12211, 12213 and 12231 Hurontario Street, Caledon, Ontario

Modified Generic Risk Assessment

Client:
Argo Summer Valley Limited

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Project Name:
Modified Generic Risk Assessment
12211, 12213 and 12231 Hurontario Street, Caledon, Ontario

Project Number:
GTR-00257876-C0

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Introduction and General Approach

List of Acronyms

All abbreviated terms in the PSF form are defined below. Terms are not defined within any other Sections of the PSF.

ANSI = Area of Natural Significance
APEC = Areas of potential environmental contamination
B-HWS = Hot water soluble boron
BTEX = Benzene, toluene, ethylbenzene and xylene
COC = Contaminant of concern
CN^- = Cyanide
CSM = Conceptual Site Model
CV = Curriculum Vitae
EC = Electrical Conductivity
EPC = Exposure Point Concentration
ERA = Ecological Risk Assessment
EXP = EXP Services Inc.
Hg = Mercury
HHRA = Human Health Risk Assessment
masl = metres above seal level
mbgs = metres below ground surface
MECP = Ontario Ministry of the Environment, Conservation and Parks
MEP = Modified Ecological Protection
MGRA = Modified Generic Risk Assessment
MNRF = Ontario Ministry of Natural Resources and Forestry
NAPL = non-aqueous phase liquid
O. Reg. = Ontario Regulation
ORP = Other regulated parameter
PAH = Polycyclic aromatic hydrocarbon
PCA = Potentially Contaminating Activities
pCOC = Potential Contaminants of Concern
PHC = Petroleum Hydrocarbon
PSF = Pre-Submission Form
PSS = Property-Specific Standard
QA/QC = Quality assurance/ quality control
RA = Risk Assessment
RPD = Relative percent difference
RSC = Record of Site Condition
SAR = Sodium adsorption ratio
SARO = Species at Risk in Ontario
SCS = Site Condition Standards

TSSA = Technical Standards and Safety Authority
VEC = Valued Ecological Receptor
VOC = Volatile Organic Compound
QP_{ESA} = Qualified Person for Environmental Site Assessment
QP_{RA} = Qualified Person for Risk Assessment

Introduction and General Approach

EXP was retained by Argo Summer Valley Limited~~2248811 Ontario Inc.~~ (the "Client") to conduct a Modified Generic Risk Assessment (MGRA) for the contiguous properties with the municipal addresses of ~~12197 Hurontario Street, Brampton, Ontario,~~ 12211, 12213 and~~,~~ 12231~~, and 12233~~ Hurontario Street, Caledon, Ontario (hereinafter referred to as the "site" or "RA property"). The site is located on the east side of Hurontario Street and the north side of Highwood Road and measures approximately 3.09~~6~~ hectares (7.6~~8.9~~ acres) in area.

The site was first developed for residential and commercial use (trailer sales and service, and livestock auctions) in the late 1950s. Prior to the 1950s the site was under agricultural use or vacant. The on-site structures were demolished between 2013 and 2014. The site was vacant at the time of the Phase One ESA (EXP, 2020a).

Given that the RA property is intended to be re-developed for residential use, an RSC is required. The MGRA will support the filing of the RSC and will be completed in accordance with O. Reg 153/04.

Surrounding properties include mixed vacant and community (Highway 401 and ramps) land to the northwest, mixed commercial and residential use to the southwest and residential use to the northeast and southeast.

There are no water bodies on the site. The nearest water body to the site is a tributary of Etobicoke Creek, located approximately 180 metres to the east, based on the closest point and 655~~10~~ metres to the southeast on the downgradient site of the Site based on the local groundwater flow direction. Further details can be found in Section 3.2 in Appendix A – Phase Two CSM.

The property is also not within, nor adjacent or within 30 m of an Area of Natural Significance as per the MNRF Natural Heritage Areas website (2020). Additional details regarding Species at Risk screening are provided in Schedule I of this introductory Section.

As per the regulation, a PSF and site-specific MGRA model have~~s~~ been prepared for MECP review. The PSF and initial MGRA submission is provided on the USB (Appendix H). A copy of the MECP comments on the PSF and MGRA are included in Appendix K and have been reproduced in tabular format. EXP's responses to the MECP comments have been added into the last column of the table provided.

Deviations from the information provided in the PSF are summarized in the Table below.

Deviation	Reference
The ownership of the property has changed. The property is now owned by Argo Summer Valley Limited.	Revised Sections A and B of the PSF Form (PSF Updates Folder; Appendix H); Appendix E (Legal Documentation).
The portion of the RA property located within Brampton, Ontario, municipally addressed as 12197 Hurontario Street, has been removed from the RA property boundaries. It is further noted that reference to 12233 Hurontario Street, Caledon has also been removed. While the Town of Caledon online mapping system includes this municipal address within the RA property boundary, there is no record of this address on any legal documents separate from 12231. As such, reference to this municipal address has been removed, where applicable.	Appendix A (Phase Two CSM) and Appendix E (Survey Plan). PSF Updates (PSF Updates Folder; Appendix H): - Section 1 - Table 3.1 - Section 11
Due to the change in property boundary, the closest downgradient water body has been revised to 655 metres southeast.	Appendix D (Risk Assessment Assumption Deviations from Generic Values in the Approved Model)

Deviation	Reference
Additional Phase Two ESA work was completed since the submission of the PSF and initial MGRA submission. The results have been incorporated into the MGRA. It is noted that no new COCs or maximum concentrations were identified based on this additional assessment.	Appendix A (Phase Two CSM) and Appendix C (Phase One and Two ESA Summary)

The enclosed package consists of the following items:

- Introduction and General Approach;
- Risk Assessment Pre-Submission Form;
- Modified Generic Risk Assessment;
- Appendix A – Phase Two Conceptual Site Model;
- Appendix B – Notifications;
- Appendix C – Phase One and Two Environmental Site Assessment Summary;
- Appendix D – Risk Assessment Deviations;
- Appendix E – Supporting Legal Documentation (i.e., legal documents, property survey, etc.);
- Appendix F – CVs for the Risk Assessment Team; ~~and,~~
- Appendix G – Grain Size Rationale;
- Appendix H – USB (containing reports relied upon, analytical data tables and electronic version of the PSF and MGRA);
- Appendix I – Soil Management Plan;
- Appendix J – Risk Management Letter Prepared by P. Eng.; and,
- Appendix K – Response to MECP Comments

The Phase Two CSM has been developed based on the following reports that have been completed for the site:

- EXP Services Inc. (2019), *Subsurface Environmental Investigation 12197 Hurontario Street, City of Brampton, 12211, 12213, 12231, 12233 Hurontario Street, Town of Caledon*, June 11, 2019.
- EXP Services Inc. (2020a), *Phase One Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, January 20, 2020.
- EXP Services Inc. (2020b), *Phase Two Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, May 22, 2020.
- EXP Services Inc. (2021), *Remediation Report, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, July 29, 2021.
- EXP Services Inc. (2022a), *Phase One Environmental Site Assessment Update, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, January 5, 2022.
- EXP Services Inc. (2022b), *Phase Two Environmental Site Assessment Update, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, January 27, 2022.

The environmental investigations completed at the site have indicated the presence of PHC fraction F2, EC and SAR in soil and dissolved sodium and chloride in groundwater at concentrations above the MECP Table 4: Stratified SCS in

a Potable Groundwater Condition for Residential/Parkland/Institutional land use and medium to fine soil texture (herein referred to as Table 4 SCS). The selection of these particular SCS is based on the following:

- As per Section 41 of O. Reg. 153/04, the site is not identified to be sensitive.
  - The site is not located within or adjacent to an Area of Natural Significance as defined by the MECP.
  - The pH results for soil samples collected at the site are within the acceptable ranges for surficial and subsurface soils (between 5 and 9 for surficial soil; and, between 5 and 11 for subsurface soil). See the Phase Two CSM provided in Appendix A.
- As per Section 43.1 of O. Reg. 153/04, bedrock was not encountered on-site to the maximum depth investigated of 18.3 mbgs. Thus, greater than two-thirds of the site has overburden greater than 2 metres in thickness, the site is not considered to be a shallow soil property.
- Soil texture has been determined for the site as medium to fine in texture, see Appendix G for additional details.
- The site is generally located in a suburban area where the site and its adjacent properties are serviced by a municipal water source or rely on domestic wells. While the area in the vicinity of the site has been moving towards the use of municipal drinking water in the past 5 years, it was conservatively assumed that the identified off-site potable water wells are still in use within the Phase Two Study Area.

Further details on the selection of the appropriate SCS applicable to the site can be found in Appendix A – Phase Two Conceptual Site Model.

It is noted that PHC fraction F2 in soil was remediated to Table 4 SCS. EC and SAR were remediated to target PSS (to within MEP component values). As such, the parameters carried forward for consideration in the MGRA are: EC and SAR in soil, and sodium and chloride in groundwater.

For the purpose of the PSF and MGRA, the maximum on-site contaminant concentrations in soil (post-remediation) and groundwater have been compared to Table 4 SCS. Contaminant inventory tables are provided as Tables H-1 and H-2 in Appendix H (USB). Raw data tables are provided in Tables H-3 to H-6 for soil and Tables H-7 to H-10 for groundwater in Appendix H (USB).

Additionally, for the purpose of the human health RA, volatiles in groundwater were compared to Table 6 Generic SCS for Shallow Soils in a Potable Ground Water Condition (see Table H-2 in Appendix H). The shallowest depth to groundwater at the site was found to be 0.33 mbgs (see Section 3.2 in Appendix A for further details). Currently, the depth to groundwater reflects the distance and opportunity for potential contaminant biodegradation and natural attenuation to occur, which are considered in the modelling of the groundwater to indoor exposure pathway during the human health risk assessment. Given that the MECP (2011a) Table 6 SCS consider a scenario where biodegradation cannot be assured and where soil may not be present to provide attenuation, volatile parameters in groundwater at the site were selected as COCs if they had a maximum detected concentration in excess of the MECP Table 6 SCS. No groundwater COCs were identified based on this screening.

This RA is considered to be a Limited Scope Risk Assessment, as defined by O. Reg. 153/04 and will be conducted as an MGRA utilizing the MGRA template and the Approved Model dated November 1, 2016.

Additional considerations include:

- The MGRA is not based on a community assessment report;
- The MGRA is not conducted as “an estimation of natural background concentrations”; and,
- The MGRA is not a “new science” RA. No COCs are identified at the MGRA Property for which there are no applicable SCS. In addition, no new computer models are used that are not available to the public or the MECP, and no probabilistic models are applied.

The planned Risk Assessment approach proposes the use of maximum detected concentrations of COCs detected in excess of their applicable criteria, plus an uncertainty factor of 20%, as the EPCs for EC and SAR in soil, and

sodium in groundwater. The reasonable estimate of the maximum concentration of chloride in groundwater is set to the risk-based concentration.

Human Health Risk Assessment

For the purposes of the current MGRA, the same human receptors and receptor characteristics as those described by the MECP (2016) are used. The Approved Model for residential/parkland/institutional land use will be considered for quantitative assessment, where applicable.

It is noted that TRVs in the Approved Model have been updated as per recent updates from the MECP, however none of these updated TRVs are applicable to the COCs identified on-site.

Ecological Risk Assessment

VECs will be evaluated, as necessary. For the purposes of the current MGRA, the same ecological receptor scenarios as those described by the MECP (2016) are used. The Approved Model for a residential/parkland/institutional land use will be considered.

Resumes for the RA team including the QP_{ESA} are included in Appendix F and have been identified in Section 8 of the PSF.

Risk Management Requirements

The RMM required for this property, as outlined in Table 7-1 of the MGRA, include a restriction prohibiting the use of groundwater for drinking water.

In addition, given the Table 4 Stratified SCS are being applied to the property, Section 21 of O. Reg. 153/04 applies. To ensure surface and subsurface soils remain within appropriate PSS during potential future earthworks, an SMP is also required. The SMP is provided as Appendix I. The SMP follows the generic wording found in the MGRA Approved Model "RMM Descriptions" tab.

A letter signed by a Professional Engineer confirming that the RMM measures, including the SMP, are appropriate for the RA Property, taking into account the site- specific conditions of the RA property, is provided as Appendix J.

Schedule I – Species at Risk

Species at Risk

The MNRF "Make a Map: Natural Heritage Areas" shows 1 square km quadrants in which species at risk can be searched. Quadrants within 250 metres of the site boundaries were searched. As such, two quadrants (17NJ9443 and 17NJ9343) were included in the search. Using the SARO status as a criteria, species that were found to be threatened or endangered within these quadrants are tabulated below.

Table 1: Threatened and Endangered Species in and around the site

Common Name	Scientific Name	SARO Status	Grid Identifier	Habitat[1]
Bobolink	*Dolichonyx oryzivorus*	Threatened	*17NJ9443 (site)*	Grasslands with dense cover, open meadows and hayfields and associated pastures.
Eastern Meadowlark	*Sturnella magna*	Threatened	*17NJ9443 (site)*	Grassland, including native prairies and savannahs, as well as non-native pastures, hayfields, weedy meadows, herbaceous fencerows and airfields.
Barn Swallow	*Hirundo rustica*	Threatened	*17NJ9443 (site)*	Nesting sites include artificial structures that provide either a horizontal nesting surface or a vertical face, with an overhang that provides shelter such as barns, garages, houses, bridges and road culverts. Nesting and foraging sites are typically near open habitats such as farmlands, wetlands and large forest clearings.
Butternut	*Juglans cinerea*	Endangered	*17NJ9343 (minimum 110 metres west of the site)*	Deciduous forests, moist, well-drained soil often found along streams, and well-drained gravel sites

[1] Habitat requirements obtained from MECP Ontario Species at Risk website (2019).

Table 2: Rationale for Exclusion of Sensitive Species Habitat

Common Name	Habitat Present On-site	Habitat Present Off-site[1]	Rationale
Bobolink	No	No	The site and immediate surroundings do not contain suitable habitat for the Bobolink as the site is vacant with low grass and asphalt cover and surrounding properties are developed for residential use and/or major roadways. Furthermore, the COCs (i.e. salt-related parameters) identified are not relevant to birds.
Eastern Meadowlark	No	No	The site and immediate surroundings do not contain suitable habitat for the Eastern Meadowlark as the site is vacant with low grass and asphalt cover and surrounding properties are developed for residential use and/or major roadways. Furthermore, the COCs (i.e. salt-related parameters) identified are not relevant to birds.

Common Name	Habitat Present On-site	Habitat Present Off-site[1]	Rationale
Barn Swallow	No	No	The site and immediate surroundings do not contain suitable habitat for the Barn Swallow as the site is vacant with low grass and asphalt cover and surrounding properties are developed for residential use and/or major roadways. Furthermore, the COCs (i.e. salt-related parameters) identified are not relevant to birds.
Butternut	No	No	The butternut was identified in a quadrant located a minimum of 110 metres west of the site. Given the distance from the site, the butternut is not assumed to be present on, or in the immediate vicinity of the site.

[1]Off-site refers to properties within 30 metres of site boundary.

Risk Assessment Pre-Submission Form

Provided in Appendix H (USB)

Client: 2248811 Ontario Inc.
Project Name: Modified Generic Risk Assessment
Site Address: 12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
Project Number: GTR-00257876-C0
Date: February 2022

Modified Generic Risk Assessment Report

Template for "Risk Assessment Reports Based Entirely on Use of the Approved Model" Version 2.0 – November 1st, 2016

«Cette publication hautement spécialisée n'est disponible qu'en anglais en vertu du règlement 441/97, qui en exempte l'application de la Loi sur les services en français. Pour obtenir de l'aide en français, veuillez communiquer avec le ministère de l'Environnement au 416-327-6949>.»

Purpose and Use

This template is intended for use by Qualified Persons (QPs) who want to use the Modified Generic Risk Assessment Model (the "Approved Model") for a Risk Assessment (RA) to determine property specific standards (PSS) for their site. If the QP wishes to use the Approved Model in some other way, this template does not apply.

Please note that the review timeline for the Modified Generic Risk Assessment (MGRA) is eight (8) weeks as with all Limited Scope Risk Assessments (LSRA) defined in Ontario Regulation (O.Reg. 153/04).

For additional information on the usage of the "Approved Model" and submitting an RA using this template, please refer to the following publications available on the following website: https://www.ontario.ca/page/brownfields-redevelopment

- User Guide – Modified Generic Risk Assessment Model – November 1st, 2016
- Modified Generic Risk Assessment Model – November 1st, 2016
- Rationale for the Development of Soil and Ground Water Standards for Use At Contaminated Sites in Ontario – April 15, 2011

Please note that there are certain conditions under which an RA cannot be submitted as an MGRA. These include:

- The soil at the RA property has a pH value of <5 or >9 for surface soil; or soil at the RA property has a pH value of <5 or >11 for sub-surface soil; or the RA property is within an area of natural significance, or includes or is adjacent to such an area or part of such an area (Please refer to O.Reg. 153/04 as amended for definition of "area of natural significance").

- Exposure of contaminants to receptors at the site is expected to be greater than that described in the Rationale Document.

- The human health and ecological receptor characteristics included in the human health and ecological risk assessments are not adequately represented by those included in the modified generic model (described in the document Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act, Ontario Ministry of the Environment, April 15, 2011; ("the Rationale Document")).

- The hazard assessment for the ecological receptor(s) is different from that documented in Modified Ecological Protection option of the MGRA or in the generic exposure model documented in the Rationale Document.

- Risk management measures apart from those designed by the ministry in the Modified Generic "Approved Model" were used in the RA.

- PSS proposed that is/are higher than PSS that can be generated by the Approved Model.

