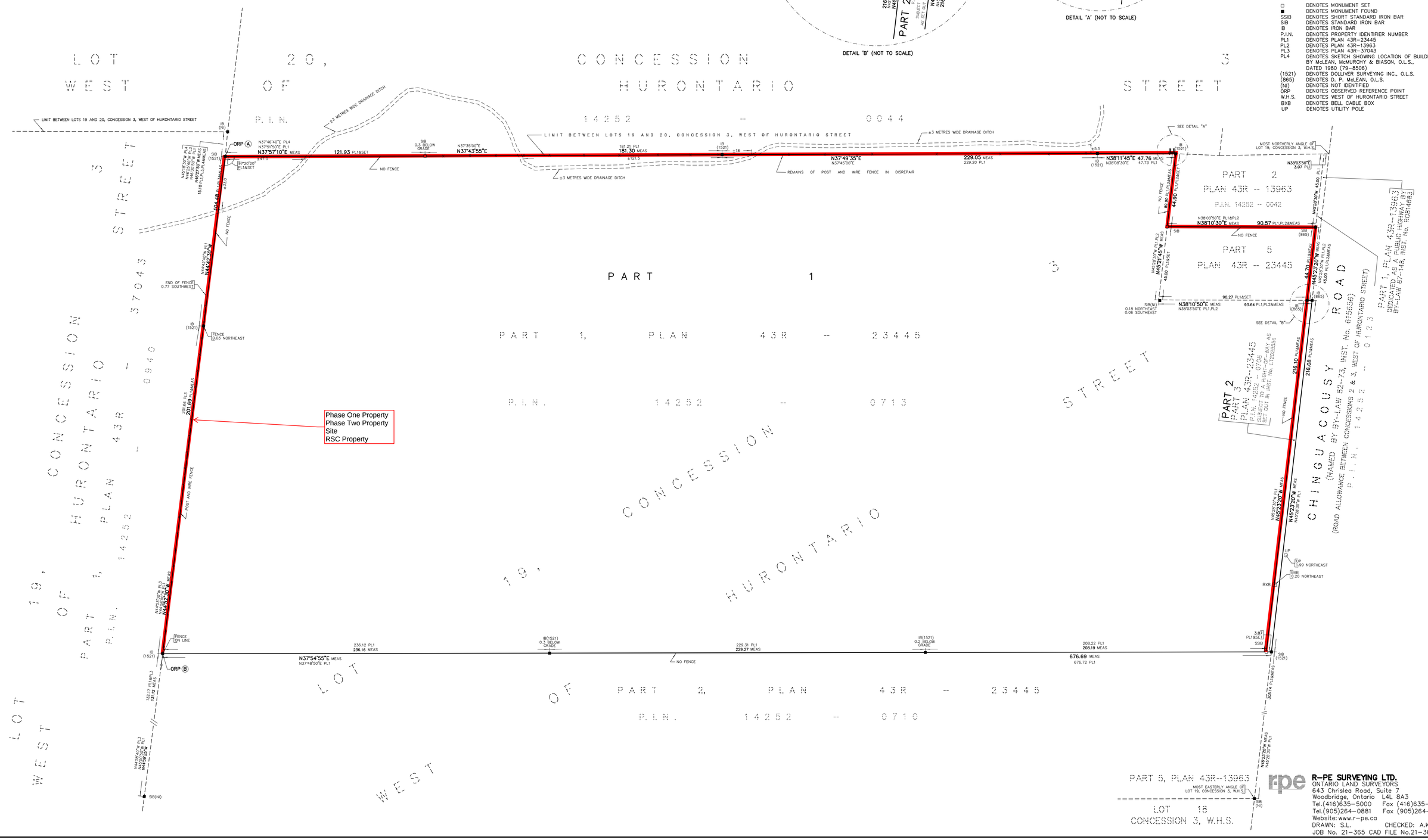
SCHEDULE

PART	LOT	CONCESSION	P.I.N.
1	PART OF 19	3, WEST OF HURONTARIO STREET	ALL OF 14252-0713
2			ALL OF 14252-0708

PART 2 IS SUBJECT TO A RIGHT-OF-WAY AS SET OUT IN INST. No. LT2025556.

NOTES

□	DENOTES MONUMENT SET
■	DENOTES MONUMENT FOUND
SSIB	DENOTES SHORT STANDARD IRON BAR
SIB	DENOTES STANDARD IRON BAR
IB	DENOTES IRON BAR
P.I.N.	DENOTES PROPERTY IDENTIFIER NUMBER
PL1	DENOTES PLAN 43R-23445
PL2	DENOTES PLAN 43R-13963
PL3	DENOTES PLAN 43R-37043
PL4	DENOTES SKETCH SHOWING LOCATION OF BUILDINGS BY McLEAN, McMURCHY & BIASON, O.L.S., DATED 1980 (79-8506)
(1521)	DENOTES DOLLIVER SURVEYING INC., O.L.S.
(865)	DENOTES D. P. McLEAN, O.L.S.
(NI)	DENOTES NOT IDENTIFIED
ORP	DENOTES OBSERVED REFERENCE POINT
W.H.S.	DENOTES WEST OF HURONTARIO STREET
BXB	DENOTES BELL CABLE BOX
UP	DENOTES UTILITY POLE



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.ca
DRAWN: S.L. CHECKED: A.K.
JOB No. 21-365 CAD FILE No.21-365R01

PLAN OF SURVEY OF PART OF LOT 19, 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

□	DENOTES MONUMENT SET
■	DENOTES MONUMENT FOUND
SSIB	DENOTES SHORT STANDARD IRON BAR
SIB	DENOTES STANDARD IRON BAR
IB	DENOTES IRON BAR
P.I.N.	DENOTES PROPERTY IDENTIFIER NUMBER
PL1	DENOTES PLAN 43R-23445
PL2	DENOTES PLAN OF SURVEY BY D. J. CULLEN LIMITED., O.L.S. DATED MARCH 13, 1986
PL3	DENOTES PLAN 43R-37043
PL4	DENOTES 43R-13963
(865)	DENOTES D. P. McLEAN, O.L.S.
(1253)	DENOTES D. J. CULLEN, O.L.S.
(1365)	DENOTES B. J. STASSEN, O.L.S.
(1521)	DENOTES DOLLIVER SURVEYING INC., O.L.S.
(NI)	DENOTES NOT IDENTIFIED
ORP	DENOTES OBSERVED REFERENCE POINT
W.H.S.	DENOTES WEST OF HURONTARIO STREET
PWF	DENOTES POST AND WIRE FENCE
⚓	DENOTES GUY WIRE ANCHOR

INTEGRATION NOTE

BEARINGS ARE GRID, UTM, NAD83 (CSRS:CBN-V6:2010.0), DERIVED FROM OBSERVED REFERENCE POINTS (A) AND (B) USING REAL TIME NETWORK (RTN) No. PRS402698094688 (NORTHING 4854714.46, EASTING 596022.52).

COORDINATES ARE UTM, ZONE 17, NAD83 (CSRS:CBN-V6:2010.0), 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 (A)	4841406.82	592289.92
ORP (B)	4840655.71	592089.65

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999670.

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 APRIL 2022.

DATE APRIL 12th 2022

A. U. KUMARANAYAKE
ONTARIO LAND SURVEYOR

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

DATE APRIL 12th, 2022

A. U. KUMARANAYAKE O.L.S.

PLAN 43R-

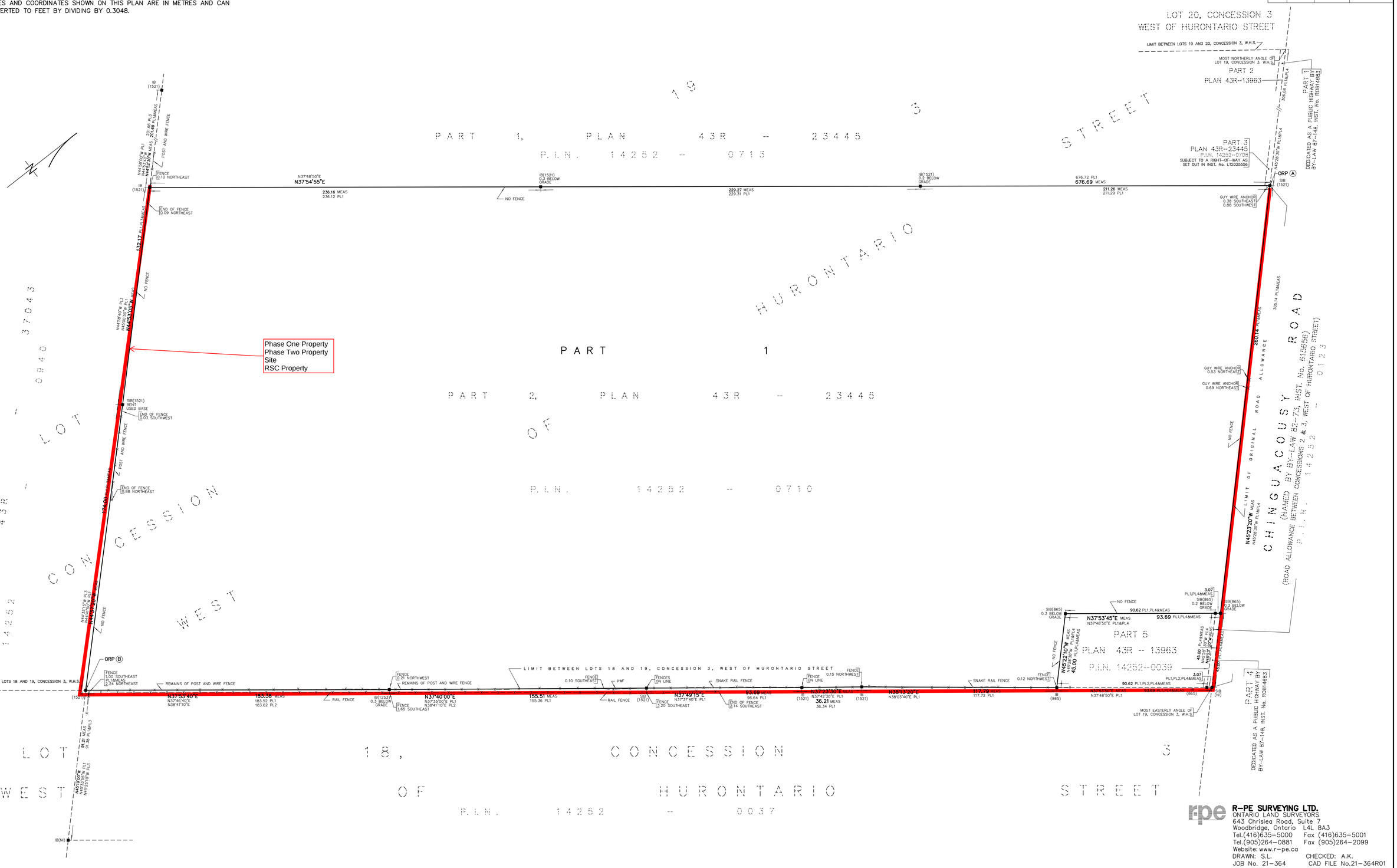
RECEIVED AND DEPOSITED

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 19	3,WEST OF HURONTARIO STREET	ALL OF 14252-0710



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Tel.(416)635-5000 Fax (416)635-5001
Tel.(905)264-0881 Fax (905)264-2099
Website: www.r-pe.ca

DRAWN: S.L. CHECKED: A.K.
JOB No. 21-364 CAD FILE No.21-364R01

Appendix B

DS CONSULTANTS LTD.
Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology

23-265-100 **February 8, 2024**

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
12306 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 12306 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 August 2023, it is DS's understanding that the Site is a 40.67-hectare (100.5 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 10 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	Northeast portion of Property	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-1**	OCPs, Metals, As, Sb, Se, CN-	Soil
APEC-2	Central Portion of the Property near Silos	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-3**	PHCs, BTEX, PAHs, VOCs	Soil and ground water
APEC-3	Central Portion of Property near Storage Barn 2	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-4**	PHCs, BTEX, PAHs, VOCs	Soil and ground water
APEC-4	Northeast boundary at house	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-5**	PHCs, BTEX, PAHs, VOCs	Soil and ground water
APEC-5	Central-North portion of Site near Structures	N/S – Inferred application of de-icing salts	On Site **PCA-8**	EC, SAR	Soil
				Na, Cl-	Groundwater
APEC - 6	Central Portion of Property at Maintenance Barn	#52 – Storage, Maintenance, Fuelling and Repair of Equipment, Vehicles, and Material Used to Maintain Transportation Systems	On Site **PCA-7**	PHCs, VOCs, BTEX, Metals,	Soil and ground water
APEC-7	Northwest corner of the Property	#30 - Importation of Fill Material of Unknown Quality	On Site **PCA-6**	PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-8	Central Portion of Property at Storage Barn 1	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-9**	PHCs, BTEX, PAHs, VOCs	Soil and ground water
APEC-9	Central Portion of Property at	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-10**	PHCs, BTEX, PAHs, VOCs	Soil and ground water

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)
	Maintenance Barn				
APEC-10	Entire Site	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-11**	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. BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
4. VOCs = Volatile Organic Compounds
5. PAHs = Polycyclic Aromatic Hydrocarbons
6. OCPs = Organochlorinated Pesticides

3. Site Investigation Program

The proposed field investigation will involve the advancement of boreholes, the installation of monitoring wells, and periodic monitoring of the installed wells. A total of 14 borehole 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
BH23-201	6 m	N	N/A	Geotechnical, Environmental for fill
BH23-202	6 m	Y	6 m	Groundwater flow
MW23-203	6 m	N	N/A	Geotechnical
MW23-204	6 m	Y	6 m	Groundwater flow
BH23-205	6 m	N	N/A	Geotechnical
MW23-206	6 m	N	N/A	Geotechnical
BH23-207	6 m	N	N/A	Geotechnical
MW23-208	6 m	Y	6 m	Groundwater flow
BH23-209	3.1 m	N	N/A	Environmental near barns
BH23-210	6 m	Y	6 m	Environmental near barns and ASTs
MW24-1	6 m	Y	6 m	Environmental near fuel oil tank
MW24-2	6 m	Y	6 m	Environmental near chemical drums
MW24-3	6 m	Y	6 m	Environmental near ASTs

ID	Proposed Depth	Well Installation (Y/N)	Well Install Depth	Purpose
MW24-4	6 m	Y	6 m	Environmental near hydraulic hoist and maintenance garage

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 wells 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 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
BH23-201	SS1	0.0-0.6	M&I, PAHs	Assess soil conditions (APEC-7)
	SS2	0.8-1.4	PHCs, VOCs	Assess soil conditions (APEC-7)
	SS5	3.1-3.7	pH	Assess pH
BH23-209	SS1	0.0-0.6	PHCs, VOCs	Assess soil conditions (APEC-6, APEC-9)
	SS2	0.8-1.4	M&I, PAHs	Assess soil conditions (APEC-6, APEC-9)
	SS5	3.1-3.7	pH	Assess pH
BH23-210	SS1	0.0-0.6	M&I, PAHs	Assess soil conditions (APEC-2, APEC-3)
	SS2	0.8-1.4	PHCs, VOCs	Assess soil conditions (APEC-2, APEC-3)
	SS4	2.3-2.9	PHCs, VOCs	Assess soil conditions (APEC-2, APEC-3)
S1	S1	0.0-0.3	Metals, OCPs	Assess soil conditions (APEC-1, APEC-10)
S2	S2	0.0-0.3	Metals, OCPs	Assess soil conditions (APEC-1, APEC-10)
S3	S3	0.0-0.3	Metals, OCPs	Assess soil conditions (APEC-10)
S4	S4	0.0-0.3	Metals, OCPs	Assess soil conditions (APEC-10)
S5	S5	0.0-0.3	Metals, OCPs	Assess soil conditions (APEC-10)
S6	S6	0.0-0.3	Metals, OCPs	Assess soil conditions (APEC-10)
S7	S7	0.0-0.3	Metals, OCPs	Assess soil conditions (APEC-10)
S8	S8	0.0-0.3	Metals, OCPs	Assess soil conditions (APEC-10)
MW24-1	SS1	0.0-0.6	M&I, PAHs	Assess soil conditions (APEC-4)
	SS2	0.8-1.4	PHCs, VOCs	Assess soil conditions (APEC-4)
MW24-2	SS1	0.0-0.6	M&I, PAHs	Assess soil conditions (APEC-8)
	SS3	1.5-2.1	PHCs, VOCs	Assess soil conditions (APEC-8)
MW24-3	SS1	0.0-0.6	M&I	Assess soil conditions (APEC-3)
	SS2	0.8-1.4	PHCs, VOCs, PAHs	Assess soil conditions (APEC-3)
MW24-4	SS1	0.0-0.6	M&I	Assess soil conditions (APEC-6, APEC-9)
	SS2	0.8-1.4	PHCs, VOCs, PAHs	Assess soil conditions (APEC-6, APEC-9)
S9	S9	0.0-0.3	OCPs	Assess soil conditions (APEC-1)
S10	S10	0.0-0.3	OCPs	Assess soil conditions (APEC-1)
S11	S11	0.0-0.3	M&I, PHCs, VOCs, PAHs	Assess soil conditions in rear of Maintenance Garage (APEC-6)

- Submit groundwater samples from the monitoring wells as follows:

Table 3-3: Summary of proposed groundwater analyses

Well ID	Well Depth	Lab Analysis	Purpose
MW23-210	6 m	M&I, PHCs, VOCs, PAHs	Assess groundwater quality (APEC-2, APEC-3)
MW24-1	6 m	M&I, PHCs, VOCs, PAHs	Assess groundwater quality (APEC-4)
MW24-2	6 m	M&I, PHCs, VOCs, PAHs	Assess groundwater quality (APEC-8)
MW24-3	6 m	M&I, PHCs, VOCs, PAHs	Assess groundwater quality (APEC-3)
MW24-4	6 m	M&I, PHCs, VOCs, PAHs	Assess groundwater quality (APEC-6, APEC-9)

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

Table 3-4: Summary of Soil and Groundwater Analytical Program

Soil	Groundwater
• 14 Samples for analysis of metals and inorganics • 8 Samples for analysis of PHCs • 8 Samples for analysis of VOCs • 8 Samples for analysis of PAHs • 10 Samples for analysis of OC Pesticides • 2 Subsurface soil samples for pH analysis • 4 Duplicate samples	• 6 Samples for analysis of metals and inorganics • 6 Samples for analysis of PHCs • 6 Samples for analysis of VOCs • 6 Samples for analysis of PAHs • 3 Duplicate samples • 2 VOC Trip Blank

- 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 BH23-201

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841266.13 E 591811

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Aug-14-2023

REF. NO.: 23-265-100
ENCL NO.: 2

ELEV / DEPTH (m)	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m "N"	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
258.7 / 0.0	**TOPSOIL:** 250mm				
258.5 / 0.3	**FILL:** clayey silt, trace organics, brown, moist, firm	1	SS	6	M&I, PAHs DUP-2
257.6 / 1.1	**CLAYEY SILT TO SILTY CLAY TILL:** sandy, trace gravel, brown, moist, stiff to very stiff	2	SS	5	PHCs, VOCs
		3	SS	28	
		4	SS	18	
	grey below 3.1m	5	SS	12	pH
		6	SS	18	
252.5 / 6.2	**SILT:** some clay, some sand, grey, wet, compact	7	SS	16	
252.0 / 6.7	**END OF BOREHOLE:** Notes: 1) Water encountered at 6.1m during drilling.				

GROUND WATER CONDITIONS

ELEVATION: 258, 257, 256, 255, 254, 253

Soil Head Space Vapors
PID (ppm): 10 20 30 40
CGD (ppm): 10 20 30 40

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%): 10 20 30

POCKET PEN. (Cu) (kPa)

NATURAL UNIT WT (kN/m³)

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE BH23-202

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841502.9 E 591984.97

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Aug-14-2023

REF. NO.: 23-265-100
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) 10 20 30 40	Soil Head Space Vapors CGD (ppm) 10 20 30 40	PLASTIC LIMIT W_P / NATURAL MOISTURE CONTENT W / LIQUID LIMIT W_L WATER CONTENT (%) 10 20 30	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
257.8													
257.6 0.0	**TOPSOIL:** 250mm												
0.3	**FILL:** clayey silt, trace organics, dark brown, moist, firm		1	SS	5								
256.8							W. L. 257.4 masl Aug 14, 2023 W. L. 257.2 masl Aug 18, 2023						
1.0	**CLAYEY SILT TO SILTY CLAY TILL:** some sand, trace gravel, brown, moist, firm to very stiff		2	SS	7								
			3	SS	9		256						
	grey below 2.3m		4	SS	11		255						
			5	SS	16		254						
			6	SS	12		253						2 11 48 39
			7	SS	16		252						
251.1													
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	0.59
Aug. 29, 2023	0.57
Mar. 4, 2024	0.33

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE BH23-203

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841225.4 E 592121.25

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Aug-14-2023

REF. NO.: 23-265-100
ENCL NO.: 4

ELEV / DEPTH (m)	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS "N" 0.3 m	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
261.7													
261.6 0.0	**TOPSOIL:** 200mm												
0.2	**FILL:** clayey silt, trace organics, brown, moist, firm		1	SS	7								
260.8							261						
0.9	**CLAYEY SILT TO SILTY CLAY TILL:** some sand to sandy, trace gravel, brown, moist, stiff to very stiff		2	SS	28								
			3	SS	18		260						
			4	SS	22		259						
	grey below 3.1m		5	SS	22								
							258						
			6	SS	8		257						
							256						
			7	SS	22								
255.0 6.7	**END OF BOREHOLE:** Notes: 1) Borehole wet at the bottom upon completion.												

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

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE BH23-204

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4840979.24 E 591897.59

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Aug-14-2023

REF. NO.: 23-265-100
ENCL NO.: 5

ELEV / DEPTH (m)	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m "N"
262.7 / 0.0	**TOPSOIL:** 200mm			
0.2	**REWORKED:** clayey silt, trace organics, brown, moist, firm (weathered/disturbed)	1	SS	6
261.8 / 0.9	**SILTY CLAY TO CLAYEY SILT TILL:** some sand, trace gravel, brown, moist, very stiff to hard	2	SS	23
		3	SS	22
	grey below 2.3m	4	SS	26
		5	SS	18
	wet silt layer at 4.6m	6	SS	15
256.0		7	SS	47
6.7	**END OF BOREHOLE:**			

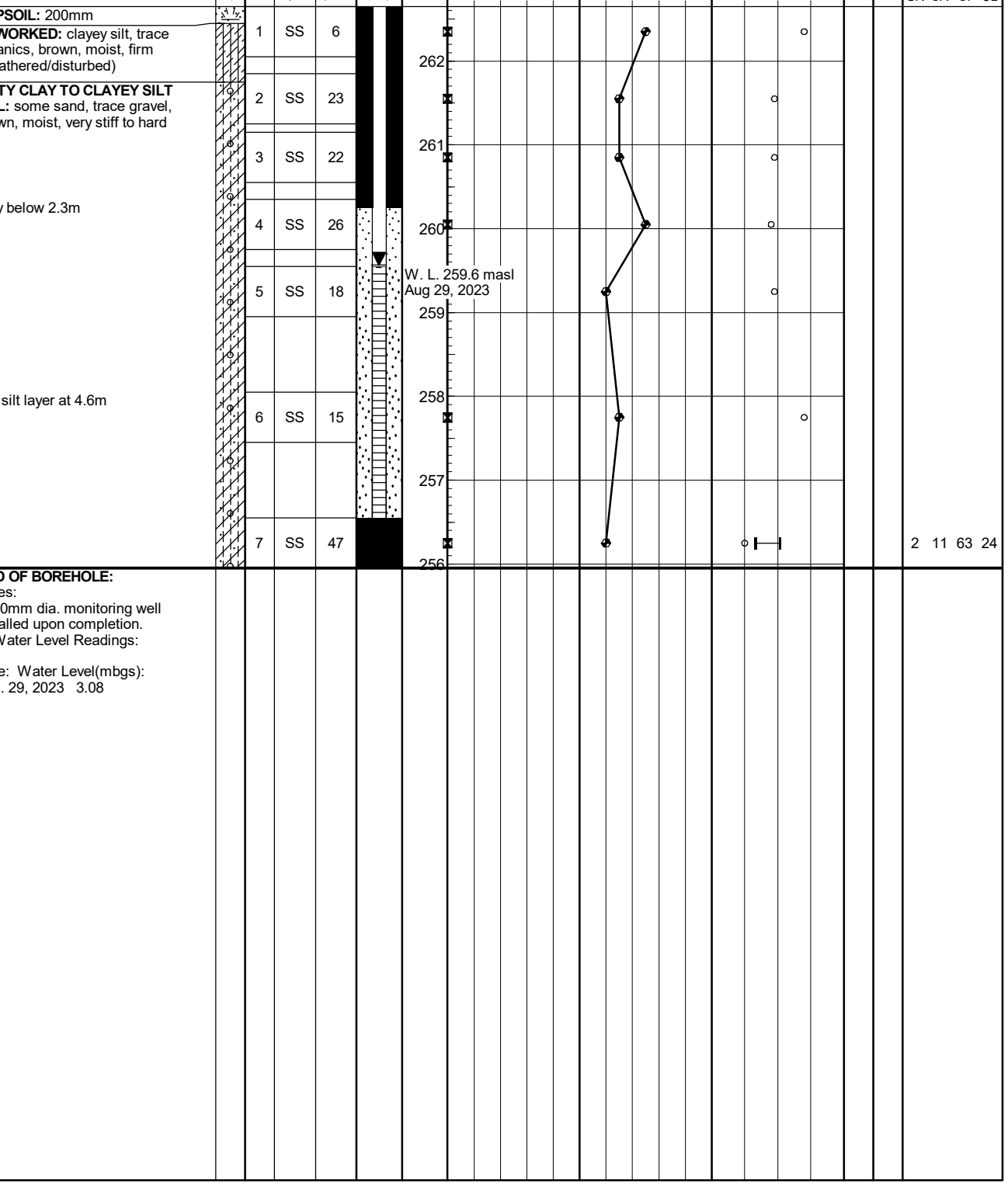
Notes:
1) 50mm dia. monitoring well installed upon completion.
2) Water Level Readings:

Date:	Water Level(mbgs):
Aug. 29, 2023	3.08

W. L. 259.6 masl Aug 29, 2023

REMARKS AND GRAIN SIZE DISTRIBUTION (%)

GR	SA	SI	CL
2	11	63	24



GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE BH23-205

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841067.76 E 592060.47

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Aug-14-2023

REF. NO.: 23-265-100
ENCL NO.: 6

(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
262.9													
262.8 / 0.0	**TOPSOIL:** 250mm												
0.3 / 262.1	**REWORKED:** clayey silt, trace organics, brown, moist, firm (weathered/disturbed)		1	SS	8								
0.8	**CLAYEY SILT TO SILTY CLAY TILL:** sandy, trace gravel, brown, moist, stiff to very stiff		2	SS	26		262						
			3	SS	23		261						
			4	SS	18		260						
	grey below 3.1m		5	SS	17		259						
			6	SS	9		258						
			7	SS	15		257						
256.2 / 6.7	**END OF BOREHOLE:** Notes: 1) Borehole was wet at the bottom upon completion.												

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

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE BH23-206

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841395.42 E 592291.52

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

REF. NO.: 23-265-100
ENCL NO.: 7

ELEV / DEPTH (m)	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors PID (ppm)	Soil Head Space Vapors 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
261.3													
261.1 0.0	**TOPSOIL:** 200mm												
0.2	**REWORKED:** clayey silt, trace organics, brown, moist, firm (weathered/disturbed)		1	SS	5								
260.5													
0.8	**CLAYEY SILT TO SILTY CLAY TILL:** sandy, trace gravel, brown, moist, stiff to very stiff		2	SS	17		261						
			3	SS	17		260						
			4	SS	21		259						
	grey below 2.8m		5	SS	14		258						
			6	SS	9		257						
			7	SS	27		256						
254.6							255						
6.7	**END OF BOREHOLE:** Notes: 1) Borehole was wet at the bottom upon completion.												

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

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE BH23-207

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841130.07 E 592454.22

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

REF. NO.: 23-265-100
ENCL NO.: 8

(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 / 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
259.2													
259.0 0.0	**TOPSOIL:** 200mm												
0.2	**FILL:** clayey silt, trace organics, brown, moist, firm		1	SS	6								
258.2													
1.0	**CLAYEY SILT TO SILTY CLAY TILL:** sandy, trace gravel, brown, moist, stiff to very stiff		2	SS	16								
			3	SS	22								
			4	SS	22								
	grey below 3.1m		5	SS	23								
	wet silt layer at 4.6m		6	SS	9								
253.0													
6.2 252.5	**SILTY SAND TILL:** trace clay, trace gravel, grey, moist, dense		7	SS	35								
6.7	**END OF BOREHOLE:** Notes: 1) Water at depth of 4.6m during drilling.												

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE BH23-208

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4840661.72 E 592085.56

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Aug-10-2023

REF. NO.: 23-265-100
ENCL NO.: 9

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m "N"	ELEVATION
260.8					
260.6 0.0	**TOPSOIL:** 200mm				
0.2	**FILL:** clayey silt, trace organics, dark brown, moist, firm	1	SS	6	
259.9					
0.9	**SILTY CLAY TILL:** some sand, trace gravel, brown, moist, stiff to very stiff	2	SS	20	260
		3	SS	21	259
		4	SS	30	258
	grey below 3.1m	5	SS	25	257
		6	SS	14	
		7	SS	11	
254.1					
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 5.58
Aug. 29, 2023 4.45

W. L. 256.3 masl Aug 29, 2023
W. L. 255.2 masl Aug 18, 2023

Soil Head Space Vapors: PID (ppm) 10 20 30 40; CGD (ppm) 10 20 30 40

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%) 10 20 30

POCKET PEN. (Cu) (kPa)

NATURAL UNIT WT (kN/m³)

REMARKS AND GRAIN SIZE DISTRIBUTION (%)

GR	SA	SI	CL
1	19	46	34

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE BH23-209

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841336.16 E 592108.72

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

REF. NO.: 23-265-100
ENCL NO.: 10

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	"N" BLOWS 0.3 m	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
261.3								10 20 30 40	10 20 30 40	10 20 30			
0.0 / 260.9	**TOPSOIL:** 380mm		1	SS	6		261						PHCs, VOCs
0.4	**FILL:** clayey silt, trace organics, dark brown, moist, firm		2	SS	6		260						M&I, PAHs
259.8													
1.5	**CLAYEY SILT TO SILTY CLAY TILL:** sandy, trace gravel, brown, moist, stiff to very stiff		3	SS	8		259						
			4	SS	21								
			5	SS	21		258						pH
257.6													
3.7	**END OF BOREHOLE:** Notes; 1) Borehole wet at the bottom upon completion.												