Checklist of Mandatory Appendices and Supporting Documents

	Document Name	Location/Appendix Number
☑	Pre-submission form	Provided in Appendix H (as of MGRA Addendum 1)
☑	Legal plan of survey	Appendix E
☑	Is RA site marked on Legal Plan of Survey?	Appendix E
☑	List of the documents relied upon in preparation of RA report	Appendix H
☑	The portion of the phase two ESA report headed “Phase Two Conceptual Site Model” (Schedule E, Table 1, Section 6. (x))	Appendix A
☑	Summary of phase one & two environmental site assessment (ESA) reports, including: i. justification for the sampling program used in undertaking the phase two environmental site assessment, ii. summary of quality assurance and quality controls used for the sampling program and analysis of the samples, iii. assessment of whether the sampling program is sufficient for the purposes of the RA and if not, a description of further site investigations conducted to support the RA, and iv. rationale for and description of any hydrogeological and geological interpretations which differ from assumptions on which the Soil, Ground Water and Sediment Standards are based.	Appendix C
☐	Certificate of Status or equivalent (** *for the QP-RA firm,* ***not*** *for property owner)*	
	And if applicable:	
☑	**If any values in Tier 2 Input tab Cell B12-C26 are modified from default:** The appendix to the phase two ESA report that reports on requirements in a phase two ESA in support of a MGRA (Schedule E, Table 1, Section 10. (d) Appendices – MGRA).	Appendix D
☐	A copy of any reports documenting further site investigations conducted to support the RA, if applicable.	
☑	**If medium/fine soil texture is used**: grain size analyses and rationale for selection of medium/fine soil texture	Appendix G
☐	**If “Modified Subsurface Protection”** is used for inorganics, leachate test results	
☑	**if “No Groundwater Use for Drinking Water” RMM**, preconsultation with District has been carried out and associated checklist is included with PSF	PSF
☐	**If “Modifying Solubility Component Value for PHC F1 and F2”** associated checklist is included with PSF	

1 Summary of Recommendations and Findings

1. (a) Risk Assessment Objectives and Approach

The risk assessment objective is to develop standards for all Contaminants of Concern (COCs) listed in Table 1-1 (Section 1.(c)) for a current property use of [see below] and a proposed property use of [see below] using the conceptual model and equations described in the Ministry publication *Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act*, Ontario Ministry of the Environment, April 15, 2011 (the "*Rationale Document*") except as specified in this report. The applicable generic site condition standards (SCS) for the property are Table [Applicable Table of SCS].

A Modified Generic risk assessment approach according to Schedule C, Section 7 has been used for this assessment. All property specific standards (PSS) developed in the risk assessment use the "approved model" made available by the Ministry of Environment and Climate Change.

Current property use	Industrial/Commercial (currently vacant)
Proposed property use	Residential/Parkland/Institutional
Applicable SCS	Table 5
Soil texture	Medium/Fine
Approved Model date	Nov-16

1. (b) Deviations from Pre-submission Form

There are no deviations from the Pre-Submission Form (PSF).

1. (c) Risk Assessment Standards

The property specific standards are shown in **Table 1-1 (Proposed Standards for Property Use).**

1. (d) Risk Assessment Assumptions

The assumptions used in this risk assessment are described in the *Rationale Document* with the exceptions shown in **Table 1-2 (Risk Assessment Assumptions).**

1. (e) Risk Management Requirements

The risk management measures are shown in **Table 7-1.**

The minimum monitoring and maintenance requirements are described in the "RMM Descriptions" tab.

2 Risk Assessment Team Membership

The technical team which considered the applicability of the approach, assumptions, data input and risk management measures for the approved model included the members included in **Table 2-1 (Risk Assessment Team Membership).**

3 Property Information, Site Plan and Geological Interpretation

3. (a) Property Information – Property Location and Ownership

This information is summarized in **Table 3-1 (Property Location and Ownership).**

The risk assessment property characteristics are estimated in the generic conceptual model described in the *Rationale Document*. Site specific characteristics considered in this risk assessment are presented in **Table 1-2 (Risk Assessment Assumptions).**

3. (b) Site Plan and Hydrogeological Interpretation of RA Property

Figures illustrating the geoscience conceptual site model are presented in Phase Two Conceptual Site Model submitted with the RA.

The hydrogeological interpretation of the RA property is based primarily on site plans and cross-sections of the RA property showing existing and historical sources of contaminants, surface and sub-surface structures that affect contaminant distribution and transport and location of where samples were taken for the assessment, and are contained in the Phase Two Conceptual Site Model.

3. (c) Contaminants of Concern

Contaminants of concern are listed in **Table 1-1**.

3. (c)(i) Sampling Programs

The sampling program which supports this risk assessment is included in the Phase Two ESA Report.

4 Human Health Risk Assessment (HHRA)

4. (a) Problem Formulation

4. (a) (i) Human Health Conceptual Site Model

The human health conceptual site model, without any RMMs applied to the site, is that described in *Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act*, Ontario Ministry of the Environment, April 15, 2011 (See Figure 1.1). The human health conceptual site model, with RMMs applied to the site, is the same as above, with the exception(s) that the measures listed in **Section 7 (Risk Management Measures)** have been applied. Property information and geological interpretation as described in Section 3 have been incorporated and relied upon for the human health conceptual site model. **Table 4-1** presents Approved Model input parameters affecting human health component values.

4. (a) (ii) Risk Assessment Objectives

The human health risk assessment objective is to develop standards for the COCs listed in Table 1-1, using the conceptual site model and equations described in the Ministry publication *Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act*, Ontario Ministry of the Environment, April 15, 2011 except as specified in this report.

The human receptors assessed and exposure pathways evaluated are in included in **Table 4-2 (Human Receptors Included and Exposure Pathways Evaluated in the RA).**

The ministry's approved model has been used to develop standards using a quantitative approach. Site characterization information has been collected, as described in Section 3 ("Sampling Programs") section, above. The data used for the human health RA is sufficient to meet the objectives of the assessment, as all Environmental Site Assessment (ESA) requirements in Sections 41, 42 and Table 4 of Schedule E of O.Reg. 153/04 were followed.

Variability in the modified input (site specific characteristics or pathway modifiers) will be reflected in uncertainty regarding risk estimates. The variability is considered acceptable for meeting the data quality objectives for a modified generic risk assessment.

4. (b) Exposure Assessment

4. (b) (i) Receptor Characteristics

Human health receptor characteristics are described in the document *Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act*, Ontario Ministry of the Environment, 2011 for the receptors included in the human health risk assessment and identified in **Table 4-2** (Human Receptors included in the Risk Assessment).

I consider the receptors at the property to be adequately represented by those included in the modified generic model.

4. (b) (ii) Pathway Analysis

Exposure pathways are described in the document *Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act*, Ontario Ministry of the Environment, April 15, 2011 as listed in Table 4-2. Pathways may be modified using the RMMs or soil vapour screening options in the approved model.

Where soil vapour screening levels are used, supporting information is found in **Table 4-3 (Soil Vapour Screening Levels and Measured Soil Vapour Levels).** Where RMMS are selected, the pathways modified are found in **Table 7-1.**

4. (b) (iii) Exposure Estimates

Estimates of exposure for the relevant receptors are the same as, or lower than, exposures estimated in the generic exposure model (with respect to relative frequency and duration of relative magnitude of exposures) documented in *Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act*, Ontario Ministry of the Environment, April 15, 2011. Uncertainty in the exposure estimates will be reflected in uncertainty regarding risk estimates. They have been considered acceptable by the Ministry as meeting data quality objectives for a modified generic risk assessment.

4. (c) Toxicity Assessment

4. (c) (i) Nature of Toxicity (Hazard Assessment)

The relevant adverse health effects, dose response assessment and basis for selection of TRV's are provided in the *Rationale Document*, or as published by the Ministry (for updates since 2011). The hazard assessment for the relevant receptors is the same as documented in *Rationale Document*.

4. (c) (ii) Dose Response Assessment

All Toxicity Reference Values have been evaluated by the Ministry as described in the *Rationale Document* or as published by the Ministry (for updates since 2011). Uncertainty in the toxicity assessment will be reflected in uncertainty regarding risk estimates. They have been considered acceptable by the Ministry as meeting data quality objectives for a modified generic risk assessment.

4. (d) Risk Characterization

4. (d) (i) Interpretation of Health Risks

Table 4-4 lists the estimated risk of an adverse health effect due to exposure to the maximum concentration of each COC identified on the property. In cases for which the maximum measured COC concentration is less than or equal to the value generated by the "Approved Model" without any risk management measures (RMMs) selected, the risk is less than or equal to that intended by the generic standards and is not calculated. In cases for which a RMM is required to reduce exposure to the human receptor(s), the risk associated with the maximum measured COC without the presence of the RMM is reported in **Table 4-4 (Calculated Risk Levels in the Absence of Selected Risk Management Measures).**

4. (d) (ii) Quantitative Interpretation of Human Health Risks
Based on the most sensitive risk estimate, the soil and groundwater concentrations have been identified as standards for protection of human health and are shown as part of Table 1.1.

4. (d) (iii) Special Considerations
The assessment of risk undertaken using the approved model considered parameters relating to human health risk exposure and pathways such as area of natural significance and pH of the soil at the property, which the QP_{RA} considered might result in designating the property as requiring special considerations. All values used in the approved model assumptions were based on information gathered from the Phase Two ESA and are listed in Table 1-2. A review of the generic and/or modified assumptions has been undertaken by the QP_{RA} and they are considered to be appropriate and applicable to the property.

4. (d) (iv) Interpretation of Off-Site Health Risks
***Note:** QP_{RA}, if you have used RMMs affecting the groundwater for protection of indoor air pathway (GW2 pathway) or soil vapour screening for a groundwater source, please carefully consider the potential impact of groundwater travelling from the RA site to downgradient sites.* **Table 4-5 (Off-site Receptors)** shows off-site receptor descriptions, where applicable.

4. (d) (v) Discussion of Uncertainty
Risk Assessments are, by their very nature, attended by many areas of uncertainty. These include the inherent uncertainty used in the mathematical models and/or equations used to derive the component values, as explained in the *Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act*, Ontario Ministry of the Environment, April 15, 2011 document, which formed the basis for the "approved model" used in this MGRA.

Variability in these assumptions will be reflected in uncertainty regarding risk estimates. The variability is considered acceptable for meeting the data quality objectives for a modified generic risk assessment.

In the risk characterization section of this MGRA, information generated in both the exposure assessment and the hazard assessment sections has been used to generate risk levels or hazard quotients. As such, the risk characterization values are influenced by the level of uncertainty that is proportional to the uncertainty identified in the exposure and toxicity input values.

These uncertainties have been described and, to the extent possible, quantified separately in each of the aforementioned sections.

Some of the exposure and hazard uncertainties could result in over-as well as under- estimations of exposure or hazard values. Likewise, the use of the exposure and hazard values in quantifying risk will reflect these uncertainties. However, in general, cautious assumptions were applied in order to ensure that exposure would not be underestimated. Therefore, the risks provided in this report can be taken as an upper bound of the potential for an adverse effect.

5 Ecological Risk Assessment (ERA)

5 (a) Problem Formulation

5 (a)(i) Ecological Conceptual Site Model

The conceptual site model is that described in *Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act*, Ontario Ministry of the Environment, April 15, 2011 with the exceptions listed in Section 1 under "Risk Assessment Assumptions", above. **Table 5-1** presents Approved Model inputs affecting VEC component values.

5 (a)(ii) Risk Assessment Objectives

The ecological risk assessment objective is to develop standards for the COCs included in Table 1-1 using the conceptual model and equations described in the Ministry publication *Rationale Document*. The ecological receptors assessed are included in **Table 5-2 (Ecological Receptors Included in the Risk Assessment).**

Site characterization information has been collected, as described in Section 3. (d) (i) "Sampling Programs", above. The data used for the ecological risk assessment are sufficient to meet the objectives of the assessment, as all Environmental Site Assessment (ESA) requirements in Sections 41, 42 and Table 4 of Schedule E of O.Reg. 153/04 were followed.

Variability in the modified input (site specific characteristics or pathway modifiers) will be reflected in uncertainty regarding risk estimates. The variability is considered acceptable for meeting the data quality objectives for a modified generic risk assessment.

5 (b)Receptor Characterization

Ecological receptor characteristics for generic VECs are described in the document *Rationale Document* for the receptors identified in **Table 5-2** ("Ecological Receptors included in the Risk Assessment").

5 (c) Exposure Assessment

5 (c) (i) Pathway Analysis

Exposure pathways are described in the document *Rationale Document*. Pathways may be modified using the RMMs or the Modified Ecological Potential (MEP) option in the approved model. Where RMMS are selected, the pathways modified are found in **Table 7-1.**

5 (c) (ii) Exposure Estimates

Estimates of exposure for the relevant receptors are the same as, or lower than, exposures estimated in the generic exposure model (with respect to frequency and duration of exposures) documented in *Rationale Document*.

5 (d) Hazard Assessment

The relevant adverse ecological effects are provided in the document *Rationale Document* (or modified in accordance with the Modified Ecological Protection (MEP) option as applicable).

Variability in the hazard assessment will be reflected in uncertainty regarding risk estimates. The variability is considered acceptable for meeting the data quality objectives for a modified generic risk assessment.

5 (e) Risk Characterization

5 (e)(i) Interpretation of Ecological Risks

Table 5-3 lists the estimated risk of an adverse ecological effect to VECs due to exposure to the maximum concentration of each Contaminant of Concern (COC) identified on the property. In cases for which the maximum measured COC concentration is less than or equal to the value generated by the "Approved Model" without any risk management measures (RMMs) or Modified Ecological Protection (MEP) selected, the risk is less than or equal to that intended by the generic standards and is not calculated. In cases for which a RMM is required to reduce exposure to the VEC(s), the risk associated with the maximum measured COC without the presence of the RMM is reported in **Table 5-3 (Calculated Risk Levels in the Absence of Selected Risk Management Measures)**

5 (e)(ii) Quantitative Interpretation of Ecological Risks

Based on the most sensitive risk estimate, the soil and groundwater concentrations have been identified as standards for protection of VECs are shown as part of Table 1.1.

5 (e) (iii) Special Considerations

The assessment of risk undertaken using the approved model considered parameters relating to human health risk exposure and pathways such as area of natural significance and pH of the soil at the property, which the QP_{RA} considered might result in designating the property as requiring special considerations. All values used in the approved model assumptions were based on information gathered from the Phase Two ESA and are listed in Table 1-2. A review of the generic and/or modified assumptions has been undertaken by the QP_{RA} and they are considered to be appropriate and applicable to the property.

5 (e) (iv) Interpretation of Off-Site Ecological Risks

Table 5-4 (Off-site Receptors) shows off-site receptor descriptions, where applicable.

5 (e) (v) Discussion of Uncertainty

Risk Assessments are, by their very nature, attended by many areas of uncertainty. These include the inherent uncertainty used in the mathematical models and/or equations used to derive the component values, as explained in the *Rationale Document*, which formed the basis for the "approved model" used in this MGRA.

Variability in these assumptions will be reflected in uncertainty regarding risk estimates. The variability is considered acceptable for meeting the data quality objectives for a modified generic risk assessment.

In the risk characterization section of this MGRA, information generated in both the exposure assessment and the hazard assessment sections has been used to generate risk levels or hazard quotients. As such, the risk characterization values are influenced by the level of uncertainty that is proportional to the uncertainty identified in the exposure and toxicity input values.

These uncertainties have been described and, to the extent possible, quantified separately in each of the aforementioned sections.
In addition, there are uncertainties related to the assumptions that have been made throughout the assessment due to data gaps, environmental fate complexities, or in the generalization of receptor characteristics.

In recognition of these uncertainties, cautious assumptions are generally used throughout the assessment to ensure that the potential for an adverse effect would not be underestimated.

As some of the exposure and hazard uncertainties could result in over-as well as under- estimations of exposure or hazard values, likewise, the use of the exposure and hazard values in quantifying risk will reflect these uncertainties. However, in general, cautious assumptions were applied in order to ensure that exposure would not be underestimated. Therefore, the risks provided in this report can be taken as an upper bound of the potential for an adverse effect.

Although uncertainties exist in the ecological assessment due to the assumptions of the relevant exposure pathways, there is expected to be minimal exposure to the ecological receptors due to the RMMs selected and/or site specific characteristics. As such, minimal risks are expected to be posed to the ecological receptors and so the uncertainties are not expected to have a significant effect on the outcome of the qualitative risk assessment values.

6 Conclusions and Recommendations

6 (a)(i) Recommended Standards

The property specific standards found in Table 1-1 are based on the lower of the appropriate human health and ecological standards (i.e. according to property use, potability and soil depth); however, the standards are not permitted to be below reporting limits (RLs) stipulated in the *Rationale for the Development of Soil and Ground Water Standards for Use At Contaminated Sites in Ontario*, Ontario Ministry of the Environment, April 15, 2011 or generic background values (Table 1 Full Depth Background Site Condition Standards) from the *Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act*, Ontario Ministry of the Environment, April 15, 2011, *or* above any of the half-solubility (in groundwater), the free phase product formation thresholds (in soils) or the reasonable estimate of maximum site concentrations.

Assumptions in this risk assessment are consistent with generic assumptions contained in the document *Rationale for the Development of Soil and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act*, Ontario Ministry of the Environment, April 15, 2011 with the exception of site characteristics specified in Section 3 of this report and any modifications to ecological habitat specified in Section 5 of this report. Variability in these assumptions will be reflected in uncertainty regarding risk estimates. I consider the variability acceptable for meeting the data quality objectives for a modified generic risk assessment.

6 (a)(ii) Special Considerations for Ground Water Standards

No standard generated by the modified generic risk assessment model will generate a property specific standard for ground water that is greater than the highest of a) 50% of the solubility limit (except in the case that the site investigation demonstrates no evidence of free product and solubility CVs are modified for PHC F1 and/or F2); b) the Reporting Limit; and c) background levels.

7 Risk Management Plan (if applicable)

7 (a) Risk Management Plan

7 (a)(i) Risk Management Performance Objectives

Where applicable, the risk management measure(s) is/are proposed and the associated modifications of the pathways are described in **Table 7-1 (Risk Management Measures).**

7 (a)(ii) Risk Management Measures

The Risk Management Measures specified in Table 7-1 must be implemented at the RA property/site.

Table 7-2 shows maximum allowable concentrations for soil caps.

7 (a)(iii) Duration of Risk Management Measures

The conclusions of this risk assessment assume that the Risk Management Measures will be maintained indefinitely.

7 (a)(iv)Requirements for Monitoring and Maintenance

Monitoring and Maintenance may be necessary for the RA property. Monitoring and maintenance measures may be included in a CPU issued by the Ministry, and will be undertaken in accordance with any CPU issued.

8 Public Communication Plan (if applicable)

8 (a) Public Communication Plan

8 (a)(i) Optional Communication Plans

Please attach any communication activities undertaken voluntarily. Provide a description of the plan, summary of comments received during consultation, and describe how comments were considered as part of the risk assessment process.