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GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE BH23-210

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841294.66 E 592163.93

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

REF. NO.: 23-265-100
ENCL NO.: 11

(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
261.6													
0.0	**FILL:** sandy silt, trace asphalt pieces, trace gravel, brown, moist, compact		1	SS	11		261						M&I, PAHs
260.7													
0.9	**SILTY CLAY TILL:** some sand to sandy, trace gravel, brown, moist, stiff to very stiff		2	SS	16	W. L. 260.7 masl Aug 18, 2023 masl							PHCs, VOCs DUP-1
			3	SS	21	Mar 04, 2024 masl Aug 29, 2023							1 14 41 44
	wet silty sand layer at 2.3m		4	SS	25		259						PHCs, VOCs
			5	SS	20		258						5 27 44 24
	grey below 4.6m		6	SS	10		257						
							256						
254.9			7	SS	23		255						
6.7	**END OF BOREHOLE:**												

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

Date: Water Level(mbgs):
August 18, 2023 0.91
Aug. 29, 2023 1.4
Mar. 4, 2024 1.15

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE MW24-1

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841403.52 E 592233.52

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Feb-28-2024

REF. NO.: 23-265-100
ENCL NO.: 12

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m "N"	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
261.7					
261.6 0.0	**TOPSOIL:** 230 mm				
0.2	**CLAYEY SILT:** trace sand, brown, moist	1	SS		M&I, PAHs
1		2	SS		PHCs, VOCs
260.2					
1.5	**CLAYEY SILT TILL:** trace sand, trace gravel, brown, moist	3	SS		
2		4	SS		
3		5	SS		
4	grey @ 4.6 m	6	SS		
5					
6	wet @ 6.1 m	7	SS		
255.0					
6.7	**END OF BOREHOLE:**				

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

Date: Water Level(mbgs):
Mar. 1, 2024 0.71
Mar. 4, 2024 1.65

GROUND WATER CONDITIONS: W. L. 261.0 masl Mar 01, 2024; W. L. 260.0 masl Mar 04, 2024

Soil Head Space Vapors: PID (ppm) 10 20 30 40; CGD (ppm) 10 20 30 40

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%) 10 20 30

POCKET PEN. (Cu) (kPa)

NATURAL UNIT WT (kN/m³)

ELEVATION 261 260 259 258 257 256 255

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE MW24-2

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841356.17 E 592212.82

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Feb-29-2024

REF. NO.: 23-265-100
ENCL NO.: 13

(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 / 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
261.8								10 20 30 40	10 20 30 40	10 20 30			
261.8	**FILL:** granular, 130 mm												
0.1	**FILL:** clayey silt, trace gravel, brown, moist		1	SS			W. L. 261.5 masl Mar 01, 2024						M&I, PAHs
261.0							261						
0.7	**CLAYEY SILT:** brown, moist		2	SS									
259.5			3	SS			260						PHCs, VOCs
2.3	**CLAYEY SILT TILL:** brown to grey, moist		4	SS			259						
			5	SS			258						
	wet @ 4.6 m		6	SS			257						
256.6													
5.2	**END OF BOREHOLE:**												

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

Date:	Water Level(mbgs):
Mar. 1, 2024	0.25
Mar. 4, 2024	0.24

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

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LOG OF BOREHOLE MW24-3

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841342.465 E 592161.428

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Feb-28-2024

REF. NO.: 23-265-100
ENCL NO.: 14

ELEV / DEPTH (m)	DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors: PID (ppm)	Soil Head Space Vapors: CGD (ppm)	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT; WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
262.0													
0.0 / 261.7	**FILL:** silty sand, some gravel, brown, moist		1	SS									M&I, DUP-4
0.3	**CLAYEY SILT:** brown, moist												
1			2	SS			261						PHCs, VOCs, PAHs
2 / 259.7			3	SS			260						
2.3	**CLAYEY SILT TILL:** trace sand, trace gravel, brown, moist		4	SS			259						
3	wet @ 3.1 m		5	SS			258						
4	grey @ 4.6 m		6	SS			257						
5 / 256.8													
5.2	**END OF BOREHOLE:**												

W. L. 261.7 masl
Mar 01, 2024

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

Date:	Water Level(mbgs):
Mar. 1, 2024	0.27
Mar. 4, 2024	0.36

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 23-265-100ENV - COPY.GPJ DS.GDT 24-3-11

DS CONSULTANTS LTD.
Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology

LOG OF BOREHOLE MW24-4

PROJECT: Phase Two Environmental Site Assessment
CLIENT: Argo Development Corporation
PROJECT LOCATION: 12306 Chinguacousy Rd., Caledon, ON
DATUM: Geodetic
BH LOCATION: See Figure 5 N 4841367.588 E 592135.684

DRILLING DATA
Method: Solid Stem Auger
Diameter: 150mm
Date: Feb-28-2024

REF. NO.: 23-265-100
ENCL NO.: 15

ELEV / DEPTH (m)	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
261.7 / 0.0	**REWORKED CLAYEY SILT:** trace gravel, brown, moist	1	SS									M&I
0.1	**CLAYEY SILT:** trace sand, trace gravel, brown, wet	2	SS			W. L. 261.3 masl Mar 04, 2024						PHCs, VOCs, PAHs
260.2 / 1.5	**CLAYEY SILT TILL:** silty sand seams, brown, moist	3	SS			W. L. 260.2 masl Mar 01, 2024						
		4	SS			259						
		5	SS			258						
	grey @ 4.6 m	6	SS			257						
						256						
255.0 / 6.7	**END OF BOREHOLE:**	7	SS									

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

Date: Water Level(mbgs):
Mar. 1, 2024 1.50
Mar. 4, 2024 0.42

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

Appendix D

Your Project #: 23-265-100
Site Location: 12306 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: 2023/08/28
Report #: R7785441
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3P0398
Received: 2023/08/17, 15:14

Sample Matrix: Soil
Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	4	N/A	2023/08/28	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	2	2023/08/24	2023/08/24	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2023/08/25	2023/08/25	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	5	N/A	2023/08/24		EPA 8260C m
Free (WAD) Cyanide	3	2023/08/23	2023/08/23	CAM SOP-00457	OMOE E3015 m
Conductivity	3	2023/08/23	2023/08/23	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	3	2023/08/23	2023/08/23	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	5	2023/08/23	2023/08/23	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	1	2023/08/23	2023/08/23	CAM SOP-00447	EPA 6020B m
Acid Extractable Metals by ICPMS	2	2023/08/23	2023/08/24	CAM SOP-00447	EPA 6020B m
Moisture	9	N/A	2023/08/22	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	4	2023/08/23	2023/08/25	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	5	2023/08/23	2023/08/23	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	3	N/A	2023/08/23	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	5	N/A	2023/08/23	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

Your Project #: 23-265-100
Site Location: 12306 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: 2023/08/28
Report #: R7785441
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3P0398
Received: 2023/08/17, 15:14

dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Soils are reported on a dry weight basis unless otherwise specified.
(2) 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

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
28 Aug 2023 12:09:21

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 #: C3P0398
Report Date: 2023/08/28

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			WSM736			WSM736		
Sampling Date			2023/08/14			2023/08/14		
COC Number			n/a			n/a		
	UNITS	Criteria	BH23-201 SS1	RDL	QC Batch	BH23-201 SS1 Lab-Dup	RDL	QC Batch
Calculated Parameters								
Sodium Adsorption Ratio	N/A	5.0	0.25 (1)		8867407			
Inorganics								
Conductivity	mS/cm	0.7	0.16	0.002	8871144	0.15	0.002	8871144
Available (CaCl2) pH	pH	-	7.60		8870535			
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	8870521			
Chromium (VI)	ug/g	0.66	<0.18	0.18	8870718			
Metals								
Hot Water Ext. Boron (B)	ug/g	1.5	0.31	0.050	8874556			
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.20	8870774	<0.20	0.20	8870774
Acid Extractable Arsenic (As)	ug/g	18	6.8	1.0	8870774	6.2	1.0	8870774
Acid Extractable Barium (Ba)	ug/g	220	110	0.50	8870774	100	0.50	8870774
Acid Extractable Beryllium (Be)	ug/g	2.5	0.71	0.20	8870774	0.64	0.20	8870774
Acid Extractable Boron (B)	ug/g	36	5.6	5.0	8870774	<5.0	5.0	8870774
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.18	0.10	8870774	0.13	0.10	8870774
Acid Extractable Chromium (Cr)	ug/g	70	19	1.0	8870774	19	1.0	8870774
Acid Extractable Cobalt (Co)	ug/g	22	9.4	0.10	8870774	8.4	0.10	8870774
Acid Extractable Copper (Cu)	ug/g	92	30	0.50	8870774	28	0.50	8870774
Acid Extractable Lead (Pb)	ug/g	120	11	1.0	8870774	11	1.0	8870774
Acid Extractable Molybdenum (Mo)	ug/g	2	0.90	0.50	8870774	0.83	0.50	8870774
Acid Extractable Nickel (Ni)	ug/g	82	19	0.50	8870774	17	0.50	8870774
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	8870774	<0.50	0.50	8870774
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	8870774	<0.20	0.20	8870774
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.050	8870774	0.090	0.050	8870774
Acid Extractable Uranium (U)	ug/g	2.5	0.70	0.050	8870774	0.70	0.050	8870774

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
(1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

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 #: C3P0398
Report Date: 2023/08/28

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			WSM736			WSM736		
Sampling Date			2023/08/14			2023/08/14		
COC Number			n/a			n/a		
	UNITS	Criteria	BH23-201 SS1	RDL	QC Batch	BH23-201 SS1 Lab-Dup	RDL	QC Batch
Acid Extractable Vanadium (V)	ug/g	86	33	5.0	8870774	31	5.0	8870774
Acid Extractable Zinc (Zn)	ug/g	290	56	5.0	8870774	52	5.0	8870774
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	8870774	0.062	0.050	8870774

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			WSM740			WSM740		
Sampling Date			2023/08/15			2023/08/15		
COC Number			n/a			n/a		
	UNITS	Criteria	BH23-209 SS2	RDL	QC Batch	BH23-209 SS2 Lab-Dup	RDL	QC Batch
Calculated Parameters								
Sodium Adsorption Ratio	N/A	5.0	0.58		8867407			
Inorganics								
Conductivity	mS/cm	0.7	0.32	0.002	8871144			
Available (CaCl2) pH	pH	-	7.57		8870535			
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	8870521			
Chromium (VI)	ug/g	0.66	<0.18	0.18	8870718			
Metals								
Hot Water Ext. Boron (B)	ug/g	1.5	0.17	0.050	8876559			
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.20	8870849	<0.20	0.20	8870849
Acid Extractable Arsenic (As)	ug/g	18	4.3	1.0	8870849	4.7	1.0	8870849
Acid Extractable Barium (Ba)	ug/g	220	110	0.50	8870849	110	0.50	8870849
Acid Extractable Beryllium (Be)	ug/g	2.5	0.89	0.20	8870849	0.88	0.20	8870849
Acid Extractable Boron (B)	ug/g	36	9.3	5.0	8870849	8.9	5.0	8870849
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	8870849	<0.10	0.10	8870849
Acid Extractable Chromium (Cr)	ug/g	70	27	1.0	8870849	28	1.0	8870849
Acid Extractable Cobalt (Co)	ug/g	22	13	0.10	8870849	13	0.10	8870849
Acid Extractable Copper (Cu)	ug/g	92	24	0.50	8870849	24	0.50	8870849
Acid Extractable Lead (Pb)	ug/g	120	10	1.0	8870849	11	1.0	8870849
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	8870849	<0.50	0.50	8870849
Acid Extractable Nickel (Ni)	ug/g	82	29	0.50	8870849	31	0.50	8870849
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	8870849	<0.50	0.50	8870849
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	8870849	<0.20	0.20	8870849
Acid Extractable Thallium (Tl)	ug/g	1	0.16	0.050	8870849	0.15	0.050	8870849
Acid Extractable Uranium (U)	ug/g	2.5	0.89	0.050	8870849	0.92	0.050	8870849
Acid Extractable Vanadium (V)	ug/g	86	38	5.0	8870849	39	5.0	8870849
Acid Extractable Zinc (Zn)	ug/g	290	63	5.0	8870849	67	5.0	8870849

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			WSM740			WSM740		
Sampling Date			2023/08/15			2023/08/15		
COC Number			n/a			n/a		
	UNITS	Criteria	BH23-209 SS2	RDL	QC Batch	BH23-209 SS2 Lab-Dup	RDL	QC Batch
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	8870849	<0.050	0.050	8870849

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			WSM742		
Sampling Date			2023/08/15		
COC Number			n/a		
	UNITS	Criteria	BH23-210 SS1	RDL	QC Batch
Calculated Parameters					
Sodium Adsorption Ratio	N/A	5.0	0.26 (1)		8867407
Inorganics					
Conductivity	mS/cm	0.7	0.19	0.002	8871144
Available (CaCl2) pH	pH	-	8.08		8870535
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	8870521
Chromium (VI)	ug/g	0.66	<0.18	0.18	8870718
Metals					
Hot Water Ext. Boron (B)	ug/g	1.5	0.53	0.050	8874556
Acid Extractable Antimony (Sb)	ug/g	1.3	0.26	0.20	8870849
Acid Extractable Arsenic (As)	ug/g	18	3.7	1.0	8870849
Acid Extractable Barium (Ba)	ug/g	220	57	0.50	8870849
Acid Extractable Beryllium (Be)	ug/g	2.5	0.49	0.20	8870849
Acid Extractable Boron (B)	ug/g	36	6.7	5.0	8870849
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.23	0.10	8870849
Acid Extractable Chromium (Cr)	ug/g	70	21	1.0	8870849
Acid Extractable Cobalt (Co)	ug/g	22	7.4	0.10	8870849
Acid Extractable Copper (Cu)	ug/g	92	20	0.50	8870849
Acid Extractable Lead (Pb)	ug/g	120	18	1.0	8870849
Acid Extractable Molybdenum (Mo)	ug/g	2	0.74	0.50	8870849
Acid Extractable Nickel (Ni)	ug/g	82	15	0.50	8870849
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	8870849
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	8870849
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.050	8870849
Acid Extractable Uranium (U)	ug/g	2.5	0.59	0.050	8870849

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 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

(1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

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O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			WSM742		
Sampling Date			2023/08/15		
COC Number			n/a		
	UNITS	Criteria	BH23-210 SS1	RDL	QC Batch
Acid Extractable Vanadium (V)	ug/g	86	27	5.0	8870849
Acid Extractable Zinc (Zn)	ug/g	290	100	5.0	8870849
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	8870849

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 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Bureau Veritas Job #: C3P0398
Report Date: 2023/08/28

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

O.REG 153 PAHS (SOIL)

Bureau Veritas ID			WSM736	WSM740		WSM742			WTG821		
Sampling Date			2023/08/14	2023/08/15		2023/08/15			2023/08/14		
COC Number			n/a	n/a		n/a			n/a		
	UNITS	Criteria	BH23-201 SS1	BH23-209 SS2	RDL	BH23-210 SS1	RDL	QC Batch	DUP-2	RDL	QC Batch
Calculated Parameters											
Methylnaphthalene, 2-(1-)	ug/g	0.59	<0.0071	<0.0071	0.0071	<0.071	0.071	8867408	<0.0071	0.0071	8868434
Polyaromatic Hydrocarbons											
Acenaphthene	ug/g	0.072	<0.0050	<0.0050	0.0050	<0.050	0.050	8870484	<0.0050	0.0050	8870484
Acenaphthylene	ug/g	0.093	<0.0050	<0.0050	0.0050	<0.050	0.050	8870484	<0.0050	0.0050	8870484
Anthracene	ug/g	0.22	<0.0050	<0.0050	0.0050	<0.050	0.050	8870484	<0.0050	0.0050	8870484
Benzo(a)anthracene	ug/g	0.36	<0.0050	<0.0050	0.0050	0.076	0.050	8870484	<0.0050	0.0050	8870484
Benzo(a)pyrene	ug/g	0.3	<0.0050	<0.0050	0.0050	0.088	0.050	8870484	<0.0050	0.0050	8870484
Benzo(b/j)fluoranthene	ug/g	0.47	<0.0050	<0.0050	0.0050	0.12	0.050	8870484	<0.0050	0.0050	8870484
Benzo(g,h,i)perylene	ug/g	0.68	<0.0050	<0.0050	0.0050	0.11	0.050	8870484	<0.0050	0.0050	8870484
Benzo(k)fluoranthene	ug/g	0.48	<0.0050	<0.0050	0.0050	<0.050	0.050	8870484	<0.0050	0.0050	8870484
Chrysene	ug/g	2.8	<0.0050	<0.0050	0.0050	0.090	0.050	8870484	<0.0050	0.0050	8870484
Dibenzo(a,h)anthracene	ug/g	0.1	<0.0050	<0.0050	0.0050	<0.050	0.050	8870484	<0.0050	0.0050	8870484
Fluoranthene	ug/g	0.69	<0.0050	<0.0050	0.0050	0.18	0.050	8870484	<0.0050	0.0050	8870484
Fluorene	ug/g	0.19	<0.0050	<0.0050	0.0050	<0.050	0.050	8870484	<0.0050	0.0050	8870484
Indeno(1,2,3-cd)pyrene	ug/g	0.23	<0.0050	<0.0050	0.0050	0.070	0.050	8870484	<0.0050	0.0050	8870484
1-Methylnaphthalene	ug/g	0.59	<0.0050	<0.0050	0.0050	<0.050	0.050	8870484	<0.0050	0.0050	8870484
2-Methylnaphthalene	ug/g	0.59	<0.0050	<0.0050	0.0050	<0.050	0.050	8870484	<0.0050	0.0050	8870484
Naphthalene	ug/g	0.09	<0.0050	<0.0050	0.0050	<0.050	0.050	8870484	<0.0050	0.0050	8870484
Phenanthrene	ug/g	0.69	<0.0050	<0.0050	0.0050	0.067	0.050	8870484	<0.0050	0.0050	8870484
Pyrene	ug/g	1	<0.0050	<0.0050	0.0050	0.15	0.050	8870484	<0.0050	0.0050	8870484
Surrogate Recovery (%)											
D10-Anthracene	%	-	102	93		116		8870484	100		8870484
D14-Terphenyl (FS)	%	-	97	90		101		8870484	96		8870484
D8-Acenaphthylene	%	-	88	82		95		8870484	90		8870484

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 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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O.REG 153 PAHS (SOIL)

Bureau Veritas ID			WTG821		
Sampling Date			2023/08/14		
COC Number			n/a		
	UNITS	Criteria	DUP-2 Lab-Dup	RDL	QC Batch
Polyaromatic Hydrocarbons					
Acenaphthene	ug/g	0.072	<0.0050	0.0050	8870484
Acenaphthylene	ug/g	0.093	<0.0050	0.0050	8870484
Anthracene	ug/g	0.22	<0.0050	0.0050	8870484
Benzo(a)anthracene	ug/g	0.36	<0.0050	0.0050	8870484
Benzo(a)pyrene	ug/g	0.3	<0.0050	0.0050	8870484
Benzo(b/j)fluoranthene	ug/g	0.47	<0.0050	0.0050	8870484
Benzo(g,h,i)perylene	ug/g	0.68	<0.0050	0.0050	8870484
Benzo(k)fluoranthene	ug/g	0.48	<0.0050	0.0050	8870484
Chrysene	ug/g	2.8	<0.0050	0.0050	8870484
Dibenzo(a,h)anthracene	ug/g	0.1	<0.0050	0.0050	8870484
Fluoranthene	ug/g	0.69	<0.0050	0.0050	8870484
Fluorene	ug/g	0.19	<0.0050	0.0050	8870484
Indeno(1,2,3-cd)pyrene	ug/g	0.23	<0.0050	0.0050	8870484
1-Methylnaphthalene	ug/g	0.59	<0.0050	0.0050	8870484
2-Methylnaphthalene	ug/g	0.59	<0.0050	0.0050	8870484
Naphthalene	ug/g	0.09	<0.0050	0.0050	8870484
Phenanthrene	ug/g	0.69	<0.0050	0.0050	8870484
Pyrene	ug/g	1	<0.0050	0.0050	8870484
Surrogate Recovery (%)					
D10-Anthracene	%	-	97		8870484
D14-Terphenyl (FS)	%	-	90		8870484
D8-Acenaphthylene	%	-	84		8870484

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
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Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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

Bureau Veritas ID			WSM737			WSM737		
Sampling Date			2023/08/14			2023/08/14		
COC Number			n/a			n/a		
	UNITS	Criteria	BH23-201 SS2	RDL	QC Batch	BH23-201 SS2 Lab-Dup	RDL	QC Batch
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	0.050	8867232			
Volatile Organics								
Acetone (2-Propanone)	ug/g	0.5	<0.49	0.49	8868973	<0.49	0.49	8868973
Benzene	ug/g	0.02	<0.0060	0.0060	8868973	<0.0060	0.0060	8868973
Bromodichloromethane	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Bromoform	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Bromomethane	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Carbon Tetrachloride	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Chlorobenzene	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Chloroform	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Dibromochloromethane	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
1,2-Dichlorobenzene	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
1,3-Dichlorobenzene	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
1,4-Dichlorobenzene	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Dichlorodifluoromethane (FREON 12)	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
1,1-Dichloroethane	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
1,2-Dichloroethane	ug/g	0.05	<0.049	0.049	8868973	<0.049	0.049	8868973
1,1-Dichloroethylene	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
cis-1,2-Dichloroethylene	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
trans-1,2-Dichloroethylene	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
1,2-Dichloropropane	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	0.030	8868973	<0.030	0.030	8868973
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Ethylbenzene	ug/g	0.05	<0.010	0.010	8868973	<0.010	0.010	8868973
Ethylene Dibromide	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Hexane	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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

Bureau Veritas ID			WSM737			WSM737		
Sampling Date			2023/08/14			2023/08/14		
COC Number			n/a			n/a		
	UNITS	Criteria	BH23-201 SS2	RDL	QC Batch	BH23-201 SS2 Lab-Dup	RDL	QC Batch
Methylene Chloride(Dichloromethane)	ug/g	0.05	<0.049	0.049	8868973	<0.049	0.049	8868973
Methyl Ethyl Ketone (2-Butanone)	ug/g	0.5	<0.40	0.40	8868973	<0.40	0.40	8868973
Methyl Isobutyl Ketone	ug/g	0.5	<0.40	0.40	8868973	<0.40	0.40	8868973
Methyl t-butyl ether (MTBE)	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Styrene	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
1,1,1,2-Tetrachloroethane	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Tetrachloroethylene	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Toluene	ug/g	0.2	<0.020	0.020	8868973	<0.020	0.020	8868973
1,1,1-Trichloroethane	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
1,1,2-Trichloroethane	ug/g	0.05	<0.040	0.040	8868973	<0.040	0.040	8868973
Trichloroethylene	ug/g	0.05	<0.010	0.010	8868973	<0.010	0.010	8868973
Trichlorofluoromethane (FREON 11)	ug/g	0.25	<0.040	0.040	8868973	<0.040	0.040	8868973
Vinyl Chloride	ug/g	0.02	<0.019	0.019	8868973	<0.019	0.019	8868973
p+m-Xylene	ug/g	-	<0.020	0.020	8868973	<0.020	0.020	8868973
o-Xylene	ug/g	-	<0.020	0.020	8868973	<0.020	0.020	8868973
Total Xylenes	ug/g	0.05	<0.020	0.020	8868973	<0.020	0.020	8868973
F1 (C6-C10)	ug/g	25	<10	10	8868973	<10	10	8868973
F1 (C6-C10) - BTEX	ug/g	25	<10	10	8868973	<10	10	8868973
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	10	<10	10	8870498			
F3 (C16-C34 Hydrocarbons)	ug/g	240	<50	50	8870498			
F4 (C34-C50 Hydrocarbons)	ug/g	120	<50	50	8870498			
Reached Baseline at C50	ug/g	-	Yes		8870498			
Surrogate Recovery (%)								
o-Terphenyl	%	-	92		8870498			
4-Bromofluorobenzene	%	-	93		8868973	93		8868973

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

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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

Bureau Veritas ID			WSM737			WSM737		
Sampling Date			2023/08/14			2023/08/14		
COC Number			n/a			n/a		
	UNITS	Criteria	BH23-201 SS2	RDL	QC Batch	BH23-201 SS2 Lab-Dup	RDL	QC Batch
D10-o-Xylene	%	-	93		8868973	90		8868973
D4-1,2-Dichloroethane	%	-	104		8868973	103		8868973
D8-Toluene	%	-	97		8868973	97		8868973

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

RDL = Reportable Detection Limit
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Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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

Bureau Veritas ID			WSM739	WSM743		WSM744		
Sampling Date			2023/08/15	2023/08/15		2023/08/15		
COC Number			n/a	n/a		n/a		
	UNITS	Criteria	BH23-209 SS1	BH23-210 SS2	QC Batch	BH23-210 SS4	RDL	QC Batch
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	<0.050	8867232	<0.050	0.050	8868799
Volatile Organics								
Acetone (2-Propanone)	ug/g	0.5	<0.49	<0.49	8868973	<0.49	0.49	8868973
Benzene	ug/g	0.02	<0.0060	<0.0060	8868973	<0.0060	0.0060	8868973
Bromodichloromethane	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Bromoform	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Bromomethane	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Carbon Tetrachloride	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Chlorobenzene	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Chloroform	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Dibromochloromethane	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
1,2-Dichlorobenzene	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
1,3-Dichlorobenzene	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
1,4-Dichlorobenzene	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Dichlorodifluoromethane (FREON 12)	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
1,1-Dichloroethane	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
1,2-Dichloroethane	ug/g	0.05	<0.049	<0.049	8868973	<0.049	0.049	8868973
1,1-Dichloroethylene	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
cis-1,2-Dichloroethylene	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
trans-1,2-Dichloroethylene	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
1,2-Dichloropropane	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	<0.030	8868973	<0.030	0.030	8868973
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Ethylbenzene	ug/g	0.05	<0.010	<0.010	8868973	<0.010	0.010	8868973
Ethylene Dibromide	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Hexane	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Methylene Chloride(Dichloromethane)	ug/g	0.05	<0.049	<0.049	8868973	<0.049	0.049	8868973

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 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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

Bureau Veritas ID			WSM739	WSM743		WSM744		
Sampling Date			2023/08/15	2023/08/15		2023/08/15		
COC Number			n/a	n/a		n/a		
	UNITS	Criteria	BH23-209 SS1	BH23-210 SS2	QC Batch	BH23-210 SS4	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/g	0.5	<0.40	<0.40	8868973	<0.40	0.40	8868973
Methyl Isobutyl Ketone	ug/g	0.5	<0.40	<0.40	8868973	<0.40	0.40	8868973
Methyl t-butyl ether (MTBE)	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Styrene	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
1,1,1,2-Tetrachloroethane	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Tetrachloroethylene	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Toluene	ug/g	0.2	<0.020	<0.020	8868973	<0.020	0.020	8868973
1,1,1-Trichloroethane	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
1,1,2-Trichloroethane	ug/g	0.05	<0.040	<0.040	8868973	<0.040	0.040	8868973
Trichloroethylene	ug/g	0.05	<0.010	<0.010	8868973	<0.010	0.010	8868973
Trichlorofluoromethane (FREON 11)	ug/g	0.25	<0.040	<0.040	8868973	<0.040	0.040	8868973
Vinyl Chloride	ug/g	0.02	<0.019	<0.019	8868973	<0.019	0.019	8868973
p+m-Xylene	ug/g	-	<0.020	<0.020	8868973	<0.020	0.020	8868973
o-Xylene	ug/g	-	<0.020	<0.020	8868973	<0.020	0.020	8868973
Total Xylenes	ug/g	0.05	<0.020	<0.020	8868973	<0.020	0.020	8868973
F1 (C6-C10)	ug/g	25	<10	<10	8868973	<10	10	8868973
F1 (C6-C10) - BTEX	ug/g	25	<10	<10	8868973	<10	10	8868973
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	10	<10	<10	8870498	<10	10	8870498
F3 (C16-C34 Hydrocarbons)	ug/g	240	<50	<50	8870498	<50	50	8870498
F4 (C34-C50 Hydrocarbons)	ug/g	120	<50	<50	8870498	<50	50	8870498
Reached Baseline at C50	ug/g	-	Yes	Yes	8870498	Yes		8870498
Surrogate Recovery (%)								
o-Terphenyl	%	-	95	92	8870498	90		8870498
4-Bromofluorobenzene	%	-	91	92	8868973	93		8868973
D10-o-Xylene	%	-	77	87	8868973	79		8868973
D4-1,2-Dichloroethane	%	-	105	103	8868973	105		8868973

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

Bureau Veritas ID			WSM739	WSM743		WSM744		
Sampling Date			2023/08/15	2023/08/15		2023/08/15		
COC Number			n/a	n/a		n/a		
	UNITS	Criteria	BH23-209 SS1	BH23-210 SS2	QC Batch	BH23-210 SS4	RDL	QC Batch
D8-Toluene	%	-	97	96	8868973	97		8868973

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)
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Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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

Bureau Veritas ID			WSM745			WSM745		
Sampling Date			2023/08/14			2023/08/14		
COC Number			n/a			n/a		
	UNITS	Criteria	DUP-1	RDL	QC Batch	DUP-1 Lab-Dup	RDL	QC Batch
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	0.050	8867817			
Volatile Organics								
Acetone (2-Propanone)	ug/g	0.5	<0.49	0.49	8868973			
Benzene	ug/g	0.02	<0.0060	0.0060	8868973			
Bromodichloromethane	ug/g	0.05	<0.040	0.040	8868973			
Bromoform	ug/g	0.05	<0.040	0.040	8868973			
Bromomethane	ug/g	0.05	<0.040	0.040	8868973			
Carbon Tetrachloride	ug/g	0.05	<0.040	0.040	8868973			
Chlorobenzene	ug/g	0.05	<0.040	0.040	8868973			
Chloroform	ug/g	0.05	<0.040	0.040	8868973			
Dibromochloromethane	ug/g	0.05	<0.040	0.040	8868973			
1,2-Dichlorobenzene	ug/g	0.05	<0.040	0.040	8868973			
1,3-Dichlorobenzene	ug/g	0.05	<0.040	0.040	8868973			
1,4-Dichlorobenzene	ug/g	0.05	<0.040	0.040	8868973			
Dichlorodifluoromethane (FREON 12)	ug/g	0.05	<0.040	0.040	8868973			
1,1-Dichloroethane	ug/g	0.05	<0.040	0.040	8868973			
1,2-Dichloroethane	ug/g	0.05	<0.049	0.049	8868973			
1,1-Dichloroethylene	ug/g	0.05	<0.040	0.040	8868973			
cis-1,2-Dichloroethylene	ug/g	0.05	<0.040	0.040	8868973			
trans-1,2-Dichloroethylene	ug/g	0.05	<0.040	0.040	8868973			
1,2-Dichloropropane	ug/g	0.05	<0.040	0.040	8868973			
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	0.030	8868973			
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	0.040	8868973			
Ethylbenzene	ug/g	0.05	<0.010	0.010	8868973			
Ethylene Dibromide	ug/g	0.05	<0.040	0.040	8868973			
Hexane	ug/g	0.05	<0.040	0.040	8868973			

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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

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

Bureau Veritas ID			WSM745			WSM745		
Sampling Date			2023/08/14			2023/08/14		
COC Number			n/a			n/a		
	UNITS	Criteria	DUP-1	RDL	QC Batch	DUP-1 Lab-Dup	RDL	QC Batch
Methylene Chloride(Dichloromethane)	ug/g	0.05	<0.049	0.049	8868973			
Methyl Ethyl Ketone (2-Butanone)	ug/g	0.5	<0.40	0.40	8868973			
Methyl Isobutyl Ketone	ug/g	0.5	<0.40	0.40	8868973			
Methyl t-butyl ether (MTBE)	ug/g	0.05	<0.040	0.040	8868973			
Styrene	ug/g	0.05	<0.040	0.040	8868973			
1,1,1,2-Tetrachloroethane	ug/g	0.05	<0.040	0.040	8868973			
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	0.040	8868973			
Tetrachloroethylene	ug/g	0.05	<0.040	0.040	8868973			
Toluene	ug/g	0.2	<0.020	0.020	8868973			
1,1,1-Trichloroethane	ug/g	0.05	<0.040	0.040	8868973			
1,1,2-Trichloroethane	ug/g	0.05	<0.040	0.040	8868973			
Trichloroethylene	ug/g	0.05	<0.010	0.010	8868973			
Trichlorofluoromethane (FREON 11)	ug/g	0.25	<0.040	0.040	8868973			
Vinyl Chloride	ug/g	0.02	<0.019	0.019	8868973			
p+m-Xylene	ug/g	-	<0.020	0.020	8868973			
o-Xylene	ug/g	-	<0.020	0.020	8868973			
Total Xylenes	ug/g	0.05	<0.020	0.020	8868973			
F1 (C6-C10)	ug/g	25	<10	10	8868973			
F1 (C6-C10) - BTEX	ug/g	25	<10	10	8868973			
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	10	<10	10	8870498	<10	10	8870498
F3 (C16-C34 Hydrocarbons)	ug/g	240	<50	50	8870498	<50	50	8870498
F4 (C34-C50 Hydrocarbons)	ug/g	120	<50	50	8870498	<50	50	8870498
Reached Baseline at C50	ug/g	-	Yes		8870498	Yes		8870498
Surrogate Recovery (%)								
o-Terphenyl	%	-	90		8870498	94		8870498
4-Bromofluorobenzene	%	-	94		8868973			

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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

Bureau Veritas ID			WSM745			WSM745		
Sampling Date			2023/08/14			2023/08/14		
COC Number			n/a			n/a		
	UNITS	Criteria	DUP-1	RDL	QC Batch	DUP-1 Lab-Dup	RDL	QC Batch
D10-o-Xylene	%	-	88		8868973			
D4-1,2-Dichloroethane	%	-	104		8868973			
D8-Toluene	%	-	97		8868973			

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Bureau Veritas Job #: C3P0398
Report Date: 2023/08/28

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		WSM736	WSM737			WSM738		WSM739		
Sampling Date		2023/08/14	2023/08/14			2023/08/14		2023/08/15		
COC Number		n/a	n/a			n/a		n/a		
	UNITS	BH23-201 SS1	BH23-201 SS2	RDL	QC Batch	BH23-201 SS5	QC Batch	BH23-209 SS1	RDL	QC Batch
Inorganics										
Moisture	%	12	17	1.0	8868966			18	1.0	8868966
Available (CaCl2) pH	pH					7.94	8870535			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WSM740			WSM741		WSM742	WSM743		
Sampling Date		2023/08/15			2023/08/15		2023/08/15	2023/08/15		
COC Number		n/a			n/a		n/a	n/a		
	UNITS	BH23-209 SS2	RDL	QC Batch	BH23-209 SS5	QC Batch	BH23-210 SS1	BH23-210 SS2	RDL	QC Batch
Inorganics										
Moisture	%	17	1.0	8868966			8.8	18	1.0	8868966
Available (CaCl2) pH	pH				7.66	8870535				

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		WSM743	WSM744	WSM745	WTG821		
Sampling Date		2023/08/15	2023/08/15	2023/08/14	2023/08/14		
COC Number		n/a	n/a	n/a	n/a		
	UNITS	BH23-210 SS2 Lab-Dup	BH23-210 SS4	DUP-1	DUP-2	RDL	QC Batch
Inorganics							
Moisture	%	18	14	14	16	1.0	8868966

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

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Bureau Veritas Job #: C3P0398
Report Date: 2023/08/28

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: WSM736
Sample ID: BH23-201 SS1
Matrix: Soil
Collected: 2023/08/14
Shipped:
Received: 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8867408	N/A	2023/08/28	Automated Statchk
Hot Water Extractable Boron	ICP	8874556	2023/08/24	2023/08/24	Japneet Gill
Free (WAD) Cyanide	TECH	8870521	2023/08/23	2023/08/23	Prgya Panchal
Conductivity	AT	8871144	2023/08/23	2023/08/23	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	8870718	2023/08/23	2023/08/23	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	8870774	2023/08/23	2023/08/23	Indira HarryPaul
Moisture	BAL	8868966	N/A	2023/08/22	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8870484	2023/08/23	2023/08/25	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8870535	2023/08/23	2023/08/23	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	8867407	N/A	2023/08/23	Automated Statchk

Bureau Veritas ID: WSM736 Dup
Sample ID: BH23-201 SS1
Matrix: Soil
Collected: 2023/08/14
Shipped:
Received: 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	8871144	2023/08/23	2023/08/23	Leily Karimi
Acid Extractable Metals by ICPMS	ICP/MS	8870774	2023/08/23	2023/08/23	Indira HarryPaul

Bureau Veritas ID: WSM737
Sample ID: BH23-201 SS2
Matrix: Soil
Collected: 2023/08/14
Shipped:
Received: 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8867232	N/A	2023/08/24	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8870498	2023/08/23	2023/08/23	Emir Danisman
Moisture	BAL	8868966	N/A	2023/08/22	Simrat Bhathal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8868973	N/A	2023/08/23	Xueming Jiang

Bureau Veritas ID: WSM737 Dup
Sample ID: BH23-201 SS2
Matrix: Soil
Collected: 2023/08/14
Shipped:
Received: 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8868973	N/A	2023/08/23	Xueming Jiang

Bureau Veritas ID: WSM738
Sample ID: BH23-201 SS5
Matrix: Soil
Collected: 2023/08/14
Shipped:
Received: 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	8870535	2023/08/23	2023/08/23	Gurparteek KAUR

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Bureau Veritas Job #: C3P0398
Report Date: 2023/08/28

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: WSM739
Sample ID: BH23-209 SS1
Matrix: Soil

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

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8867232	N/A	2023/08/24	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8870498	2023/08/23	2023/08/23	Emir Danisman
Moisture	BAL	8868966	N/A	2023/08/22	Simrat Bhathal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8868973	N/A	2023/08/23	Xueming Jiang

Bureau Veritas ID: WSM740
Sample ID: BH23-209 SS2
Matrix: Soil

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

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8867408	N/A	2023/08/28	Automated Statchk
Hot Water Extractable Boron	ICP	8876559	2023/08/25	2023/08/25	Japneet Gill
Free (WAD) Cyanide	TECH	8870521	2023/08/23	2023/08/23	Prgya Panchal
Conductivity	AT	8871144	2023/08/23	2023/08/23	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	8870718	2023/08/23	2023/08/23	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	8870849	2023/08/23	2023/08/24	Indira HarryPaul
Moisture	BAL	8868966	N/A	2023/08/22	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8870484	2023/08/23	2023/08/25	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8870535	2023/08/23	2023/08/23	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	8867407	N/A	2023/08/23	Automated Statchk

Bureau Veritas ID: WSM740 Dup
Sample ID: BH23-209 SS2
Matrix: Soil

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

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	8870849	2023/08/23	2023/08/24	Indira HarryPaul

Bureau Veritas ID: WSM741
Sample ID: BH23-209 SS5
Matrix: Soil

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

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	8870535	2023/08/23	2023/08/23	Gurparteek KAUR

Bureau Veritas ID: WSM742
Sample ID: BH23-210 SS1
Matrix: Soil

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

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8867408	N/A	2023/08/28	Automated Statchk
Hot Water Extractable Boron	ICP	8874556	2023/08/24	2023/08/24	Japneet Gill
Free (WAD) Cyanide	TECH	8870521	2023/08/23	2023/08/23	Prgya Panchal
Conductivity	AT	8871144	2023/08/23	2023/08/23	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	8870718	2023/08/23	2023/08/23	Violeta Porcila

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TEST SUMMARY

Bureau Veritas ID: WSM742 **Collected:** 2023/08/15
Sample ID: BH23-210 SS1 **Shipped:**
Matrix: Soil **Received:** 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	8870849	2023/08/23	2023/08/24	Indira HarryPaul
Moisture	BAL	8868966	N/A	2023/08/22	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8870484	2023/08/23	2023/08/25	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8870535	2023/08/23	2023/08/23	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	8867407	N/A	2023/08/23	Automated Statchk

Bureau Veritas ID: WSM743 **Collected:** 2023/08/15
Sample ID: BH23-210 SS2 **Shipped:**
Matrix: Soil **Received:** 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8867232	N/A	2023/08/24	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8870498	2023/08/23	2023/08/23	Emir Danisman
Moisture	BAL	8868966	N/A	2023/08/22	Simrat Bhathal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8868973	N/A	2023/08/23	Xueming Jiang

Bureau Veritas ID: WSM743 Dup **Collected:** 2023/08/15
Sample ID: BH23-210 SS2 **Shipped:**
Matrix: Soil **Received:** 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	8868966	N/A	2023/08/22	Simrat Bhathal

Bureau Veritas ID: WSM744 **Collected:** 2023/08/15
Sample ID: BH23-210 SS4 **Shipped:**
Matrix: Soil **Received:** 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8868799	N/A	2023/08/24	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8870498	2023/08/23	2023/08/23	Emir Danisman
Moisture	BAL	8868966	N/A	2023/08/22	Simrat Bhathal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8868973	N/A	2023/08/23	Xueming Jiang

Bureau Veritas ID: WSM745 **Collected:** 2023/08/14
Sample ID: DUP-1 **Shipped:**
Matrix: Soil **Received:** 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8867817	N/A	2023/08/24	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8870498	2023/08/23	2023/08/23	Emir Danisman
Moisture	BAL	8868966	N/A	2023/08/22	Simrat Bhathal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8868973	N/A	2023/08/23	Xueming Jiang

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Bureau Veritas Job #: C3P0398
Report Date: 2023/08/28

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: WSM745 Dup
Sample ID: DUP-1
Matrix: Soil

Collected: 2023/08/14
Shipped:
Received: 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8870498	2023/08/23	2023/08/23	Emir Danisman

Bureau Veritas ID: WTG821
Sample ID: DUP-2
Matrix: Soil

Collected: 2023/08/14
Shipped:
Received: 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8868434	N/A	2023/08/28	Automated Statchk
Moisture	BAL	8868966	N/A	2023/08/22	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8870484	2023/08/23	2023/08/25	Jonghan Yoon

Bureau Veritas ID: WTG821 Dup
Sample ID: DUP-2
Matrix: Soil

Collected: 2023/08/14
Shipped:
Received: 2023/08/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8870484	2023/08/23	2023/08/25	Jonghan Yoon

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GENERAL COMMENTS

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

Package 1	7.0°C

Sample WSM742 [BH23-210 SS1] : PAH 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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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8868973	4-Bromofluorobenzene	2023/08/23	100	60 - 140	97	60 - 140	94	%		
8868973	D10-o-Xylene	2023/08/23	99	60 - 130	107	60 - 130	94	%		
8868973	D4-1,2-Dichloroethane	2023/08/23	100	60 - 140	98	60 - 140	108	%		
8868973	D8-Toluene	2023/08/23	110	60 - 140	109	60 - 140	95	%		
8870484	D10-Anthracene	2023/08/25	97	50 - 130	99	50 - 130	106	%		
8870484	D14-Terphenyl (FS)	2023/08/25	96	50 - 130	94	50 - 130	95	%		
8870484	D8-Acenaphthylene	2023/08/25	91	50 - 130	92	50 - 130	90	%		
8870498	o-Terphenyl	2023/08/23	93	60 - 130	89	60 - 130	88	%		
8868966	Moisture	2023/08/22							1.1	20
8868973	1,1,1,2-Tetrachloroethane	2023/08/23	96	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8868973	1,1,1-Trichloroethane	2023/08/23	88	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8868973	1,1,2,2-Tetrachloroethane	2023/08/23	103	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
8868973	1,1,2-Trichloroethane	2023/08/23	95	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8868973	1,1-Dichloroethane	2023/08/23	97	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
8868973	1,1-Dichloroethylene	2023/08/23	87	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8868973	1,2-Dichlorobenzene	2023/08/23	86	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8868973	1,2-Dichloroethane	2023/08/23	88	60 - 140	88	60 - 130	<0.049	ug/g	NC	50
8868973	1,2-Dichloropropane	2023/08/23	93	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8868973	1,3-Dichlorobenzene	2023/08/23	86	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8868973	1,4-Dichlorobenzene	2023/08/23	84	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
8868973	Acetone (2-Propanone)	2023/08/23	95	60 - 140	92	60 - 140	<0.49	ug/g	NC	50
8868973	Benzene	2023/08/23	90	60 - 140	95	60 - 130	<0.0060	ug/g	NC	50
8868973	Bromodichloromethane	2023/08/23	92	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
8868973	Bromoform	2023/08/23	94	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8868973	Bromomethane	2023/08/23	91	60 - 140	93	60 - 140	<0.040	ug/g	NC	50
8868973	Carbon Tetrachloride	2023/08/23	88	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8868973	Chlorobenzene	2023/08/23	87	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
8868973	Chloroform	2023/08/23	92	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8868973	cis-1,2-Dichloroethylene	2023/08/23	90	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8868973	cis-1,3-Dichloropropene	2023/08/23	78	60 - 140	81	60 - 130	<0.030	ug/g	NC	50
8868973	Dibromochloromethane	2023/08/23	96	60 - 140	96	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
8868973	Dichlorodifluoromethane (FREON 12)	2023/08/23	86	60 - 140	88	60 - 140	<0.040	ug/g	NC	50
8868973	Ethylbenzene	2023/08/23	79	60 - 140	83	60 - 130	<0.010	ug/g	NC	50
8868973	Ethylene Dibromide	2023/08/23	96	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8868973	F1 (C6-C10) - BTEX	2023/08/23					<10	ug/g	NC	30
8868973	F1 (C6-C10)	2023/08/23	88	60 - 140	98	80 - 120	<10	ug/g	NC	30
8868973	Hexane	2023/08/23	86	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8868973	Methyl Ethyl Ketone (2-Butanone)	2023/08/23	98	60 - 140	97	60 - 140	<0.40	ug/g	NC	50
8868973	Methyl Isobutyl Ketone	2023/08/23	86	60 - 140	87	60 - 130	<0.40	ug/g	NC	50
8868973	Methyl t-butyl ether (MTBE)	2023/08/23	81	60 - 140	83	60 - 130	<0.040	ug/g	NC	50
8868973	Methylene Chloride(Dichloromethane)	2023/08/23	91	60 - 140	93	60 - 130	<0.049	ug/g	NC	50
8868973	o-Xylene	2023/08/23	80	60 - 140	84	60 - 130	<0.020	ug/g	NC	50
8868973	p+m-Xylene	2023/08/23	77	60 - 140	82	60 - 130	<0.020	ug/g	NC	50
8868973	Styrene	2023/08/23	82	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
8868973	Tetrachloroethylene	2023/08/23	93	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8868973	Toluene	2023/08/23	93	60 - 140	97	60 - 130	<0.020	ug/g	NC	50
8868973	Total Xylenes	2023/08/23					<0.020	ug/g	NC	50
8868973	trans-1,2-Dichloroethylene	2023/08/23	91	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8868973	trans-1,3-Dichloropropene	2023/08/23	84	60 - 140	85	60 - 130	<0.040	ug/g	NC	50
8868973	Trichloroethylene	2023/08/23	85	60 - 140	88	60 - 130	<0.010	ug/g	NC	50
8868973	Trichlorofluoromethane (FREON 11)	2023/08/23	92	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8868973	Vinyl Chloride	2023/08/23	104	60 - 140	108	60 - 130	<0.019	ug/g	NC	50
8870484	1-Methylnaphthalene	2023/08/25	106	50 - 130	110	50 - 130	<0.0050	ug/g	NC	40
8870484	2-Methylnaphthalene	2023/08/25	97	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
8870484	Acenaphthene	2023/08/25	96	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8870484	Acenaphthylene	2023/08/25	93	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
8870484	Anthracene	2023/08/25	99	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8870484	Benzo(a)anthracene	2023/08/25	96	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8870484	Benzo(a)pyrene	2023/08/25	90	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
8870484	Benzo(b/j)fluoranthene	2023/08/25	98	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8870484	Benzo(g,h,i)perylene	2023/08/25	92	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
8870484	Benzo(k)fluoranthene	2023/08/25	90	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8870484	Chrysene	2023/08/25	97	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8870484	Dibenzo(a,h)anthracene	2023/08/25	95	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
8870484	Fluoranthene	2023/08/25	101	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
8870484	Fluorene	2023/08/25	103	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
8870484	Indeno(1,2,3-cd)pyrene	2023/08/25	94	50 - 130	97	50 - 130	<0.0050	ug/g	NC	40
8870484	Naphthalene	2023/08/25	88	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
8870484	Phenanthrene	2023/08/25	95	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8870484	Pyrene	2023/08/25	102	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
8870498	F2 (C10-C16 Hydrocarbons)	2023/08/23	104	60 - 130	99	80 - 120	<10	ug/g	NC	30
8870498	F3 (C16-C34 Hydrocarbons)	2023/08/23	103	60 - 130	99	80 - 120	<50	ug/g	NC	30
8870498	F4 (C34-C50 Hydrocarbons)	2023/08/23	102	60 - 130	97	80 - 120	<50	ug/g	NC	30
8870521	WAD Cyanide (Free)	2023/08/23	86	75 - 125	99	80 - 120	<0.01	ug/g	NC	35
8870535	Available (CaCl2) pH	2023/08/23			101	97 - 103			0.11	N/A
8870718	Chromium (VI)	2023/08/23	92	70 - 130	90	80 - 120	<0.18	ug/g	9.0	35
8870774	Acid Extractable Antimony (Sb)	2023/08/23	92	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
8870774	Acid Extractable Arsenic (As)	2023/08/23	99	75 - 125	103	80 - 120	<1.0	ug/g	9.8	30
8870774	Acid Extractable Barium (Ba)	2023/08/23	NC	75 - 125	95	80 - 120	<0.50	ug/g	5.1	30
8870774	Acid Extractable Beryllium (Be)	2023/08/23	101	75 - 125	96	80 - 120	<0.20	ug/g	9.8	30
8870774	Acid Extractable Boron (B)	2023/08/23	90	75 - 125	96	80 - 120	<5.0	ug/g	11	30
8870774	Acid Extractable Cadmium (Cd)	2023/08/23	102	75 - 125	97	80 - 120	<0.10	ug/g	NC	30
8870774	Acid Extractable Chromium (Cr)	2023/08/23	112	75 - 125	103	80 - 120	<1.0	ug/g	3.7	30
8870774	Acid Extractable Cobalt (Co)	2023/08/23	102	75 - 125	103	80 - 120	<0.10	ug/g	11	30
8870774	Acid Extractable Copper (Cu)	2023/08/23	NC	75 - 125	100	80 - 120	<0.50	ug/g	5.4	30
8870774	Acid Extractable Lead (Pb)	2023/08/23	105	75 - 125	104	80 - 120	<1.0	ug/g	1.9	30
8870774	Acid Extractable Mercury (Hg)	2023/08/23	108	75 - 125	106	80 - 120	<0.050	ug/g	21	30
8870774	Acid Extractable Molybdenum (Mo)	2023/08/23	103	75 - 125	103	80 - 120	<0.50	ug/g	7.5	30
8870774	Acid Extractable Nickel (Ni)	2023/08/23	104	75 - 125	99	80 - 120	<0.50	ug/g	11	30
8870774	Acid Extractable Selenium (Se)	2023/08/23	109	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
8870774	Acid Extractable Silver (Ag)	2023/08/23	108	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
8870774	Acid Extractable Thallium (Tl)	2023/08/23	106	75 - 125	104	80 - 120	<0.050	ug/g	17	30
8870774	Acid Extractable Uranium (U)	2023/08/23	107	75 - 125	105	80 - 120	<0.050	ug/g	0.33	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
8870774	Acid Extractable Vanadium (V)	2023/08/23	NC	75 - 125	100	80 - 120	<5.0	ug/g	5.9	30
8870774	Acid Extractable Zinc (Zn)	2023/08/23	NC	75 - 125	110	80 - 120	<5.0	ug/g	7.2	30
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
8870849	Acid Extractable Mercury (Hg)	2023/08/24	113	75 - 125	101	80 - 120	<0.050	ug/g	NC	30
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
8871144	Conductivity	2023/08/23			104	90 - 110	<0.002	mS/cm	9.5	10
8874556	Hot Water Ext. Boron (B)	2023/08/24	112	75 - 125	97	75 - 125	<0.050	ug/g	2.0	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
8876559	Hot Water Ext. Boron (B)	2023/08/25	115	75 - 125	107	75 - 125	<0.050	ug/g	3.8	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).

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Bureau Veritas Job #: C3P0398
Report Date: 2023/08/28

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 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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Exceedance Summary Table – Reg153/04 T8-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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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
C3P0398
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 #:	23-265-100
City: Vaughan Prov: ON Postal Code: L4H0K8		City: Vaughan Prov: ON Postal Code: L4H0K8		Site #:	12306 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 ~~Omark~~

Regulatory Criteria

REG 153: ☐ Table 1 ☐ Table 2 ☐ Table 3 ☑ Table 8 ☑ Res/Park ☐ Ind/Comm ☐ Agri/other ☐ Med/Fine ☐ Course ☐ For RSC

OTHER: ☐ CCME ☐ Reg 558* *min 3 day TAT ☐ MISA ☐ PWQO ☐ Reg 406, Table: ☐ Sanitary Sewer Bylaw ☐ Storm Sewer Bylaw Municipality ☐ 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 (dis. Cr VI, ICPMS metals, HWS - B)	10 PAHs	11 OCPs	12 SPLP Metals and Hydrides	13 PCBs	14 pH	15	16	17	18	19	20	21 # OF CONTAINERS SUBMITTED	22 HOLD - DO NOT ANALYZE
1	BH23-201 SS1	23	08	14	A	m	S							✓			✓											2	
2	BH23-201 SS2	23	08	14	A	m	S				✓	✓	✓															3	
3	BH23-201 SS5	23	08	14	A	m	S															✓						1	
4	BH23-209 SS1	23	08	15	A	m	S				✓	✓	✓															3	
5	BH23-209 SS2	23	08	15	A	m	S							✓			✓											2	
6	BH23-209 SS5	23	08	15	A	m	S															✓						1	
7	BH23-210 SS1	23	08	15	A	m	S				✓			✓			✓											2	
8	BH23-210 SS2	23	08	15	A	m	S				✓	✓	✓															3	
9	BH23-210 SS4	23	08	15	A	m	S				✓	✓	✓															3	
10	DUP-1	23	08	14	A	m	S				✓	✓	✓															1	
11	DUP-2	23	08	15	A	m	S										✓											3	
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	✓		7	4	10	
Seal intact	✓					
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
Seal present						
Seal intact						
Cooling media present						

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	~~Omark~~											
2	Megan Bender	23	08	17					08	17	15	14

Special instructions

Your Project #: 23-265-100
Site Location: 12306 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: 2023/08/31
Report #: R7791651
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3P2571
Received: 2023/08/18, 16:26

Sample Matrix: Soil
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Free (WAD) Cyanide	8	2023/08/23	2023/08/23	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	1	2023/08/24	2023/08/24	CAM SOP-00457	OMOE E3015 m
Acid Extractable Metals by ICPMS	9	2023/08/24	2023/08/28	CAM SOP-00447	EPA 6020B m
Moisture	9	N/A	2023/08/23	CAM SOP-00445	Carter 2nd ed 51.2 m
OC Pesticides (Selected) & PCB (1)	2	2023/08/26	2023/08/26	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides (Selected) & PCB (1)	7	2023/08/27	2023/08/29	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides Summed Parameters	9	N/A	2023/08/24	CAM SOP-00307	EPA 8081B/ 8082A
pH CaCl2 EXTRACT	7	2023/08/23	2023/08/23	CAM SOP-00413	EPA 9045 D m
pH CaCl2 EXTRACT	2	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

Your Project #: 23-265-100
Site Location: 12306 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: 2023/08/31
Report #: R7791651
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3P2571
Received: 2023/08/18, 16:26

Encryption Key

Bureau Veritas
31 Aug 2023 15:36:49

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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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 #: C3P2571
Report Date: 2023/08/31

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

O.REG 153 ICPMS METALS (SOIL)

Bureau Veritas ID			WSX792	WSX792	WSX793	WSX794	WSX795	WSX796		
Sampling Date			2023/08/18	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	n/a		
	UNITS	Criteria	S1	S1 Lab-Dup	S2	S3	S4	S5	RDL	QC Batch
Metals										
Acid Extractable Antimony (Sb)	ug/g	1.3	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8873432
Acid Extractable Arsenic (As)	ug/g	18	3.4	3.2	3.2	4.4	3.9	3.5	1.0	8873432
Acid Extractable Barium (Ba)	ug/g	220	72	71	58	85	66	62	0.50	8873432
Acid Extractable Beryllium (Be)	ug/g	2.5	0.64	0.62	0.53	0.84	0.66	0.63	0.20	8873432
Acid Extractable Boron (B)	ug/g	36	5.5	5.6	<5.0	7.2	5.1	5.1	5.0	8873432
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.17	0.16	0.14	0.15	0.18	0.21	0.10	8873432
Acid Extractable Chromium (Cr)	ug/g	70	20	19	18	25	20	20	1.0	8873432
Acid Extractable Cobalt (Co)	ug/g	21	6.2	5.8	6.6	12	8.8	8.1	0.10	8873432
Acid Extractable Copper (Cu)	ug/g	92	17	16	13	17	18	13	0.50	8873432
Acid Extractable Lead (Pb)	ug/g	120	23	23	17	17	14	16	1.0	8873432
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	0.50	8873432
Acid Extractable Nickel (Ni)	ug/g	82	16	15	15	22	18	16	0.50	8873432
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	8873432
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	8873432
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.13	0.12	0.13	0.13	0.13	0.050	8873432
Acid Extractable Uranium (U)	ug/g	2.5	0.57	0.59	0.46	0.80	0.78	0.51	0.050	8873432
Acid Extractable Vanadium (V)	ug/g	86	28	27	27	37	30	31	5.0	8873432
Acid Extractable Zinc (Zn)	ug/g	290	63	59	62	78	76	70	5.0	8873432

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

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

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

O.REG 153 ICPMS METALS (SOIL)

Bureau Veritas ID			WSX797	WSX798	WSX799		WSX800		
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	S6	S7	S8	QC Batch	DUP-3	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.20	8873432	<0.20	0.20	8873457
Acid Extractable Arsenic (As)	ug/g	18	4.3	4.0	3.8	8873432	4.5	1.0	8873457
Acid Extractable Barium (Ba)	ug/g	220	86	83	86	8873432	82	0.50	8873457
Acid Extractable Beryllium (Be)	ug/g	2.5	0.95	0.80	0.79	8873432	0.85	0.20	8873457
Acid Extractable Boron (B)	ug/g	36	7.7	9.3	8.1	8873432	6.7	5.0	8873457
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.19	0.22	0.26	8873432	0.24	0.10	8873457
Acid Extractable Chromium (Cr)	ug/g	70	28	25	24	8873432	27	1.0	8873457
Acid Extractable Cobalt (Co)	ug/g	21	14	11	11	8873432	13	0.10	8873457
Acid Extractable Copper (Cu)	ug/g	92	16	21	19	8873432	18	0.50	8873457
Acid Extractable Lead (Pb)	ug/g	120	17	17	17	8873432	17	1.0	8873457
Acid Extractable Molybdenum (Mo)	ug/g	2	0.60	0.51	<0.50	8873432	<0.50	0.50	8873457
Acid Extractable Nickel (Ni)	ug/g	82	23	21	21	8873432	23	0.50	8873457
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	8873432	<0.50	0.50	8873457
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	8873432	<0.20	0.20	8873457
Acid Extractable Thallium (Tl)	ug/g	1	0.17	0.13	0.13	8873432	0.13	0.050	8873457
Acid Extractable Uranium (U)	ug/g	2.5	1.1	0.87	0.98	8873432	0.80	0.050	8873457
Acid Extractable Vanadium (V)	ug/g	86	40	36	34	8873432	38	5.0	8873457
Acid Extractable Zinc (Zn)	ug/g	290	92	110	89	8873432	85	5.0	8873457

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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O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			WSX792			WSX793		WSX794		
Sampling Date			2023/08/18			2023/08/18		2023/08/18		
COC Number			n/a			n/a		n/a		
	UNITS	Criteria	S1	RDL	QC Batch	S2	QC Batch	S3	RDL	QC Batch
Calculated Parameters										
Chlordane (Total)	ug/g	0.05	<0.0040	0.0040	8864845	<0.0020	8864845	<0.0020	0.0020	8864845
o,p-DDD + p,p-DDD	ug/g	-	<0.0040	0.0040	8864845	<0.0020	8864845	<0.0020	0.0020	8864845
o,p-DDE + p,p-DDE	ug/g	-	<0.0040	0.0040	8864845	<0.0020	8864845	<0.0020	0.0020	8864845
o,p-DDT + p,p-DDT	ug/g	-	<0.0040	0.0040	8864845	<0.0020	8864845	<0.0020	0.0020	8864845
Total Endosulfan	ug/g	-	<0.0040	0.0040	8864845	<0.0020	8864845	<0.0020	0.0020	8864845
Total PCB	ug/g	0.3	<0.030	0.030	8864845	<0.015	8864845	<0.015	0.015	8864845
Pesticides & Herbicides										
Aldrin	ug/g	0.05	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
a-Chlordane	ug/g	0.05	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
g-Chlordane	ug/g	0.05	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
o,p-DDD	ug/g	0.05	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
p,p-DDD	ug/g	0.05	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
o,p-DDE	ug/g	0.05	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
p,p-DDE	ug/g	0.05	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
o,p-DDT	ug/g	1.4	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
p,p-DDT	ug/g	1.4	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Dieldrin	ug/g	0.05	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Lindane	ug/g	0.01	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Endosulfan I (alpha)	ug/g	0.04	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Endosulfan II (beta)	ug/g	0.04	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Endrin	ug/g	0.04	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Heptachlor	ug/g	0.05	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Heptachlor epoxide	ug/g	0.05	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Hexachlorobenzene	ug/g	0.01	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Hexachlorobutadiene	ug/g	0.01	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Hexachloroethane	ug/g	0.01	<0.0040	0.0040	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Methoxychlor	ug/g	0.05	<0.010	0.010	8880217	<0.0050	8878931	<0.0050	0.0050	8880217
Aroclor 1242	ug/g	-	<0.030	0.030	8880217	<0.015	8878931	<0.015	0.015	8880217
Aroclor 1248	ug/g	-	<0.030	0.030	8880217	<0.015	8878931	<0.015	0.015	8880217