8 (a)(ii) Required Communication Plans For RA Properties in Wider Area of Abatement

Please attache any mandatory public communication activities if the Approved model was used in a risk assessment for a property located within a wider area of abatement as identified by the MOECC District Office. Provide a summary of comments received, describe how comments were considered as part of the risk assessment process.

APPENDIX A - MANDATORY CERTIFICATIONS – Part A

1. I have conducted or supervised a risk assessment report in accordance with the regulation.
2. I am a qualified person, as defined in section 168.1 of the Act, and have the qualifications required by section 6 of the regulation.
3. I have in place an insurance policy that satisfies the requirements of section 7 of the regulation.
4. The risk assessment team included members with expertise in all of the disciplines required to complete the risk assessment in accordance with the regulation.
5. The opinions expressed in the risk assessment are engineering or scientific opinions made in accordance with generally accepted principles and practices as recognized by members of the environmental engineering or science profession or discipline practising at the same time and in the same or similar location.
6. To the best of my knowledge, the certifications and statements in this risk assessment are true as of:

2/14/2022 *Date of completion of risk assessment report*

7. By making these certifications in this risk assessment report, I make no express or implied warranties or guarantees.

QP_{RA} signature: _____ **Date:** February 14, 2022

MANDATORY CERTIFICATIONS – Part B

As of the **date of completion of risk assessment report (see below)**, it is my opinion that based on the phase one environmental site assessment and the phase two environmental site assessment and other relevant property information, the approach taken in the conduct of the risk assessment,
is appropriate to evaluate human health and ecological risks from the contaminants of concern at the concentrations proposed as the standards specified in the risk assessment and assuming no measures have been taken at the RA property which have the effect of reducing the risk from the contaminants, and
is consistent with the approach set out in the pre-submission form with the exception of those deviations listed in section 1 of the report under the heading “Deviations from Pre-Submission Form”.

2/14/2022 ***Date of completion of risk assessment report***

As of the **date of completion of risk assessment report (see above)**, it is my opinion that, taking into consideration the assumptions specified in the risk assessment report, including the use of the property specified in report section 3 (Property Information, Site Plan and Geological Interpretation) of the risk assessment, and any risk management measures recommended in the report, as long as the RA property satisfies those assumptions and meets the standards specified in the risk assessment report, the contaminants of concern are unlikely to pose a human health or ecological risk greater than the level of risk that was intended in the development of the applicable full-depth site condition standards for those contaminants.
As of the **date of completion of risk assessment report (see above),** it is my opinion that, (**pick the applicable statement below**),

☐ i. **no risk management plan is necessary** for a contaminant of concern addressed in the risk assessment report to prevent, eliminate or ameliorate any adverse effect from that contaminant to the human or ecological receptors addressed in the report and located on the RA property, or

☑ ii. the implementation of the **risk management plan described in Report Section 7** (Risk Management Plan) of the risk assessment report is necessary for a contaminant of concern addressed in the risk assessment report to prevent, eliminate or ameliorate any adverse effect from that contaminant to the human or ecological receptors addressed in the report and located on the RA property and is sufficient to address the current and potential future transport and exposure pathways

As of the **date of completion of risk assessment report (see above),** the risk assessment report completely and accurately reflects the risk assessment assumptions and conclusions and all pertinent information has been included in the report and the appendices to the report.

If Clause 5(3) of Schedule C applies,

☑ As of the submission date, it is my opinion that, taking into consideration the assumptions specified in the risk assessment report including any risk management measures recommended in the report, as long as the RA property satisfies those assumptions and meets the standards specified in the report, the applicable full depth site condition standards will likely be met at the nearest off-site ecological and human receptors identified in the report.

QP_{RA} signature: _____ **Date:** February 14, 2022

ADDITIONAL QP_{RA} STATEMENT(S)

It is my opinion, based on the phase one environmental site assessment and the phase two environmental site assessment of the property and other relevant information respecting the property, that the assumptions I used in applying the approved model, to the extent that those assumptions differed from the assumptions on which the Soil Ground water and Sediment Standards are based, are appropriate.

QP_{RA} signature: _____ **Date:** February 14, 2022

Table 1-1: Proposed Standards for the following Property Use

Residential/Parkland/Institutional

	Chemical Name	Maximum Measured Concentration	Applicable Generic SCS for Table 5	Proposed Property Specific Standards	Is PSS based on REM?	Dominant Exposure Pathway	Eco Driver	Eco Standard	HH Driver	HH Standard	Potential to Exceed Applicable SCS at Nearest Off-Site Receptors?	Pathway Modifiers*
Ground Water	Chloride	3360000	2300000	4000000	NO	Solubility	GW3	32000000	NA	NA	YES	No groundwater use for drinking water
	Sodium	8400000	2300000	10000000	NO	GW3	GW3	32000000	NA	NA	YES	No groundwater use for drinking water
Surface soil	Electrical Conductivity (mS/cm)	2.1	0.7	2.5	NO	Soil Org.	Soil Org.	2.7	NA	NA	NO	Modified ecological protection
	Sodium Adsorption Ratio	18.4	5	22	NO	Soil Org.	Soil Org.	23	NA	NA	NO	Modified ecological protection
Subsurface soil	Electrical Conductivity (mS/cm)	2.99	NA	NA	NO	NA	NA	NA	NA	NA		
	Sodium Adsorption Ratio	9.38	NA	NA	NO	NA	NA	NA	NA	NA		

Table 1-2: Risk Assessment Assumptions

Site Specific Characteristic Modified	Generic Value	Site Specific Value Used	Units (if applicable)
Distance from source centre to downgradient water body	36.5	***655***	m
Fraction of organic carbon (FOC) – water table to soil surface	0.005	0.005	g/g
Fraction of organic carbon (FOC) – in upper 0.5 m	0.035	0.035	g/g
Minimum depth below soil surface to the highest annual water table	300	***0.1***	m
Soil Type‡ – vadose zone	Generic Medium&Fine	Generic Medium&Fine	
Soil Type‡ – capillary fringe	Loam	Loam	
Number of frozen ground days per year	100	100	days
Aquifer horizontal hydraulic conductivity	3.00E-05	0.00003	m/sec
Aquifer hydraulic gradient	0.003	***0.025***	m/m
Aquifer dry bulk density	1.81	1.81	g/cm3
Aquifer fraction organic carbon	0.0003	0.0003	g/g
Absence of free product demonstrated and solubility CVs modified for PHC F1 and/or F2	N	N	

‡ Soil Type here refers to Property Soil Type (not the Area Soil Type required for soil vapour screening)

Table 2-1:Risk Assessment Team Membership

Team Member	Area of Expertise	Relevant Qualifications or Rationale for Omission
Tara Tait	QP_{RA}	Ms. Tait graduated from Wilfrid Laurier University with a Master of Chemistry degree, having previously completed an Honours Bachelor of Science degree with specialization in Biomedical Toxicology at the University of Guelph. Ms. Tait's Master's thesis involved the determination of copper speciation, bioavailability and toxicity in salt water environments. While completing her undergraduate degree, Ms. Tait had the opportunity to work in a variety of scientific positions. These include work as a Student Applications Chemist with Mandel Scientific Company Inc. and as Research Technician with Environment Canada. At Environment Canada, she was responsible for extracting and measuring volatile methylsiloxanes in wastewater, sediment and receiving water to support Canada's Chemical Management Plan. Since joining EXP in June 2013, Ms. Tait has been involved in the preparation of numerous O. Reg. 153/04 environmental RAs, providing technical support at all stages of ecological and human health risk assessment including, but not limited to, problem formulation, exposure assessment, hazard assessment and risk management. Ms. Tait specializes in environmental toxicology with a focus on human health and ecological risk assessment. To date, she has worked on over twenty-five O. Reg. 153/04 risk assessments across Ontario. See Appendix F for additional details.
Andrew How Soon Yuen; Tara Tait	Human Health	Andrew How Soon Yuen graduated from McGill University in 2014 with a Bachelor of Science in Environmental Sciences specializing in Earth Sciences and Economics. He completed his Master of Environmental Sciences at the University of Toronto in 2015. Since joining EXP in 2018, Andrew has prepared several screening level risk assessment and provided support for O. Reg. 153/04 Risk Assessments and has been involved with Phase I and II environmental assessments from conducting field work to the reporting phase. See Appendix F for additional details. (see above for Tara Tait)
Andrew How Soon Yuen; Tara Tait	Ecology	See above.

Amanda Catenaro	Geoscience/Hydrogeology	Amanda Catenaro graduated from McMaster University in 2012 with a Bachelor of Science degree in Environmental Science, specialized in Hydrogeology and Climatology. She completed her Master of Environmental Science Degree from the University of Toronto in 2013. Ms. Catenaro has worked on a number of Phase One and Two environmental site assessments, delineation programs, ex-situ and in-situ remediation projects, and peer reviews since joining EXP Services Inc. in 2013. Ms. Catenaro is a Professional Geologist (P.Geo.) in Ontario and is a Qualified Person (QP) for environmental site assessments under Ontario Regulation 153/04. Ms. Catenaro has international experience working on environmental projects in the United Kingdom and United States of America, including undertaking desk studies, risk assessments, and remediation projects (strategy development, design, implementation and validation). She has closed-out projects in a variety of specialized sectors such as transportation, highway, rail, and water schemes. See Appendix F for additional details.
Zenith Wong	Engineer	Mr. Wong graduated from University of Waterloo in 2012 with a Bachelor of Applied Science degree in Environmental Engineering. He completed his Master of Applied Science degree in Civil Engineering from Queen's University in 2021. Mr. Wong has worked on a number of Phase One and Two environmental site assessments and Risk Assessments with various consulting companies including EXP. He has six years of experience in the environmental consulting industry across Ontario, working on various development projects. Mr. Wong is a Qualified Person for Environmental Site Assessments (QPESA) as defined in Ontario Regulation 153/04 and is a licensed professional engineer in Ontario. See Appendix F for additional details.

Table 3-1: Property Location and Ownership

Property Location	12211, 12213 and 12231 Hurontario Street, Caledon, Ontario (see Locality Plan provided as Figure 1 of the Phase Two CSM [Appendix A])
Property Ownership	Argo Summer Valley Limited
General Physical Characteristics of the Property (including size of property)	The site is irregular in shape and measures approximately 3.09 hectares (7.6 acres) in area

Past Uses of the Property*	*The site was first developed for residential and commercial use (trailer sales and service, and livestock auctions) in the late 1950s. The on-site structures were demolished between 2013 and 2014. Based on the past uses of the site, the following on-site PCAs leading to APECs were identified [APEC number listed with associated PCA, below]:* *APEC A - S1: (28) Gasoline and associated product storage in fixed tanks* *APEC B - S2: (28) Gasoline and associated product storage in fixed tanks* *APEC C1 - S3a: (28) Gasoline and associated product storage in fixed tanks* *APEC C2 - S3b: (Other) – fuel leak* *APEC D1 and D2 - S4a and S4b: (28) Gasoline and associated product storage in fixed tanks* *APEC E - S5: (other) salt storage* *APEC F - S6: (52) Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems* *APEC G - S7: (52) Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems* *APEC H - S8: (other) garage operations* *APEC I - S9: (30) Importation of Fill Material of Unknown Quality* *APEC J - S10: (30) Importation of Fill Material of Unknown Quality* *Further details are provided in the Phase Two CSM provided in Appendix A.*
Current Uses of the Property*	*The site is currently vacant. No PCAs were identified based on the current use of the property.*

Past and Current Uses of the Adjacent Properties*	*The site is located in an area of vacant land to the northwest, followed by community use (Highway 410), mixed commercial and residential use to the southwest and residential use to the northeast and southeast.* *Two off-site PCAs, considered to contribute to an APEC on-site, were identified within the Phase One Study Area as follows:* *APEC K - S14: (28) Gasoline and Associated Products Storage in Fixed Tanks and S15: (52) Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems. These PCAs were present on the north-adjacent property.* *Further details are provided in the Phase Two CSM (Appendix A).*
Off-Site Sources of Contaminants of Concern and Receptors	Off-site potential sources of contamination are discussed above. Off-site receptors of the neighbouring primarily mixed residential and commercial properties include: property residents, property visitors, longterm workers (both indoor and outdoor) and short-term (construction) workers. Ecological receptors are those typically identified with the MGRA Approved Model and include mammals, birds, plants and soil invertebrates as well as aqautic receptors.
Proposed Uses of the Property	The site is intended to be developed for residential use
Number of Stories Below Grade	slab on grade

**For past and current uses of the property and adjacent properties, please include a list of potentially contaminating activities (PCAs) identified, their proximity to the RA property, and their dates.*

Table 4-1: Approved Model Input Parameters affecting Human Health Component Values

Approved Model Input (Site Specific Characteristics or Pathway Modifiers) which affect Human Health Component Value Calculations
Change in depth to water table affects GW2.
No Ground Water Use for Drinking Water results in use of non-potable component values

Table 4-2: Human Receptors Included and Exposure Pathways Evaluated in the Risk Assessment

Property Use	Receptor**	Pathway*
Residential/Parkland/ Institutional	Toddler (0.5 – 4 years) Composite receptor (exposed from infancy through to and including adulthood)	Soil Ingestion Dermal Contact Dermal adsorption following contact Inhalation of soil particles Inhalation of indoor and outdoor air contaminated by subsurface vapour intrusion** Ingestion of groundwater as drinking water source

* : Exposure pathways considered (Column 3) are in the adsence of risk management measures (RMMs)

**: The "Approved" Model uses the lowest of the R/P/I and I/C/C values for the "inhalation of indoor air contaminated by subsurface vapour intrusion from groundwater" pathway (GW2) for all land uses. The model only generates one number (using R/P/I receptors) for the "inhalation of outdoor air" pathways (S-OA), and uses it for all land uses

Table 4-3: Soil Vapour Screening Levels and Measured Soil Vapour Levels

AREA 1

Source Area ID		Source Type	
Sampling Location ID		Area Soil Type	
Depth below soil surface to soil vapour measurement		cm	

Contaminant of Concern (Volatile COCs)	Soil Vapour Screening Level (µg/m3)	Maximum Measured Soil Vapour Concentration Probe 1	Maximum Measured Soil Vapour Concentration Probe 2	Units	Number of samples
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	

AREA 2

Source Area ID		Source Type	
Sampling Location ID		Area Soil Type	
Depth below soil surface to soil vapour measurement		cm	

Contaminant of Concern (Volatile COCs)	Soil Vapour Screening Level (µg/m3)	Maximum Measured Soil Vapour Concentration Probe 1	Maximum Measured Soil Vapour Concentration Probe 2	Units	Number of samples
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	

AREA 3

Source Area ID		Source Type	
Sampling Location ID		Area Soil Type	
Depth below soil surface to soil vapour measurement		cm	

Contaminant of Concern (Volatile COCs)	Soil Vapour Screening Level (µg/m3)	Maximum Measured Soil Vapour Concentration Probe 1	Maximum Measured Soil Vapour Concentration Probe 2	Units	Number of samples
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	

AREA 4

Source Area ID		Source Type	
Sampling Location ID		Area Soil Type	
Depth below soil surface to soil vapour measurement		cm	

Contaminant of Concern (Volatile COCs)	Soil Vapour Screening Level (µg/m3)	Maximum Measured Soil Vapour Concentration Probe 1	Maximum Measured Soil Vapour Concentration Probe 2	Units	Number of samples
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	

AREA 5

Source Area ID		Source Type	
Sampling Location ID		Area Soil Type	
Depth below soil surface to soil vapour measurement		cm	

Contaminant of Concern (Volatile COCs)	Soil Vapour Screening Level (µg/m3)	Maximum Measured Soil Vapour Concentration Probe 1	Maximum Measured Soil Vapour Concentration Probe 2	Units	Number of samples
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	

AREA 6

Source Area ID		Source Type	
Sampling Location ID		Area Soil Type	
Depth below soil surface to soil vapour measurement		cm	

Contaminant of Concern (Volatile COCs)	Soil Vapour Screening Level (µg/m3)	Maximum Measured Soil Vapour Concentration Probe 1	Maximum Measured Soil Vapour Concentration Probe 2	Units	Number of samples
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	
				µg/m3	

Table 4-4: Calculated Risk Levels in the Absence of Selected Risk Management Measures

Chemical Name	Potential RMMs: "Shallow Soil Cap" or "Fill/hard Cap"				Potential RMMs: "Storage Garage", "Building Prohibition", "Passive/Active (SVIMS)", "No First Storey Residential Use", or "Minimum First Storey Ceiling Height"														Shallow Soils								Potential RMM: No GW Use for Drinking	Potential RMM: Modified Subsurface Worker Protection	
					Coarse Soil				Medium and Fine Soil				Groundwater (for coarse soil texture)				Groundwater (for Medium and Fine Soil Texture)				Groundwater (for coarse soil texture)				Groundwater (for Medium and Fine Soil Texture)				Groundwater	Soil	
	R/P/I		I/C/C		R/P/I		I/C/C		R/P/I		I/C/C		R/P/I		I/C/C		R/P/I		I/C/C		R/P/I		I/C/C		R/P/I		I/C/C		All	All	All
	non-cancer HQ (from soil contact)	cancer Risk (from soil contact)	non-cancer HQ (from soil contact)	cancer Risk (from soil contact)	non-cancer HQ (from soil -IA)	cancer Risk (from soil -IA)	non-cancer HQ (from soil -IA)	cancer Risk (from soil -IA)	non-cancer HQ (from soil -IA)	cancer Risk (from soil -IA)	non-cancer HQ (from soil -IA)	cancer Risk (from soil -IA)	non-cancer HQ (from GW -IA)	cancer Risk (from GW-IA)	non-cancer HQ (from GW-IA)	cancer Risk (from GW -IA)	non-cancer HQ (from GW -IA)	cancer Risk (from GW-IA)	non-cancer HQ (from GW-IA)	cancer Risk (from GW -IA)	non-cancer HQ (from GW -IA)	cancer Risk (from GW-IA)	non-cancer HQ (from GW-IA)	cancer Risk (from GW -IA)	non-cancer HQ (from GW -IA)	cancer Risk (from GW-IA)	non-cancer HQ (from GW-IA)	cancer Risk (from GW -IA)	All - This is a ratio of the site max to the GW1 (drinking water), and may not be an	non-cancer HQ (from S3)	cancer Risk (from S3)
Electrical Conductivity (mS/cm)																															
Sodium Adsorption Ratio																															
Chloride																													1.61E+01		
Sodium																													5.04E+01		

Table 4-5: Off-site Human Receptors

***Note:** QP_{RA}, if you have used RMMs affecting the groundwater for protection of drinking water pathway (GW1 pathway), or the groundwater for protection of indoor air pathway (GW2 pathway) or soil vapour screening for a groundwater source, you should carefully consider the potential impact of groundwater travelling from the RA site to downgradient sites.*

In my opinion, the proposed human health standards

- ○ will likely (add details in table below)
- ◉ will likely NOT (*See Note, above)

result in an exceedance of the applicable full depth Site Condition Standard at the nearest off-site human receptor.

Environmental Medium (Soil, GW or sediment)	Contaminant of Concern	Applicable SCS at location of nearest off-site receptor	Location of nearest off-site Receptor	Description of Receptor*
GW	Sodium	Table 2 SCS (490,000 ug/L)	135 metres southeast (nearest downgradient potable water well based on MECP well records)	Property residents
GW	Chloride	Table 2 SCS (790,000 ug/L)	135 metres southeast (nearest downgradient potable water well based on MECP well records)	Property residents

Do not simply list the property use type - the **potential receptors should be listed*

The following actions are being taken on the RA property to address possible off-site exceedances of the applicable full depth Site Condition Standard

None. It is not anticipated that groundwater will migrate off-site with concentrations above the Table 2 SCS at the nearest human receptors outlined in Table 4-5. As sodium and chloride concentrations were met downgradient (south and southeast) of the area of contamination, at monitoring wells N6, N7 and BH304, the domestic wells located south and southeast of the site are not expected to be impacted. Additionally, sodium and chloride are both considered non-toxic to humans and the drinking water standards are based on aesthetic criteria objectives only.

Table 5.1: Approved Model Inputs Affecting VEC Component Values

Site Specific Characteristic Modified* (specific to Valued Ecosystem Component (VEC) exposure)
Change in distance to surface water affects S-GW3 and GW3
Change in aquifer horizontal hydraulic gradient affects S-GW3 and GW3
Modified Ecological Protection results in use of a 1.9x multiple of the industrial number for plants and soil organisms, and of 1000x for mammals and birds

Table 5-2: Ecological Receptors Included in the Risk Assessment

Property Use	Receptor
Residential/Parkland/Institutional	Plants and soil-dwelling organisms‡ Aquatic biota (contaminant specific) Mammals and birds: · American woodcock (Scolopax minor) · Meadow vole (Microtus Pennsylvanicus) – also called field mouse · Red-tailed hawk (Buteo jamaicensis) · Red-winged blackbird (Agelarius phoeniceus) · Red fox (Vulpes vulpes) · Short tailed shrew (Blarina brevicauda)

‡: Level of protection depends on property use

Table 5-3: Calculated Risk Levels in the Absence of Selected Risk Management Measures

	Potential RMMs: "Modified Ecological Protection", "Shallow Soil Cap" or "Fill/hard Cap"					
	Plants and Soil Invertebrates (Hazard Quotient)				Mammals and Birds (Hazard Quotient)	
	R/P/I		I/C/C		R/P/I	I/C/C
Chemical Name	Coarse	Medium and Fine	Coarse	Medium and Fine		
Electrical Conductivity (mS/cm)	5.114	5.114	2.557	2.557		
Sodium Adsorption Ratio	4.416	4.416	1.840	1.840		
Chloride						
Sodium						

Table 5-4: Off-site Ecological Receptors

In my opinion, the proposed ecological standards

- ○ will likely (add details into the table below)
- ◉ will likely NOT

result in an exceedance of the applicable full depth Site Condition Standard at the nearest off-site ecological receptor.

Environmental Medium (Soil, GW or sediment)	Contaminant of Concern	Applicable SCS at location of nearest off-site receptor	Location of nearest off-site Receptor	Description of Receptor
GW	Sodium	Table 2 SCS (490,000 ug/L)	610 metres southeast (tributary of Etobicoke Creek)	Aquatic receptors (plants, invertebrates, aqautic animals and fish)
GW	Chloride	Table 2 SCS (790,000 ug/L)	610 metres southeast (tributary of Etobicoke Creek)	Aquatic receptors (plants, invertebrates, aqautic animals and fish)

The following actions are being taken on the RA property to address possible off-site exceedances of the applicable full depth Site Condition Standard

None. It is not anticipated that groundwater will exceed the Table 2 SCS at the nearest ecological receptors outlined in Table 5-4. As sodium and chloride concentrations were met downgradient (south and southeast) of the area of contamination, at monitoring wells N6, N7 and BH304, off-site migration with groundwater flow is not anticipated. Furthermore, concentrations on-site are within the site-specific GW3 component values.

Table 7-1: Risk Management Measures

Risk Management Measure Selected	Medium	Pathway Controlled	Exposure Reduction
Fill Cap or Hard Cap, Asphalt or Concrete Cap, or soil cap >1m thick, not selected	Not Applicable	Not Applicable	Not Applicable
	<-----Add Depth of Fill Cap if > 1m		
"Shallow Soil Cap" Soil Cap (>50cm) , not selected	Not Applicable	Not Applicable	Not Applicable
Modified Suburface Worker Protection, not selected	Not Applicable	Not Applicable	Not Applicable
"Building Prohibition" , not selected	Not Applicable	Not Applicable	Not Applicable
Building with Storage Garage, not selected	Not Applicable	Not Applicable	Not Applicable
"Passive Soil Vapour Intrusion Mitigation System" , not selected	Not Applicable	Not Applicable	Not Applicable
"Active Soil Vapour Intrusion Mitigation System" , not selected	Not Applicable	Not Applicable	Not Applicable
Building with No First Storey Residential, not selected	Not Applicable	Not Applicable	Not Applicable
Building with minimum first storey ceiling height not selected	Not Applicable	Not Applicable	Not Applicable
No groundwater use for drinking water	Soil; Groundwater	S-GW1 (Soil to Ground water for drinking water); GW1 (Ground water for drinking water)	Potable component values are replaced with non-potable CVs

Table of Soil Vapour Screening Level for Subslab Measurements

CHEMICAL NAME	Residential (with basement) ug/m3	Industrial (slab on grade) ug/m3
Electrical Conductivity (mS/cm)	NA	NA
Sodium Adsorption Ratio	NA	NA
Chloride	NA	NA
Sodium	NA	NA

Appendix A – Phase Two Conceptual Site Model

PHASE TWO CONCEPTUAL SITE MODEL

A Phase Two Conceptual Site Model (CSM) has been prepared for the site. The CSM make reference to the following figures:

Figure 1: Locality Plan

Figure 2: Site Plan

Figure 3A: Potentially Contaminating Activities

Figure 3B: Areas of Potential Environmental Concern

Figure 4: Cross Section Plan

Figure 5A: Cross Section A – Soil Analytical Results: Petroleum Hydrocarbons

Figure 5B: Cross Section A – Soil Analytical Results: Volatile Organic Compounds

Figure 5C: Cross Section A – Soil Analytical Results: Polycyclic Aromatic Hydrocarbons

Figure 5D: Cross Section A – Soil Analytical Results: Metals (including Hydride-forming Metals)

Figure 5E: Cross Section A – Soil Analytical Results: Other Regulated Parameters (including EC and SAR)

Figure 5F: Cross Section A – Groundwater Analytical Results: Petroleum Hydrocarbons

Figure 5G: Cross Section A – Groundwater Analytical Results: Volatile Organic Compounds

Figure 5H: Cross Section A – Groundwater Analytical Results: Polycyclic Aromatic Hydrocarbons

Figure 5I: Cross Section A – Groundwater Analytical Results: Metals (Including Hydride-Forming Metals)

Figure 5J: Cross Section A – Groundwater Analytical Results: Other Regulated Parameters (including Sodium and Chloride)

Figure 6A: Cross Section B – Soil Analytical Results: Petroleum Hydrocarbons

Figure 6B: Cross Section B – Soil Analytical Results: Volatile Organic Compounds

Figure 6C: Cross Section B – Soil Analytical Results: Polycyclic Aromatic Hydrocarbons

Figure 6D: Cross Section B – Soil Analytical Results: Metals (including Hydride-forming Metals)

Figure 6E: Cross Section B – Soil Analytical Results: Other Regulated Parameters (including EC and SAR)

Figure 6F: Cross Section B – Groundwater Analytical Results: Petroleum Hydrocarbons

Figure 6G: Cross Section B – Groundwater Analytical Results: Volatile Organic Compounds

Figure 6H: Cross Section B – Groundwater Analytical Results: Polycyclic Aromatic Hydrocarbons

Figure 6I: Cross Section B – Groundwater Analytical Results: Metals (Including Hydride-Forming Metals)

Figure 6J: Cross Section B – Groundwater Analytical Results: Other Regulated Parameters (including Sodium and Chloride)

Figure 7: Groundwater Contour Plan – April 30, 2019

Figure 8A: Soil Analytical Results – Petroleum Hydrocarbons

Figure 8B: Soil Analytical Results – Volatile Organic Compounds

Figure 8C: Soil Analytical Results – Polycyclic Aromatic Hydrocarbons

Figure 8D: Soil Analytical Results – Metals (including Hydride-forming)

Figure 8E: Soil Analytical Results – Other Regulated Parameters (including EC and SAR)

Figure 9A: Groundwater Analytical Results – Petroleum Hydrocarbons

Figure 9B: Groundwater Analytical Results – Volatile Organic Compounds

Figure 9C: Groundwater Analytical Results – Polycyclic Aromatic Hydrocarbons

Figure 9D: Groundwater Analytical Results – Metals (including Hydride-Forming)

Figure 9E: Groundwater Analytical Results – Other Regulated Parameters (including Sodium and Chloride)

Figure 10A: Human Health Conceptual Site Model Without RMM

Figure 10B: Human Health Conceptual Site Model With RMM

Figure 11: Ecological Conceptual Site Model

The Phase Two property or "site" consists of the contiguous properties with the municipal addresses ~~of 12197 Hurontario Street, Brampton, Ontario,~~ 12211, 12213 and~~,~~ 12231~~, and 12233~~ Hurontario Street, Caledon, Ontario and is located on the east side of Hurontario Street and the north side of Highwood Road, as shown on Figure 1. Surrounding properties include mixed vacant and community (Highway 410 and ramps) land to the northwest, mixed commercial and residential use to the southwest and residential use to the northeast and southeast. The site has an area of approximately 3.09~~6~~ hectares (7.6~~8.9~~ acres). A site plan is provided as Figure 2.

The legal description, Property Identification Number (PIN) and owner of the site are as follows:

- ~~PART LOT 18 CON 1 EHS (CHINGUACOUSY) DESIG. AS PARTS 1 & 2 PLAN 43R33945L S/T CH32237, CITY OF BRAMPTON (PIN 14235-0001 (LT));~~
- PART LOT 19 CON 1 EHS (CHINGUACOUSY) PARTS 3 & 4 PLAN 43R32579; S/T CH32238 TOWN OF CALEDON (PIN 14235-0025 (LT));
- PART LOT 19 CON 1 EHS (CHINGUACOUSY) DESIG. PART 5 PLAN 43R3579, TOWN OF CALEDON (PIN 14235-1665 (LT)); AND,
- PART LOT 19 CON 1 EHS (CHINGUACOUSY) DESIG. AS PARTS 1 & 2 PLAN 43R32579 S/T EASEMENT IN FAVOUR OF THE BELL TELEPHONE COMPANY OF CANADA OVER PARTS 6, 9, PL 43R27780, AS IN CH32238, SAVE AND EXCEPT PART 1, EXPROPROPRIATION PLAN PR1149441, TOWN OF CALEDON (PIN 14235-1693 (LT))

Based on a review of historical aerial photographs, chain of title information, historical maps, other historical documentation as well as interviews with the present and past property owners completed as part of the Phase One ESAs completed by EXP (2020a, 2021b), it was determined that the site was first developed for residential and commercial use (trailer sales and service, and livestock auctions) in the late 1950s. The on-site structures were demolished between 2013 and 2014. Prior to that time, the site was used for agricultural purposes or vacant; no orchards were present on, or in the vicinity of the site. At the time of EXP's latest site visit, the site was a vacant lot covered in grass, with small areas containing asphalt, gravel and concrete pads. Some construction debris from the demolition of the previous structures was present on-site.

A Phase Two conceptual site model (CSM) was developed for the site using information collected during the previous Phase One Environmental Site Assessment (ESA; EXP, 2020a, 2022a) and Phase Two ESA investigations and remediation (2019, ~~and~~ 2020b, 2021 and 2021c). The CSM is a simplification of reality, which aims to identify the potentially contaminating activities (PCA), areas of potential environmental concern (APEC), contaminant transport and exposure pathways, and receptors. The CSM is a compilation of narrative description, diagrams, cross-sections and figures illustrating the current condition of the Phase Two property as well as the intended future use.

1. Potentially Contaminating Activities and Areas of Potential Environmental Concern

~~Fourteen~~ Twelve (1~~2~~4) PCAs were identified on-site based on current and past operations at the Phase One property, that may contribute to an APEC.

~~Three (3) PCAs were identified at properties located within 250 metres of the Phase One property. The potential for each off-site PCA to result in an APEC was evaluated based on proximity to the site and on its location relative to the inferred southeasterly groundwater flow direction. Of the three (3) off-site PCAs identified, T~~two (2) off-site PCAs, located north adjacent to the site were also considered to contribute to an APEC on-site. ~~The third off-site PCA (PCA S16) is associated with illegal dumping of contaminated soil at Hutchinson Farm Lane. Given that this PCA is anticipated to impact soil only, and its location cross-gradient and across Hurontario Street, relative to the~~

~~site, any potential contamination is unlikely to migrate on to the site. As such, this PCA is considered to be of *de minimis concern*.~~

APEC A – S1: (28) Gasoline and associated product storage in fixed tanks – According to previous environmental reports, an AST was present exterior to the rear building at 12231 Hurontario Street. The capacity, contents and condition of the tank were not provided. This tank was not present during EXP's investigations on-site.

APEC B – S2: (28) Gasoline and associated product storage in fixed tanks – According to previous environmental reports, an AST was present at the front building at 12231 Hurontario Street. The capacity, contents and condition of the tank were not provided but may be one (1) of the two (2) 909-litre capacity tanks containing fuel oil, installed in 2004, as reported in the "All Risk Report" completed for Brampton Live Stock Exchange Inc. at 12231 Hurontario Street in 2007. This tank was not present during EXP's investigation on-site.

APECS C1 and C2 – S3a: (28) Gasoline and associated product storage in fixed tanks and (Other) – fuel leak – According to previous environmental reports, an AST was present at the front building at 12231 Hurontario Street. The capacity, contents and condition of the tank were not provided but may be one (1) of the two (2) 909-litre capacity tanks containing fuel oil, installed in 2004, as reported in the "All Risk Report" completed for Brampton Live Stock Exchange Inc. at 12231 Hurontario Street in 2007. A leak was reported on May 28, 2007. This tank was not present during EXP's investigation on-site.

APECs D1 and D2 – S4a and S4b: (28) Gasoline and associated product storage in fixed tanks – According to previous environmental reports, two (2) ASTs were present at 12211 Hurontario Street. The capacity, contents and condition of the tanks were not provided. This tank was not present during EXP's investigation on-site.

APEC E – (other) salt storage – According to previous reports, storage of salt was present on the northwestern portion of the site.

APEC F – S6: (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems – According to previous reports and the 2007 "All Risk Report", trailer maintenance activities occurred at 12231 Hurontario Street. As the site was vacant during EXP's investigations on-site, additional details of these maintenance activities are unknown.

APEC G – S7: (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems – According to previous reports and the 2007 "All Risk Report", trailer maintenance activities occurred at 12231 Hurontario Street. As the site was vacant during EXP's investigations on-site, additional details of these maintenance activities are unknown.

APEC H – S8: (other) garage operations – According to previous reports, historic garage operations were present at historically at 12211 Hurontario Street. As the site was vacant during EXP's investigations on-site, additional details of these maintenance activities are unknown.

APEC I – S9: (30) Importation of Fill Material of Unknown Quality – A former residential building with a basement was located at the westernmost portion of 12231 Hurontario Street. As this building has been demolished, it was conservatively assumed that fill is present within the building footprint. It is noted that based on the stratigraphy encountered at boreholes advanced within this APEC, it appears the fill in this area is reworked native material.

APEC J – S10: (30) Importation of Fill Material of Unknown Quality – A former residential building with a basement was located at 12211 Hurontario Street. As this building has been demolished, it was conservatively assumed that fill is present within the building footprint. It is noted that based on the stratigraphy encountered at boreholes advanced within this APEC, it appears the fill in this area is reworked native material.

APEC K – S14: (28) Gasoline and Associated Products Storage in Fixed Tanks. A UST was formerly present at 12267 Hurontario Street, north adjacent to the site, as provided in the Environmental Risk Information Services Ltd (ERIS) report. The tank was reported to have a capacity 68,190 litres. Based on previous reports, vent pipes were observed on the south side of the former building on this property. No other details were provided in the records reviewed.

S15: (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems – Former school bus maintenance activities occurred at 12267 Hurontario Street by Travelways School Transit Ltd/Laidlaw Transit Ltd. based on waste generator records provided in the ERIS report. Travelways School Transit Ltd/Laidlaw Transit Ltd. was listed as a waste generator of oil skimmings & sludges, petroleum distillates, light fuels, aliphatic solvents, and waste oils & lubricants from 1986 to 1990 and 1992 to 2004.