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 #: C3P2571
Report Date: 2023/08/31

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			WSX792			WSX793		WSX794		
Sampling Date			2023/08/18			2023/08/18		2023/08/18		
COC Number			n/a			n/a		n/a		
	UNITS	Criteria	S1	RDL	QC Batch	S2	QC Batch	S3	RDL	QC Batch
Aroclor 1254	ug/g	-	<0.030	0.030	8880217	<0.015	8878931	<0.015	0.015	8880217
Aroclor 1260	ug/g	-	<0.030	0.030	8880217	<0.015	8878931	<0.015	0.015	8880217
Surrogate Recovery (%)										
2,4,5,6-Tetrachloro-m-xylene	%	-	101		8880217	92	8878931	101		8880217
Decachlorobiphenyl	%	-	126		8880217	120	8878931	129		8880217

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

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

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			WSX795	WSX796		WSX797		WSX798		
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	S4	S5	QC Batch	S6	QC Batch	S7	RDL	QC Batch
Calculated Parameters										
Chlordane (Total)	ug/g	0.05	<0.0020	<0.0020	8864845	<0.0020	8864845	<0.0020	0.0020	8864845
o,p-DDD + p,p-DDD	ug/g	-	<0.0020	<0.0020	8864845	<0.0020	8864845	<0.0020	0.0020	8864845
o,p-DDE + p,p-DDE	ug/g	-	<0.0020	<0.0020	8864845	<0.0020	8864845	<0.0020	0.0020	8864845
o,p-DDT + p,p-DDT	ug/g	-	<0.0020	<0.0020	8864845	<0.0020	8864845	<0.0020	0.0020	8864845
Total Endosulfan	ug/g	-	<0.0020	<0.0020	8864845	<0.0020	8864845	<0.0020	0.0020	8864845
Total PCB	ug/g	0.3	<0.015	<0.015	8864845	<0.015	8864845	<0.015	0.015	8864845
Pesticides & Herbicides										
Aldrin	ug/g	0.05	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
a-Chlordane	ug/g	0.05	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
g-Chlordane	ug/g	0.05	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
o,p-DDD	ug/g	0.05	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
p,p-DDD	ug/g	0.05	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
o,p-DDE	ug/g	0.05	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
p,p-DDE	ug/g	0.05	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
o,p-DDT	ug/g	1.4	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
p,p-DDT	ug/g	1.4	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Dieldrin	ug/g	0.05	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Lindane	ug/g	0.01	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Endosulfan I (alpha)	ug/g	0.04	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Endosulfan II (beta)	ug/g	0.04	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Endrin	ug/g	0.04	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Heptachlor	ug/g	0.05	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Heptachlor epoxide	ug/g	0.05	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Hexachlorobenzene	ug/g	0.01	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Hexachlorobutadiene	ug/g	0.01	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Hexachloroethane	ug/g	0.01	<0.0020	<0.0020	8880217	<0.0020	8878931	<0.0020	0.0020	8880217
Methoxychlor	ug/g	0.05	<0.0050	<0.0050	8880217	<0.0050	8878931	<0.0050	0.0050	8880217
Aroclor 1242	ug/g	-	<0.015	<0.015	8880217	<0.015	8878931	<0.015	0.015	8880217
Aroclor 1248	ug/g	-	<0.015	<0.015	8880217	<0.015	8878931	<0.015	0.015	8880217

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 #: C3P2571
Report Date: 2023/08/31

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			WSX795	WSX796		WSX797		WSX798		
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	S4	S5	QC Batch	S6	QC Batch	S7	RDL	QC Batch
Aroclor 1254	ug/g	-	<0.015	<0.015	8880217	<0.015	8878931	<0.015	0.015	8880217
Aroclor 1260	ug/g	-	<0.015	<0.015	8880217	<0.015	8878931	<0.015	0.015	8880217
Surrogate Recovery (%)										
2,4,5,6-Tetrachloro-m-xylene	%	-	105	115	8880217	93	8878931	106		8880217
Decachlorobiphenyl	%	-	128	127	8880217	119	8878931	111		8880217

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

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

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			WSX799	WSX800		
Sampling Date			2023/08/18	2023/08/18		
COC Number			n/a	n/a		
	UNITS	Criteria	S8	DUP-3	RDL	QC Batch
Calculated Parameters						
Chlordane (Total)	ug/g	0.05	<0.0020	<0.0020	0.0020	8864845
o,p-DDD + p,p-DDD	ug/g	-	<0.0020	<0.0020	0.0020	8864845
o,p-DDE + p,p-DDE	ug/g	-	<0.0020	<0.0020	0.0020	8864845
o,p-DDT + p,p-DDT	ug/g	-	<0.0020	<0.0020	0.0020	8864845
Total Endosulfan	ug/g	-	<0.0020	<0.0020	0.0020	8864845
Total PCB	ug/g	0.3	<0.015	<0.015	0.015	8864845
Pesticides & Herbicides						
Aldrin	ug/g	0.05	<0.0020	<0.0020	0.0020	8880217
a-Chlordane	ug/g	0.05	<0.0020	<0.0020	0.0020	8880217
g-Chlordane	ug/g	0.05	<0.0020	<0.0020	0.0020	8880217
o,p-DDD	ug/g	0.05	<0.0020	<0.0020	0.0020	8880217
p,p-DDD	ug/g	0.05	<0.0020	<0.0020	0.0020	8880217
o,p-DDE	ug/g	0.05	<0.0020	<0.0020	0.0020	8880217
p,p-DDE	ug/g	0.05	<0.0020	<0.0020	0.0020	8880217
o,p-DDT	ug/g	1.4	<0.0020	<0.0020	0.0020	8880217
p,p-DDT	ug/g	1.4	<0.0020	<0.0020	0.0020	8880217
Dieldrin	ug/g	0.05	<0.0020	<0.0020	0.0020	8880217
Lindane	ug/g	0.01	<0.0020	<0.0020	0.0020	8880217
Endosulfan I (alpha)	ug/g	0.04	<0.0020	<0.0020	0.0020	8880217
Endosulfan II (beta)	ug/g	0.04	<0.0020	<0.0020	0.0020	8880217
Endrin	ug/g	0.04	<0.0020	<0.0020	0.0020	8880217
Heptachlor	ug/g	0.05	<0.0020	<0.0020	0.0020	8880217
Heptachlor epoxide	ug/g	0.05	<0.0020	<0.0020	0.0020	8880217
Hexachlorobenzene	ug/g	0.01	<0.0020	<0.0020	0.0020	8880217
Hexachlorobutadiene	ug/g	0.01	<0.0020	<0.0020	0.0020	8880217
Hexachloroethane	ug/g	0.01	<0.0020	<0.0020	0.0020	8880217
Methoxychlor	ug/g	0.05	<0.0050	<0.0050	0.0050	8880217
Aroclor 1242	ug/g	-	<0.015	<0.015	0.015	8880217

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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O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			WSX799	WSX800		
Sampling Date			2023/08/18	2023/08/18		
COC Number			n/a	n/a		
	UNITS	Criteria	S8	DUP-3	RDL	QC Batch
Aroclor 1248	ug/g	-	<0.015	<0.015	0.015	8880217
Aroclor 1254	ug/g	-	<0.015	<0.015	0.015	8880217
Aroclor 1260	ug/g	-	<0.015	<0.015	0.015	8880217
Surrogate Recovery (%)						
2,4,5,6-Tetrachloro-m-xylene	%	-	110	116		8880217
Decachlorobiphenyl	%	-	128	127		8880217

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 #: C3P2571
Report Date: 2023/08/31

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID			WSX792		WSX793		WSX794	WSX795		
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
Inorganics										
Moisture	%	-	31	8871016	28	8872209	16	19	1.0	8871016
Available (CaCl2) pH	pH	-	6.99	8871645	7.08	8873477	6.97	6.52		8871645
WAD Cyanide (Free)	ug/g	0.051	<0.01	8870643	<0.01	8870571	<0.01	<0.01	0.01	8870643

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

Bureau Veritas ID			WSX796		WSX797		WSX798		WSX799		
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	S5	QC Batch	S6	QC Batch	S7	QC Batch	S8	RDL	QC Batch
Inorganics											
Moisture	%	-	20	8871016	19	8871016	17	8871016	21	1.0	8871016
Available (CaCl2) pH	pH	-	6.47	8871645	6.35	8871645	7.54	8873477	6.72		8871645
WAD Cyanide (Free)	ug/g	0.051	<0.01	8870521	<0.01	8870643	<0.01	8873488	<0.01	0.01	8870643

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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RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID			WSX800		
Sampling Date			2023/08/18		
COC Number			n/a		
	UNITS	Criteria	DUP-3	RDL	QC Batch
Inorganics					
Moisture	%	-	18	1.0	8871016
Available (CaCl2) pH	pH	-	6.96		8871645
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	8870643

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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TEST SUMMARY

Bureau Veritas ID: WSX792 **Collected:** 2023/08/18
Sample ID: S1 **Shipped:**
Matrix: Soil **Received:** 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870643	2023/08/23	2023/08/23	Jency Sara Johnson
Acid Extractable Metals by ICPMS	ICP/MS	8873432	2023/08/24	2023/08/28	Viviana Canzonieri
Moisture	BAL	8871016	N/A	2023/08/23	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8880217	2023/08/27	2023/08/29	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8871645	2023/08/23	2023/08/23	Gurparteek KAUR

Bureau Veritas ID: WSX792 Dup **Collected:** 2023/08/18
Sample ID: S1 **Shipped:**
Matrix: Soil **Received:** 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	8873432	2023/08/24	2023/08/28	Viviana Canzonieri

Bureau Veritas ID: WSX793 **Collected:** 2023/08/18
Sample ID: S2 **Shipped:**
Matrix: Soil **Received:** 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870571	2023/08/23	2023/08/23	Jency Sara Johnson
Acid Extractable Metals by ICPMS	ICP/MS	8873432	2023/08/24	2023/08/28	Viviana Canzonieri
Moisture	BAL	8872209	N/A	2023/08/23	Joe Thomas
OC Pesticides (Selected) & PCB	GC/ECD	8878931	2023/08/26	2023/08/26	Joy Zhang
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: WSX794 **Collected:** 2023/08/18
Sample ID: S3 **Shipped:**
Matrix: Soil **Received:** 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870643	2023/08/23	2023/08/23	Jency Sara Johnson
Acid Extractable Metals by ICPMS	ICP/MS	8873432	2023/08/24	2023/08/28	Viviana Canzonieri
Moisture	BAL	8871016	N/A	2023/08/23	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8880217	2023/08/27	2023/08/29	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8871645	2023/08/23	2023/08/23	Gurparteek KAUR

Bureau Veritas ID: WSX795 **Collected:** 2023/08/18
Sample ID: S4 **Shipped:**
Matrix: Soil **Received:** 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870643	2023/08/23	2023/08/23	Jency Sara Johnson
Acid Extractable Metals by ICPMS	ICP/MS	8873432	2023/08/24	2023/08/28	Viviana Canzonieri

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TEST SUMMARY

Bureau Veritas ID: WSX795 **Collected:** 2023/08/18
Sample ID: S4 **Shipped:**
Matrix: Soil **Received:** 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	8871016	N/A	2023/08/23	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8880217	2023/08/27	2023/08/29	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8871645	2023/08/23	2023/08/23	Gurparteek KAUR

Bureau Veritas ID: WSX796 **Collected:** 2023/08/18
Sample ID: S5 **Shipped:**
Matrix: Soil **Received:** 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870521	2023/08/23	2023/08/23	Prgya Panchal
Acid Extractable Metals by ICPMS	ICP/MS	8873432	2023/08/24	2023/08/28	Viviana Canzonieri
Moisture	BAL	8871016	N/A	2023/08/23	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8880217	2023/08/27	2023/08/29	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8871645	2023/08/23	2023/08/23	Gurparteek KAUR

Bureau Veritas ID: WSX797 **Collected:** 2023/08/18
Sample ID: S6 **Shipped:**
Matrix: Soil **Received:** 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870643	2023/08/23	2023/08/23	Jency Sara Johnson
Acid Extractable Metals by ICPMS	ICP/MS	8873432	2023/08/24	2023/08/28	Viviana Canzonieri
Moisture	BAL	8871016	N/A	2023/08/23	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8878931	2023/08/26	2023/08/26	Joy Zhang
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8871645	2023/08/23	2023/08/23	Gurparteek KAUR

Bureau Veritas ID: WSX798 **Collected:** 2023/08/18
Sample ID: S7 **Shipped:**
Matrix: Soil **Received:** 2023/08/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8873488	2023/08/24	2023/08/24	Jency Sara Johnson
Acid Extractable Metals by ICPMS	ICP/MS	8873432	2023/08/24	2023/08/28	Viviana Canzonieri
Moisture	BAL	8871016	N/A	2023/08/23	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8880217	2023/08/27	2023/08/29	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

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Bureau Veritas Job #: C3P2571
Report Date: 2023/08/31

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: WSX799
Sample ID: S8
Matrix: Soil

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

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870643	2023/08/23	2023/08/23	Jency Sara Johnson
Acid Extractable Metals by ICPMS	ICP/MS	8873432	2023/08/24	2023/08/28	Viviana Canzonieri
Moisture	BAL	8871016	N/A	2023/08/23	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8880217	2023/08/27	2023/08/29	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8871645	2023/08/23	2023/08/23	Gurparteek KAUR

Bureau Veritas ID: WSX800
Sample ID: DUP-3
Matrix: Soil

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

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8870643	2023/08/23	2023/08/23	Jency Sara Johnson
Acid Extractable Metals by ICPMS	ICP/MS	8873457	2023/08/24	2023/08/28	Viviana Canzonieri
Moisture	BAL	8871016	N/A	2023/08/23	Simrat Bhathal
OC Pesticides (Selected) & PCB	GC/ECD	8880217	2023/08/27	2023/08/29	Mahmudul Khan
OC Pesticides Summed Parameters	CALC	8864845	N/A	2023/08/24	Automated Statchk
pH CaCl2 EXTRACT	AT	8871645	2023/08/23	2023/08/23	Gurparteek KAUR

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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 WSX792 [S1] : OC Pesticide Analysis: Detection limits were adjusted for high moisture content.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8878931	2,4,5,6-Tetrachloro-m-xylene	2023/08/26	98	50 - 130	92	50 - 130	81	%		
8878931	Decachlorobiphenyl	2023/08/26	122	50 - 130	110	50 - 130	105	%		
8880217	2,4,5,6-Tetrachloro-m-xylene	2023/08/29	108	50 - 130	98	50 - 130	94	%		
8880217	Decachlorobiphenyl	2023/08/29	128	50 - 130	117	50 - 130	120	%		
8870521	WAD Cyanide (Free)	2023/08/23	86	75 - 125	99	80 - 120	<0.01	ug/g	NC	35
8870571	WAD Cyanide (Free)	2023/08/23	83	75 - 125	95	80 - 120	<0.01	ug/g	NC	35
8870643	WAD Cyanide (Free)	2023/08/23	88	75 - 125	90	80 - 120	<0.01	ug/g	NC	35
8871016	Moisture	2023/08/23							2.5	20
8871645	Available (CaCl2) pH	2023/08/23			100	97 - 103			0.084	N/A
8872209	Moisture	2023/08/23							0.46	20
8873432	Acid Extractable Antimony (Sb)	2023/08/28	94	75 - 125	98	80 - 120	<0.20	ug/g	2.4	30
8873432	Acid Extractable Arsenic (As)	2023/08/28	100	75 - 125	100	80 - 120	<1.0	ug/g	6.1	30
8873432	Acid Extractable Barium (Ba)	2023/08/28	NC	75 - 125	100	80 - 120	<0.50	ug/g	1.5	30
8873432	Acid Extractable Beryllium (Be)	2023/08/28	100	75 - 125	99	80 - 120	<0.20	ug/g	3.7	30
8873432	Acid Extractable Boron (B)	2023/08/28	86	75 - 125	102	80 - 120	<5.0	ug/g	2.8	30
8873432	Acid Extractable Cadmium (Cd)	2023/08/28	99	75 - 125	99	80 - 120	<0.10	ug/g	2.7	30
8873432	Acid Extractable Chromium (Cr)	2023/08/28	103	75 - 125	103	80 - 120	<1.0	ug/g	7.5	30
8873432	Acid Extractable Cobalt (Co)	2023/08/28	100	75 - 125	101	80 - 120	<0.10	ug/g	6.1	30
8873432	Acid Extractable Copper (Cu)	2023/08/28	106	75 - 125	103	80 - 120	<0.50	ug/g	1.0	30
8873432	Acid Extractable Lead (Pb)	2023/08/28	102	75 - 125	100	80 - 120	<1.0	ug/g	0.22	30
8873432	Acid Extractable Molybdenum (Mo)	2023/08/28	102	75 - 125	103	80 - 120	<0.50	ug/g	0.95	30
8873432	Acid Extractable Nickel (Ni)	2023/08/28	100	75 - 125	102	80 - 120	<0.50	ug/g	4.3	30
8873432	Acid Extractable Selenium (Se)	2023/08/28	97	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
8873432	Acid Extractable Silver (Ag)	2023/08/28	102	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
8873432	Acid Extractable Thallium (Tl)	2023/08/28	100	75 - 125	99	80 - 120	<0.050	ug/g	2.8	30
8873432	Acid Extractable Uranium (U)	2023/08/28	99	75 - 125	99	80 - 120	<0.050	ug/g	4.3	30
8873432	Acid Extractable Vanadium (V)	2023/08/28	NC	75 - 125	102	80 - 120	<5.0	ug/g	3.4	30
8873432	Acid Extractable Zinc (Zn)	2023/08/28	NC	75 - 125	98	80 - 120	<5.0	ug/g	5.7	30
8873457	Acid Extractable Antimony (Sb)	2023/08/28	95	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
8873457	Acid Extractable Arsenic (As)	2023/08/28	106	75 - 125	100	80 - 120	<1.0	ug/g	6.4	30
8873457	Acid Extractable Barium (Ba)	2023/08/28	NC	75 - 125	98	80 - 120	<0.50	ug/g	2.4	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
8873457	Acid Extractable Beryllium (Be)	2023/08/28	101	75 - 125	97	80 - 120	<0.20	ug/g	2.9	30
8873457	Acid Extractable Boron (B)	2023/08/28	93	75 - 125	96	80 - 120	<5.0	ug/g	NC	30
8873457	Acid Extractable Cadmium (Cd)	2023/08/28	101	75 - 125	97	80 - 120	<0.10	ug/g	2.7	30
8873457	Acid Extractable Chromium (Cr)	2023/08/28	105	75 - 125	96	80 - 120	<1.0	ug/g	2.5	30
8873457	Acid Extractable Cobalt (Co)	2023/08/28	101	75 - 125	95	80 - 120	<0.10	ug/g	0.94	30
8873457	Acid Extractable Copper (Cu)	2023/08/28	104	75 - 125	101	80 - 120	<0.50	ug/g	1.8	30
8873457	Acid Extractable Lead (Pb)	2023/08/28	99	75 - 125	99	80 - 120	<1.0	ug/g	3.4	30
8873457	Acid Extractable Molybdenum (Mo)	2023/08/28	100	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
8873457	Acid Extractable Nickel (Ni)	2023/08/28	102	75 - 125	96	80 - 120	<0.50	ug/g	2.1	30
8873457	Acid Extractable Selenium (Se)	2023/08/28	100	75 - 125	98	80 - 120	<0.50	ug/g	NC	30
8873457	Acid Extractable Silver (Ag)	2023/08/28	102	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
8873457	Acid Extractable Thallium (Tl)	2023/08/28	102	75 - 125	99	80 - 120	<0.050	ug/g	14	30
8873457	Acid Extractable Uranium (U)	2023/08/28	100	75 - 125	98	80 - 120	<0.050	ug/g	3.9	30
8873457	Acid Extractable Vanadium (V)	2023/08/28	99	75 - 125	98	80 - 120	<5.0	ug/g	1.6	30
8873457	Acid Extractable Zinc (Zn)	2023/08/28	NC	75 - 125	99	80 - 120	<5.0	ug/g	0.49	30
8873477	Available (CaCl2) pH	2023/08/24			101	97 - 103			0.43	N/A
8873488	WAD Cyanide (Free)	2023/08/24	76	75 - 125	94	80 - 120	<0.01	ug/g	NC	35
8878931	a-Chlordane	2023/08/26	92	50 - 130	92	50 - 130	<0.0020	ug/g	NC	40
8878931	Aldrin	2023/08/26	94	50 - 130	85	50 - 130	<0.0020	ug/g	NC	40
8878931	Aroclor 1242	2023/08/26					<0.015	ug/g	NC	40
8878931	Aroclor 1248	2023/08/26					<0.015	ug/g	NC	40
8878931	Aroclor 1254	2023/08/26					<0.015	ug/g	NC	40
8878931	Aroclor 1260	2023/08/26					<0.015	ug/g	NC	40
8878931	Dieldrin	2023/08/26	75	50 - 130	97	50 - 130	<0.0020	ug/g	NC	40
8878931	Endosulfan I (alpha)	2023/08/26	NC	50 - 130	92	50 - 130	<0.0020	ug/g	NC	40
8878931	Endosulfan II (beta)	2023/08/26	79	50 - 130	95	50 - 130	<0.0020	ug/g	NC	40
8878931	Endrin	2023/08/26	87	50 - 130	97	50 - 130	<0.0020	ug/g	NC	40
8878931	g-Chlordane	2023/08/26	80	50 - 130	86	50 - 130	<0.0020	ug/g	NC	40
8878931	Heptachlor epoxide	2023/08/26	62	50 - 130	89	50 - 130	<0.0020	ug/g	NC	40
8878931	Heptachlor	2023/08/26	97	50 - 130	89	50 - 130	<0.0020	ug/g	NC	40
8878931	Hexachlorobenzene	2023/08/26	92	50 - 130	82	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
8878931	Hexachlorobutadiene	2023/08/26	99	50 - 130	98	50 - 130	<0.0020	ug/g	NC	40
8878931	Hexachloroethane	2023/08/26	99	50 - 130	81	50 - 130	<0.0020	ug/g	NC	40
8878931	Lindane	2023/08/26	87	50 - 130	84	50 - 130	<0.0020	ug/g	NC	40
8878931	Methoxychlor	2023/08/26	82	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
8878931	o,p-DDD	2023/08/26	NC	50 - 130	113	50 - 130	<0.0020	ug/g	6.9	40
8878931	o,p-DDE	2023/08/26	NC	50 - 130	102	50 - 130	<0.0020	ug/g	NC	40
8878931	o,p-DDT	2023/08/26	NC	50 - 130	94	50 - 130	<0.0020	ug/g	24	40
8878931	p,p-DDD	2023/08/26	NC	50 - 130	103	50 - 130	<0.0020	ug/g	8.6	40
8878931	p,p-DDE	2023/08/26	NC	50 - 130	92	50 - 130	<0.0020	ug/g	1.5	40
8878931	p,p-DDT	2023/08/26	NC	50 - 130	107	50 - 130	<0.0020	ug/g	17	40
8880217	a-Chlordane	2023/08/29	118	50 - 130	97	50 - 130	<0.0020	ug/g	NC	40
8880217	Aldrin	2023/08/29	94	50 - 130	91	50 - 130	<0.0020	ug/g	NC	40
8880217	Aroclor 1242	2023/08/29					<0.015	ug/g	NC	40
8880217	Aroclor 1248	2023/08/29					<0.015	ug/g	NC	40
8880217	Aroclor 1254	2023/08/29					<0.015	ug/g	NC	40
8880217	Aroclor 1260	2023/08/29					<0.015	ug/g	NC	40
8880217	Dieldrin	2023/08/29	109	50 - 130	109	50 - 130	<0.0020	ug/g	NC	40
8880217	Endosulfan I (alpha)	2023/08/29	116	50 - 130	105	50 - 130	<0.0020	ug/g	NC	40
8880217	Endosulfan II (beta)	2023/08/29	107	50 - 130	99	50 - 130	<0.0020	ug/g	NC	40
8880217	Endrin	2023/08/29	109	50 - 130	105	50 - 130	<0.0020	ug/g	NC	40
8880217	g-Chlordane	2023/08/29	104	50 - 130	96	50 - 130	<0.0020	ug/g	NC	40
8880217	Heptachlor epoxide	2023/08/29	91	50 - 130	99	50 - 130	<0.0020	ug/g	NC	40
8880217	Heptachlor	2023/08/29	105	50 - 130	96	50 - 130	<0.0020	ug/g	NC	40
8880217	Hexachlorobenzene	2023/08/29	106	50 - 130	102	50 - 130	<0.0020	ug/g	NC	40
8880217	Hexachlorobutadiene	2023/08/29	112	50 - 130	113	50 - 130	<0.0020	ug/g	NC	40
8880217	Hexachloroethane	2023/08/29	78	50 - 130	85	50 - 130	<0.0020	ug/g	NC	40
8880217	Lindane	2023/08/29	110	50 - 130	96	50 - 130	<0.0020	ug/g	NC	40
8880217	Methoxychlor	2023/08/29	113	50 - 130	113	50 - 130	<0.0050	ug/g	NC	40
8880217	o,p-DDD	2023/08/29	116	50 - 130	112	50 - 130	<0.0020	ug/g	NC	40
8880217	o,p-DDE	2023/08/29	109	50 - 130	98	50 - 130	<0.0020	ug/g	NC	40
8880217	o,p-DDT	2023/08/29	109	50 - 130	109	50 - 130	<0.0020	ug/g	NC	40

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8880217	p,p-DDD	2023/08/29	107	50 - 130	108	50 - 130	<0.0020	ug/g	NC	40
8880217	p,p-DDE	2023/08/29	121	50 - 130	112	50 - 130	<0.0020	ug/g	NC	40
8880217	p,p-DDT	2023/08/29	119	50 - 130	162 (1)	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) The recovery was above the upper control limit. This may represent a high bias in some results for flagged analytes. For results that were not detected (ND), this potential bias has no impact.

(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 #: C3P2571
Report Date: 2023/08/31

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 12306 CHINGUACOUSY RD
Sampler Initials: MB

VALIDATION SIGNATURE PAGE

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

Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by {0}, {1} responsible for {2} {3} laboratory operations.

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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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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	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: DS Consultants	Company Name: DS Consultants	Quotation #:	[x] Regular TAT (5-7 days) Most analyses
Contact Name: Accounting	Contact Name: Megan Bender	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PRO
Address:	Address:	Project #: 23-265-100	Rush TAT (Surcharges will be applied)
Phone: Fax:	Phone: Fax:	Site Location: 12306 Chinguacousy Rd	[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Email:	Email: mbender@dsconsultants.ca	Site #:	Date Required:
		Site Location Province:	Rush Confirmation #:
		Sampled By: Megan	

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

Regulation 153	Other Regulations
[x] Table 1 [ ] Res/Park [ ] Med/ Fine	[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] Table 2 [ ] Ind/Comm [ ] Coarse	[ ] MISA [ ] Storm Sewer Bylaw
[ ] Table 3 [ ] Agri/ Other	[ ] PWQO Region
[ ] Table ____	[ ] Other (Specify)
FOR RSC (PLEASE CIRCLE) Y / N	[ ] 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

	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
1	S1	2023/08/18	PM	S	2									✓	✓	✓				
2	S2			S	2									✓	✓	✓				
3	S3			S	2									✓	✓	✓				
4	S4			S	2									✓	✓	✓				
5	S5			S	2									✓	✓	✓				
6	S6			S	2									✓	✓	✓				
7	S7			S	2									✓	✓	✓				
8	S8			S	2									✓	✓	✓				
9	DUP 1			S	2									✓	✓	✓				
10																				

LABORATORY USE ONLY

CUSTODY SEAL (Y) N		COOLER TEMPERATU
Present	Intact	
		18/16/17

COOLING MEDIA PRESENT: (Y) / N

COMMENTS

18-Aug-23 16:26
Ashton Gibson
C3P2571
SPJ ENV-1763

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

Your Project #: 23-265-100
Your C.O.C. #: N/A

Attention: Megan Bender

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

Report Date: 2024/03/20
Report #: R8073971
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C461883
Received: 2024/02/29, 13:00

Sample Matrix: Soil
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	5	N/A	2024/03/04	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	5	2024/03/04	2024/03/05	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	5	N/A	2024/03/05		EPA 8260C m
Free (WAD) Cyanide	5	2024/03/02	2024/03/05	CAM SOP-00457	OMOE E3015 m
Conductivity	5	2024/03/05	2024/03/05	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	5	2024/03/04	2024/03/04	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	1	2024/03/14	2024/03/15	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	4	2024/03/02	2024/03/03	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	6	2024/03/05	2024/03/05	CAM SOP-00447	EPA 6020B m
Moisture	10	N/A	2024/03/01	CAM SOP-00445	Carter 2nd ed 70.2 m
Moisture	2	N/A	2024/03/02	CAM SOP-00445	Carter 2nd ed 70.2 m
OC Pesticides (Selected) & PCB (3)	2	2024/03/04	2024/03/05	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides Summed Parameters	2	N/A	2024/03/04	CAM SOP-00307	EPA 8081B/ 8082A
PAH Compounds in Soil by GC/MS (SIM)	5	2024/03/02	2024/03/02	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	5	2024/03/04	2024/03/04	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	5	N/A	2024/03/06	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	5	N/A	2024/03/04	CAM SOP-00230	EPA 8260C m

Remarks:

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

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

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

Your Project #: 23-265-100
Your C.O.C. #: N/A

Attention: Megan Bender

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

Report Date: 2024/03/20
Report #: R8073971
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C461883
Received: 2024/02/29, 13:00
customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Soils are reported on a dry weight basis unless otherwise specified.
(2) 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.
(3) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Ashton Gibson
Project Manager
20 Mar 2024 15:36:23

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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RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		YMY270			YMY271			YMY272		
Sampling Date		2024/02/28			2024/02/28			2024/02/29		
COC Number		N/A			N/A			N/A		
	UNITS	MW24-1 SS1	RDL	QC Batch	MW24-1 SS2	RDL	QC Batch	MW24-2 SS1	RDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A	1.4		9249897				3.1		9249897
Inorganics										
Conductivity	mS/cm	0.37	0.002	9255367				0.68	0.002	9255367
Moisture	%	20	1.0	9251490	15	1.0	9251490	21	1.0	9251490
Available (CaCl2) pH	pH	7.68		9253327				7.24		9253327
WAD Cyanide (Free)	ug/g	<0.01	0.01	9252256				<0.01	0.01	9252256

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		YMY273			YMY274			YMY275		
Sampling Date		2024/02/29			2024/02/28			2024/02/28		
COC Number		N/A			N/A			N/A		
	UNITS	MW24-2 SS3	RDL	QC Batch	MW24-3 SS1	RDL	QC Batch	MW24-3 SS2	RDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A				0.15		9249897			
Inorganics										
Conductivity	mS/cm				1.2	0.002	9255367			
Moisture	%	19	1.0	9251490	13	1.0	9251490	18	1.0	9251490
Available (CaCl2) pH	pH				11.1		9253327			
WAD Cyanide (Free)	ug/g				<0.01	0.01	9252256			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C461883
Report Date: 2024/03/20

DS Consultants Limited
Client Project #: 23-265-100
Sampler Initials: MB

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		YMY276	YMY277			YMY278	YMY278		YMY280		
Sampling Date		2024/02/28	2024/02/28			2024/02/29	2024/02/29		2024/02/29		
COC Number		N/A	N/A			N/A	N/A		N/A		
	UNITS	MW24-4 SS1	DUP-4	RDL	QC Batch	S9	S9 Lab-Dup	QC Batch	S10	RDL	QC Batch
Calculated Parameters											
Sodium Adsorption Ratio	N/A	0.21 (1)	0.14		9249897						
Inorganics											
Conductivity	mS/cm	0.22	1.2	0.002	9255367						
Moisture	%	17	12	1.0	9251490	21	21	9252102	21	1.0	9252100
Available (CaCl2) pH	pH	7.74	11.0		9253327						
WAD Cyanide (Free)	ug/g	<0.01	<0.01	0.01	9252256						

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Bureau Veritas ID		YMY280		YMY281	YMY287		
Sampling Date		2024/02/29		2024/02/28	2024/02/28		
COC Number		N/A		N/A	N/A		
	UNITS	S10 Lab-Dup	QC Batch	S11	MW24- 4 SS2	RDL	QC Batch
Inorganics							
Moisture	%	21	9252100	6.8	16	1.0	9251490

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

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ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID		YMY270	YMY272		YMY274	YMY276	YMY277		
Sampling Date		2024/02/28	2024/02/29		2024/02/28	2024/02/28	2024/02/28		
COC Number		N/A	N/A		N/A	N/A	N/A		
	UNITS	MW24-1 SS1	MW24-2 SS1	QC Batch	MW24-3 SS1	MW24-4 SS1	DUP-4	RDL	QC Batch
Inorganics									
Chromium (VI)	ug/g	<0.18	<0.18	9253256	<0.18	<0.18	<0.18	0.18	9253247
Metals									
Hot Water Ext. Boron (B)	ug/g	0.29	0.40	9253612	0.54	0.25	0.70	0.050	9253612
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	9255155	<0.20	<0.20	0.30	0.20	9255155
Acid Extractable Arsenic (As)	ug/g	4.6	2.8	9255155	4.3	4.3	3.9	1.0	9255155
Acid Extractable Barium (Ba)	ug/g	110	48	9255155	28	61	36	0.50	9255155
Acid Extractable Beryllium (Be)	ug/g	1.0	0.36	9255155	0.24	0.67	0.32	0.20	9255155
Acid Extractable Boron (B)	ug/g	10	5.3	9255155	11	6.9	13	5.0	9255155
Acid Extractable Cadmium (Cd)	ug/g	0.11	0.37	9255155	0.24	0.21	0.21	0.10	9255155
Acid Extractable Chromium (Cr)	ug/g	29	16	9255155	18	21	27	1.0	9255155
Acid Extractable Cobalt (Co)	ug/g	12	5.9	9255155	2.7	9.6	3.8	0.10	9255155
Acid Extractable Copper (Cu)	ug/g	25	14	9255155	20	19	21	0.50	9255155
Acid Extractable Lead (Pb)	ug/g	16	92	9255155	17	18	21	1.0	9255155
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.69	9255155	0.93	<0.50	1.2	0.50	9255155
Acid Extractable Nickel (Ni)	ug/g	29	10	9255155	7.0	19	12	0.50	9255155
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	9255155	<0.50	<0.50	<0.50	0.50	9255155
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	9255155	<0.20	<0.20	<0.20	0.20	9255155
Acid Extractable Thallium (Tl)	ug/g	0.18	0.084	9255155	0.065	0.13	0.068	0.050	9255155
Acid Extractable Uranium (U)	ug/g	0.57	0.35	9255155	0.42	0.50	0.45	0.050	9255155
Acid Extractable Vanadium (V)	ug/g	39	17	9255155	19	31	28	5.0	9255155
Acid Extractable Zinc (Zn)	ug/g	63	95	9255155	77	92	98	5.0	9255155
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	9255155	<0.050	<0.050	<0.050	0.050	9255155

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID		YMY281		
Sampling Date		2024/02/28		
COC Number		N/A		
	UNITS	**S11**	**RDL**	**QC Batch**
Metals				
Acid Extractable Antimony (Sb)	ug/g	0.34	0.20	9255155
Acid Extractable Arsenic (As)	ug/g	5.3	1.0	9255155
Acid Extractable Barium (Ba)	ug/g	13	0.50	9255155
Acid Extractable Beryllium (Be)	ug/g	<0.20	0.20	9255155
Acid Extractable Boron (B)	ug/g	10	5.0	9255155
Acid Extractable Cadmium (Cd)	ug/g	0.38	0.10	9255155
Acid Extractable Chromium (Cr)	ug/g	6.2	1.0	9255155
Acid Extractable Cobalt (Co)	ug/g	2.4	0.10	9255155
Acid Extractable Copper (Cu)	ug/g	12	0.50	9255155
Acid Extractable Lead (Pb)	ug/g	18	1.0	9255155
Acid Extractable Molybdenum (Mo)	ug/g	1.2	0.50	9255155
Acid Extractable Nickel (Ni)	ug/g	7.2	0.50	9255155
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	9255155
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	9255155
Acid Extractable Thallium (Tl)	ug/g	0.075	0.050	9255155
Acid Extractable Uranium (U)	ug/g	0.16	0.050	9255155
Acid Extractable Vanadium (V)	ug/g	<5.0	5.0	9255155
Acid Extractable Zinc (Zn)	ug/g	120	5.0	9255155

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Bureau Veritas ID		YMY270	YMY272		YMY275	YMY281	YMY287		
Sampling Date		2024/02/28	2024/02/29		2024/02/28	2024/02/28	2024/02/28		
COC Number		N/A	N/A		N/A	N/A	N/A		
	UNITS	MW24-1 SS1	MW24-2 SS1	QC Batch	MW24-3 SS2	S11	MW24- 4 SS2	RDL	QC Batch
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	<0.0071	9249898	<0.0071	<0.0071	<0.0071	0.0071	9249898
Polyaromatic Hydrocarbons									
Acenaphthene	ug/g	<0.0050	<0.0050	9252045	<0.0050	<0.0050	<0.0050	0.0050	9252038
Acenaphthylene	ug/g	<0.0050	0.010	9252045	<0.0050	<0.0050	<0.0050	0.0050	9252038
Anthracene	ug/g	0.021	0.016	9252045	<0.0050	<0.0050	<0.0050	0.0050	9252038
Benzo(a)anthracene	ug/g	0.037	0.076	9252045	<0.0050	0.0053	<0.0050	0.0050	9252038
Benzo(a)pyrene	ug/g	0.037	0.075	9252045	<0.0050	0.0069	<0.0050	0.0050	9252038
Benzo(b/j)fluoranthene	ug/g	0.048	0.092	9252045	<0.0050	0.010	<0.0050	0.0050	9252038
Benzo(g,h,i)perylene	ug/g	0.027	0.048	9252045	<0.0050	0.0096	<0.0050	0.0050	9252038
Benzo(k)fluoranthene	ug/g	0.016	0.036	9252045	<0.0050	<0.0050	<0.0050	0.0050	9252038
Chrysene	ug/g	0.031	0.067	9252045	<0.0050	0.0053	<0.0050	0.0050	9252038
Dibenzo(a,h)anthracene	ug/g	<0.0050	0.014	9252045	<0.0050	<0.0050	<0.0050	0.0050	9252038
Fluoranthene	ug/g	0.095	0.18	9252045	<0.0050	0.012	<0.0050	0.0050	9252038
Fluorene	ug/g	<0.0050	<0.0050	9252045	<0.0050	<0.0050	<0.0050	0.0050	9252038
Indeno(1,2,3-cd)pyrene	ug/g	0.025	0.051	9252045	<0.0050	0.0072	<0.0050	0.0050	9252038
1-Methylnaphthalene	ug/g	<0.0050	<0.0050	9252045	<0.0050	<0.0050	<0.0050	0.0050	9252038
2-Methylnaphthalene	ug/g	<0.0050	<0.0050	9252045	<0.0050	<0.0050	<0.0050	0.0050	9252038
Naphthalene	ug/g	<0.0050	<0.0050	9252045	<0.0050	<0.0050	<0.0050	0.0050	9252038
Phenanthrene	ug/g	0.018	0.081	9252045	<0.0050	<0.0050	<0.0050	0.0050	9252038
Pyrene	ug/g	0.078	0.14	9252045	<0.0050	0.0099	<0.0050	0.0050	9252038
Surrogate Recovery (%)									
D10-Anthracene	%	101	98	9252045	94	102	101		9252038
D14-Terphenyl (FS)	%	101	98	9252045	91	99	98		9252038
D8-Acenaphthylene	%	93	92	9252045	81	85	86		9252038

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QC Batch = Quality Control Batch

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VOLATILE ORGANICS BY GC/MS (SOIL)

Bureau Veritas ID		YMY271	YMY273	YMY275	YMY281	YMY287		
Sampling Date		2024/02/28	2024/02/29	2024/02/28	2024/02/28	2024/02/28		
COC Number		N/A	N/A	N/A	N/A	N/A		
	UNITS	MW24-1 SS2	MW24-2 SS3	MW24-3 SS2	S11	MW24- 4 SS2	RDL	QC Batch
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	9249899
Volatile Organics								
Acetone (2-Propanone)	ug/g	<0.49	<0.49	<0.49	<0.49	<0.49	0.49	9252909
Benzene	ug/g	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.0060	9252909
Bromodichloromethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Bromoform	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Bromomethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Carbon Tetrachloride	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Chlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Chloroform	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Dibromochloromethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
1,1-Dichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
1,2-Dichloroethane	ug/g	<0.049	<0.049	<0.049	<0.049	<0.049	0.049	9252909
1,1-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
1,2-Dichloropropane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	9252909
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Ethylbenzene	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9252909
Ethylene Dibromide	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Hexane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	<0.049	<0.049	<0.049	0.049	9252909
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	9252909
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	9252909
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Styrene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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VOLATILE ORGANICS BY GC/MS (SOIL)

Bureau Veritas ID		YMY271	YMY273	YMY275	YMY281	YMY287		
Sampling Date		2024/02/28	2024/02/29	2024/02/28	2024/02/28	2024/02/28		
COC Number		N/A	N/A	N/A	N/A	N/A		
	UNITS	MW24-1 SS2	MW24-2 SS3	MW24-3 SS2	S11	MW24- 4 SS2	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Tetrachloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	9252909
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Trichloroethylene	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9252909
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9252909
Vinyl Chloride	ug/g	<0.019	<0.019	<0.019	<0.019	<0.019	0.019	9252909
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	9252909
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	9252909
Total Xylenes	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	9252909
F1 (C6-C10)	ug/g	<10	<10	<10	<10	<10	10	9252909
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	<10	10	9252909
Surrogate Recovery (%)								
4-Bromofluorobenzene	%	98	100	97	96	98		9252909
D10-o-Xylene	%	106	102	107	107	106		9252909
D4-1,2-Dichloroethane	%	94	102	94	90	95		9252909
D8-Toluene	%	101	97	101	103	100		9252909

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QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		YMY271	YMY271		YMY273		YMY275	YMY281		
Sampling Date		2024/02/28	2024/02/28		2024/02/29		2024/02/28	2024/02/28		
COC Number		N/A	N/A		N/A		N/A	N/A		
	UNITS	MW24-1 SS2	MW24-1 SS2 Lab-Dup	QC Batch	MW24-2 SS3	QC Batch	MW24-3 SS2	S11	RDL	QC Batch
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	9252056	28	9275998	<10	<10	10	9252056
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	9252056	240	9275998	<50	77	50	9252056
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	9252056	110	9275998	<50	58	50	9252056
Reached Baseline at C50	ug/g	Yes	Yes	9252056	Yes	9275998	Yes	Yes		9252056
Surrogate Recovery (%)										
o-Terphenyl	%	86	87	9252056	91	9275998	86	85		9252056

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

Bureau Veritas ID		YMY287		
Sampling Date		2024/02/28		
COC Number		N/A		
	UNITS	MW24- 4 SS2	RDL	QC Batch
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	9252056
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	9252056
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	9252056
Reached Baseline at C50	ug/g	Yes		9252056
Surrogate Recovery (%)				
o-Terphenyl	%	86		9252056

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Bureau Veritas ID		YMY278	YMY280		
Sampling Date		2024/02/29	2024/02/29		
COC Number		N/A	N/A		
	UNITS	S9	S10	RDL	QC Batch
Calculated Parameters					
Chlordane (Total)	ug/g	<0.0020	<0.0020	0.0020	9250244
o,p-DDD + p,p-DDD	ug/g	<0.0020	<0.0020	0.0020	9250244
o,p-DDE + p,p-DDE	ug/g	<0.0020	<0.0020	0.0020	9250244
o,p-DDT + p,p-DDT	ug/g	<0.0020	<0.0020	0.0020	9250244
Total Endosulfan	ug/g	<0.0020	<0.0020	0.0020	9250244
Total PCB	ug/g	<0.015	<0.015	0.015	9250244
Pesticides & Herbicides					
Aldrin	ug/g	<0.0020	<0.0020	0.0020	9254070
a-Chlordane	ug/g	<0.0020	<0.0020	0.0020	9254070
g-Chlordane	ug/g	<0.0020	<0.0020	0.0020	9254070
o,p-DDD	ug/g	<0.0020	<0.0020	0.0020	9254070
p,p-DDD	ug/g	<0.0020	<0.0020	0.0020	9254070
o,p-DDE	ug/g	<0.0020	<0.0020	0.0020	9254070
p,p-DDE	ug/g	<0.0020	<0.0020	0.0020	9254070
o,p-DDT	ug/g	<0.0020	<0.0020	0.0020	9254070
p,p-DDT	ug/g	<0.0020	<0.0020	0.0020	9254070
Dieldrin	ug/g	<0.0020	<0.0020	0.0020	9254070
Lindane	ug/g	<0.0020	<0.0020	0.0020	9254070
Endosulfan I (alpha)	ug/g	<0.0020	<0.0020	0.0020	9254070
Endosulfan II (beta)	ug/g	<0.0020	<0.0020	0.0020	9254070
Endrin	ug/g	<0.0020	<0.0020	0.0020	9254070
Heptachlor	ug/g	<0.0020	<0.0020	0.0020	9254070
Heptachlor epoxide	ug/g	<0.0020	<0.0020	0.0020	9254070
Hexachlorobenzene	ug/g	<0.0020	<0.0020	0.0020	9254070
Hexachlorobutadiene	ug/g	<0.0020	<0.0020	0.0020	9254070
Hexachloroethane	ug/g	<0.0020	<0.0020	0.0020	9254070
Methoxychlor	ug/g	<0.0050	<0.0050	0.0050	9254070
Aroclor 1242	ug/g	<0.015	<0.015	0.015	9254070
Aroclor 1248	ug/g	<0.015	<0.015	0.015	9254070
Aroclor 1254	ug/g	<0.015	<0.015	0.015	9254070
Aroclor 1260	ug/g	<0.015	<0.015	0.015	9254070

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ORGANOCHLORINATED PESTICIDES BY GC-ECD (SOIL)

Bureau Veritas ID		YMY278	YMY280		
Sampling Date		2024/02/29	2024/02/29		
COC Number		N/A	N/A		
	UNITS	S9	S10	RDL	QC Batch
Surrogate Recovery (%)					
2,4,5,6-Tetrachloro-m-xylene	%	92	100		9254070
Decachlorobiphenyl	%	104	94		9254070

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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TEST SUMMARY

Bureau Veritas ID: YMY270
Sample ID: MW24-1 SS1
Matrix: Soil

Collected: 2024/02/28
Shipped:
Received: 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9249898	N/A	2024/03/04	Automated Statchk
Hot Water Extractable Boron	ICP	9253612	2024/03/04	2024/03/05	Gagandeep Rai
Free (WAD) Cyanide	TECH	9252256	2024/03/02	2024/03/05	Prgya Panchal
Conductivity	AT	9255367	2024/03/05	2024/03/05	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	9253256	2024/03/04	2024/03/04	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9255155	2024/03/05	2024/03/05	Daniel Teclu
Moisture	BAL	9251490	N/A	2024/03/01	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9252045	2024/03/02	2024/03/02	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9253327	2024/03/04	2024/03/04	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9249897	N/A	2024/03/06	Automated Statchk

Bureau Veritas ID: YMY271
Sample ID: MW24-1 SS2
Matrix: Soil

Collected: 2024/02/28
Shipped:
Received: 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9249899	N/A	2024/03/05	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9252056	2024/03/02	2024/03/03	Anna Stuglik-Rolland
Moisture	BAL	9251490	N/A	2024/03/01	Muhammad Chhaidan
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9252909	N/A	2024/03/04	Blair Gannon

Bureau Veritas ID: YMY271 Dup
Sample ID: MW24-1 SS2
Matrix: Soil

Collected: 2024/02/28
Shipped:
Received: 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9252056	2024/03/02	2024/03/03	Anna Stuglik-Rolland

Bureau Veritas ID: YMY272
Sample ID: MW24-2 SS1
Matrix: Soil

Collected: 2024/02/29
Shipped:
Received: 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9249898	N/A	2024/03/04	Automated Statchk
Hot Water Extractable Boron	ICP	9253612	2024/03/04	2024/03/05	Gagandeep Rai
Free (WAD) Cyanide	TECH	9252256	2024/03/02	2024/03/05	Prgya Panchal
Conductivity	AT	9255367	2024/03/05	2024/03/05	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	9253256	2024/03/04	2024/03/04	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9255155	2024/03/05	2024/03/05	Daniel Teclu
Moisture	BAL	9251490	N/A	2024/03/01	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9252045	2024/03/02	2024/03/02	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9253327	2024/03/04	2024/03/04	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9249897	N/A	2024/03/06	Automated Statchk

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TEST SUMMARY

Bureau Veritas ID: YMY273
Sample ID: MW24-2 SS3
Matrix: Soil

Collected: 2024/02/29
Shipped:
Received: 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9249899	N/A	2024/03/05	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9275998	2024/03/14	2024/03/15	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9251490	N/A	2024/03/01	Muhammad Chhaidan
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9252909	N/A	2024/03/04	Blair Gannon

Bureau Veritas ID: YMY274
Sample ID: MW24-3 SS1
Matrix: Soil

Collected: 2024/02/28
Shipped:
Received: 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9253612	2024/03/04	2024/03/05	Gagandeep Rai
Free (WAD) Cyanide	TECH	9252256	2024/03/02	2024/03/05	Prgya Panchal
Conductivity	AT	9255367	2024/03/05	2024/03/05	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	9253247	2024/03/04	2024/03/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9255155	2024/03/05	2024/03/05	Daniel Teclu
Moisture	BAL	9251490	N/A	2024/03/01	Muhammad Chhaidan
pH CaCl2 EXTRACT	AT	9253327	2024/03/04	2024/03/04	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9249897	N/A	2024/03/06	Automated Statchk

Bureau Veritas ID: YMY275
Sample ID: MW24-3 SS2
Matrix: Soil

Collected: 2024/02/28
Shipped:
Received: 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9249898	N/A	2024/03/04	Automated Statchk
1,3-Dichloropropene Sum	CALC	9249899	N/A	2024/03/05	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9252056	2024/03/02	2024/03/03	Anna Stuglik-Rolland
Moisture	BAL	9251490	N/A	2024/03/01	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9252038	2024/03/02	2024/03/02	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9252909	N/A	2024/03/04	Blair Gannon

Bureau Veritas ID: YMY276
Sample ID: MW24-4 SS1
Matrix: Soil

Collected: 2024/02/28
Shipped:
Received: 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9253612	2024/03/04	2024/03/05	Gagandeep Rai
Free (WAD) Cyanide	TECH	9252256	2024/03/02	2024/03/05	Prgya Panchal
Conductivity	AT	9255367	2024/03/05	2024/03/05	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	9253247	2024/03/04	2024/03/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9255155	2024/03/05	2024/03/05	Daniel Teclu
Moisture	BAL	9251490	N/A	2024/03/01	Muhammad Chhaidan
pH CaCl2 EXTRACT	AT	9253327	2024/03/04	2024/03/04	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9249897	N/A	2024/03/06	Automated Statchk

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TEST SUMMARY

Bureau Veritas ID: YMY277 **Collected:** 2024/02/28
Sample ID: DUP-4 **Shipped:**
Matrix: Soil **Received:** 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9253612	2024/03/04	2024/03/05	Gagandeep Rai
Free (WAD) Cyanide	TECH	9252256	2024/03/02	2024/03/05	Prgya Panchal
Conductivity	AT	9255367	2024/03/05	2024/03/05	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	9253247	2024/03/04	2024/03/04	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9255155	2024/03/05	2024/03/05	Daniel Teclu
Moisture	BAL	9251490	N/A	2024/03/01	Muhammad Chhaidan
pH CaCl2 EXTRACT	AT	9253327	2024/03/04	2024/03/04	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9249897	N/A	2024/03/06	Automated Statchk

Bureau Veritas ID: YMY278 **Collected:** 2024/02/29
Sample ID: S9 **Shipped:**
Matrix: Soil **Received:** 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9252102	N/A	2024/03/02	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9254070	2024/03/04	2024/03/05	Li Peng
OC Pesticides Summed Parameters	CALC	9250244	N/A	2024/03/04	Automated Statchk

Bureau Veritas ID: YMY278 Dup **Collected:** 2024/02/29
Sample ID: S9 **Shipped:**
Matrix: Soil **Received:** 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9252102	N/A	2024/03/02	Muhammad Chhaidan

Bureau Veritas ID: YMY280 **Collected:** 2024/02/29
Sample ID: S10 **Shipped:**
Matrix: Soil **Received:** 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9252100	N/A	2024/03/02	Muhammad Chhaidan
OC Pesticides (Selected) & PCB	GC/ECD	9254070	2024/03/04	2024/03/05	Li Peng
OC Pesticides Summed Parameters	CALC	9250244	N/A	2024/03/04	Automated Statchk

Bureau Veritas ID: YMY280 Dup **Collected:** 2024/02/29
Sample ID: S10 **Shipped:**
Matrix: Soil **Received:** 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9252100	N/A	2024/03/02	Muhammad Chhaidan

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TEST SUMMARY

Bureau Veritas ID: YMY281
Sample ID: S11
Matrix: Soil

Collected: 2024/02/28
Shipped:
Received: 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9249898	N/A	2024/03/04	Automated Statchk
1,3-Dichloropropene Sum	CALC	9249899	N/A	2024/03/05	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9252056	2024/03/02	2024/03/03	Anna Stuglik-Rolland
Acid Extractable Metals by ICPMS	ICP/MS	9255155	2024/03/05	2024/03/05	Daniel Teclu
Moisture	BAL	9251490	N/A	2024/03/01	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9252038	2024/03/02	2024/03/02	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9252909	N/A	2024/03/04	Blair Gannon

Bureau Veritas ID: YMY287
Sample ID: MW24- 4 SS2
Matrix: Soil

Collected: 2024/02/28
Shipped:
Received: 2024/02/29

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9249898	N/A	2024/03/04	Automated Statchk
1,3-Dichloropropene Sum	CALC	9249899	N/A	2024/03/05	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9252056	2024/03/02	2024/03/03	Anna Stuglik-Rolland
Moisture	BAL	9251490	N/A	2024/03/01	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9252038	2024/03/02	2024/03/02	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9252909	N/A	2024/03/04	Blair Gannon

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GENERAL COMMENTS

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

Package 1	1.3°C

Results relate only to the items tested.

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Bureau Veritas Job #: C461883
Report Date: 2024/03/20

QUALITY ASSURANCE REPORT

DS Consultants Limited
Client Project #: 23-265-100
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
9252038	D10-Anthracene	2024/03/02	97	50 - 130	109	50 - 130	115	%		
9252038	D14-Terphenyl (FS)	2024/03/02	96	50 - 130	105	50 - 130	108	%		
9252038	D8-Acenaphthylene	2024/03/02	86	50 - 130	98	50 - 130	101	%		
9252045	D10-Anthracene	2024/03/02	104	50 - 130	108	50 - 130	109	%		
9252045	D14-Terphenyl (FS)	2024/03/02	103	50 - 130	103	50 - 130	104	%		
9252045	D8-Acenaphthylene	2024/03/02	92	50 - 130	102	50 - 130	101	%		
9252056	o-Terphenyl	2024/03/03	97	60 - 130	90	60 - 130	89	%		
9252909	4-Bromofluorobenzene	2024/03/04	98	60 - 140	99	60 - 140	99	%		
9252909	D10-o-Xylene	2024/03/04	116	60 - 130	106	60 - 130	102	%		
9252909	D4-1,2-Dichloroethane	2024/03/04	94	60 - 140	102	60 - 140	102	%		
9252909	D8-Toluene	2024/03/04	103	60 - 140	101	60 - 140	98	%		
9254070	2,4,5,6-Tetrachloro-m-xylene	2024/03/05	94	50 - 130	87	50 - 130	82	%		
9254070	Decachlorobiphenyl	2024/03/05	111	50 - 130	118	50 - 130	114	%		
9275998	o-Terphenyl	2024/03/15	100	60 - 130	95	60 - 130	91	%		
9251490	Moisture	2024/03/01							2.0	20
9252038	1-Methylnaphthalene	2024/03/02	78	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
9252038	2-Methylnaphthalene	2024/03/02	77	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
9252038	Acenaphthene	2024/03/02	84	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9252038	Acenaphthylene	2024/03/02	83	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9252038	Anthracene	2024/03/02	85	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9252038	Benzo(a)anthracene	2024/03/02	92	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9252038	Benzo(a)pyrene	2024/03/02	93	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
9252038	Benzo(b/j)fluoranthene	2024/03/02	85	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
9252038	Benzo(g,h,i)perylene	2024/03/02	92	50 - 130	107	50 - 130	<0.0050	ug/g	NC	40
9252038	Benzo(k)fluoranthene	2024/03/02	91	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9252038	Chrysene	2024/03/02	83	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
9252038	Dibenzo(a,h)anthracene	2024/03/02	95	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
9252038	Fluoranthene	2024/03/02	92	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9252038	Fluorene	2024/03/02	85	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9252038	Indeno(1,2,3-cd)pyrene	2024/03/02	97	50 - 130	111	50 - 130	<0.0050	ug/g	NC	40
9252038	Naphthalene	2024/03/02	73	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9252038	Phenanthrene	2024/03/02	88	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9252038	Pyrene	2024/03/02	92	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9252045	1-Methylnaphthalene	2024/03/02	92	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9252045	2-Methylnaphthalene	2024/03/02	90	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
9252045	Acenaphthene	2024/03/02	94	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9252045	Acenaphthylene	2024/03/02	91	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9252045	Anthracene	2024/03/02	99	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9252045	Benzo(a)anthracene	2024/03/02	108	50 - 130	111	50 - 130	<0.0050	ug/g	NC	40
9252045	Benzo(a)pyrene	2024/03/02	102	50 - 130	106	50 - 130	<0.0050	ug/g	NC	40
9252045	Benzo(b/j)fluoranthene	2024/03/02	98	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
9252045	Benzo(g,h,i)perylene	2024/03/02	94	50 - 130	97	50 - 130	<0.0050	ug/g	NC	40
9252045	Benzo(k)fluoranthene	2024/03/02	100	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9252045	Chrysene	2024/03/02	92	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
9252045	Dibenzo(a,h)anthracene	2024/03/02	93	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
9252045	Fluoranthene	2024/03/02	103	50 - 130	106	50 - 130	<0.0050	ug/g	NC	40
9252045	Fluorene	2024/03/02	97	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
9252045	Indeno(1,2,3-cd)pyrene	2024/03/02	97	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
9252045	Naphthalene	2024/03/02	82	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
9252045	Phenanthrene	2024/03/02	98	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9252045	Pyrene	2024/03/02	101	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
9252056	F2 (C10-C16 Hydrocarbons)	2024/03/03	101	60 - 130	90	80 - 120	<10	ug/g	NC	30
9252056	F3 (C16-C34 Hydrocarbons)	2024/03/03	104	60 - 130	94	80 - 120	<50	ug/g	NC	30
9252056	F4 (C34-C50 Hydrocarbons)	2024/03/03	103	60 - 130	94	80 - 120	<50	ug/g	NC	30
9252100	Moisture	2024/03/02							2.4	20
9252102	Moisture	2024/03/02							1.4	20
9252256	WAD Cyanide (Free)	2024/03/05	98	75 - 125	99	80 - 120	<0.01	ug/g	NC	35
9252909	1,1,1,2-Tetrachloroethane	2024/03/04	95	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9252909	1,1,1-Trichloroethane	2024/03/04	97	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9252909	1,1,2,2-Tetrachloroethane	2024/03/04	90	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9252909	1,1,2-Trichloroethane	2024/03/04	92	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9252909	1,1-Dichloroethane	2024/03/04	96	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
9252909	1,1-Dichloroethylene	2024/03/04	97	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9252909	1,2-Dichlorobenzene	2024/03/04	93	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9252909	1,2-Dichloroethane	2024/03/04	86	60 - 140	92	60 - 130	<0.049	ug/g	NC	50
9252909	1,2-Dichloropropane	2024/03/04	91	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9252909	1,3-Dichlorobenzene	2024/03/04	98	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9252909	1,4-Dichlorobenzene	2024/03/04	106	60 - 140	109	60 - 130	<0.040	ug/g	NC	50
9252909	Acetone (2-Propanone)	2024/03/04	90	60 - 140	96	60 - 140	<0.49	ug/g	NC	50
9252909	Benzene	2024/03/04	87	60 - 140	89	60 - 130	<0.0060	ug/g	NC	50
9252909	Bromodichloromethane	2024/03/04	97	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9252909	Bromoform	2024/03/04	81	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9252909	Bromomethane	2024/03/04	77	60 - 140	79	60 - 140	<0.040	ug/g	NC	50
9252909	Carbon Tetrachloride	2024/03/04	95	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9252909	Chlorobenzene	2024/03/04	99	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9252909	Chloroform	2024/03/04	98	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9252909	cis-1,2-Dichloroethylene	2024/03/04	93	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9252909	cis-1,3-Dichloropropene	2024/03/04	83	60 - 140	91	60 - 130	<0.030	ug/g	NC	50
9252909	Dibromochloromethane	2024/03/04	89	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9252909	Dichlorodifluoromethane (FREON 12)	2024/03/04	77	60 - 140	76	60 - 140	<0.040	ug/g	NC	50
9252909	Ethylbenzene	2024/03/04	92	60 - 140	92	60 - 130	<0.010	ug/g	NC	50
9252909	Ethylene Dibromide	2024/03/04	89	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9252909	F1 (C6-C10) - BTEX	2024/03/04					<10	ug/g	NC	30
9252909	F1 (C6-C10)	2024/03/04	89	60 - 140	92	80 - 120	<10	ug/g	NC	30
9252909	Hexane	2024/03/04	89	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9252909	Methyl Ethyl Ketone (2-Butanone)	2024/03/04	89	60 - 140	99	60 - 140	<0.40	ug/g	NC	50
9252909	Methyl Isobutyl Ketone	2024/03/04	87	60 - 140	101	60 - 130	<0.40	ug/g	NC	50
9252909	Methyl t-butyl ether (MTBE)	2024/03/04	94	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9252909	Methylene Chloride(Dichloromethane)	2024/03/04	90	60 - 140	95	60 - 130	<0.049	ug/g	NC	50
9252909	o-Xylene	2024/03/04	85	60 - 140	86	60 - 130	<0.020	ug/g	NC	50
9252909	p+m-Xylene	2024/03/04	98	60 - 140	98	60 - 130	<0.020	ug/g	NC	50
9252909	Styrene	2024/03/04	102	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9252909	Tetrachloroethylene	2024/03/04	96	60 - 140	93	60 - 130	<0.040	ug/g	7.7	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
9252909	Toluene	2024/03/04	89	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
9252909	Total Xylenes	2024/03/04					<0.020	ug/g	NC	50
9252909	trans-1,2-Dichloroethylene	2024/03/04	91	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9252909	trans-1,3-Dichloropropene	2024/03/04	87	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9252909	Trichloroethylene	2024/03/04	96	60 - 140	96	60 - 130	<0.010	ug/g	NC	50
9252909	Trichlorofluoromethane (FREON 11)	2024/03/04	98	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9252909	Vinyl Chloride	2024/03/04	88	60 - 140	87	60 - 130	<0.019	ug/g	NC	50
9253247	Chromium (VI)	2024/03/04	32 (1)	70 - 130	87	80 - 120	<0.18	ug/g	NC	35
9253256	Chromium (VI)	2024/03/04	88	70 - 130	92	80 - 120	<0.18	ug/g	4.5	35
9253327	Available (CaCl2) pH	2024/03/04			100	97 - 103			0.68	N/A
9253612	Hot Water Ext. Boron (B)	2024/03/05	113	75 - 125	113	75 - 125	<0.050	ug/g	12	40
9254070	a-Chlordane	2024/03/05	98	50 - 130	104	50 - 130	<0.0020	ug/g	NC	40
9254070	Aldrin	2024/03/05	95	50 - 130	92	50 - 130	<0.0020	ug/g	NC	40
9254070	Aroclor 1242	2024/03/05					<0.015	ug/g	NC	40
9254070	Aroclor 1248	2024/03/05					<0.015	ug/g	NC	40
9254070	Aroclor 1254	2024/03/05					<0.015	ug/g	NC	40
9254070	Aroclor 1260	2024/03/05					<0.015	ug/g	NC	40
9254070	Dieldrin	2024/03/05	96	50 - 130	120	50 - 130	<0.0020	ug/g	NC	40
9254070	Endosulfan I (alpha)	2024/03/05	84	50 - 130	112	50 - 130	<0.0020	ug/g	NC	40
9254070	Endosulfan II (beta)	2024/03/05	96	50 - 130	118	50 - 130	<0.0020	ug/g	NC	40
9254070	Endrin	2024/03/05	92	50 - 130	116	50 - 130	<0.0020	ug/g	NC	40
9254070	g-Chlordane	2024/03/05	86	50 - 130	102	50 - 130	<0.0020	ug/g	NC	40
9254070	Heptachlor epoxide	2024/03/05	83	50 - 130	100	50 - 130	<0.0020	ug/g	NC	40
9254070	Heptachlor	2024/03/05	88	50 - 130	83	50 - 130	<0.0020	ug/g	NC	40
9254070	Hexachlorobenzene	2024/03/05	87	50 - 130	102	50 - 130	<0.0020	ug/g	NC	40
9254070	Hexachlorobutadiene	2024/03/05	96	50 - 130	101	50 - 130	<0.0020	ug/g	NC	40
9254070	Hexachloroethane	2024/03/05	76	50 - 130	80	50 - 130	<0.0020	ug/g	NC	40
9254070	Lindane	2024/03/05	81	50 - 130	100	50 - 130	<0.0020	ug/g	NC	40
9254070	Methoxychlor	2024/03/05	103	50 - 130	119	50 - 130	<0.0050	ug/g	NC	40
9254070	o,p-DDD	2024/03/05	106	50 - 130	126	50 - 130	<0.0020	ug/g	NC	40
9254070	o,p-DDE	2024/03/05	104	50 - 130	101	50 - 130	<0.0020	ug/g	NC	40