Four additional off-site PCAs were identified within 250 metres of the Phase One property as follows:

- S11 and S16: (30) Importation of fill material of unknown quality - This PCA is associated with potential fill within the footprint of a former residential building on the south adjacent property (12197 Hurontario Street) and illegal dumping of contaminated soil at Hutchinson Farm Lane, located southwest of the site, across Hurontario Street. Given that this PCA is anticipated to impact soil only, any potential contamination is unlikely to migrate on to the site, given the location of these PCAs down-gradient and cross-gradient to the site, respectively. It is further noted that the quality of potential fill on the south adjacent property was evaluated by EXP (EXP, 2020b) and no soil impacts were identified. As such, this PCA these PCAs are considered to be of *de minimis* concern.
- S12: (28) Gasoline and associated products storage in fixed tanks – This PCA is associated with a former UST located at 12267 Hurontario Street, southeast adjacent to the site. This PCA is located downgradient of the site. Furthermore, this PCA was investigated at the source by EXP (2020b) and no impacts were identified. As such, this PCA is considered to be of *de minimis* concern.
- S13: (other) Garage operations – According to previous reports, garage operations were historically present at 12267 Hurontario Street, southeast adjacent to the site garage. This PCA is located downgradient of the site. Furthermore, this PCA was investigated at the source by EXP (2020b) and no impacts were identified. As such, this PCA is considered to be of *de minimis* concern.

It should be noted that limited data and no Technical Standards and Safety Authority (TSSA) records of USTs at the site were available. It is noted that the Fuels Safety Division did not register private USTs or ASTs prior to January of 1990, or furnace oil tanks prior to May 1, 2002. The Fuels Safety Division also does not register waste oil tanks in apartments, office buildings, residences etc., or aboveground gas or diesel tanks (EXP, 2020a, EXP, 2022a).

Figure 3A ~~and 3B~~ illustrates all PCAs. Resulting APECs are shown on Figure 3B.~~the APECs and associated PCAs~~. The APECs are summarized below:

APEC	Location of APEC on Phase One Property	PCA[1]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
A	Northwestern portion of site	~~S1:~~ (28) Gasoline and associated product storage in fixed tanks ~~Former AST located at 12231 Hurontario Street (rear building)~~	On-site (S1)	PHCs, VOCs	Soil
B	Northwestern portion of site	~~S2:~~ (28) Gasoline and associated product storage in fixed tanks ~~Former AST located at 12231 Hurontario Street (front building)~~	On-site (S2)	PHCs, VOCs	Soil
C1	Northwestern portion of site	~~S3a:~~ (28) Gasoline and associated product storage in fixed tanks ~~Former AST located at 12231 Hurontario Street (front building)~~	On-site (S3a)	PHCs, VOCs	Soil
C2	Northwestern portion of site	~~S3b:~~ (Other) – fuel leak ~~Fuel spill at 12231 Hurontario Street from AST in front building~~	On-site (S3b)	PHCs, BTEX	Soil and groundwater
D1	Southeastern~~Central~~ portion of site	~~S4:~~ (28) Gasoline and associated product storage in fixed tanks ~~Two former ASTs at 12211 Hurontario Street~~	On-site (S4a)	PHCs, VOCs	Soil
D2	Southeastern portion of the site	(28) Gasoline and associated product storage in fixed tanks	On-site (S4b)	PHCs, VOCs	Soil
E	North~~east~~ern portion of site	~~S5:~~ (other) salt storage ~~Former salt storage at 12231 Hurontario Street~~	On-site (S5)	EC, SAR Sodium, chloride	Soil Groundwater

APEC	Location of APEC on Phase One Property	PCA[1]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
F	Northwestern portion of site	~~S6:~~ (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems ~~Former trailer maintenance activities at 12231 Hurontario Street (rear building)~~	On-site (S6)	PHCs, VOCs, PAHs	Soil and groundwater
G	Northwestern portion of site	~~S7:~~ (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems ~~Former trailer maintenance activities at 12231 Hurontario Street (front building)~~	On-site (S7)	PHCs, VOCs, PAHs	Soil and groundwater
H	Southeastern~~Central~~ portion of site	~~S8:~~ (other) garage operations ~~Former garage operations located at 12211 Hurontario Street~~	On-site (S8)	PHCs, VOCs, PAHs	Soil and groundwater
I	Northwestern portion of site	~~S9:~~ (30) Importation of Fill Material of Unknown Quality ~~Former residential building with a basement located at 12233 Hurontario Street~~	On-site (S9)	PAHs, metals (including hydride forming metals)	Soil
J	Southeastern~~Central~~ portion of the site	~~S10:~~ (30) Importation of Fill Material of Unknown Quality ~~Former residential building with a basement located at 12211 Hurontario Street~~	On-site (S10)	PAHs, metals (including hydride forming metals)	Soil
~~K~~	~~Southern portion of the site~~	~~S11: (30) Importation of Fill Material of Unknown Quality~~	~~On-site~~	~~PAHs, metals (including~~	~~Soil~~

APEC	Location of APEC on Phase One Property	PCA[1]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
		~~- Former residential building with a basement located at 12197 Hurontario Street~~		~~hydride forming metals)~~	
~~L~~	~~Southeastern portion of the site~~	~~S12: (28) Gasoline and Associated Products Storage in Fixed Tanks~~ ~~- Former UST located at 12197 Hurontario Street~~	~~On-site~~	~~PHCs, VOCs~~	~~Soil and groundwater~~
~~M~~	~~Southeastern portion of the site~~	~~S13: (other) garage operations~~ ~~Former garage operations at 12197 Hurontario Street~~	~~On-site~~	~~PHCs, VOCs, PAHs~~	~~Soil and Groundwater~~
~~N~~K	Northern and northwestern portion of the site	~~S14:~~ (28) Gasoline and Associated Products Storage in Fixed Tanks ~~- Former USTs located at 12267 Hurontario Street~~ ~~S15:~~ (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems ~~Former school bus maintenance activities at 12267 Hurontario Street~~	Off-site, north adjacent (S14 [PCA 28] and S15 [PCA 52])	PHCs, VOCs	Groundwater

[1] The number presented in brackets is the PCA number listed in Table 2, Schedule D of O. Reg. 153/04. Where the activity is not listed, it is identified as "Other".

PHCs – Petroleum hydrocarbons; BTEX – benzene, toluene, ethylbenzene, xylenes; VOC – volatile organic compounds; PAH – polycyclic aromatic hydrocarbons; EC – Electrical Conductivity; and, SAR – Sodium Adsorption Ratio

2. Subsurface Structures and Utilities

The utilities and services were identified at the site based on information provided in environmental records, relevant utility infrastructure observed during the site reconnaissance, and public and private locates completed at the site. Given the depth of the unconfined groundwater table, ranging from 0.33 (N2) to 3.24 (N7) metres below ground surface (mbgs), it is possible that local groundwater flow conditions would be influenced by the

underground gas lines at the western portion of the site along Hurontario Road. However, based on the distribution of groundwater impacts, the impacts do not extend to the present location of utilities. The site utilities are summarized in the table below (see Figure 2 for the location of the gas main).

Utility	Source	Location
Natural Gas	Enbridge	Utility enters the from Hurontario Street and is present at the western boundary of the site.
Sanitary Sewer	Municipality – Region of Peel	Not present on-site.
Storm Sewer	Municipality – Region of Peel	Not present on-site.
Water	Municipality – Region of Peel	Not present on-site.
Electricity	Hydro-one	Not present on-site.
Telecommunications	Bell Canada, Rogers	Not present on-site.

3. Physical Setting

3.1 Stratigraphy

The site is located in the physiographic region known as the South Slope, characterized by sandy tills in the east and clayey tills in the west (Physiography of Southern Ontario, Chapman and Putnam, 1984). Overburden at the site is anticipated to consist of clay to silt-textured till (Sharpe, 1980).

According to the Geological Survey of Canada map of the area (Southern Ontario, 1:1,000,000 Scale, Sheet SSS, Map 2544), the underlying geology comprises the Queenston Formation. Bedrock at the site consists of shale, limestone, siltstone, and dolostone (Bedrock Geology of Ontario – Southern Sheet, Map 2544, Ministry of Northern Development and Mines).

The topography in the vicinity of the subject property is relatively flat. Regionally, the land slopes to the southeast, towards the Etobicoke Creek. Drilling investigations have shown that the subsurface soil at the subject property consists of ~~was~~ a thin layer of sand and gravel fill (generally less than 0.6 m in thickness) or reworked native clayey silt to silty clay to a maximum depth of 1.5 mbgs, underlain by native clayey silt to clayey silt till a maximum depth of 9.1 mbgs, underlain by sandy silt till to a depth greater than 18.3 mbgs. Bedrock was not encountered during any of the investigations. However, based on MECP well records in the vicinity of the site, shale bedrock is present at approximately 38 mbgs. The soil at the site was wet from below approximately 2.0 mbgs.

Grain size analysis was performed on three samples, BH101-SS3 (1.52 to 2.13 mbgs) within the clayey silt till, BH102-SS1 (grade to 0.61 mbgs) within the clayey silt fill and BH104-SS3 (1.52 to 2.13 mbgs) within the clayey silt till. Approximately 70.3, 63.7 and 70.0% by mass of the samples consisted of a particle size smaller than 75 µm in diameter. As a result, soil is considered medium to fine textured.

The CSM cross-section aerial plan (Figure 4) and cross-sections of the subject property (Figures 5A to 6J) were developed showing the stratigraphy of the subject property.

3.2 Hydrogeological Characteristics and Approximate Depth to Water Table

Based on ~~previous~~ monitoring data, groundwater beneath the subject property is found in the overburden at a depth of 0.33 (N2) to 3.24 (N6) mbgs (254.66 (N6) to 257.42 (N2) metres above sea level (masl)).

Groundwater contours and groundwater flow directions in the overburden are shown on Figure 7 and indicate a localized groundwater flow to the southeast. The groundwater contour is based on measurements obtained on April 30, 2019. Although there are a minimum of three (3) wells on-site, to assist in groundwater triangulation, one off-site monitoring well (S6) on the south adjacent parcel was also included to develop the groundwater contour plan. Taking into consideration surface water features in the surrounding area, regional groundwater flow direction is inferred to be southeast, towards Lake Ontario and Etobicoke Creek. ~~Localized flow conditions across the site indicate a groundwater flow to the southeast in the unconfined aquifer; a groundwater contour plan is shown in Figure 7.~~

Results of groundwater monitoring activities indicate a localized on-site horizontal hydraulic gradient of 0.025 m/m to the southeast, in the clayey silt to silty clay till. The regional horizontal hydraulic gradient is estimated to be approximately 0.001 m/m towards the southeast based on topography and surface water features in the region.

The vertical hydraulic gradient was calculated on March 5, 2020 between the nested well pair N3/BH103 to be -7.81 m/m, in the downward direction.

The hydraulic conductivity has not been calculated on-site but is estimated to be 1.0×10^{-8} m/s based on the soil type and literature values provided by Freeze and Cherry (1979).

Based on the calculated hydraulic gradient of 0.025 m/m, a hydraulic conductivity of 1.0×10^{-6} cm/s and an effective porosity of 20% (McWhorter and Sunada, 1977), Darcy's Law was used to calculate a groundwater flow velocity through the native clayey silt to sandy silt, at a rate of approximately 0.039 metres (39 millimetre) per year.

3.3 Considerations with Respect to Section 41 or 43.1 of the Regulation and Applicable Site Condition Standards

Section 41 of O. Reg. 153/04 dictates certain restrictions in application of Site Condition Standards (SCS) for environmentally sensitive areas. The site is not identified as an environmentally sensitive area and, therefore, the restrictions identified in Section 41 do not apply.

Information available on the Ministry of Natural Resources and Forestry (MNRF) website indicated that the site is not located on or within 30 m of any Areas of Natural and Scientific Interest (ANSIs) such as provincial parks, conservation reserves, wilderness areas, or wetlands.

The site is not located within a "natural heritage system", the "Greenbelt Plan Area", "Niagara Escarpment Plan Area", or "Oak Ridges Moraine Conservation Plan Area" according to Schedules A1 and S, of the Town of Caledon Official Plan (2018).

The site is not located within 30 metres of an "environmentally sensitive/significant area", "provincially significant wetland", "special policy area", "provincial greenbelt/protected countryside", "areas of natural and scientific interest – life science and earth science" according to "Schedule D" of the City of Brampton Official Plan (2015).

ThreeSix (36) surface soil samples and including one fieldtwo duplicate sample and one (1) subsurface soil sample were analyzed for soil pH. Soil pH ranged from 6.62 to 7.25.s (ranging in depth from 0.2 to 1.8 mbgs) had pH values between 6.62 and 7.25, and one (1) subsurface sample (collected from a depth of 1.5 to 2.1 mbgs) had a pH value of 6.90. As such, soil pH is in the range of 5 to 9 for surface soil (less than 1.5 m below soil surface) and 5 to 11 for subsurface soil (greater than 1.5 m below soil surface) such the site is not considered an environmentally sensitive site per Section 41 of O. Reg. 153/04.

Section 43.1 of O. Reg. 153/04 defines the restrictions when using the SCS for a shallow soil property or a site located near a water body. As discussed, bedrock was not encountered during the Phase Two investigations (EXP, 2019; EXP, 2020b; EXP, 2021; EXP, 2022b), where the boreholes were advanced to a maximum depth of 18.3 mbgs. As bedrock is not found at a depth of less than 2 mbgs on-site, the site is not considered to be a shallow soil property. The site is not located within 30 metres of a water body. The nearest water body to the site is a tributary of Etobicoke Creek, located approximately 180 metres to the east, based on the closest point and 65510 metres to the southeast on the downgradient site of the Site based on the local groundwater flow direction.

Groundwater across the site was identified from a depth of 0.33 (N2) to 3.24 (N6) mbgs. Thus, shallow groundwater conditions, where water table depth is observed at less than 3.0 mbgs was identified at the site. This may have implications on pathways associated with volatile contaminants identified at the site, as discussed further, below.

Based on the information provided above, the generic Standards for the site and Phase Two CSM were determined to be the Table 4 Stratified SCS for residential/parkland/institutional land use with medium to fine textured soils (herein referred to as Table 4 SCS), as listed in the MECP technical document *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* referenced by O. Reg. 153/04.

Shallow Groundwater Considerations

As discussed in Section 3.2, the minimum depth to the groundwater table was noted to be 0.33 mbgs. This depth is not consistent with the assumptions applied by the MECP in the evaluation of the indoor air vapour intrusion pathway using the Johnson and Ettinger (J&E, 1991) approach under the Table 4 SCS. As a result, all volatile groundwater parameters were compared to the Table 6 SCS which are representative of a shallow groundwater scenario. As all volatile parameters met the Table 6 SCS, no further consideration of the shallow groundwater condition is required.

3.4 Areas Where Soil Has Been Brought from Another Property

During the Phase Two investigation, EXP identified fill in the southern and north eastern portions of the site, including the footprints of the two (2)three former residential structures. The importation of fill material of unknown quality was considered a PCA beneath former building footprints, as indicated in Figure 3A.

As part of the remediation completed at the site (see Section 4.1.1), the remedial excavation was backfilled with Granular A material; no soil was imported to the site as part of the Phase Two ESAs or remediation.

3.5 Approximate Locations of Proposed Buildings and Other Structures, if Any

There are presently no buildings or structures located on-site. However, several buildings were formerly located on-site, as shown in Figure 2. The buildings were used for residential, commercial and light industrial purposes, including trailer repair and garage operations. The intended redevelopment of the site includes a residential subdivision, however the designs have yet to be determined.

4. Areas of Contamination and Distribution of Contaminants

Subsurface investigations were completed to assess the impact of the PCAs in soil and groundwater within APECs on the site. The screening of contaminants of concern (COC) was done by comparing the concentrations of pCOCs in soil and groundwater with the Table 4 Standards.

Soil analytical results are presented on cross section Figures 5A to 5E and 6A to 6E and in plan view on Figures 8A to 8E. Groundwater analytical results are presented on cross-section Figures 5F to 5J and 6E to 6J and in plan view on Figures 9A to 9E.

A summary of the assessment of APECs is provided below.

APEC	Location of APEC	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Phase Two Assessments	Current Status (Exceedances of SCS)
A	Northwestern portion of site	On-site	Soil: PHCs, VOCs	One soil sample was submitted for analysis of PHC fractions F1 to F4 and VOCs from N4.	No exceedances of the MECP Table 4 Standards were identified in soil for the parameters analyzed.
B	Northwestern portion of site	On-site	Soil: PHCs, VOCs	One soil sample was submitted for analysis of PHC fractions F1 to F4 and VOCs from N8.	No exceedances of the MECP Table 4 Standards were identified in soil for the parameters analyzed.
C1	Northwestern portion of site	On-site	Soil: PHCs, VOCs	Seven soil samples were analyzed for PHC fractions F1 to F4 from N7, N7-N, N7-E, N7-W and N7-S. Three soil sample was analyzed for BTEX and/or VOCs from N7.	An exceedances of PHC fraction F2 was identified at N7. This exceedance was vertically delineated to a depth of 2.3 mbgs and horizontally delineated by boreholes N7-N, N7-E, N7-W, and N7-S. The PHC – impacted soil was remediated, and confirmatory soil sampling completed between September 2020 and May 2021. Therefore, following remediation, no exceedances of the MECP Table 4 Standards remain in soil associated with this APEC.