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9254070	o,p-DDT	2024/03/05	123	50 - 130	118	50 - 130	<0.0020	ug/g	NC	40
9254070	p,p-DDD	2024/03/05	98	50 - 130	119	50 - 130	<0.0020	ug/g	NC	40
9254070	p,p-DDE	2024/03/05	101	50 - 130	107	50 - 130	<0.0020	ug/g	NC	40
9254070	p,p-DDT	2024/03/05	115	50 - 130	109	50 - 130	<0.0020	ug/g	NC	40
9255155	Acid Extractable Antimony (Sb)	2024/03/05	102	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
9255155	Acid Extractable Arsenic (As)	2024/03/05	100	75 - 125	97	80 - 120	<1.0	ug/g	NC	30
9255155	Acid Extractable Barium (Ba)	2024/03/05	NC	75 - 125	97	80 - 120	<0.50	ug/g	9.4	30
9255155	Acid Extractable Beryllium (Be)	2024/03/05	100	75 - 125	96	80 - 120	<0.20	ug/g	NC	30
9255155	Acid Extractable Boron (B)	2024/03/05	97	75 - 125	96	80 - 120	<5.0	ug/g	NC	30
9255155	Acid Extractable Cadmium (Cd)	2024/03/05	100	75 - 125	96	80 - 120	<0.10	ug/g	NC	30
9255155	Acid Extractable Chromium (Cr)	2024/03/05	101	75 - 125	95	80 - 120	<1.0	ug/g	8.6	30
9255155	Acid Extractable Cobalt (Co)	2024/03/05	99	75 - 125	97	80 - 120	<0.10	ug/g	6.3	30
9255155	Acid Extractable Copper (Cu)	2024/03/05	102	75 - 125	100	80 - 120	<0.50	ug/g	17	30
9255155	Acid Extractable Lead (Pb)	2024/03/05	98	75 - 125	96	80 - 120	<1.0	ug/g	14	30
9255155	Acid Extractable Mercury (Hg)	2024/03/05	102	75 - 125	100	80 - 120	<0.050	ug/g	NC	30
9255155	Acid Extractable Molybdenum (Mo)	2024/03/05	100	75 - 125	95	80 - 120	<0.50	ug/g	NC	30
9255155	Acid Extractable Nickel (Ni)	2024/03/05	99	75 - 125	98	80 - 120	<0.50	ug/g	10	30
9255155	Acid Extractable Selenium (Se)	2024/03/05	103	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
9255155	Acid Extractable Silver (Ag)	2024/03/05	103	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
9255155	Acid Extractable Thallium (Tl)	2024/03/05	101	75 - 125	99	80 - 120	<0.050	ug/g	0.90	30
9255155	Acid Extractable Uranium (U)	2024/03/05	102	75 - 125	98	80 - 120	<0.050	ug/g	20	30
9255155	Acid Extractable Vanadium (V)	2024/03/05	101	75 - 125	98	80 - 120	<5.0	ug/g	5.2	30
9255155	Acid Extractable Zinc (Zn)	2024/03/05	102	75 - 125	96	80 - 120	<5.0	ug/g	8.8	30
9255367	Conductivity	2024/03/05			102	90 - 110	<0.002	mS/cm	4.4	10
9275998	F2 (C10-C16 Hydrocarbons)	2024/03/15	105	60 - 130	101	80 - 120	<10	ug/g	NC	30
9275998	F3 (C16-C34 Hydrocarbons)	2024/03/15	107	60 - 130	103	80 - 120	<50	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9275998	F4 (C34-C50 Hydrocarbons)	2024/03/15	104	60 - 130	101	80 - 120	<50	ug/g	NC	30

N/A = Not Applicable

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

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

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

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

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

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

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

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

(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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VALIDATION SIGNATURE PAGE

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

Anastassia Hamanov, Scientific Specialist

Cristina Carriere, Senior Scientific Specialist

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

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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

Invoice Information		Report Information (if differs from invoice)		Project Information (where applicable)		Turnaround Time (TAT) Required
Company Name:	DS Consultants	Company Name:	DS Consultants	Quotation #:		[x] Regular TAT (5-7 days) Most analyses
Contact Name:	Accounting	Contact Name:	Megan Bender	P.O. #/ AFE#:		PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJ
Address:		Address:		Project #:	23-265-100	Rush TAT (Surcharges will be applied)
				Site Location:		[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Phone:	Fax:	Phone:	Fax:	Site #:		
Email:		Email:	mbender@dsconsultants.ca	Site Location Province:		Date Required:
				Sampled By:	Megan	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; [ ] Table 2 [ ] Ind/Comm [ ] Coarse; [ ] Table 3 [ ] Agri/ Other; [x] Table 5
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

LABORATORY USE ONLY

CUSTODY SEAL Y / N Present	Intact	COOLER TEMPERATURE
Y	Y	2/2/0

COOLING MEDIA PRESENT: (Y) / N

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							HOLD- DO NOT ANALYZE	COMMENTS
1	MW24-1 SS1	2024/02/28	Am	S	2					✓			✓									
2	MW24-1 SS2	↓	Am	S	3		✓	✓	✓													
3	MW24-2 SS1	2024/02/27	Am	S						✓			✓									
4	MW24-2 SS2	↓	Am	S			✓	✓	✓													
5	MW24-3 SS1	2024/02/28	Am	S	1					✓												
6	MW24-3 SS2		Am	S	4		✓	✓	✓				✓									
7	MW24-4 SS1		Pm	S	1					✓												
8	MW24-4 SS1		Pm	S	4		✓	✓	✓				✓									
9	DUP-4	↓	Pm	S	1					✓												
10	S9	2024/02/29	Pm	S	1									✓								

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
[signature]	2024/02/29		AMRYLO IDLLGOWSKI	2024/02/29	13:00

NONT-2024-02-2161

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

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: DS Consultants	Company Name: DS Consultants	Quotation #:	[X] Regular TAT (5-7 days) Most analyses
Contact Name: Accounting	Contact Name: Megan Bender	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJ
Address:	Address:	Project #: 23-265-100	Rush TAT (Surcharges will be applied)
Phone: Fax:	Phone: Fax:	Site Location:	[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Email:	Email: mbender@DSconsultants.ca	Site #:	Date Required:
		Site Location Province:	Rush Confirmation #:
		Sampled By: Megan	

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

Regulation 153

[ ] Table 1 [✓] Res/Park [ ] Med/ Fine
[ ] Table 2 [ ] Ind/Comm [ ] Coarse
[ ] Table 3 [ ] Agri/ Other
[✓] Table 2
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

LABORATORY USE ONLY

CUSTODY SEAL Y / N: Present / Intact — COOLER TEMPERATURE

COOLING MEDIA PRESENT: Y / N

	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	CCPS	HOLD- DO NOT ANALYZE	COMMENTS
1	S10	2024/02/24	PM	S	1									✓		
2	S11	2024/02/28	PM	S	4		✓	✓	✓		✓		✓			
3																
4																
5																
6																
7																
8																
9																
10																

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	BV JOB #
[signature]	2024/02/29		[signature]			

Your Project #: 23-265-100
Site Location: 1236 CHINGUACOUSY RD, CALEDON
Your C.O.C. #: 951212-01-01

Attention: Megan Bender

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

Report Date: 2023/09/05
Report #: R7798090
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Q2144
Received: 2023/08/28, 13:23

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	2	N/A	2023/09/01	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	2	N/A	2023/09/05		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1)	2	2023/08/31	2023/09/01	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS	1	N/A	2023/08/31	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM)	2	2023/08/31	2023/08/31	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs	1	N/A	2023/09/02	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds in Water	1	N/A	2023/09/01	CAM SOP-00228	EPA 8260D

Remarks:

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

Your Project #: 23-265-100
Site Location: 1236 CHINGUACOUSY RD, CALEDON
Your C.O.C. #: 951212-01-01

Attention: Megan Bender

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

Report Date: 2023/09/05
Report #: R7798090
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Q2144
Received: 2023/08/28, 13:23

reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
05 Sep 2023 17:12:02

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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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID			WUY445	WUY445		
Sampling Date						
COC Number			951212-01-01	951212-01-01		
	UNITS	Criteria	DUP-1	DUP-1 Lab-Dup	RDL	QC Batch
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	150	<100	<100	100	8889687
F3 (C16-C34 Hydrocarbons)	ug/L	500	<200	<200	200	8889687
F4 (C34-C50 Hydrocarbons)	ug/L	500	<200	<200	200	8889687
Reached Baseline at C50	ug/L	-	Yes	Yes		8889687
Surrogate Recovery (%)						
o-Terphenyl	%	-	106	106		8889687

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Ground Water - All Types of Property Use

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O.REG 153 DISSOLVED ICPMS METALS (WATER)

Bureau Veritas ID			WUY443	WUY443		
Sampling Date			2023/08/28	2023/08/28		
COC Number			951212-01-01	951212-01-01		
	UNITS	Criteria	MW23-210	MW23-210 Lab-Dup	RDL	QC Batch
Metals						
Dissolved Antimony (Sb)	ug/L	6.0	<0.50	<0.50	0.50	8888767
Dissolved Arsenic (As)	ug/L	25	<1.0	<1.0	1.0	8888767
Dissolved Barium (Ba)	ug/L	1000	58	59	2.0	8888767
Dissolved Beryllium (Be)	ug/L	4.0	<0.40	<0.40	0.40	8888767
Dissolved Boron (B)	ug/L	5000	120	120	10	8888767
Dissolved Cadmium (Cd)	ug/L	2.1	<0.090	<0.090	0.090	8888767
Dissolved Chromium (Cr)	ug/L	50	<5.0	<5.0	5.0	8888767
Dissolved Cobalt (Co)	ug/L	3.8	0.72	0.70	0.50	8888767
Dissolved Copper (Cu)	ug/L	69	2.5	2.5	0.90	8888767
Dissolved Lead (Pb)	ug/L	10	<0.50	<0.50	0.50	8888767
Dissolved Molybdenum (Mo)	ug/L	70	2.1	2.0	0.50	8888767
Dissolved Nickel (Ni)	ug/L	100	1.5	1.5	1.0	8888767
Dissolved Selenium (Se)	ug/L	10	<2.0	<2.0	2.0	8888767
Dissolved Silver (Ag)	ug/L	1.2	<0.090	<0.090	0.090	8888767
Dissolved Sodium (Na)	ug/L	490000	45000	45000	100	8888767
Dissolved Thallium (Tl)	ug/L	2.0	<0.050	<0.050	0.050	8888767
Dissolved Uranium (U)	ug/L	20	6.6	6.7	0.10	8888767
Dissolved Vanadium (V)	ug/L	6.2	0.71	0.66	0.50	8888767
Dissolved Zinc (Zn)	ug/L	890	<5.0	<5.0	5.0	8888767

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Ground Water - All Types of Property Use

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Bureau Veritas Job #: C3Q2144
Report Date: 2023/09/05

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 1236 CHINGUACOUSY RD, CALEDON
Sampler Initials: MB

O.REG 153 PAHS (WATER)

Bureau Veritas ID			WUY443	WUY445			WUY445		
Sampling Date			2023/08/28						
COC Number			951212-01-01	951212-01-01			951212-01-01		
	UNITS	Criteria	MW23-210	DUP-1	RDL	QC Batch	DUP-1 Lab-Dup	RDL	QC Batch
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/L	3.2	<0.071	<0.071	0.071	8888157			
Polyaromatic Hydrocarbons									
Acenaphthene	ug/L	4.1	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Acenaphthylene	ug/L	1	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Anthracene	ug/L	1	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Benzo(a)anthracene	ug/L	1.0	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Benzo(a)pyrene	ug/L	0.01	<0.0090	<0.0090	0.0090	8889683	<0.0090	0.0090	8889683
Benzo(b/j)fluoranthene	ug/L	0.1	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Benzo(g,h,i)perylene	ug/L	0.2	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Benzo(k)fluoranthene	ug/L	0.1	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Chrysene	ug/L	0.1	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Dibenzo(a,h)anthracene	ug/L	0.2	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Fluoranthene	ug/L	0.41	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Fluorene	ug/L	120	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Indeno(1,2,3-cd)pyrene	ug/L	0.2	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
1-Methylnaphthalene	ug/L	3.2	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
2-Methylnaphthalene	ug/L	3.2	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Naphthalene	ug/L	11	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Phenanthrene	ug/L	1	<0.030	<0.030	0.030	8889683	<0.030	0.030	8889683
Pyrene	ug/L	4.1	<0.050	<0.050	0.050	8889683	<0.050	0.050	8889683
Surrogate Recovery (%)									
D10-Anthracene	%	-	99	104		8889683	101		8889683
D14-Terphenyl (FS)	%	-	103	107		8889683	102		8889683
D8-Acenaphthylene	%	-	89	96		8889683	92		8889683

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Ground Water - All Types of Property Use

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

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

Bureau Veritas ID			WUY443		
Sampling Date			2023/08/28		
COC Number			951212-01-01		
	UNITS	Criteria	MW23-210	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	0.5	<0.50	0.50	8886990
Volatile Organics					
Acetone (2-Propanone)	ug/L	2700	<10	10	8889862
Benzene	ug/L	5.0	<0.17	0.17	8889862
Bromodichloromethane	ug/L	16.0	<0.50	0.50	8889862
Bromoform	ug/L	25.0	<1.0	1.0	8889862
Bromomethane	ug/L	0.89	<0.50	0.50	8889862
Carbon Tetrachloride	ug/L	0.79	<0.20	0.20	8889862
Chlorobenzene	ug/L	30	<0.20	0.20	8889862
Chloroform	ug/L	2.4	<0.20	0.20	8889862
Dibromochloromethane	ug/L	25.0	<0.50	0.50	8889862
1,2-Dichlorobenzene	ug/L	3.0	<0.50	0.50	8889862
1,3-Dichlorobenzene	ug/L	59	<0.50	0.50	8889862
1,4-Dichlorobenzene	ug/L	1.0	<0.50	0.50	8889862
Dichlorodifluoromethane (FREON 12)	ug/L	590	<1.0	1.0	8889862
1,1-Dichloroethane	ug/L	5	<0.20	0.20	8889862
1,2-Dichloroethane	ug/L	1.6	<0.50	0.50	8889862
1,1-Dichloroethylene	ug/L	1.6	<0.20	0.20	8889862
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	0.50	8889862
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	0.50	8889862
1,2-Dichloropropane	ug/L	5.0	<0.20	0.20	8889862
cis-1,3-Dichloropropene	ug/L	0.5	<0.30	0.30	8889862
trans-1,3-Dichloropropene	ug/L	0.5	<0.40	0.40	8889862
Ethylbenzene	ug/L	2.4	<0.20	0.20	8889862
Ethylene Dibromide	ug/L	0.2	<0.20	0.20	8889862
Hexane	ug/L	51	<1.0	1.0	8889862
Methylene Chloride(Dichloromethane)	ug/L	50	<2.0	2.0	8889862
Methyl Ethyl Ketone (2-Butanone)	ug/L	1800	<10	10	8889862

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 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Ground Water - All Types of Property Use

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

Bureau Veritas ID			WUY443		
Sampling Date			2023/08/28		
COC Number			951212-01-01		
	UNITS	Criteria	MW23-210	RDL	QC Batch
Methyl Isobutyl Ketone	ug/L	640	<5.0	5.0	8889862
Methyl t-butyl ether (MTBE)	ug/L	15	<0.50	0.50	8889862
Styrene	ug/L	5.4	<0.50	0.50	8889862
1,1,1,2-Tetrachloroethane	ug/L	1.1	<0.50	0.50	8889862
1,1,2,2-Tetrachloroethane	ug/L	1.0	<0.50	0.50	8889862
Tetrachloroethylene	ug/L	1.6	<0.20	0.20	8889862
Toluene	ug/L	22	<0.20	0.20	8889862
1,1,1-Trichloroethane	ug/L	200	<0.20	0.20	8889862
1,1,2-Trichloroethane	ug/L	4.7	<0.50	0.50	8889862
Trichloroethylene	ug/L	1.6	<0.20	0.20	8889862
Trichlorofluoromethane (FREON 11)	ug/L	150	<0.50	0.50	8889862
Vinyl Chloride	ug/L	0.5	<0.20	0.20	8889862
p+m-Xylene	ug/L	-	<0.20	0.20	8889862
o-Xylene	ug/L	-	<0.20	0.20	8889862
Total Xylenes	ug/L	300	<0.20	0.20	8889862
F1 (C6-C10)	ug/L	420	<25	25	8889862
F1 (C6-C10) - BTEX	ug/L	420	<25	25	8889862
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	150	<100	100	8889687
F3 (C16-C34 Hydrocarbons)	ug/L	500	<200	200	8889687
F4 (C34-C50 Hydrocarbons)	ug/L	500	<200	200	8889687
Reached Baseline at C50	ug/L	-	Yes		8889687
Surrogate Recovery (%)					
o-Terphenyl	%	-	106		8889687
4-Bromofluorobenzene	%	-	99		8889862
D4-1,2-Dichloroethane	%	-	103		8889862
D8-Toluene	%	-	97		8889862

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 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Ground Water - All Types of Property Use

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 #: C3Q2144
Report Date: 2023/09/05

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 1236 CHINGUACOUSY RD, CALEDON
Sampler Initials: MB

O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID			WUY444		
Sampling Date					
COC Number			951212-01-01		
	UNITS	Criteria	TRIP BLANK	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	0.5	<0.50	0.50	8886990
Volatile Organics					
Acetone (2-Propanone)	ug/L	2700	<10	10	8888859
Benzene	ug/L	5.0	<0.20	0.20	8888859
Bromodichloromethane	ug/L	16.0	<0.50	0.50	8888859
Bromoform	ug/L	25.0	<1.0	1.0	8888859
Bromomethane	ug/L	0.89	<0.50	0.50	8888859
Carbon Tetrachloride	ug/L	0.79	<0.19	0.19	8888859
Chlorobenzene	ug/L	30	<0.20	0.20	8888859
Chloroform	ug/L	2.4	<0.20	0.20	8888859
Dibromochloromethane	ug/L	25.0	<0.50	0.50	8888859
1,2-Dichlorobenzene	ug/L	3.0	<0.40	0.40	8888859
1,3-Dichlorobenzene	ug/L	59	<0.40	0.40	8888859
1,4-Dichlorobenzene	ug/L	1.0	<0.40	0.40	8888859
Dichlorodifluoromethane (FREON 12)	ug/L	590	<1.0	1.0	8888859
1,1-Dichloroethane	ug/L	5	<0.20	0.20	8888859
1,2-Dichloroethane	ug/L	1.6	<0.49	0.49	8888859
1,1-Dichloroethylene	ug/L	1.6	<0.20	0.20	8888859
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	0.50	8888859
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	0.50	8888859
1,2-Dichloropropane	ug/L	5.0	<0.20	0.20	8888859
cis-1,3-Dichloropropene	ug/L	0.5	<0.30	0.30	8888859
trans-1,3-Dichloropropene	ug/L	0.5	<0.40	0.40	8888859
Ethylbenzene	ug/L	2.4	<0.20	0.20	8888859
Ethylene Dibromide	ug/L	0.2	<0.19	0.19	8888859
Hexane	ug/L	51	<1.0	1.0	8888859
Methylene Chloride(Dichloromethane)	ug/L	50	<2.0	2.0	8888859
Methyl Ethyl Ketone (2-Butanone)	ug/L	1800	<10	10	8888859

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 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Ground Water - All Types of Property Use

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Bureau Veritas Job #: C3Q2144
Report Date: 2023/09/05

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 1236 CHINGUACOUSY RD, CALEDON
Sampler Initials: MB

O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID			WUY444		
Sampling Date					
COC Number			951212-01-01		
	UNITS	Criteria	TRIP BLANK	RDL	QC Batch
Methyl Isobutyl Ketone	ug/L	640	<5.0	5.0	8888859
Methyl t-butyl ether (MTBE)	ug/L	15	<0.50	0.50	8888859
Styrene	ug/L	5.4	<0.40	0.40	8888859
1,1,1,2-Tetrachloroethane	ug/L	1.1	<0.50	0.50	8888859
1,1,2,2-Tetrachloroethane	ug/L	1.0	<0.40	0.40	8888859
Tetrachloroethylene	ug/L	1.6	<0.20	0.20	8888859
Toluene	ug/L	22	<0.20	0.20	8888859
1,1,1-Trichloroethane	ug/L	200	<0.20	0.20	8888859
1,1,2-Trichloroethane	ug/L	4.7	<0.40	0.40	8888859
Trichloroethylene	ug/L	1.6	<0.20	0.20	8888859
Trichlorofluoromethane (FREON 11)	ug/L	150	<0.50	0.50	8888859
Vinyl Chloride	ug/L	0.5	<0.20	0.20	8888859
p+m-Xylene	ug/L	-	<0.20	0.20	8888859
o-Xylene	ug/L	-	<0.20	0.20	8888859
Total Xylenes	ug/L	300	<0.20	0.20	8888859
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	-	98		8888859
D4-1,2-Dichloroethane	%	-	107		8888859
D8-Toluene	%	-	93		8888859

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 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Ground Water - All Types of Property Use

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Bureau Veritas Job #: C3Q2144
Report Date: 2023/09/05

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 1236 CHINGUACOUSY RD, CALEDON
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: WUY443
Sample ID: MW23-210
Matrix: Water

Collected: 2023/08/28
Shipped:
Received: 2023/08/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8888157	N/A	2023/09/01	Automated Statchk
1,3-Dichloropropene Sum	CALC	8886990	N/A	2023/09/05	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8889687	2023/08/31	2023/09/01	(Kent) Maolin Li
Dissolved Metals by ICPMS	ICP/MS	8888767	N/A	2023/08/31	Arefa Dabhad
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8889683	2023/08/31	2023/08/31	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8889862	N/A	2023/09/02	Jett Wu

Bureau Veritas ID: WUY443 Dup
Sample ID: MW23-210
Matrix: Water

Collected: 2023/08/28
Shipped:
Received: 2023/08/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	8888767	N/A	2023/08/31	Arefa Dabhad

Bureau Veritas ID: WUY444
Sample ID: TRIP BLANK
Matrix: Water

Collected:
Shipped:
Received: 2023/08/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8886990	N/A	2023/09/05	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	8888859	N/A	2023/09/01	Manpreet Sarao

Bureau Veritas ID: WUY445
Sample ID: DUP-1
Matrix: Water

Collected:
Shipped:
Received: 2023/08/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8888157	N/A	2023/09/01	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8889687	2023/08/31	2023/09/01	(Kent) Maolin Li
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8889683	2023/08/31	2023/08/31	Jonghan Yoon

Bureau Veritas ID: WUY445 Dup
Sample ID: DUP-1
Matrix: Water

Collected:
Shipped:
Received: 2023/08/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8889687	2023/08/31	2023/09/01	(Kent) Maolin Li
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8889683	2023/08/31	2023/08/31	Jonghan Yoon

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Bureau Veritas Job #: C3Q2144
Report Date: 2023/09/05

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 1236 CHINGUACOUSY RD, CALEDON
Sampler Initials: MB

GENERAL COMMENTS

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

Package 1	16.3°C
Package 2	14.7°C
Package 3	18.3°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8888859	4-Bromofluorobenzene	2023/09/01	100	70 - 130	99	70 - 130	98	%		
8888859	D4-1,2-Dichloroethane	2023/09/01	104	70 - 130	101	70 - 130	106	%		
8888859	D8-Toluene	2023/09/01	102	70 - 130	103	70 - 130	93	%		
8889683	D10-Anthracene	2023/08/31	101	50 - 130	100	50 - 130	104	%		
8889683	D14-Terphenyl (FS)	2023/08/31	109	50 - 130	103	50 - 130	113	%		
8889683	D8-Acenaphthylene	2023/08/31	94	50 - 130	93	50 - 130	96	%		
8889687	o-Terphenyl	2023/08/31	107	60 - 130	108	60 - 130	102	%		
8889862	4-Bromofluorobenzene	2023/09/01	99	70 - 130	101	70 - 130	101	%		
8889862	D4-1,2-Dichloroethane	2023/09/01	89	70 - 130	101	70 - 130	106	%		
8889862	D8-Toluene	2023/09/01	104	70 - 130	101	70 - 130	95	%		
8888767	Dissolved Antimony (Sb)	2023/08/31	114	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
8888767	Dissolved Arsenic (As)	2023/08/31	109	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
8888767	Dissolved Barium (Ba)	2023/08/31	110	80 - 120	98	80 - 120	<2.0	ug/L	2.8	20
8888767	Dissolved Beryllium (Be)	2023/08/31	107	80 - 120	101	80 - 120	<0.40	ug/L	NC	20
8888767	Dissolved Boron (B)	2023/08/31	108	80 - 120	105	80 - 120	<10	ug/L	2.4	20
8888767	Dissolved Cadmium (Cd)	2023/08/31	108	80 - 120	99	80 - 120	<0.090	ug/L	NC	20
8888767	Dissolved Chromium (Cr)	2023/08/31	104	80 - 120	96	80 - 120	<5.0	ug/L	NC	20
8888767	Dissolved Cobalt (Co)	2023/08/31	104	80 - 120	98	80 - 120	<0.50	ug/L	1.8	20
8888767	Dissolved Copper (Cu)	2023/08/31	108	80 - 120	97	80 - 120	<0.90	ug/L	2.2	20
8888767	Dissolved Lead (Pb)	2023/08/31	106	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
8888767	Dissolved Molybdenum (Mo)	2023/08/31	108	80 - 120	98	80 - 120	<0.50	ug/L	5.6	20
8888767	Dissolved Nickel (Ni)	2023/08/31	102	80 - 120	99	80 - 120	<1.0	ug/L	5.0	20
8888767	Dissolved Selenium (Se)	2023/08/31	105	80 - 120	98	80 - 120	<2.0	ug/L	NC	20
8888767	Dissolved Silver (Ag)	2023/08/31	104	80 - 120	96	80 - 120	<0.090	ug/L	NC	20
8888767	Dissolved Sodium (Na)	2023/08/31	NC	80 - 120	98	80 - 120	<100	ug/L	0.85	20
8888767	Dissolved Thallium (Tl)	2023/08/31	112	80 - 120	98	80 - 120	<0.050	ug/L	NC	20
8888767	Dissolved Uranium (U)	2023/08/31	111	80 - 120	99	80 - 120	<0.10	ug/L	0.81	20
8888767	Dissolved Vanadium (V)	2023/08/31	105	80 - 120	96	80 - 120	<0.50	ug/L	6.6	20
8888767	Dissolved Zinc (Zn)	2023/08/31	107	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
8888859	1,1,1,2-Tetrachloroethane	2023/09/01	96	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8888859	1,1,1-Trichloroethane	2023/09/01	97	70 - 130	94	70 - 130	<0.20	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8888859	1,1,2,2-Tetrachloroethane	2023/09/01	101	70 - 130	97	70 - 130	<0.40	ug/L	NC	30
8888859	1,1,2-Trichloroethane	2023/09/01	100	70 - 130	98	70 - 130	<0.40	ug/L	NC	30
8888859	1,1-Dichloroethane	2023/09/01	99	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
8888859	1,1-Dichloroethylene	2023/09/01	97	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
8888859	1,2-Dichlorobenzene	2023/09/01	96	70 - 130	97	70 - 130	<0.40	ug/L	NC	30
8888859	1,2-Dichloroethane	2023/09/01	100	70 - 130	96	70 - 130	<0.49	ug/L	NC	30
8888859	1,2-Dichloropropane	2023/09/01	99	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
8888859	1,3-Dichlorobenzene	2023/09/01	96	70 - 130	99	70 - 130	<0.40	ug/L	NC	30
8888859	1,4-Dichlorobenzene	2023/09/01	100	70 - 130	102	70 - 130	<0.40	ug/L	NC	30
8888859	Acetone (2-Propanone)	2023/09/01	104	60 - 140	102	60 - 140	<10	ug/L	NC	30
8888859	Benzene	2023/09/01	96	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
8888859	Bromodichloromethane	2023/09/01	97	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8888859	Bromoform	2023/09/01	94	70 - 130	92	70 - 130	<1.0	ug/L	NC	30
8888859	Bromomethane	2023/09/01	92	60 - 140	86	60 - 140	<0.50	ug/L	NC	30
8888859	Carbon Tetrachloride	2023/09/01	96	70 - 130	93	70 - 130	<0.19	ug/L	NC	30
8888859	Chlorobenzene	2023/09/01	95	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
8888859	Chloroform	2023/09/01	98	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8888859	cis-1,2-Dichloroethylene	2023/09/01	98	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
8888859	cis-1,3-Dichloropropene	2023/09/01	100	70 - 130	96	70 - 130	<0.30	ug/L	NC	30
8888859	Dibromochloromethane	2023/09/01	96	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8888859	Dichlorodifluoromethane (FREON 12)	2023/09/01	85	60 - 140	85	60 - 140	<1.0	ug/L	NC	30
8888859	Ethylbenzene	2023/09/01	93	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
8888859	Ethylene Dibromide	2023/09/01	98	70 - 130	96	70 - 130	<0.19	ug/L	NC	30
8888859	Hexane	2023/09/01	102	70 - 130	101	70 - 130	<1.0	ug/L	NC	30
8888859	Methyl Ethyl Ketone (2-Butanone)	2023/09/01	109	60 - 140	108	60 - 140	<10	ug/L	NC	30
8888859	Methyl Isobutyl Ketone	2023/09/01	106	70 - 130	105	70 - 130	<5.0	ug/L	NC	30
8888859	Methyl t-butyl ether (MTBE)	2023/09/01	94	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8888859	Methylene Chloride(Dichloromethane)	2023/09/01	95	70 - 130	91	70 - 130	<2.0	ug/L	NC	30
8888859	o-Xylene	2023/09/01	90	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
8888859	p+m-Xylene	2023/09/01	95	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
8888859	Styrene	2023/09/01	99	70 - 130	103	70 - 130	<0.40	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8888859	Tetrachloroethylene	2023/09/01	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
8888859	Toluene	2023/09/01	96	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
8888859	Total Xylenes	2023/09/01					<0.20	ug/L	NC	30
8888859	trans-1,2-Dichloroethylene	2023/09/01	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
8888859	trans-1,3-Dichloropropene	2023/09/01	103	70 - 130	100	70 - 130	<0.40	ug/L	NC	30
8888859	Trichloroethylene	2023/09/01	95	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8888859	Trichlorofluoromethane (FREON 11)	2023/09/01	90	70 - 130	87	70 - 130	<0.50	ug/L	NC	30
8888859	Vinyl Chloride	2023/09/01	90	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
8889683	1-Methylnaphthalene	2023/08/31	112	50 - 130	102	50 - 130	<0.050	ug/L	NC	30
8889683	2-Methylnaphthalene	2023/08/31	102	50 - 130	93	50 - 130	<0.050	ug/L	NC	30
8889683	Acenaphthene	2023/08/31	107	50 - 130	102	50 - 130	<0.050	ug/L	NC	30
8889683	Acenaphthylene	2023/08/31	109	50 - 130	103	50 - 130	<0.050	ug/L	NC	30
8889683	Anthracene	2023/08/31	110	50 - 130	102	50 - 130	<0.050	ug/L	NC	30
8889683	Benzo(a)anthracene	2023/08/31	108	50 - 130	93	50 - 130	<0.050	ug/L	NC	30
8889683	Benzo(a)pyrene	2023/08/31	102	50 - 130	86	50 - 130	<0.0090	ug/L	NC	30
8889683	Benzo(b/j)fluoranthene	2023/08/31	101	50 - 130	87	50 - 130	<0.050	ug/L	NC	30
8889683	Benzo(g,h,i)perylene	2023/08/31	108	50 - 130	91	50 - 130	<0.050	ug/L	NC	30
8889683	Benzo(k)fluoranthene	2023/08/31	104	50 - 130	88	50 - 130	<0.050	ug/L	NC	30
8889683	Chrysene	2023/08/31	107	50 - 130	91	50 - 130	<0.050	ug/L	NC	30
8889683	Dibenzo(a,h)anthracene	2023/08/31	99	50 - 130	81	50 - 130	<0.050	ug/L	NC	30
8889683	Fluoranthene	2023/08/31	116	50 - 130	108	50 - 130	<0.050	ug/L	NC	30
8889683	Fluorene	2023/08/31	104	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
8889683	Indeno(1,2,3-cd)pyrene	2023/08/31	106	50 - 130	88	50 - 130	<0.050	ug/L	NC	30
8889683	Naphthalene	2023/08/31	97	50 - 130	93	50 - 130	<0.050	ug/L	NC	30
8889683	Phenanthrene	2023/08/31	107	50 - 130	100	50 - 130	<0.030	ug/L	NC	30
8889683	Pyrene	2023/08/31	115	50 - 130	105	50 - 130	<0.050	ug/L	NC	30
8889687	F2 (C10-C16 Hydrocarbons)	2023/09/01	100	60 - 130	103	60 - 130	<100	ug/L	NC	30
8889687	F3 (C16-C34 Hydrocarbons)	2023/09/01	99	60 - 130	103	60 - 130	<200	ug/L	NC	30
8889687	F4 (C34-C50 Hydrocarbons)	2023/09/01	99	60 - 130	102	60 - 130	<200	ug/L	NC	30
8889862	1,1,1,2-Tetrachloroethane	2023/09/02	89	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8889862	1,1,1-Trichloroethane	2023/09/02	90	70 - 130	90	70 - 130	<0.20	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8889862	1,1,2,2-Tetrachloroethane	2023/09/02	81	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
8889862	1,1,2-Trichloroethane	2023/09/02	82	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
8889862	1,1-Dichloroethane	2023/09/02	87	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8889862	1,1-Dichloroethylene	2023/09/02	90	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
8889862	1,2-Dichlorobenzene	2023/09/02	89	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
8889862	1,2-Dichloroethane	2023/09/02	79	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
8889862	1,2-Dichloropropane	2023/09/02	84	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8889862	1,3-Dichlorobenzene	2023/09/02	91	70 - 130	91	70 - 130	<0.50	ug/L	NC	30
8889862	1,4-Dichlorobenzene	2023/09/02	90	70 - 130	91	70 - 130	<0.50	ug/L	NC	30
8889862	Acetone (2-Propanone)	2023/09/02	79	60 - 140	95	60 - 140	<10	ug/L	NC	30
8889862	Benzene	2023/09/02	87	70 - 130	92	70 - 130	<0.17	ug/L	NC	30
8889862	Bromodichloromethane	2023/09/02	82	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
8889862	Bromoform	2023/09/02	81	70 - 130	95	70 - 130	<1.0	ug/L	NC	30
8889862	Bromomethane	2023/09/02	80	60 - 140	83	60 - 140	<0.50	ug/L	NC	30
8889862	Carbon Tetrachloride	2023/09/02	90	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
8889862	Chlorobenzene	2023/09/02	90	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8889862	Chloroform	2023/09/02	86	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8889862	cis-1,2-Dichloroethylene	2023/09/02	86	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
8889862	cis-1,3-Dichloropropene	2023/09/02	78	70 - 130	91	70 - 130	<0.30	ug/L	NC	30
8889862	Dibromochloromethane	2023/09/02	84	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
8889862	Dichlorodifluoromethane (FREON 12)	2023/09/02	78	60 - 140	71	60 - 140	<1.0	ug/L	NC	30
8889862	Ethylbenzene	2023/09/02	92	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8889862	Ethylene Dibromide	2023/09/02	84	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
8889862	F1 (C6-C10) - BTEX	2023/09/02					<25	ug/L	NC	30
8889862	F1 (C6-C10)	2023/09/02	96	60 - 140	96	60 - 140	<25	ug/L	NC	30
8889862	Hexane	2023/09/02	92	70 - 130	90	70 - 130	<1.0	ug/L	NC	30
8889862	Methyl Ethyl Ketone (2-Butanone)	2023/09/02	79	60 - 140	102	60 - 140	<10	ug/L	NC	30
8889862	Methyl Isobutyl Ketone	2023/09/02	72	70 - 130	99	70 - 130	<5.0	ug/L	NC	30
8889862	Methyl t-butyl ether (MTBE)	2023/09/02	81	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8889862	Methylene Chloride(Dichloromethane)	2023/09/02	83	70 - 130	90	70 - 130	<2.0	ug/L	NC	30
8889862	o-Xylene	2023/09/02	91	70 - 130	93	70 - 130	<0.20	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8889862	p+m-Xylene	2023/09/02	91	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
8889862	Styrene	2023/09/02	88	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
8889862	Tetrachloroethylene	2023/09/02	94	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
8889862	Toluene	2023/09/02	90	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
8889862	Total Xylenes	2023/09/02					<0.20	ug/L	NC	30
8889862	trans-1,2-Dichloroethylene	2023/09/02	89	70 - 130	91	70 - 130	<0.50	ug/L	NC	30
8889862	trans-1,3-Dichloropropene	2023/09/02	79	70 - 130	91	70 - 130	<0.40	ug/L	NC	30
8889862	Trichloroethylene	2023/09/02	90	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8889862	Trichlorofluoromethane (FREON 11)	2023/09/02	86	70 - 130	82	70 - 130	<0.50	ug/L	NC	30
8889862	Vinyl Chloride	2023/09/02	82	70 - 130	80	70 - 130	<0.20	ug/L	NC	30

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

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

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

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

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

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

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

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Bureau Veritas Job #: C3Q2144
Report Date: 2023/09/05

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 1236 CHINGUACOUSY RD, CALEDON
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 #: C3Q2144
Report Date: 2023/09/05

DS Consultants Limited
Client Project #: 23-265-100
Site Location: 1236 CHINGUACOUSY RD, CALEDON
Sampler Initials: MB

Exceedance Summary Table – Reg153/04 T8-GW

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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28-Aug-23 13:23
Ashton Gibson
C3Q2144
AJH ENV-1466

Maxxam Analytics
CAM FCD-01013/5
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Presence of Visible Particulate/Sediment

When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below

Bottle Types

		Inorganics						Organics											Hydrocarbons							Volatiles				Other
	Sample ID	All	CrVI	CN	General	Hg	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/ Herb 1 of 2	Pest/ Herb 2 of 2	SVOC/ ABN 1 of 2	SVOC/ ABN 2 of 2	PAH 1 of 2	PAH 2 of 2	Dioxin /Furan	F1 Vial 1	F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G	VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4	
1	MW23-210	TS																												
2	DUP-1	TS																												
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														

Comments: Except Dissolve Metals.

Legend:	
P	Suspended Particulate
TS	Trace Settled Sediment (just covers bottom of container or less)
S	Sediment greater than (>) Trace, but less than (<) 1 cm

Recorded By: (signature/print) AGan AGan

2023/08/28 MK Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvna.com

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AJH ENV-1466

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INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#32616 DS Consultants Limited	Company Name:		Quotation #:	C25641
Attention:	Accounts Payable	Attention:	Megan Bender	P.O. #:	
Address:	6221 Highway 7, Unit 16 Vaughan ON L4H 0K8	Address:		Project:	23-265-100
Tel:	(905) 264-9393 Fax:	Tel:	Fax:	Project Name:	
Email:	accounting@dsconsultants.ca;bindu.goel@dsconsultant	Email:	megan.bender@dsconsultants.ca	Site #:	1286 Chinguacousy Rd Caledon
				Sampled By:	Miriam Sera

Bottle Order #: 951212
COC #: C#951212-01-01
Project Manager: Ashton Gibson

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

Regulation 153 (2011): ☐ Table 1 ☒ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☒ Table 6

Other Regulations: ☐ CCME ☐ Reg 558 ☐ MISA ☐ PWQO ☐ Other ☐ Sanitary Sewer Bylaw ☐ Storm Sewer Bylaw Municipality ☐ Reg 406 Table

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Yes

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): (Metals) / Hg / Cr VI	O.Reg 153 VOCs by HS & F1-F4	O.Reg 153 PAHs	O.Reg 153 Dissolved ICPMS Metals (Water)	metals	# of Bottles	Comments
1		MW23-210	23/08/28	AM	GW	✓	✓	✓		✓	5	
2		Trip Blank							✓		2	
3												
4												
5												
6												
7												
8												
9												
10												

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number: (call lab for #)

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Miriam Sera	23/08/28	1:10PM	Ashitha Sukumar / ASHITHA SUKUMAR	2023/08/28	13:23	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	16/20/13	Present		
		Intact		

16/13/15
17/19/19

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

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

White: Bureau Veritas Yellow: Client

Your Project #: 23-265-100
Your C.O.C. #: C#979091-01-01

Attention: Megan Bender

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

Report Date: 2024/03/08
Report #: R8058072
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C464663
Received: 2024/03/04, 13:12

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	4	N/A	2024/03/07	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	5	N/A	2024/03/07		EPA 8260C m
Chloride by Automated Colourimetry	5	N/A	2024/03/06	CAM SOP-00463	SM 24 4500-Cl E m
Chromium (VI) in Water	3	N/A	2024/03/06	CAM SOP-00436	EPA 7199 m
Chromium (VI) in Water	2	N/A	2024/03/07	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	5	N/A	2024/03/05	CAM SOP-00457	OMOE E3015 m
Petroleum Hydrocarbons F2-F4 in Water (1)	4	2024/03/06	2024/03/06	CAM SOP-00316	CCME PHC-CWS m
Mercury	5	2024/03/07	2024/03/07	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	5	N/A	2024/03/06	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM)	4	2024/03/06	2024/03/07	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs	4	N/A	2024/03/07	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds in Water	1	N/A	2024/03/06	CAM SOP-00228	EPA 8260D

Remarks:

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

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

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

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

Your Project #: 23-265-100
Your C.O.C. #: C#979091-01-01

Attention: Megan Bender

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

Report Date: 2024/03/08
Report #: R8058072
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C464663

Received: 2024/03/04, 13:12

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

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

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
08 Mar 2024 11:03:12

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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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 #: C464663
Report Date: 2024/03/08

DS Consultants Limited
Client Project #: 23-265-100
Sampler Initials: MB

O.REG 153 METALS & INORGANICS PKG (WTR)

Bureau Veritas ID		YNN062			YNN062			YNN063		
Sampling Date		2024/03/04			2024/03/04			2024/03/04		
COC Number		C#979091-01-01			C#979091-01-01			C#979091-01-01		
	UNITS	MW24-1	RDL	QC Batch	MW24-1 Lab-Dup	RDL	QC Batch	MW24-2	RDL	QC Batch
Inorganics										
WAD Cyanide (Free)	ug/L	<1	1	9255117				<1	1	9255117
Dissolved Chloride (Cl-)	mg/L	600	6.0	9255986				650	6.0	9255986
Metals										
Chromium (VI)	ug/L	<0.50	0.50	9257990				<0.50	0.50	9257990
Mercury (Hg)	ug/L	<0.10	0.10	9260445	<0.10	0.10	9260445	<0.10	0.10	9260445
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	9256038				<0.50	0.50	9256038
Dissolved Arsenic (As)	ug/L	2.5	1.0	9256038				<1.0	1.0	9256038
Dissolved Barium (Ba)	ug/L	53	2.0	9256038				180	2.0	9256038
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	9256038				<0.40	0.40	9256038
Dissolved Boron (B)	ug/L	170	10	9256038				40	10	9256038
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	9256038				<0.090	0.090	9256038
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	9256038				<5.0	5.0	9256038
Dissolved Cobalt (Co)	ug/L	1.3	0.50	9256038				0.85	0.50	9256038
Dissolved Copper (Cu)	ug/L	1.3	0.90	9256038				1.2	0.90	9256038
Dissolved Lead (Pb)	ug/L	<0.50	0.50	9256038				<0.50	0.50	9256038
Dissolved Molybdenum (Mo)	ug/L	3.4	0.50	9256038				1.2	0.50	9256038
Dissolved Nickel (Ni)	ug/L	2.4	1.0	9256038				2.2	1.0	9256038
Dissolved Selenium (Se)	ug/L	<2.0	2.0	9256038				<2.0	2.0	9256038
Dissolved Silver (Ag)	ug/L	<0.090	0.090	9256038				<0.090	0.090	9256038
Dissolved Sodium (Na)	ug/L	140000	100	9256038				110000	100	9256038
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	9256038				<0.050	0.050	9256038
Dissolved Uranium (U)	ug/L	14	0.10	9256038				3.2	0.10	9256038
Dissolved Vanadium (V)	ug/L	0.54	0.50	9256038				<0.50	0.50	9256038
Dissolved Zinc (Zn)	ug/L	5.3	5.0	9256038				5.1	5.0	9256038

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

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O.REG 153 METALS & INORGANICS PKG (WTR)

Bureau Veritas ID		YNN064	YNN065	YNN066		
Sampling Date		2024/03/04	2024/03/04	2024/03/04		
COC Number		C#979091-01-01	C#979091-01-01	C#979091-01-01		
	UNITS	MW24-3	MW24-4	DUP-4	RDL	QC Batch
Inorganics						
WAD Cyanide (Free)	ug/L	<1	<1	<1	1	9255117
Dissolved Chloride (Cl-)	mg/L	140	14	140	1.0	9255986
Metals						
Chromium (VI)	ug/L	<0.50	<0.50	<0.50	0.50	9257986
Mercury (Hg)	ug/L	<0.10	<0.10	<0.10	0.10	9260445
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	0.50	9256038
Dissolved Arsenic (As)	ug/L	1.1	2.7	1.0	1.0	9256038
Dissolved Barium (Ba)	ug/L	54	28	55	2.0	9256038
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	<0.40	0.40	9256038
Dissolved Boron (B)	ug/L	68	240	65	10	9256038
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	<0.090	0.090	9256038
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	<5.0	5.0	9256038
Dissolved Cobalt (Co)	ug/L	<0.50	2.4	<0.50	0.50	9256038
Dissolved Copper (Cu)	ug/L	1.5	1.4	1.3	0.90	9256038
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	0.50	9256038
Dissolved Molybdenum (Mo)	ug/L	9.8	2.7	9.6	0.50	9256038
Dissolved Nickel (Ni)	ug/L	1.0	2.5	1.1	1.0	9256038
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	<2.0	2.0	9256038
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	<0.090	0.090	9256038
Dissolved Sodium (Na)	ug/L	62000	70000	63000	100	9256038
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	0.050	9256038
Dissolved Uranium (U)	ug/L	4.8	5.5	4.9	0.10	9256038
Dissolved Vanadium (V)	ug/L	0.98	<0.50	1.0	0.50	9256038
Dissolved Zinc (Zn)	ug/L	<5.0	9.0	<5.0	5.0	9256038

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 PAHS (WATER)

Bureau Veritas ID		YNN062	YNN063	YNN064	YNN065		
Sampling Date		2024/03/04	2024/03/04	2024/03/04	2024/03/04		
COC Number		C#979091-01-01	C#979091-01-01	C#979091-01-01	C#979091-01-01		
	UNITS	MW24-1	MW24-2	MW24-3	MW24-4	RDL	QC Batch
Calculated Parameters							
Methylnaphthalene, 2-(1-)	ug/L	<0.071	<0.071	<0.071	<0.071	0.071	9253264
Polyaromatic Hydrocarbons							
Acenaphthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Acenaphthylene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Benzo(a)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Benzo(a)pyrene	ug/L	<0.0090	<0.0090	<0.0090	<0.0090	0.0090	9257693
Benzo(b/j)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Chrysene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Dibenzo(a,h)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Fluorene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
1-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
2-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Naphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Phenanthrene	ug/L	<0.030	<0.030	<0.030	<0.030	0.030	9257693
Pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	9257693
Surrogate Recovery (%)							
D10-Anthracene	%	100	104	91	102		9257693
D14-Terphenyl (FS)	%	97	102	87	98		9257693
D8-Acenaphthylene	%	89	96	84	94		9257693

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		YNN062	YNN063	YNN064	YNN065		
Sampling Date		2024/03/04	2024/03/04	2024/03/04	2024/03/04		
COC Number		C#979091-01-01	C#979091-01-01	C#979091-01-01	C#979091-01-01		
	UNITS	MW24-1	MW24-2	MW24-3	MW24-4	RDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9253265
Volatile Organics							
Acetone (2-Propanone)	ug/L	<10	<10	11	12	10	9255313
Benzene	ug/L	<0.17	<0.17	<0.17	<0.17	0.17	9255313
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
Bromoform	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9255313
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
Chloroform	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9255313
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	<0.30	0.30	9255313
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9255313
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
Hexane	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9255313
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	9255313
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	<10	10	9255313
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	9255313
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

Bureau Veritas ID		YNN062	YNN063	YNN064	YNN065		
Sampling Date		2024/03/04	2024/03/04	2024/03/04	2024/03/04		
COC Number		C#979091-01-01	C#979091-01-01	C#979091-01-01	C#979091-01-01		
	UNITS	MW24-1	MW24-2	MW24-3	MW24-4	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9255313
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
Total Xylenes	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9255313
F1 (C6-C10)	ug/L	<25	<25	<25	<25	25	9255313
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	25	9255313
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	100	9257706
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	9257706
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	9257706
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes		9257706
Surrogate Recovery (%)							
o-Terphenyl	%	100	97	90	102		9257706
4-Bromofluorobenzene	%	104	104	107	106		9255313
D4-1,2-Dichloroethane	%	115	118	118	117		9255313
D8-Toluene	%	89	88	89	89		9255313

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		YNN067		
Sampling Date		2024/03/04		
COC Number		C#979091-01-01		
	UNITS	TRIP BALNK	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	9253265
Volatile Organics				
Acetone (2-Propanone)	ug/L	<10	10	9255279
Benzene	ug/L	<0.20	0.20	9255279
Bromodichloromethane	ug/L	<0.50	0.50	9255279
Bromoform	ug/L	<1.0	1.0	9255279
Bromomethane	ug/L	<0.50	0.50	9255279
Carbon Tetrachloride	ug/L	<0.19	0.19	9255279
Chlorobenzene	ug/L	<0.20	0.20	9255279
Chloroform	ug/L	<0.20	0.20	9255279
Dibromochloromethane	ug/L	<0.50	0.50	9255279
1,2-Dichlorobenzene	ug/L	<0.40	0.40	9255279
1,3-Dichlorobenzene	ug/L	<0.40	0.40	9255279
1,4-Dichlorobenzene	ug/L	<0.40	0.40	9255279
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	9255279
1,1-Dichloroethane	ug/L	<0.20	0.20	9255279
1,2-Dichloroethane	ug/L	<0.49	0.49	9255279
1,1-Dichloroethylene	ug/L	<0.20	0.20	9255279
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	9255279
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	9255279
1,2-Dichloropropane	ug/L	<0.20	0.20	9255279
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	9255279
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	9255279
Ethylbenzene	ug/L	<0.20	0.20	9255279
Ethylene Dibromide	ug/L	<0.19	0.19	9255279
Hexane	ug/L	<1.0	1.0	9255279
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	9255279
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	9255279
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	9255279
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	9255279
Styrene	ug/L	<0.40	0.40	9255279
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	9255279

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		YNN067		
Sampling Date		2024/03/04		
COC Number		C#979091-01-01		
	UNITS	TRIP BALNK	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/L	<0.40	0.40	9255279
Tetrachloroethylene	ug/L	<0.20	0.20	9255279
Toluene	ug/L	<0.20	0.20	9255279
1,1,1-Trichloroethane	ug/L	<0.20	0.20	9255279
1,1,2-Trichloroethane	ug/L	<0.40	0.40	9255279
Trichloroethylene	ug/L	<0.20	0.20	9255279
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	9255279
Vinyl Chloride	ug/L	<0.20	0.20	9255279
p+m-Xylene	ug/L	<0.20	0.20	9255279
o-Xylene	ug/L	<0.20	0.20	9255279
Total Xylenes	ug/L	<0.20	0.20	9255279
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	100		9255279
D4-1,2-Dichloroethane	%	113		9255279
D8-Toluene	%	85		9255279

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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TEST SUMMARY

Bureau Veritas ID: YNN062 **Collected:** 2024/03/04
Sample ID: MW24-1 **Shipped:**
Matrix: Water **Received:** 2024/03/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9253264	N/A	2024/03/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	9253265	N/A	2024/03/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9255986	N/A	2024/03/06	Geetee Noorzaad
Chromium (VI) in Water	IC	9257990	N/A	2024/03/07	Surleen Kaur Romana
Free (WAD) Cyanide	SKAL/CN	9255117	N/A	2024/03/05	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9257706	2024/03/06	2024/03/06	(Kent) Maolin Li
Mercury	CV/AA	9260445	2024/03/07	2024/03/07	Aswathy Neduveli Suresh
Dissolved Metals by ICPMS	ICP/MS	9256038	N/A	2024/03/06	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9257693	2024/03/06	2024/03/07	Mitesh Raj
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9255313	N/A	2024/03/07	Juan Pangilinan

Bureau Veritas ID: YNN062 Dup **Collected:** 2024/03/04
Sample ID: MW24-1 **Shipped:**
Matrix: Water **Received:** 2024/03/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury	CV/AA	9260445	2024/03/07	2024/03/07	Aswathy Neduveli Suresh

Bureau Veritas ID: YNN063 **Collected:** 2024/03/04
Sample ID: MW24-2 **Shipped:**
Matrix: Water **Received:** 2024/03/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9253264	N/A	2024/03/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	9253265	N/A	2024/03/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9255986	N/A	2024/03/06	Geetee Noorzaad
Chromium (VI) in Water	IC	9257990	N/A	2024/03/07	Surleen Kaur Romana
Free (WAD) Cyanide	SKAL/CN	9255117	N/A	2024/03/05	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9257706	2024/03/06	2024/03/06	(Kent) Maolin Li
Mercury	CV/AA	9260445	2024/03/07	2024/03/07	Aswathy Neduveli Suresh
Dissolved Metals by ICPMS	ICP/MS	9256038	N/A	2024/03/06	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9257693	2024/03/06	2024/03/07	Mitesh Raj
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9255313	N/A	2024/03/07	Juan Pangilinan

Bureau Veritas ID: YNN064 **Collected:** 2024/03/04
Sample ID: MW24-3 **Shipped:**
Matrix: Water **Received:** 2024/03/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9253264	N/A	2024/03/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	9253265	N/A	2024/03/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9255986	N/A	2024/03/06	Geetee Noorzaad
Chromium (VI) in Water	IC	9257986	N/A	2024/03/06	Surleen Kaur Romana
Free (WAD) Cyanide	SKAL/CN	9255117	N/A	2024/03/05	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9257706	2024/03/06	2024/03/06	(Kent) Maolin Li

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TEST SUMMARY

Bureau Veritas ID: YNN064
Sample ID: MW24-3
Matrix: Water

Collected: 2024/03/04
Shipped:
Received: 2024/03/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury	CV/AA	9260445	2024/03/07	2024/03/07	Aswathy Neduveli Suresh
Dissolved Metals by ICPMS	ICP/MS	9256038	N/A	2024/03/06	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9257693	2024/03/06	2024/03/07	Mitesh Raj
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9255313	N/A	2024/03/07	Juan Pangilinan

Bureau Veritas ID: YNN065
Sample ID: MW24-4
Matrix: Water

Collected: 2024/03/04
Shipped:
Received: 2024/03/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9253264	N/A	2024/03/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	9253265	N/A	2024/03/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9255986	N/A	2024/03/06	Geetee Noorzaad
Chromium (VI) in Water	IC	9257986	N/A	2024/03/06	Surleen Kaur Romana
Free (WAD) Cyanide	SKAL/CN	9255117	N/A	2024/03/05	Prgya Panchal
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9257706	2024/03/06	2024/03/06	(Kent) Maolin Li
Mercury	CV/AA	9260445	2024/03/07	2024/03/07	Aswathy Neduveli Suresh
Dissolved Metals by ICPMS	ICP/MS	9256038	N/A	2024/03/06	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9257693	2024/03/06	2024/03/07	Mitesh Raj
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9255313	N/A	2024/03/07	Juan Pangilinan