APEC	Location of APEC	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Phase Two Assessments	Current Status (Exceedances of SCS)
C2	Northwestern portion of site	On-site	Soil and Groundwater: PHCs, BTEX	Soil Seven soil samples were analyzed for PHC fractions F1 to F4 from N7, N7-N, N7-E, N&-W and N7-S. Three soil sample was analyzed for BTEX and/or VOCs from N7. Groundwater One groundwater sample and one QA/QC duplicate sample was collected from N7 and analyzed for PHC fractions F1 to F4 and VOCs.	Soil An exceedance of PHC fraction F2 was identified at N7. This exceedance was vertically delineated to a depth of 2.3 mbgs and horizontally delineated by boreholes N7-N, N7-E, N7-W, and N7-S. The PHC – impacted soil was remediated, and confirmatory soil sampling completed between September 2020 and May 2021. Therefore, following remediation, no exceedances of the MECP Table 4 Standards remain in soil associated with this APEC. Groundwater No exceedances of the MECP Table 4 Standards were identified in groundwater for the parameters analyzed.
D1 and D2	Southeastern~~Central~~ portion of site	On-site	Soil: PHCs, VOCs	Two soil samples were analyzed for PHC fractions F1 to F4 and VOCs from N11.	No exceedances of the MECP Table 4 Standards were identified in soil for the parameters analyzed.
E	Northern~~eastern~~ portion of site	On-site	Soil: EC, SAR Groundwater: Sodium, chloride	Soil Fifteen soil samples and three QA/QC duplicates were analyzed for EC and SAR from N3, N3-N, N3-E, N3-S and N3-W. As part of delineation activities of exceedances within this APEC, additional soil samples were collected from the north/northwest portion of the site and analyzed for EC and SAR. Samples were collected from at depths ranging from grade to 3.7 mbgs. Groundwater Groundwater samples and two QA/QC duplicate	Soil Exceedances of EC and/or SAR in soil was identified at various locations on the northeast and northern portion of the site. The EC and SAR impacted soil was remediated to the property-specific standards (PSS) and confirmatory soil sampling completed between September 2020 and May 2021. Therefore, although some exceedances of the Table 4 surface soil SCS remain, concentrations are within remedial targets. Groundwater Exceedances of sodium and chloride in groundwater was

APEC	Location of APEC	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Phase Two Assessments	Current Status (Exceedances of SCS)
				samples were collected from N3, BH103 and BH203 analyzed for sodium and chloride. As part of delineation activities, additional groundwater samples were collected from the north/northwest portion of the site and analyzed for sodium and chloride.	identified at several locations on the northeast and northern portion of the site. Vertical delineation at the area of maximum impact has been achieved at BH203.
F	Northwestern portion of site	On-site	Soil and Groundwater: PHCs, VOCs, PAHs	Soil Three soil samples were analyzed for PHC fractions F1 to F4 and VOCs from N4 through N6. One soil sample was analyzed for PAHs at BH104. Groundwater One groundwater sample was analyzed for PHC fractions F1 to F4, VOCs, and PAHs at N6.	Soil No exceedances of the MECP Table 4 Standards were identified in soil for the parameters analyzed. Groundwater No exceedances of the MECP Table 4 Standards were identified in groundwater for the parameters analyzed.
G	Northwestern portion of site	On-site	Soil and Groundwater: PHCs, VOCs, PAHs	Soil ~~Seven~~ Eight soil samples were analyzed for PHC fractions F1 to F4 from N8, N7, N7-N, N7-E, N&-W and N7-S. ~~Three~~ Four soil sample was analyzed for BTEX and/or VOCs from N7. One soil sample was analyzed for PAHs at BH105. Groundwater One groundwater sample and one QA/QC duplicate was collected from N7 and analyzed for PHC fractions F1 to F4, VOCs and PAHs.	Soil An exceedance of PHC fraction F2 was identified at N7. This exceedance was vertically delineated to a depth of 2.3 mbgs and horizontally delineated by boreholes N7-N, N7-E, N7-W, and N7-S. The PHC – impacted soil was remediated, and confirmatory soil sampling completed between September 2020 and May 2021. Therefore, following remediation, no exceedances of the MECP Table 4 Standards remain in soil associated with this APEC. Groundwater No exceedances of the MECP Table 4 Standards were identified in groundwater for the parameters analyzed.

APEC	Location of APEC	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Phase Two Assessments	Current Status (Exceedances of SCS)
H	Southeastern~~Central~~ portion of site	On-site	Soil and Groundwater: PHCs, VOCs, PAHs	Soil Three soil samples were analyzed for PHC fractions F1 to F4 and VOCs from N10 and N11. One soil sample was analyzed for PAHs at BH107. Groundwater One groundwater sample was analyzed for PHC fractions F1 to F4, VOCs and PAHs at N11.	Soil No exceedances of the MECP Table 4 Standards were identified in soil for the parameters analyzed. Groundwater No exceedances of the MECP Table 4 Standards were identified in groundwater for the parameters analyzed.
I	Northwestern portion of site	On-site	Soil: PAHs, metals (including hydride forming metals) and ORPs: B-HWS, CN^-, Hg, EC and SAR	One soil sample was analyzed for PAHs at N1. One soil sample and one QA/QC duplicate were analyzed for metals (including hydride-forming metals), ORPs: B-HWS, CN^-, HG, EC, and SAR at BH101.	No exceedances of the MECP Table 4 Standards were identified in soil for the parameters analyzed.
J	Southeastern~~Central~~ portion of the site	On-site	Soil: PAHs, metals (including hydride forming metals) and ORPs: B-HWS, CN^-, Hg, EC and SAR	One soil sample was collected from BH106 analyzed for PAHs. One soil sample was collected from N1 and analyzed for metals (including hydride-forming metals), ORPs: B-HWS, CN^-, HG, EC, and SAR at N9.	No exceedances of the MECP Table 4 Standards were identified in soil for the parameters analyzed.
~~K~~	~~Southern portion of the site~~	~~On-site~~	~~Soil: PAHs, metals (including hydride forming metals) and ORPs: B-HWS, CN^-, Hg, EC and SAR~~	~~One soil sample and a QA/QC duplicate was analyzed for PAHs at BH108.~~ ~~One soil sample from S1 was analyzed for metals (including hydride-forming metals) and ORPs: B-HWS, CN^-, Hg.~~	~~No exceedances of the MECP Table 4 Standards were identified in soil for the parameters analyzed.~~
~~L~~	~~Southeastern portion of the site~~	~~On-site~~	~~Soil and Groundwater: PHCs, VOCs~~	~~Soil~~ ~~Three soil samples were analyzed for PHC fractions F1 to F4 and VOCs from S5 and S6.~~	~~Soil~~ ~~No exceedances of the MECP Table 4 Standards were identified in soil for the parameters analyzed.~~

APEC	Location of APEC	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Phase Two Assessments	Current Status (Exceedances of SCS)
				~~Groundwater~~ ~~One groundwater sample from S6 was analyzed for PHC fractions F1 to F4 and VOCs.~~	~~Groundwater~~ ~~No exceedances of the MECP Table 4 Standards were identified in groundwater for the parameters analyzed.~~
~~M~~	~~Southeastern portion of the site~~	~~On-site~~	~~Soil and Groundwater: PHCs, VOCs, PAHs~~	~~Soil~~ ~~Three soil samples were analyzed for PHC fractions F1 to F4 and VOCs from S2, S3 and S4.~~ ~~One soil sample from BH109 was analyzed for PAHs.~~ ~~Groundwater~~ ~~One groundwater sample from S3 was analyzed for PHC fractions F1 to F4, VOCs, and PAHs.~~	~~Soil~~ ~~No exceedances of the MECP Table 4 Standards were identified in soil for the parameters analyzed.~~ ~~Groundwater~~ ~~No exceedances of the MECP Table 4 Standards were identified in groundwater for the parameters analyzed.~~
~~N~~K	Northern and northwestern portion of the site	Off-site	Groundwater: PHCs, VOCs	Two groundwater samples and one QA/QC duplicate were collected from N2 and BH102 and analyzed for PHC fractions F1 to F4 and BTEX.	No exceedances of the MECP Table 4 Standards were identified in groundwater for the parameters analyzed.

4.1 Soil

Soil exceedances of the Table 4 SCS were identified for PHC fraction F2 and EC/SAR.

Only one exceedance of PHC fraction F2 was identified at N7 and was horizontally delineated by N7-N, N7-E, N7-S and N7-W, as shown in Figure 8A. Vertical delineation was achieved at this location at a depth of 2.3 mbgs as shown in Figure 6A. It is noted that these impacts were remediated, and confirmatory soil sampling completed between September 2020 and May 2021as discussed in Section 4.1.1.

EC and SAR exceedances were identified in the vicinity of the historic salt storage area and are present on the north and northeast portion of the site as shown in Figure 8E. The extent of EC/SAR impacts extended to 1.5 mbgs; it is noted that below 1.5 mbgs EC and SAR have no applicable Table 4 SCS as these parameters are of concern to ecological health (plants) only and it is not anticipated plants will come in contact with soil at depths below 1.5 mbgs. The vertical extent of EC and SAR is shown on Figures 5E and 6E. It is noted that EC and SAR were remediated between September 2020 and May 2021 to within target PSS as derived in the modified generic risk assessment (MGRA) currently underway for the site.

Based on the remedial activities completed to date, the only COCs in soil remaining at the site are EC and SAR.

4.1.1 Remedial Excavation and Confirmatory Sampling

The objective of the remedial program was to remove soil impacted with PHC fraction F2 on the central portion of the Site to within the Table 4 SCS and remove soil impacted with EC and SAR on northern portion of the Site to within PSS, derived through the MGRA (EXP, 2021). The excavation activities were divided into two areas: Area 1 (PHC remediation) and Area 2 (EC/SAR Remediation). A total of 7,820 tonnes (approximately 3,910 m^3) of PHC, EC, and SAR impacted soil was removed from the Site as part of the remedial excavation. The remedial excavation was completed between August 28 to September 3, 2020 and May 17 to May 28, 2021.

The excavations were backfilled with granular A material.

Confirmatory soil sampling was conducted at a frequency indicated by O. Reg. 153/04 Schedule E, Table 3, *Minimum Confirmation Sampling Requirements for Excavation*. Details of each Remedial Area and the confirmatory sampling is provided below.

Area 1 Excavation

The objective of remedial excavation at Area 1 was to remove the PHC impacted soil near N7. The final size of the Area 1 Excavation was square in shape and measured approximately 6 metres at its maximum length and 6 metres at its maximum width, with a total area of approximately 36 m^2. The depth of excavation within Area 1 was 2.3 metres in depth.

A total of three (3) floor samples, two (2) wall samples, and one field duplicate sample were obtained to verify the extent of the soil PHCs and BTEX in Area 1. The soil samples were chosen at worst-case locations, based on field observations and where historical exceedances were identified. It is to be noted that the floor samples were collected from the bottom of the excavation at 2.3 mbgs. All six (6) confirmatory floor samples for PHCs within Area 1 Excavation met MECP Table 4 SCS.

Area 2 Excavation

The objective of Area 2 was to remove the EC and SAR impacted soil in the northern portion of the Site to within remedial targets (i.e. PSS). The final size of the Area 2 Excavation was rectangular in shape and measured approximately 98 metres at its maximum length and 37 metres at its maximum width, with a total area of approximately 2,550 m^2. The depth of excavation within Area 2 ranged from approximately 1.5 to 2.0 metres in depth.

A total of seventeen (17) floor samples, thirty-four (34) wall samples, and six (6) field duplicate samples were collected as part of the remedial activities. In the case where a sample was found to be in exceedance of the PSS, the excavation was further extended until a 'clean' boundary was found. The Area 2 excavation was advanced to the northern site boundary and as such, the wall samples from this portion of the Site were subsequently removed. A total of fourteen (14) floor samples and twenty-one (21) wall samples were collected from the final extent of the excavation along floor and the east, south and west walls to verify the extent of the remediation.

All confirmatory soil samples collected from the final extents of the Area 1 Excavation and Area 2 Excavation had concentrations within the MECP Table 4 SCS (PHCs) or the PSS (EC and SAR). Therefore, the PHCs, EC and SAR impacts in soil were remediated to within Table 4 and/or PSS Standards.

Upon completion of the remedial excavation and confirmatory sampling activities (EXP, 2021~~a~~), remaining soil at the site was determined to be within the MECP Table 4 SCS for PHC fraction F2 and within the PSS for EC and SAR.

4.2 Groundwater COCs

Groundwater exceedances of sodium and chloride in the vicinity of historic salt storage have been identified at the site. These impacts are present on the north and northeast portion of the site as shown in Figure 9E. Vertical delineation was achieved at BH203, as shown on cross-section Figure 6J.

Monitoring programs, including monitoring for the presence of non-aqueous phase liquid (NAPL), have been conducted at the site. NAPL has not been encountered at the site during any monitoring event.

4.3 Areas Where Contaminants Are Present

The areas each soil and groundwater COC group is present at concentrations above the Table 4 SCS are shown on plan view in Figures 8A, 8E and 9E. The table below summarizes each area of contamination (AOC), prior to remedial activities.

AOC	Location	COCs in Excess of Table 4 SCS	Medium	Discharge of Contaminants into the Natural Environment	Migration of Contaminants	Influence of Climatic or Meteorological Conditions	Vapour Intrusion Pathway Considerations
A**	Northwest corner of site	Petroleum related parameters (PHC fraction F2)	Soil	The PHC fraction F2 exceedance is likely associated with the former AST in this area.	Given that soil is immobile, no significant migration of the soil contamination is anticipated. Migration of contaminants in soil via leaching of contamination to groundwater is a possible migration pathway. However, as no groundwater exceedances were identified in this area of the site, this migration pathway is not anticipated to be significant for this AOC. Furthermore, this AOC has been remediated as summarized in Section 4.1.1.	Historic monitoring data from previous investigations indicates there is little variation in measured groundwater levels and inferred groundwater flow directions in the silty clay to clayey silt till aquifer. Therefore, temporal variability in groundwater flow direction due to climatic and meteorological conditions is not expected to have a significant influence on distribution and migration of contaminants. However, there may have been increased leaching during heavy rainfall or snowmelt prior to remediation.	Currently there are no buildings present on-site. However, PHC fraction F2 may be present under future buildings constructed on-site and may present a risk to receptors via vapour intrusion, however this parameter was remediation as summarized in Section 4.1.1.
B	North/Northeast portion of site; in the vicinity of the former salt storage area	ORPs (EC, SAR, sodium, and chloride)	Soil and Groundwater	The exceedances of EC and SAR in soil and sodium and chloride in groundwater are attributed to the salt storage and associated salting on the north/northeast portion of the site and may also be due to salting on surrounding major roadways.	Given that soil is immobile, no significant migration of the soil contamination is anticipated. Migration of contaminants in soil via leaching of contamination to groundwater is a possible migration pathway and may be occurring given the presence of sodium and chloride in groundwater. Groundwater impacts are expected to migrate southeast with groundwater flow. Given the minimum depth to groundwater, potential future underground utility conduits may act as a preferential pathway for the migration of the groundwater impacts.	Historic monitoring data from previous investigations indicates there is little variation in measured groundwater levels and inferred groundwater flow directions in the silty clay to clayey silt till aquifer. Therefore, temporal variability in groundwater flow direction due to climatic and meteorological conditions is not expected to have a significant influence on distribution and migration of contaminants. However, there may be increased leaching during heavy rainfall or snowmelt.	As the COCs within this AOC are not volatile, no vapour intrusion pathway exists.

** As PHC fraction F2 in soi has been remediated (see Section 4.1.1) this AOC is no longer present on-site.

5. Receptors and Pathways

Human and ecological CSMs, in the absence of risk management measures (RMM) are provided in Figures 10A and 11, and summarize the human and ecological receptors located on, in, under, and off the subject property; receptor exposure points; and routes of exposure, respectively. It is noted that PHC fraction F2 has been remediated. Furthermore, EC and SAR have been remediated to within target property-specific standards (PSS) as derived in the MGRA for the site. As such, these considerations were included in the development of the human and ecological CSMs (Figures 10 and 11).

The selection of human receptors is based on the intended residential land use. Therefore, relevant on-site human receptors, as illustrated in the human health CSM (Figure 10A), include property residents and visitors or trespassers. Subsurface workers (e.g., construction/utility workers may also be present during redevelopment of the site and as such, are also considered. Relevant off-site receptors for the mixed commercial and residential land uses of the neighbouring properties include property residents, property visitors or trespassers, indoor workers, construction/utility workers and outdoor maintenance workers.

Exposure routes for humans include soil particulate inhalation, direct contact with soil, intentional and incidental ingestion and inhalation of vapours. However, as EC and SAR are parameters of ecological significance only, all human exposure pathways for soil COCs are considered incomplete. As the site is located in a potable groundwater condition, intentional ingestion and dermal contact with sodium and chloride-impacted groundwater is considered a complete exposure pathway. Incidental ingestion and dermal contact with groundwater by construction workers is also considered a complete pathway. Given that sodium and chloride are not volatile, all air pathways are considered incomplete. As RMM are intended for protection of the potable water pathway, the human health CSM in the presence of RMM is presented in Figure 10B.

The selection of ecological receptors takes into consideration the location of the site in a relatively urban area, and the absence of any nearby surface water bodies. Relevant on-site receptors, as illustrated in the ecological CSM (Figure 11) consist of terrestrial valued ecological components (VECs) such as plants, soil invertebrates, mammals and birds. On-site exposure routes include direct contact with soil and uptake of soil COCs by inhalation, ingestion and dermal contact, in addition to plant root uptake. As EC and SAR in soil are only applicable to terrestrial plants and soil invertebrates and are affected by parameters that will not bioaccumulate, all other soil exposure routes are considered incomplete. Groundwater on-site is found at the depth at which plant root uptake is considered to be likely and therefore this pathway is considered to be complete. Off-Site ecological receptors consist of the same terrestrial receptors found on-site, in addition to aquatic species within the nearest surface water body.

6. References

Chapman, L.J. and Putnam, D.F. Physiography of Southern Ontario, 3rd Edition, Ontario Ministry of Natural Resource, 1984.

~~City of Brampton, City of Brampton Official Plan, 2015.~~

EXP Services Inc. (2019). *Subsurface Environmental Investigation 12197 Hurontario Street, City of Brampton 12211, 12213, 12231, 12233 Hurontario Street, Town of Caledon*, June 11, 2019.

EXP Services Inc. (2020a). *Phase One Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon,* Ontario, January 20, 2020.

EXP Services Inc. (2020b). *Phase Two Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon,* Ontario, May 22, 2020.

EXP Services Inc. (2021~~a~~). Remediation Report, *12197 Hurontario Street, Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon,* Ontario, July 29, 2021.

EXP Services Inc. (2022a). *Phase One Environmental Site Assessment Update, 12197 Hurontario Street, Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon,* Ontario, January 5, 2022.

EXP Services Inc. (2022b). *Phase Two Environmental Site Assessment Update, 12197 Hurontario Street, Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon,* Ontario, January 27, 2022.

Freeze, R.A. and J.A. Cherry, Groundwater, Prentice-Hall of Canada Ltd., 1979.

McWhorter, D.B. and D.K. Sunada, *Groundwater Hydrology and Hydraulics*, Water Resources Publications, 1977.

Ontario Regulation 153/04, made under the Environmental Protection Act, May 2004, amended.

Ontario Geological Survey. (2010). Physiography of Southern Ontario (Scale 1:22,000).

Ontario Geological Survey, Bedrock Geology of Ontario, Southern Sheet, map 2544, scale 1:1,000,000, 1991.

Ontario Ministry of the Environment, Conservation and Parks, Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act, April 15, 2011.

Ontario Ministry of Natural Resources and Forestry, Heritage Areas Map, (http://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US).

Ontario Regulation 153/04, Record of Site Condition, Part XV.1 of the Environmental Protection Act, July 1, 2011.

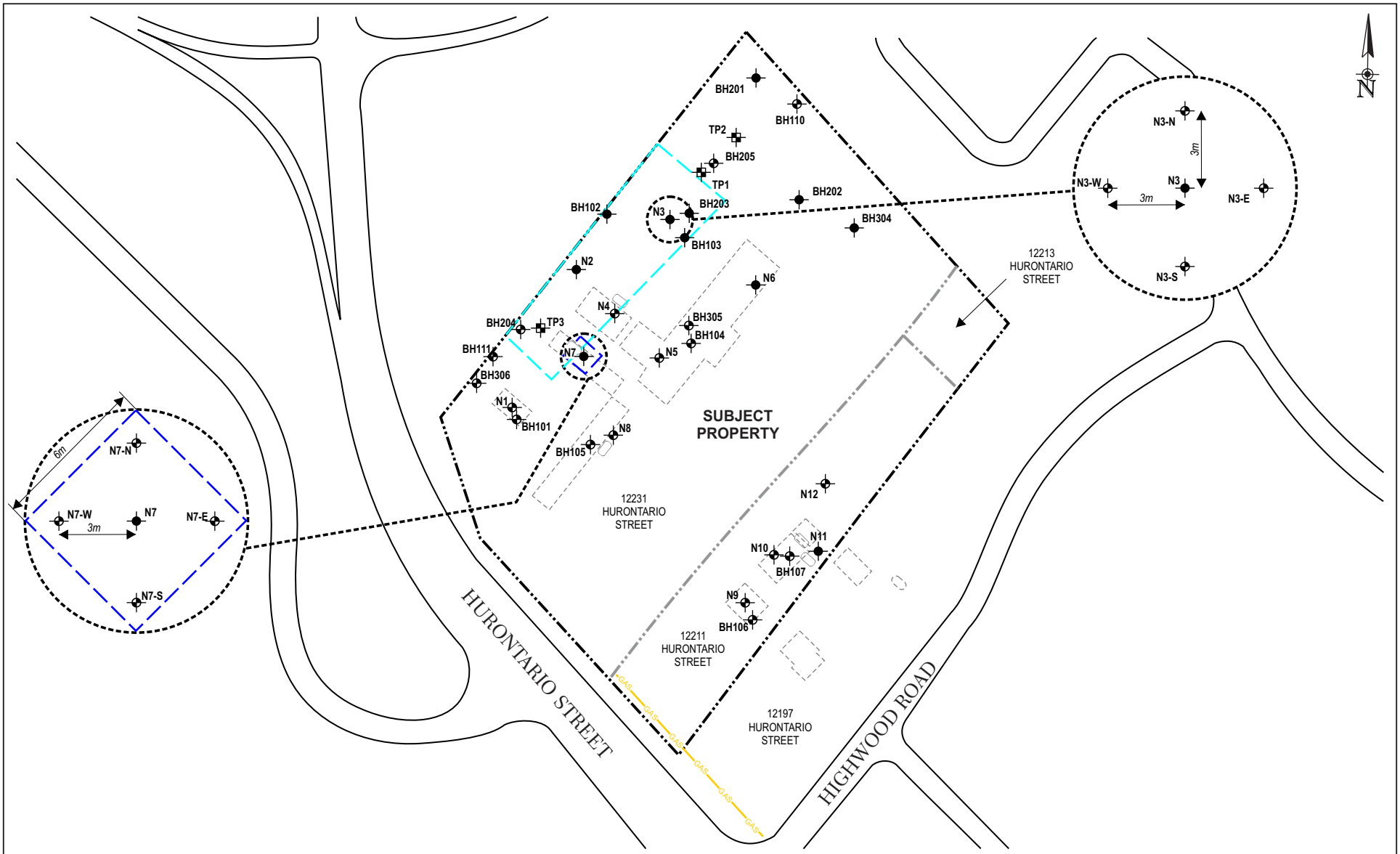
Sharpe, D.R., Quaternary Geology of Toronto and Surrounding Area, Ontario Geological Survey Preliminary Map P. 2204, Geological Series, scale 1:100,000, 1980.

Topographic Map available at the Natural Resources Canada (NRC) website http://atlas.nrcan.gc.ca/site/english/maps/topo/map.

Town of Caledon, Town of Caledon Official Plan, 2018.

SCALE: 0 1000 2000m	**SOURCE:** GOOGLE MAPS	LOCALITY PLAN	FIGURE 1
exp.	DRAWN BY: K.G.	CHECKED BY: T.N.T.	12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO
			PROJECT NUMBER: 257876

257876-MGRA_CP LOCALITY



SCALE: 0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- GAS

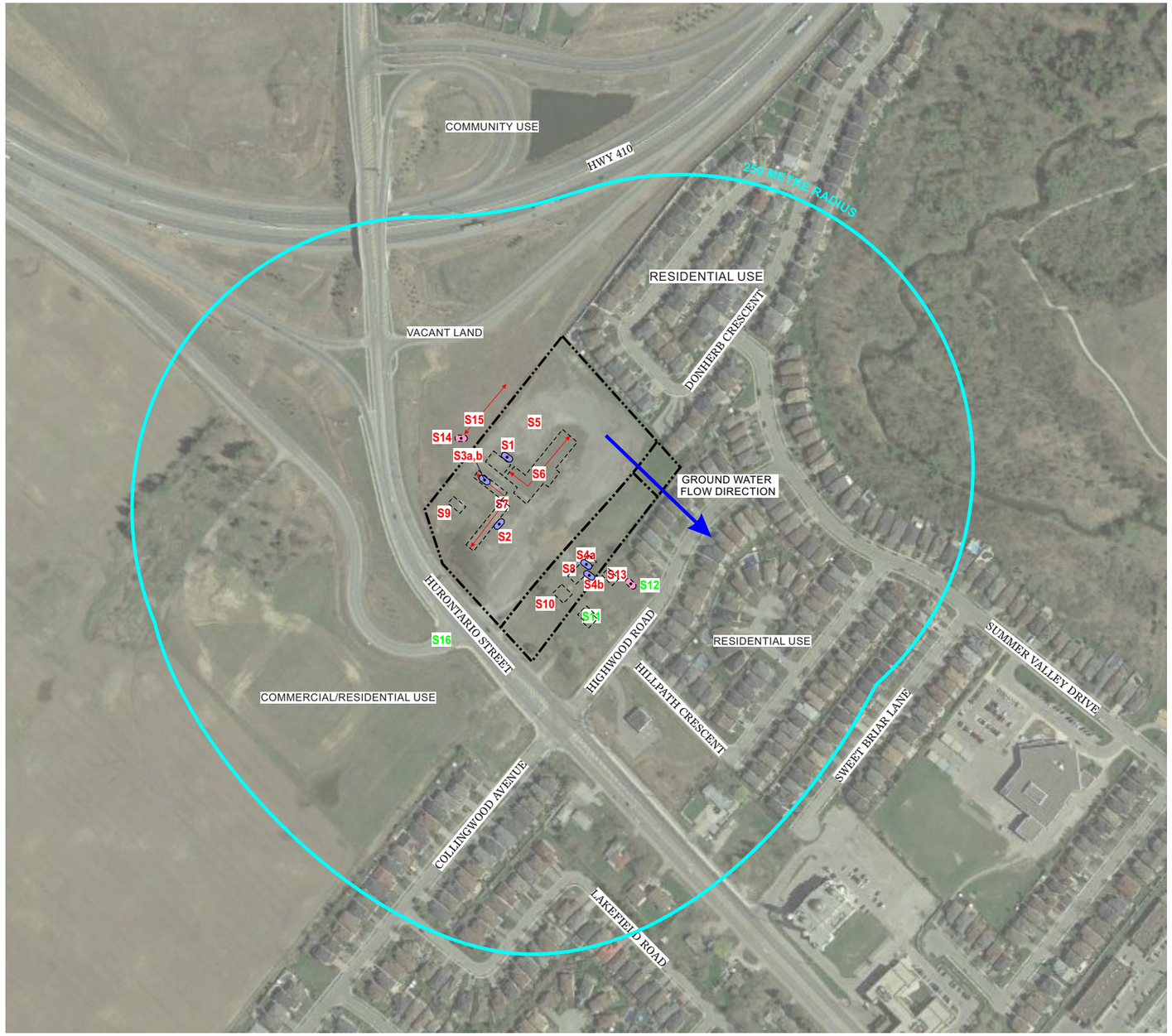
SITE PLAN

2

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP SITE PLAN-JAN22:SITE PLAN



PCA Source Number	Potentially Contaminating Activity (PCA)
S1	(28) Gasoline and associated products storage in fixed tanks
S2	(28) Gasoline and associated products storage in fixed tanks
S3a	(28) Gasoline and associated products storage in fixed tanks
S3b	(other) fuel leak
S4a	(28) Gasoline and associated products storage in fixed tanks
S4b	(28) Gasoline and associated products storage in fixed tanks
S5	(Other) salt storage
S6	(52) Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems
S7	(52) Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems
S8	(other) garage operations
S9	(30) Importation of Fill Material of Unknown Quality
S10	(30) Importation of Fill Material of Unknown Quality
S14	(28) Gasoline and associated products storage in fixed tanks
S15	(52) Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems
***De-minimis* PCAs**	
S11	(30) Importation of Fill Material of Unknown Quality
S12	(28) Gasoline and associated products storage in fixed tanks
S13	(other) garage operations
S16	(30) Importation of Fill Material of Unknown Quality

SCALE:

0 100 200m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

LEGEND:

- PROPERTY BOUNDARY
- GROUNDWATER FLOW DIRECTION
- (28) INDICATES ITEM NUMBER OF O. REG. 153/04 SCHEDULE D, TABLE 2
- FORMER FEATURES
- LOCATION OF FORMER ABOVE GROUND STORAGE TANKS
- LOCATION OF FORMER UNDER GROUND STORAGE TANKS

PCA - POTENTIALLY CONTAMINATING ACTIVITY
APEC - AREA OF POTENTIAL ENVIRONMENTAL CONSERN
(52) INDICATES ITEM NUMBER OF O. REG. 153/04 SCHEDULE D, TABLE 2

DRAWN BY	CHECKED BY
K.G.	T.N.T.

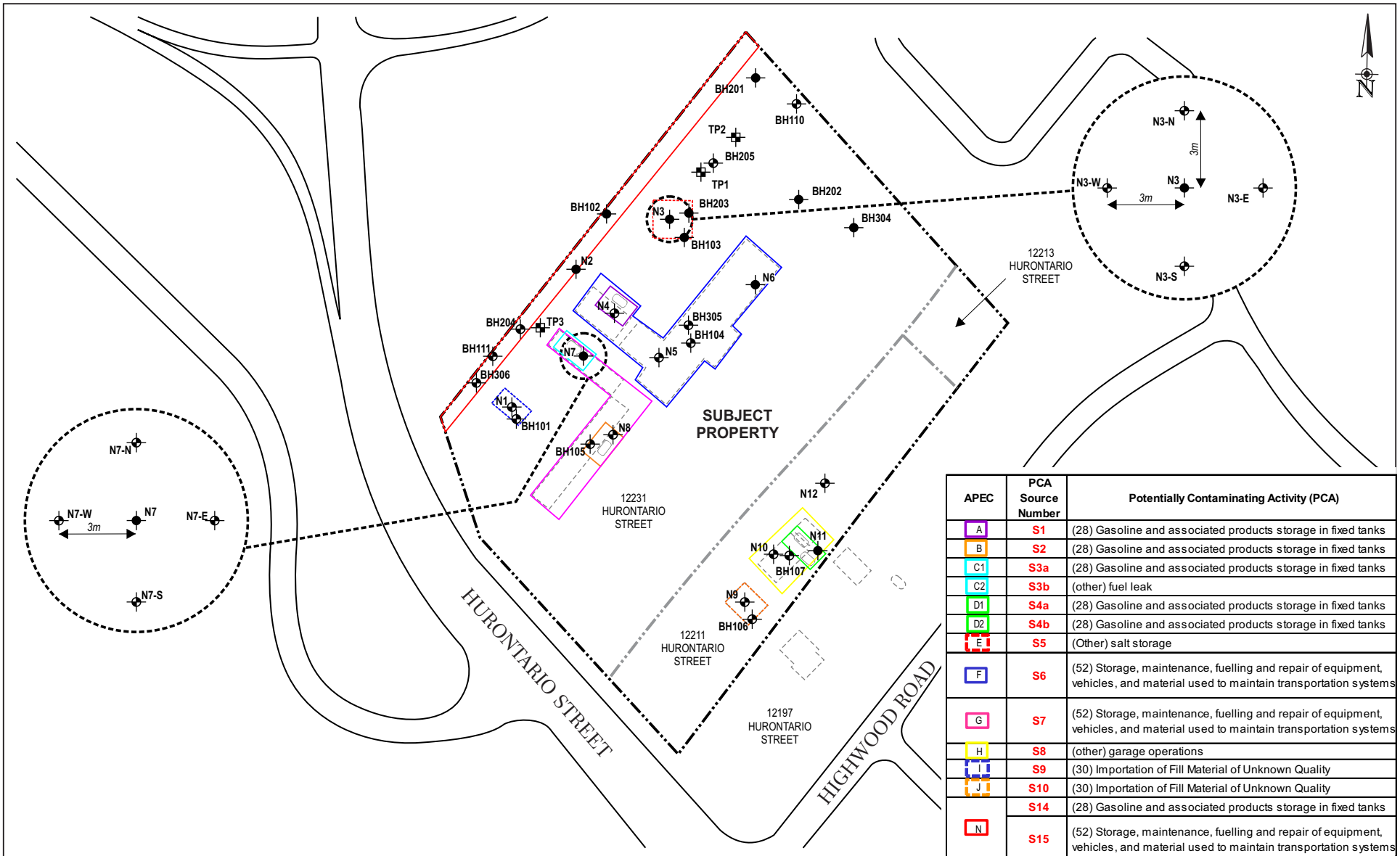
CONCEPTUAL SITE MODEL POTENTIALLY CONTAMINATING ACTIVITIES

FIGURE 3A

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP PCA-JAN22



APEC	PCA Source Number	Potentially Contaminating Activity (PCA)
A	S1	(28) Gasoline and associated products storage in fixed tanks
B	S2	(28) Gasoline and associated products storage in fixed tanks
C1	S3a	(28) Gasoline and associated products storage in fixed tanks
C2	S3b	(other) fuel leak
D1	S4a	(28) Gasoline and associated products storage in fixed tanks
D2	S4b	(28) Gasoline and associated products storage in fixed tanks
E	S5	(Other) salt storage
F	S6	(52) Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems
G	S7	(52) Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems
H	S8	(other) garage operations
I	S9	(30) Importation of Fill Material of Unknown Quality
J	S10	(30) Importation of Fill Material of Unknown Quality
N	S14	(28) Gasoline and associated products storage in fixed tanks
	S15	(52) Storage, maintenance, fuelling and repair of equipment, vehicles, and material used to maintain transportation systems

SCALE: 0 25 50m

SOURCE:
BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:
- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION

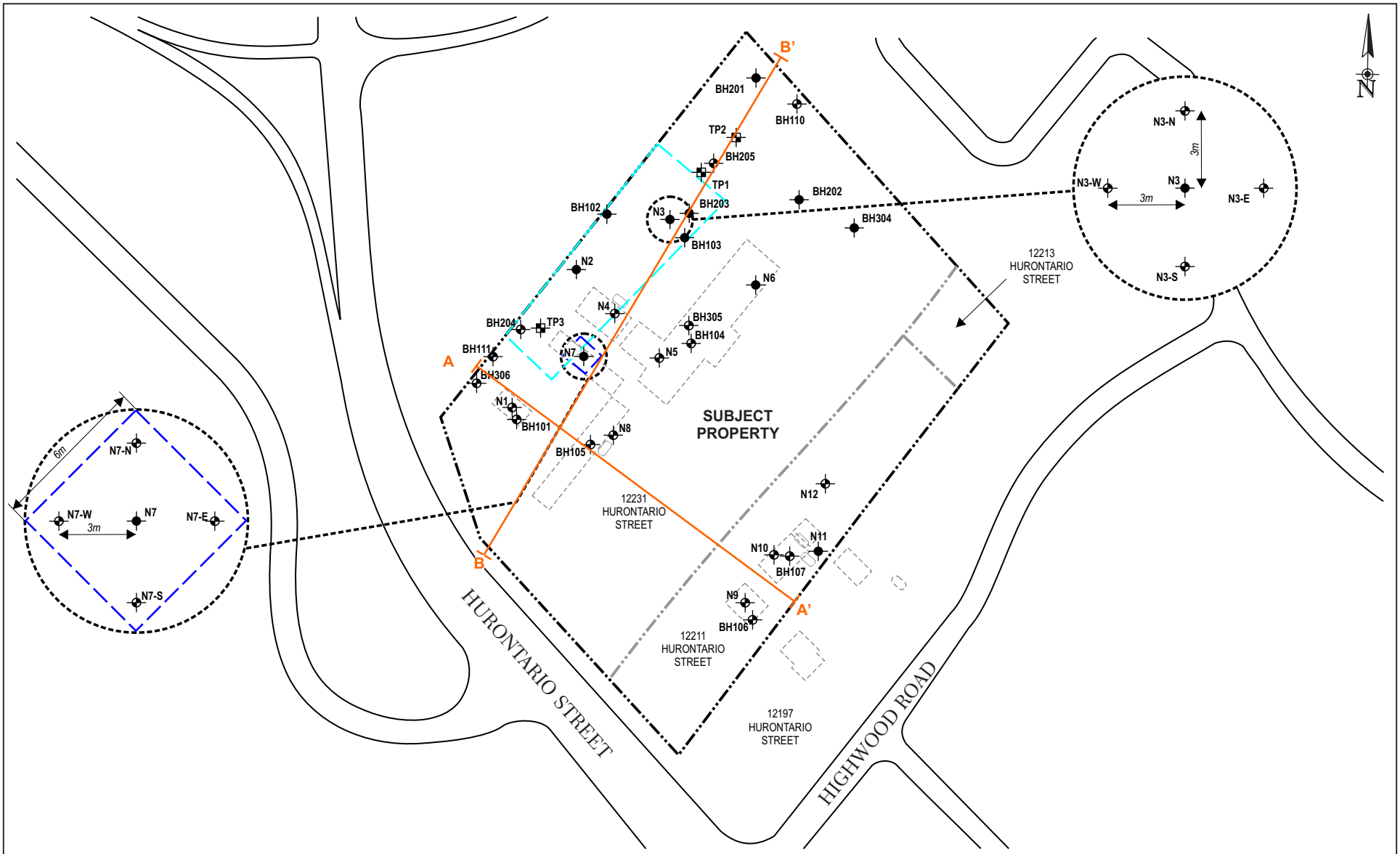
CONCEPTUAL SITE MODEL -APECs

3B

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP SITE PLAN-JAN22:APEC



SCALE: 0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- CROSS SECTION LOCATION