Bureau Veritas ID: YNN066
Sample ID: DUP-4
Matrix: Water

Collected: 2024/03/04
Shipped:
Received: 2024/03/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	SKAL	9255986	N/A	2024/03/06	Geetee Noorzaad
Chromium (VI) in Water	IC	9257986	N/A	2024/03/06	Surleen Kaur Romana
Free (WAD) Cyanide	SKAL/CN	9255117	N/A	2024/03/05	Prgya Panchal
Mercury	CV/AA	9260445	2024/03/07	2024/03/07	Aswathy Neduveli Suresh
Dissolved Metals by ICPMS	ICP/MS	9256038	N/A	2024/03/06	Nan Raykha

Bureau Veritas ID: YNN067
Sample ID: TRIP BALNK
Matrix: Water

Collected: 2024/03/04
Shipped:
Received: 2024/03/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9253265	N/A	2024/03/07	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	9255279	N/A	2024/03/06	Gabriella Morrone

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GENERAL COMMENTS

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

Package 1	7.7°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9255279	4-Bromofluorobenzene	2024/03/06	108	70 - 130	108	70 - 130	103	%		
9255279	D4-1,2-Dichloroethane	2024/03/06	99	70 - 130	96	70 - 130	106	%		
9255279	D8-Toluene	2024/03/06	103	70 - 130	104	70 - 130	86	%		
9255313	4-Bromofluorobenzene	2024/03/06	107	70 - 130	108	70 - 130	105	%		
9255313	D4-1,2-Dichloroethane	2024/03/06	115	70 - 130	109	70 - 130	103	%		
9255313	D8-Toluene	2024/03/06	106	70 - 130	108	70 - 130	92	%		
9257693	D10-Anthracene	2024/03/06	106	50 - 130	103	50 - 130	108	%		
9257693	D14-Terphenyl (FS)	2024/03/06	92	50 - 130	107	50 - 130	106	%		
9257693	D8-Acenaphthylene	2024/03/06	102	50 - 130	99	50 - 130	99	%		
9257706	o-Terphenyl	2024/03/06	102	60 - 130	102	60 - 130	99	%		
9255117	WAD Cyanide (Free)	2024/03/05	95	80 - 120	96	80 - 120	<1	ug/L	NC	20
9255279	1,1,1,2-Tetrachloroethane	2024/03/06	104	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9255279	1,1,1-Trichloroethane	2024/03/06	98	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9255279	1,1,2,2-Tetrachloroethane	2024/03/06	107	70 - 130	99	70 - 130	<0.40	ug/L	NC	30
9255279	1,1,2-Trichloroethane	2024/03/06	95	70 - 130	89	70 - 130	<0.40	ug/L	NC	30
9255279	1,1-Dichloroethane	2024/03/06	96	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9255279	1,1-Dichloroethylene	2024/03/06	90	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9255279	1,2-Dichlorobenzene	2024/03/06	98	70 - 130	95	70 - 130	<0.40	ug/L	NC	30
9255279	1,2-Dichloroethane	2024/03/06	93	70 - 130	87	70 - 130	<0.49	ug/L	NC	30
9255279	1,2-Dichloropropane	2024/03/06	94	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9255279	1,3-Dichlorobenzene	2024/03/06	101	70 - 130	100	70 - 130	<0.40	ug/L	NC	30
9255279	1,4-Dichlorobenzene	2024/03/06	109	70 - 130	109	70 - 130	<0.40	ug/L	NC	30
9255279	Acetone (2-Propanone)	2024/03/06	98	60 - 140	91	60 - 140	<10	ug/L	NC	30
9255279	Benzene	2024/03/06	89	70 - 130	86	70 - 130	<0.20	ug/L	4.3	30
9255279	Bromodichloromethane	2024/03/06	104	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9255279	Bromoform	2024/03/06	100	70 - 130	93	70 - 130	<1.0	ug/L	NC	30
9255279	Bromomethane	2024/03/06	89	60 - 140	83	60 - 140	<0.50	ug/L	NC	30
9255279	Carbon Tetrachloride	2024/03/06	96	70 - 130	93	70 - 130	<0.19	ug/L	NC	30
9255279	Chlorobenzene	2024/03/06	103	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
9255279	Chloroform	2024/03/06	102	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
9255279	cis-1,2-Dichloroethylene	2024/03/06	103	70 - 130	98	70 - 130	<0.50	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9255279	cis-1,3-Dichloropropene	2024/03/06	102	70 - 130	93	70 - 130	<0.30	ug/L	NC	30
9255279	Dibromochloromethane	2024/03/06	95	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
9255279	Dichlorodifluoromethane (FREON 12)	2024/03/06	76	60 - 140	74	60 - 140	<1.0	ug/L	NC	30
9255279	Ethylbenzene	2024/03/06	88	70 - 130	85	70 - 130	<0.20	ug/L	NC	30
9255279	Ethylene Dibromide	2024/03/06	105	70 - 130	98	70 - 130	<0.19	ug/L	NC	30
9255279	Hexane	2024/03/06	89	70 - 130	86	70 - 130	<1.0	ug/L	NC	30
9255279	Methyl Ethyl Ketone (2-Butanone)	2024/03/06	104	60 - 140	96	60 - 140	<10	ug/L	NC	30
9255279	Methyl Isobutyl Ketone	2024/03/06	107	70 - 130	98	70 - 130	<5.0	ug/L	NC	30
9255279	Methyl t-butyl ether (MTBE)	2024/03/06	96	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
9255279	Methylene Chloride(Dichloromethane)	2024/03/06	102	70 - 130	97	70 - 130	<2.0	ug/L	NC	30
9255279	o-Xylene	2024/03/06	77	70 - 130	81	70 - 130	<0.20	ug/L	1.4	30
9255279	p+m-Xylene	2024/03/06	96	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9255279	Styrene	2024/03/06	107	70 - 130	109	70 - 130	<0.40	ug/L	NC	30
9255279	Tetrachloroethylene	2024/03/06	101	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
9255279	Toluene	2024/03/06	95	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9255279	Total Xylenes	2024/03/06					<0.20	ug/L	1.4	30
9255279	trans-1,2-Dichloroethylene	2024/03/06	98	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
9255279	trans-1,3-Dichloropropene	2024/03/06	101	70 - 130	88	70 - 130	<0.40	ug/L	NC	30
9255279	Trichloroethylene	2024/03/06	101	70 - 130	98	70 - 130	<0.20	ug/L	4.4	30
9255279	Trichlorofluoromethane (FREON 11)	2024/03/06	97	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
9255279	Vinyl Chloride	2024/03/06	85	70 - 130	82	70 - 130	<0.20	ug/L	NC	30
9255313	1,1,1,2-Tetrachloroethane	2024/03/06	101	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
9255313	1,1,1-Trichloroethane	2024/03/06	92	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
9255313	1,1,2,2-Tetrachloroethane	2024/03/06	120	70 - 130	117	70 - 130	<0.50	ug/L	NC	30
9255313	1,1,2-Trichloroethane	2024/03/06	121	70 - 130	118	70 - 130	<0.50	ug/L	NC	30
9255313	1,1-Dichloroethane	2024/03/06	109	70 - 130	113	70 - 130	<0.20	ug/L	NC	30
9255313	1,1-Dichloroethylene	2024/03/06	99	70 - 130	107	70 - 130	<0.20	ug/L	NC	30
9255313	1,2-Dichlorobenzene	2024/03/06	87	70 - 130	90	70 - 130	<0.50	ug/L	NC	30
9255313	1,2-Dichloroethane	2024/03/06	103	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
9255313	1,2-Dichloropropane	2024/03/06	103	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
9255313	1,3-Dichlorobenzene	2024/03/06	84	70 - 130	87	70 - 130	<0.50	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9255313	1,4-Dichlorobenzene	2024/03/06	90	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
9255313	Acetone (2-Propanone)	2024/03/06	115	60 - 140	111	60 - 140	<10	ug/L	0	30
9255313	Benzene	2024/03/06	92	70 - 130	97	70 - 130	<0.17	ug/L	NC	30
9255313	Bromodichloromethane	2024/03/06	108	70 - 130	110	70 - 130	<0.50	ug/L	NC	30
9255313	Bromoform	2024/03/06	93	70 - 130	92	70 - 130	<1.0	ug/L	NC	30
9255313	Bromomethane	2024/03/06	90	60 - 140	94	60 - 140	<0.50	ug/L	NC	30
9255313	Carbon Tetrachloride	2024/03/06	90	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
9255313	Chlorobenzene	2024/03/06	98	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
9255313	Chloroform	2024/03/06	108	70 - 130	111	70 - 130	<0.20	ug/L	NC	30
9255313	cis-1,2-Dichloroethylene	2024/03/06	101	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
9255313	cis-1,3-Dichloropropene	2024/03/06	81	70 - 130	85	70 - 130	<0.30	ug/L	NC	30
9255313	Dibromochloromethane	2024/03/06	99	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9255313	Dichlorodifluoromethane (FREON 12)	2024/03/06	77	60 - 140	82	60 - 140	<1.0	ug/L	NC	30
9255313	Ethylbenzene	2024/03/06	81	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9255313	Ethylene Dibromide	2024/03/06	103	70 - 130	102	70 - 130	<0.20	ug/L	NC	30
9255313	F1 (C6-C10) - BTEX	2024/03/06					<25	ug/L	NC	30
9255313	F1 (C6-C10)	2024/03/06	84	60 - 140	92	60 - 140	<25	ug/L	NC	30
9255313	Hexane	2024/03/06	97	70 - 130	103	70 - 130	<1.0	ug/L	NC	30
9255313	Methyl Ethyl Ketone (2-Butanone)	2024/03/06	107	60 - 140	102	60 - 140	<10	ug/L	NC	30
9255313	Methyl Isobutyl Ketone	2024/03/06	101	70 - 130	99	70 - 130	<5.0	ug/L	NC	30
9255313	Methyl t-butyl ether (MTBE)	2024/03/06	88	70 - 130	91	70 - 130	<0.50	ug/L	NC	30
9255313	Methylene Chloride(Dichloromethane)	2024/03/06	114	70 - 130	114	70 - 130	<2.0	ug/L	NC	30
9255313	o-Xylene	2024/03/06	78	70 - 130	85	70 - 130	<0.20	ug/L	NC	30
9255313	p+m-Xylene	2024/03/06	84	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9255313	Styrene	2024/03/06	102	70 - 130	110	70 - 130	<0.50	ug/L	NC	30
9255313	Tetrachloroethylene	2024/03/06	92	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
9255313	Toluene	2024/03/06	95	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
9255313	Total Xylenes	2024/03/06					<0.20	ug/L	NC	30
9255313	trans-1,2-Dichloroethylene	2024/03/06	98	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
9255313	trans-1,3-Dichloropropene	2024/03/06	93	70 - 130	96	70 - 130	<0.40	ug/L	NC	30
9255313	Trichloroethylene	2024/03/06	90	70 - 130	96	70 - 130	<0.20	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9255313	Trichlorofluoromethane (FREON 11)	2024/03/06	99	70 - 130	106	70 - 130	<0.50	ug/L	NC	30
9255313	Vinyl Chloride	2024/03/06	99	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
9255986	Dissolved Chloride (Cl-)	2024/03/06	98	80 - 120	97	80 - 120	<1.0	mg/L	NC	20
9256038	Dissolved Antimony (Sb)	2024/03/06	109	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
9256038	Dissolved Arsenic (As)	2024/03/06	108	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
9256038	Dissolved Barium (Ba)	2024/03/06	101	80 - 120	98	80 - 120	<2.0	ug/L	1.3	20
9256038	Dissolved Beryllium (Be)	2024/03/06	102	80 - 120	100	80 - 120	<0.40	ug/L	NC	20
9256038	Dissolved Boron (B)	2024/03/06	101	80 - 120	97	80 - 120	<10	ug/L	2.3	20
9256038	Dissolved Cadmium (Cd)	2024/03/06	101	80 - 120	102	80 - 120	<0.090	ug/L	4.6	20
9256038	Dissolved Chromium (Cr)	2024/03/06	101	80 - 120	92	80 - 120	<5.0	ug/L	NC	20
9256038	Dissolved Cobalt (Co)	2024/03/06	100	80 - 120	95	80 - 120	<0.50	ug/L	1.1	20
9256038	Dissolved Copper (Cu)	2024/03/06	108	80 - 120	103	80 - 120	<0.90	ug/L	6.0	20
9256038	Dissolved Lead (Pb)	2024/03/06	94	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
9256038	Dissolved Molybdenum (Mo)	2024/03/06	115	80 - 120	104	80 - 120	<0.50	ug/L	2.1	20
9256038	Dissolved Nickel (Ni)	2024/03/06	96	80 - 120	94	80 - 120	<1.0	ug/L	4.8	20
9256038	Dissolved Selenium (Se)	2024/03/06	102	80 - 120	101	80 - 120	<2.0	ug/L	NC	20
9256038	Dissolved Silver (Ag)	2024/03/06	101	80 - 120	103	80 - 120	<0.090	ug/L	NC	20
9256038	Dissolved Sodium (Na)	2024/03/06	NC	80 - 120	103	80 - 120	<100	ug/L	1.2	20
9256038	Dissolved Thallium (Tl)	2024/03/06	97	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
9256038	Dissolved Uranium (U)	2024/03/06	101	80 - 120	100	80 - 120	<0.10	ug/L	2.1	20
9256038	Dissolved Vanadium (V)	2024/03/06	106	80 - 120	94	80 - 120	<0.50	ug/L	NC	20
9256038	Dissolved Zinc (Zn)	2024/03/06	95	80 - 120	97	80 - 120	<5.0	ug/L	2.3	20
9257693	1-Methylnaphthalene	2024/03/07	86	50 - 130	90	50 - 130	<0.050	ug/L	NC	30
9257693	2-Methylnaphthalene	2024/03/07	86	50 - 130	90	50 - 130	<0.050	ug/L	NC	30
9257693	Acenaphthene	2024/03/07	88	50 - 130	93	50 - 130	<0.050	ug/L	NC	30
9257693	Acenaphthylene	2024/03/07	94	50 - 130	98	50 - 130	<0.050	ug/L	NC	30
9257693	Anthracene	2024/03/07	92	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
9257693	Benzo(a)anthracene	2024/03/07	95	50 - 130	101	50 - 130	<0.050	ug/L	NC	30
9257693	Benzo(a)pyrene	2024/03/07	91	50 - 130	98	50 - 130	<0.0090	ug/L	NC	30
9257693	Benzo(b/j)fluoranthene	2024/03/07	87	50 - 130	95	50 - 130	<0.050	ug/L	NC	30
9257693	Benzo(g,h,i)perylene	2024/03/07	87	50 - 130	95	50 - 130	<0.050	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9257693	Benzo(k)fluoranthene	2024/03/07	89	50 - 130	96	50 - 130	<0.050	ug/L	NC	30
9257693	Chrysene	2024/03/07	90	50 - 130	98	50 - 130	<0.050	ug/L	NC	30
9257693	Dibenzo(a,h)anthracene	2024/03/07	90	50 - 130	97	50 - 130	<0.050	ug/L	NC	30
9257693	Fluoranthene	2024/03/07	89	50 - 130	97	50 - 130	<0.050	ug/L	NC	30
9257693	Fluorene	2024/03/07	91	50 - 130	97	50 - 130	<0.050	ug/L	NC (1)	30
9257693	Indeno(1,2,3-cd)pyrene	2024/03/07	88	50 - 130	96	50 - 130	<0.050	ug/L	NC	30
9257693	Naphthalene	2024/03/07	91	50 - 130	94	50 - 130	<0.050	ug/L	NC	30
9257693	Phenanthrene	2024/03/07	89	50 - 130	95	50 - 130	<0.030	ug/L	NC	30
9257693	Pyrene	2024/03/07	90	50 - 130	97	50 - 130	<0.050	ug/L	22	30
9257706	F2 (C10-C16 Hydrocarbons)	2024/03/06	98	60 - 130	99	60 - 130	<100	ug/L	NC	30
9257706	F3 (C16-C34 Hydrocarbons)	2024/03/06	105	60 - 130	107	60 - 130	<200	ug/L	111 (2)	30
9257706	F4 (C34-C50 Hydrocarbons)	2024/03/06	100	60 - 130	97	60 - 130	<200	ug/L	NC	30
9257986	Chromium (VI)	2024/03/06	105	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
9257990	Chromium (VI)	2024/03/07	105	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
9260445	Mercury (Hg)	2024/03/07	102	75 - 125	102	80 - 120	<0.10	ug/L	NC	20

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 matrix interferences.

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

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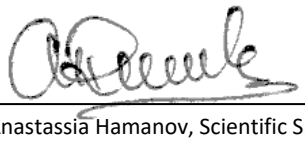
VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

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

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NONT-2024-03-144

Bottle Order #: 979091

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#32616 DS Consultants Limited	Company Name:		Quotation #:	C35427
Attention:	Accounts Payable	Attention:	Megan Bender	P.O. #:	
Address:	6221 Highway 7, Unit 16	Address:		Project:	23-265-100
	Vaughan ON L4H 0K8			Project Name:	
Tel:	(905) 264-9393 Fax:	Tel:	Fax:	Site #:	
Email:	accounting@dsconsultants.ca;bindu.goel@dsconsultant	Email:	megan.bender@dsconsultants.ca	Sampled By:	Megan

COC #:	Project Manager:
C#979091-01-01	Ashton Gibson

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

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558. ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Reg 406 Table ___ ☐ Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☑
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ☐
Rush Confirmation Number: ___ *(call lab for #)*

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 Metals & Inorganics Pkg (Wtr)	PHCs	VOCs	PAHs							# of Bottles	Comments
1		MW24-1	2024/03/04	Am	GW	✓	✓	✓	✓	✓							9	
2		MW24-2	↓	Am	GW	✓	✓	✓	✓	✓							9	1 PHC/PAH Container not labelled
3		MW24-3	↓		GW	✓	✓	✓	✓	✓							9	
4		MW24-4	↓		GW	✓	✓	✓	✓	✓							9	
5		DUP-4	↓		GW	✓	✓										5	
6		Trip Blank	↓		W.				✓								2	
7																		
8																		
9																		
10																		

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
[signature]	24/03/04		[signature]	2024/03/04	13:12	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	8/8/7	Present	✓	
		Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

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

White: Bureau Veritas Yellow: Client

Oli 16

Appendix E

Phase Two Conceptual Site Model

This Phase Two Conceptual Site Model has been prepared for the property comprised of 12306 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 6 – Groundwater Contours and Flow Direction
Figure 7A – Soil Characterization – Metals and ORPs
Figure 7B – Soil Characterization – PHCs and BTEX
Figure 7C – Soil Characterization – VOCs
Figure 7D – Soil Characterization – PAHs
Figure 7E – Soil Characterization – OCPs
Figure 8A – Groundwater Characterization – Metals and ORPs
Figure 8A – Groundwater Characterization – PHCs and BTEX
Figure 8A – Groundwater Characterization – VOCs
Figure 8A – Groundwater Characterization – PAHs
Figure 9 – Contaminant Transport Diagram

The Phase Two Property is an irregular shaped 40.67-hectare (100.5 acres) parcel of land situated within a rural setting in the Town of Caledon. The Phase Two Property is located approximately 0.9 km northwest of the intersection of Chinguacousy Road and Mayfield Road.

The Property currently includes a residential dwelling with a stone foundation, a steel maintenance barn, three (3) steel equipment storage barns, and multiple steel silos. The residential dwelling is a two-storey structure with one level of basement, and was constructed in the 1880s. The house is approximately 145 m^2 in area. The house is serviced

with a domestic well and septic system. The septic system was located west of the house, and the domestic well was observed between Storage Barn 1 and the silos.

Storage Barn 1 is approximately 175 m^2 in area with a concrete floor and is used for storage of old equipment and spare parts. Storage Barn 2 is approximately 135 m^2 in area with a concrete floor and is used for storage of feed containers and spare parts. Storage Barn 3 is approximately 135 m^2 in area with a dirt and gravel floor and is used for storage of agricultural equipment. The Maintenance Barn is approximately 810 m^2 in area with a concrete floor and included an above-ground hydraulic hoist used for servicing farm equipment.

Access to the Site is through a gravel drive which enters the Site from Chinguacousy Road. The remaining balance of the Site is primarily comprised of agricultural fields, with the exception of a small woodlot located along the western property boundary.

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 ten (10) 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;
- Presence of an abandoned gasoline AST stored near the silos on Site;
- A cluster of aboveground storage tanks, including 2 abandoned fuel oil tanks, 1 abandoned diesel tank, and 2 active diesel tanks located beside Storage Barn 2;
- Inferred former use of fuel oil within the house, based on the remnant furnace in the basement;
- The maintenance barn contains a hydraulic hoist used for equipment maintenance;
- Storage of engine oil and waste oil within the storage barn;
- Storage of waste oil within the maintenance barn;
- The inferred application of de-icing salts around the structures on Site; and
- Reported importation of fill material of unknown quality to backfill a former pond in the northwest corner of the property.

The Phase Two ESA was conducted in conjuncture of a Geotechnical investigation, and it involved the advancement of 10 boreholes between August 10, 2023 and August 15, 2023. Four (4) additional boreholes were advanced on February 28 to 29, 2024 for environmental purposes. The boreholes were advanced to a maximum depth of 6.7 metres below ground surface (mbgs) under the supervision of DS personnel. Groundwater monitoring wells were installed in eight (8) of the boreholes to facilitate the collection of groundwater samples and the assessment of groundwater flow direction. The borehole locations were determined based on the findings of the Phase One ESA. All APECs were investigated with boreholes and/or monitoring wells in accordance with the requirements of O.Reg. 153/04 (as amended). Soil and groundwater samples were collected and submitted for analysis of all PCOCs, including: metals and other regulated parameters (ORPs), petroleum hydrocarbons (PHCs) including benzene, toluene, ethylbenzene and xylenes (BTEX), volatile organic compound (VOCs), polycyclic aromatic hydrocarbons (PAHs) and organochlorinated pesticides (OCPs).

The soil and groundwater analytical results were compared to the "Table 8: Generic Site Condition Standards for a Potable Groundwater Condition within 30 m of a Water Body 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 8 Standards*)* for coarse-textured soils and residential/parkland/institutional property use.

Based on the results of the Phase Two ESA, it was concluded that the groundwater quality on the Site met the applicable MECP Table 8 SCS, however the soil quality on the Site did not meet the MECP Table 8 SCS. Sample MW23-2 SS3 exceeded the standards for PHC F2 at a depth of 1.5-2.1 mbgs. The impact is associated with the oil storage in Storage Barn 1 (APEC-8) and anticipated to be confined within the footprint of the building.

I. Description and Assessment of:

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

A total of 11 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	According to the Peel County Atlas from 1880, the Phase One Property contains an orchard on the southeast portion of the Site.	Yes – APEC-1
PCA-3	#28 – Gasoline and associated products storage in fixed tanks	One old gasoline tank is located beside the silos.	Yes – APEC-2
PCA-4	#28 – Gasoline and associated products storage in fixed tanks	A total of 5 ASTs (3 diesel and 2 fuel oil) are located beside Storage Barn 2, 2 of which were still in use.	Yes – APEC-3
PCA-5	#28 – Gasoline and associated products storage in fixed tanks	The house was formerly heated with an oil furnace.	Yes – APEC-4
PCA-6	#30 – Importation of Fill Material of Unknown Quality	The man-made pond on the southwest portion of the property was infilled.	Yes – APEC-7
PCA-7	#52 – Storage, Maintenance, Fuelling and Repair of Equipment, Vehicles, and Material Used to Maintain Transportation Systems	A hydraulic hoist is present in the Maintenance Garage.	Yes – APEC-6
PCA-8	#N/S – Inferred application of de-icing salts near the structures on Site	De-icing salts are likely used around the structures on Site.	Yes – APEC-5
PCA-9	#8 – Chemical Manufacturing, Processing and Bulk Storage	Waste oil storage was noted in Storage Barn 1.	Yes – APEC-8
PCA-10	#8 – Chemical Manufacturing, Processing and Bulk Storage	Waste oil and engine oil was noted in the Maintenance Barn.	Yes – APEC-9
PCA-11	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Pesticide application across agricultural fields.	Yes – APEC-10

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

B. Areas of potential environmental concern

A total of 10 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	Northeast portion of Property	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-1**	OCPs, Metals, As, Sb, Se, CN-	Soil
APEC-2	Central Portion of the Property near Silos	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-3**	PHCs, BTEX, PAHs, VOCs	Soil and ground water
APEC-3	Central Portion of Property near Storage Barn 2	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-4**	PHCs, BTEX, PAHs, VOCs	Soil and ground water
APEC-4	Northeast boundary at house	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-5**	PHCs, BTEX, PAHs, VOCs	Soil and ground water
APEC-5	Central-North portion of Site near Structures	N/S – Inferred application of de-icing salts	On Site **PCA-8**	EC, SAR	Soil
APEC - 6	Central Portion of Property at Maintenance Barn	#52 – Storage, Maintenance, Fuelling and Repair of Equipment, Vehicles, and Material Used to Maintain Transportation Systems	On Site **PCA-7**	PHCs, VOCs, BTEX, Metals,	Soil and ground water
APEC-7	Northwest corner of the Property	#30 - Importation of Fill Material of Unknown Quality	On Site **PCA-6**	PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-8	Central Portion of Property at Storage Barn 1	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-9**	PHCs, BTEX, PAHs, VOCs	Soil and ground water

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-9	Central Portion of Property at Maintenance Barn	#28 - Gasoline and Associated Products Storage in Fixed Tanks	On Site **PCA-10**	PHCs, BTEX, PAHs, VOCs	Soil and ground water
APEC-10	Entire Site	#40 – Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site **PCA-11**	OCPs, Metals, As, Sb, Se, CN-	Soil

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 groundwater table was encountered at depths ranging from 0.24 to 1.65 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 no groundwater impacts were identified, therefore the potential for preferential migration of contaminants is not of concern at this time.

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 380 mm in thickness was encountered in all of the boreholes advanced except BH23-210 and MW24-2 to MW24-4. Reworked fill material consisting of clayey silt with trace organics was encountered below the topsoil with the exception of BH23-210 and MW24-4. The reworked fill material was generally heterogeneous and ranged in thickness from 0.1 to 1.1 metres. Reworked sandy silt fill material was encountered in BH23-210 and MW24-3 to a depth ranging from 0.3 to 0.9 mbgs. MW24-2 encountered a surficial granular layer approximately 130 mm in thickness. The

native overburden material encountered below the reworked fill material consisted of clayey silt till with trace amounts of sand and gravel. The clayey silt till unit extended to a maximum depth of 6.7 mbgs. Silt to silty sand till was encountered below the clayey silt till unit in BH23-201 and BH23-207 with a thickness of 0.5 m to borehole termination of 6.7 m.

The borehole locations are depicted on Figure 5.

B. Hydrogeological Characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants is present at concentrations above the applicable site condition standards, lateral and vertical gradients

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

Based on the groundwater elevations, the groundwater flow direction is interpreted to be northwest on the west portion of the Site towards a creek traversing the west boundary, and southerly towards Fletcher's Creek on the east portion of the Site.

The horizontal hydraulic gradient was calculated based on the groundwater levels recorded on August 29, 2023.

Table 5-1: Summary of Horizontal Hydraulic Gradient Calculations

Hydrogeological Unit	Calculated Horizontal Hydraulic Gradient
Overburden – clayey silt till	Minimum: 0.00105 Average: 0.00526 Maximum: 0.01072

The vertical hydraulic gradient was not calculated, as no groundwater impacts were identified 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 range between 0.24 to 1.65 mbgs on March 4, 2024.

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, however a creek traverses the west boundary of the Site. Section 43.1 is applicable.

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

Based on the Site reconnaissance and interview, fill material was used to backfill the former pond on the southwest portion of the Property.

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

A. <u>Each area where a contaminant is present on, in or under the Phase Two Property at a concentration greater than the applicable SCS</u>

All of the soil and groundwater samples analyzed met the MECP Table 8 SCS. Plans depicting the sample locations and chemical analyses are provided in Figures 7A to 7E and Figures 8A to 8D.

B. <u>The contaminants associated with each of the areas</u>

All of the soil and groundwater samples met the MECP Table 8 SCS.

C. <u>Medium that contaminants were identified in</u>

All of the soil and groundwater samples met the MECP Table 8 SCS.

D. <u>Description and assessment of what is know about each of the areas</u>

APEC-1 was identified at the Site relating to the presence of a historical orchard on the southeast portion of the Site. The soil quality met within APEC-1 met the MECP Table 8 SCS.

APEC-2 was identified on the Site relating to the presence of an unused gasoline tank beside the silos on the central portion of the Site. APEC-3 was identified in association with 5 ASTs (3 diesel and 2 fuel oil tanks), two of which are still in use, located beside Storage Barn 2. The soil and groundwater quality within APEC-2 and APEC-3 met the MECP Table 8 SCS.

APEC-4 was identified on the Site relating to the former oil furnace in the house. The soil and groundwater quality within APEC-4 met the MECP Table 8 SCS. APEC-5 was identified on the Site and is associated with the inferred use of de-icing salts around the structures and laneway on Site. The soil quality within APEC-5 met the MECP Table 8 SCS.

APEC-6 was identified on the Site relating to the hydraulic hoist present in the Maintenance Garage. The soil and groundwater quality within APEC-6 met the MECP Table 8 SCS.

APEC-7 was identified on Site associated with the infilled pond on the southwest portion of the Property. The soil quality within APEC-7 met the MECP Table 8 SCS.

APEC-8 was identified on the Site relating to the waste oil storage in Storage Barn 1. The groundwater quality within APEC-8 met the MECP Table 8 SCS, however the soil quality did not meet the Table 8 SCS. PHC F2 exceeded in sample MW24-2 SS3 at a depth of 1.5-2.1 mbgs.

APEC-9 was identified on Site in association with the waste oil and engine oil stored in the Maintenance Barn. The soil and groundwater quality within APEC-9 met the MECP Table 8 SCS.

APEC-10 was identified on Site in association with the use of pesticides across the agricultural fields on Site. The soil quality within APEC-10 met the MECP Table 8 SCS.

E. 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 and groundwater samples analyzed met the MECP Table 8 SCS.

F. 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 and groundwater samples analyzed met the MECP Table 8 SCS.

G. 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 8 SCS. Contaminant migration is not considered to be an issue of concern with respect to the soil and groundwater quality at the Site.

H. 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 considerer to be of concern with respect to contaminant distribution and/or migration of contaminants.

I. **Information concerning soil vapour intrusion of the contaminants into buildings**

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**
   - A. **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**
   - B. **Approximate depth to water table**
   - C. **Stratigraphy from ground surface to the deepest aquifer or aquitard investigated**
   - D. **Any subsurface structures and utilities that may affect contaminants distribution and transport**

Contaminants were not identified at levels in excess of the applicable MECP Table 8 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**
   - A. **The release mechanisms**
   - B. **Contaminant transport pathway**
   - C. **The human and ecological receptors located on, in or under the phase two property**
   - D. **Receptor exposure points**
   - E. **Routes of exposure**

A visual representation of potential contaminant transport pathways is provided in Figure 9.