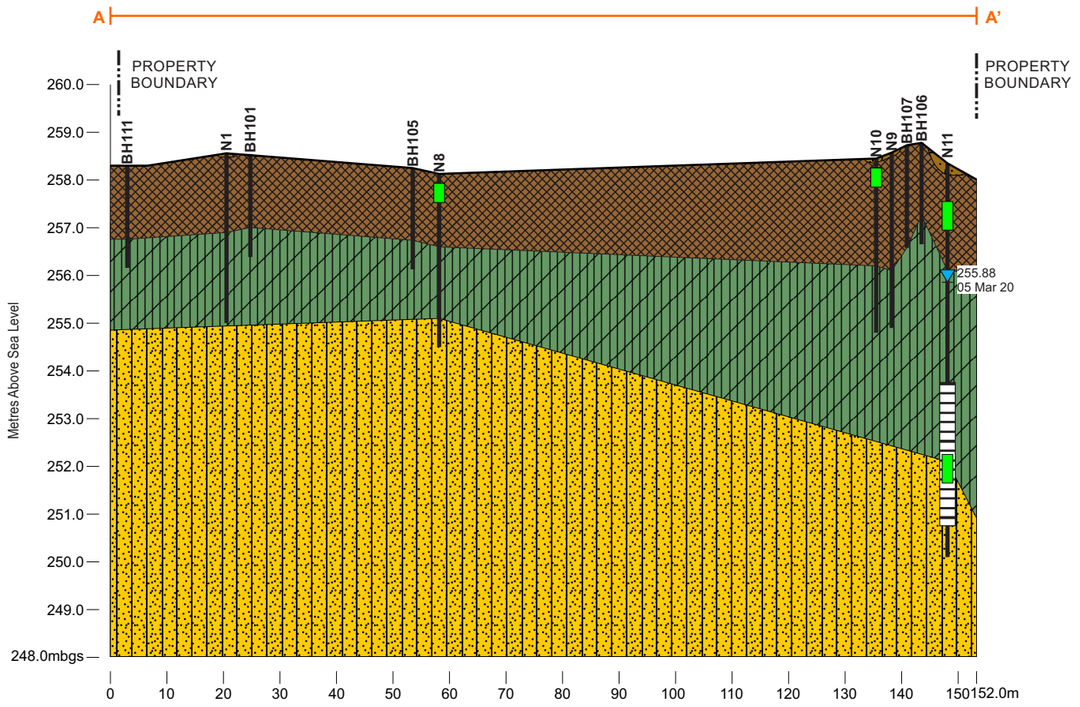
CROSS SECTION PLAN

4

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP SITE PLAN-JAN22-SEC



SCALE:

6 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR AN INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – SOIL ANALYTICAL RESULTS: PETROLEUM HYDROCARBONS

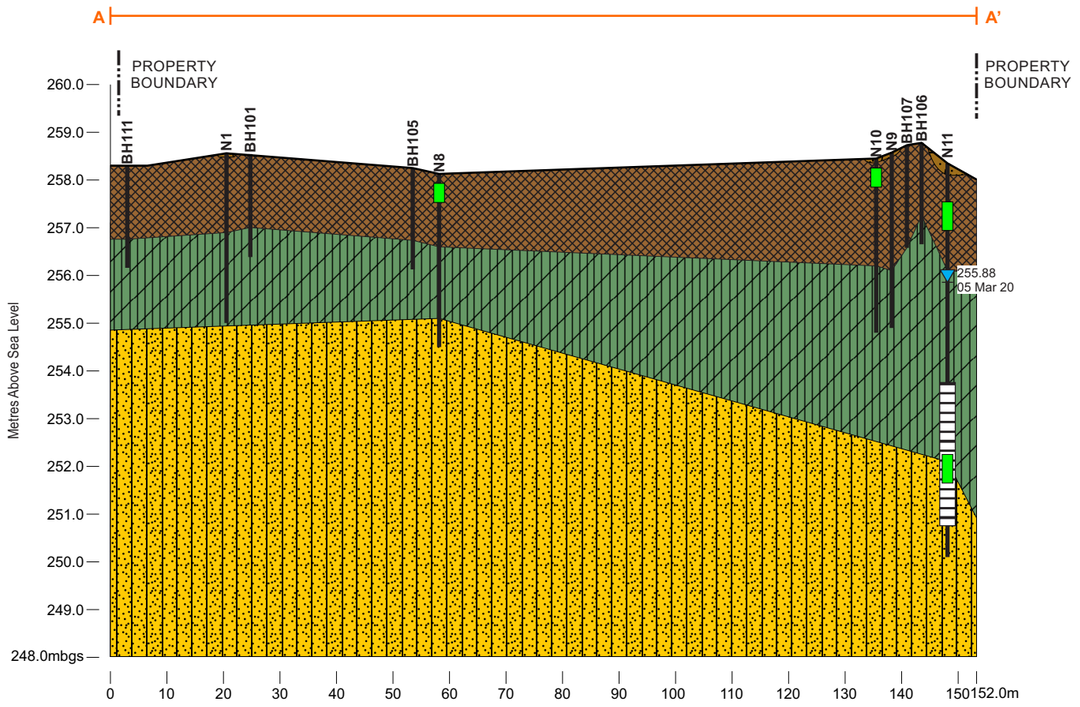
FIGURE 5A

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-MGRA_CP XSECA-JAN22: **SOIL PET**



SCALE:

6 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR AN INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – SOIL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS

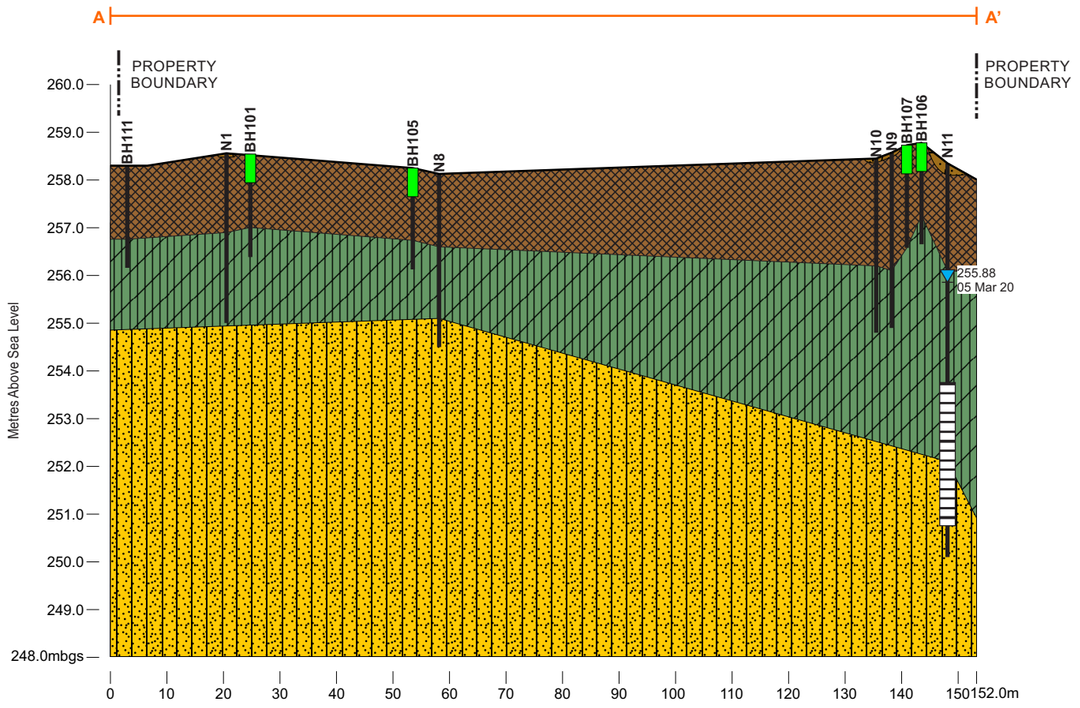
FIGURE 5B

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-XSEC A-A'-MAR20: **SOIL PET**



SCALE:

6 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL

- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR AN INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – SOIL ANALYTICAL RESULTS: POLYCYCLIC AROMATIC HYDROCARBONS

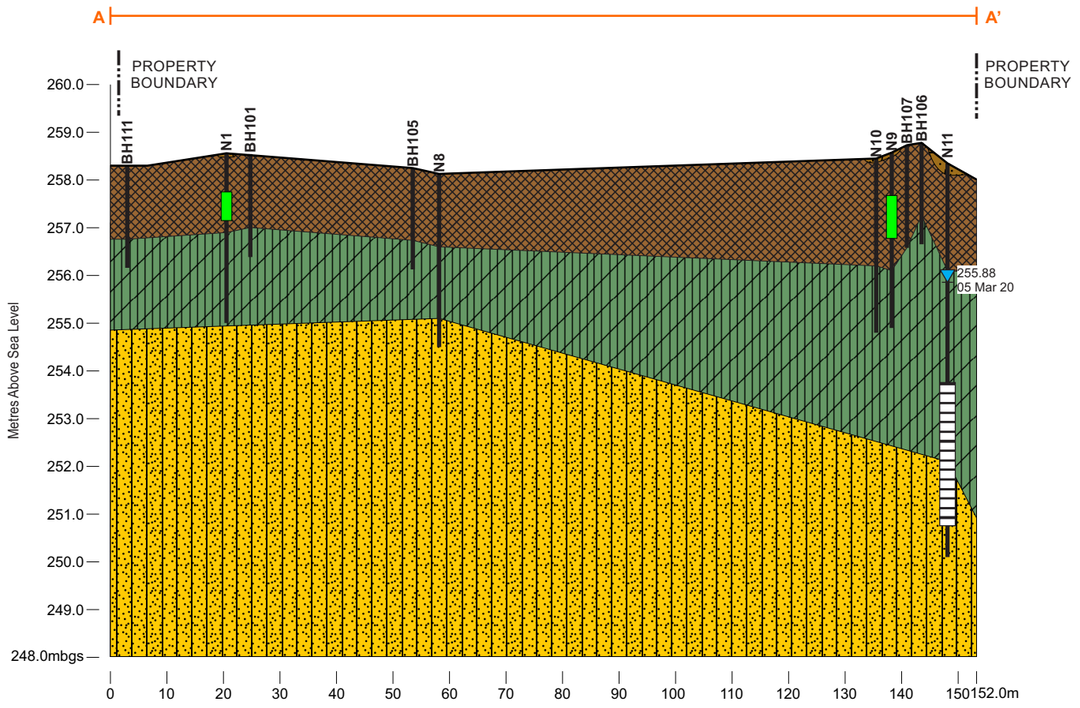
FIGURE 5C

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-XSEC A-A'-MAR20: **SOIL PET**



SCALE:

6 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR AN INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – SOIL ANALYTICAL RESULTS: METALS (INCLUDING HYDRIDE-FORMING METALS)

FIGURE 5D

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

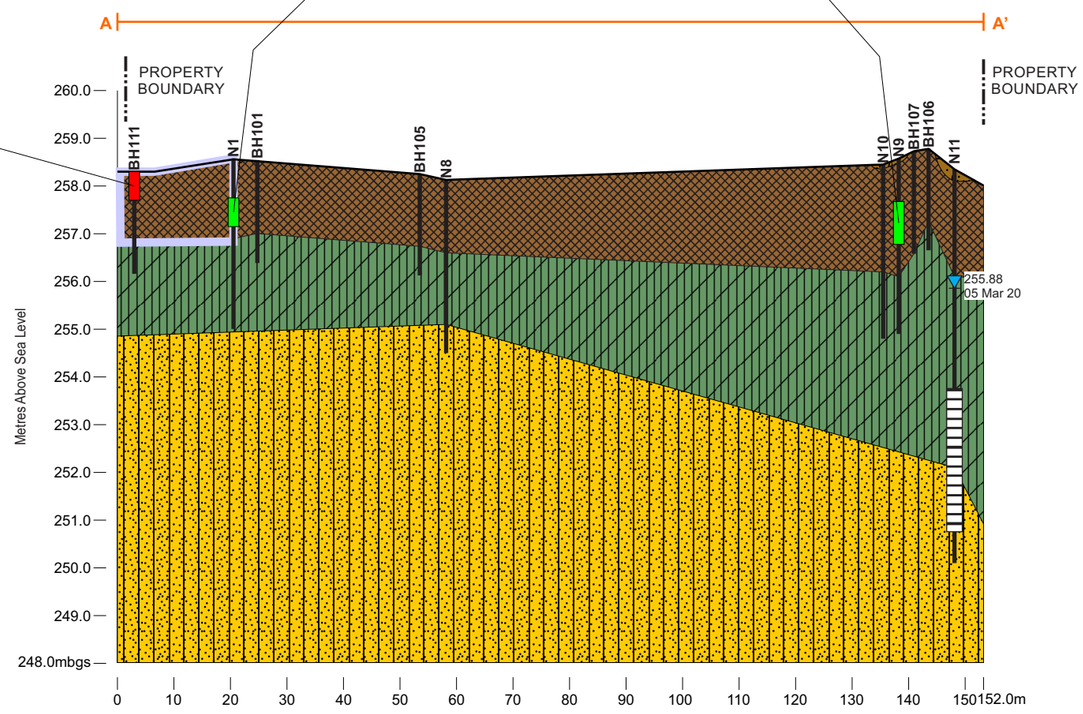
DATE: JANUARY 2022

257876-MGRA_CP XSECA-JAN22: **SOIL PET**

BH111	
Sample	BH111
Depth (mbgs)	0.3 - 0.61
Date	1-May-2020
EC	0.794
SAR	7.5

N1	
Sample	N1 SS2
Depth (mbgs)	0.8 - 1.4
Date	8-Apr-2019
EC	0.33
SAR	1.03

N9	
Sample	N9 (SS2 + SS3)
Depth (mbgs)	0.9 - 1.8
Date	9-Apr-2019
EC	0.58
SAR	1.49



Parameter	Abbreviation	TABLE 4 Soil Standards*	Units
Conductivity (ms/cm)	EC	0.7	mS/cm
Sodium Adsorption Ratio	SAR	5	µg/g

SCALE:

6 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL
- SOIL REMOVED DURING REMEDIATION ACTIVITIES. NOT CARRIED FORWARD IN PHASE TWO CSM
- AREA OF CONTAMINATION AOC B

*STANDARDS SHOWN ARE FOR AN INDUSTRIAL/COMMERCIAL/COMMUNITY PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/g, UNLESS OTHERWISE NOTED

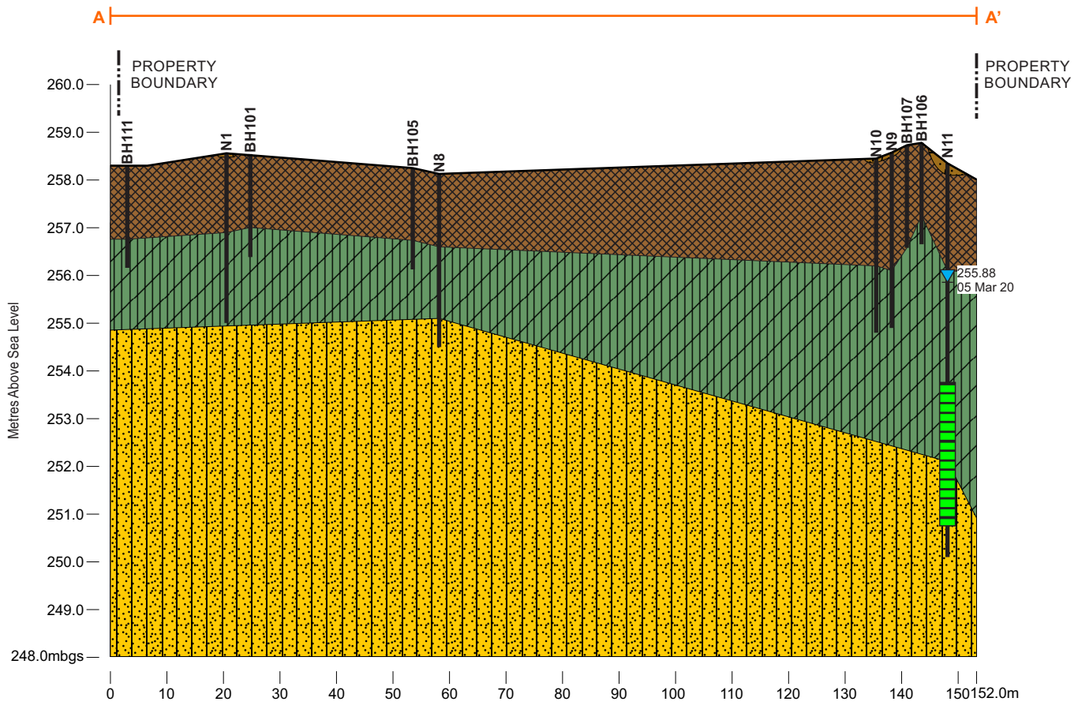
LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
LOCATION WHERE SAMPLE EXCEEDS O. REG. 153/04 TABLE 4 STANDARDS FOR AT LEAST ONE PARAMETER IS SHOWN IN RED
CONCENTRATION OF CONTAMINANT EXCEEDING TABLE 4 STANDARD SHOWN IN TEXT AS **RED BOLD**
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

CROSS SECTION A-A' – SOIL ANALYTICAL RESULTS: OTHER REGULATED PARAMETERS (INCLUDING EC AND SAR)

FIGURE 5E

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022



SCALE:

6 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – GROUNDWATER ANALYTICAL RESULTS: PETROLEUM HYDROCARBONS

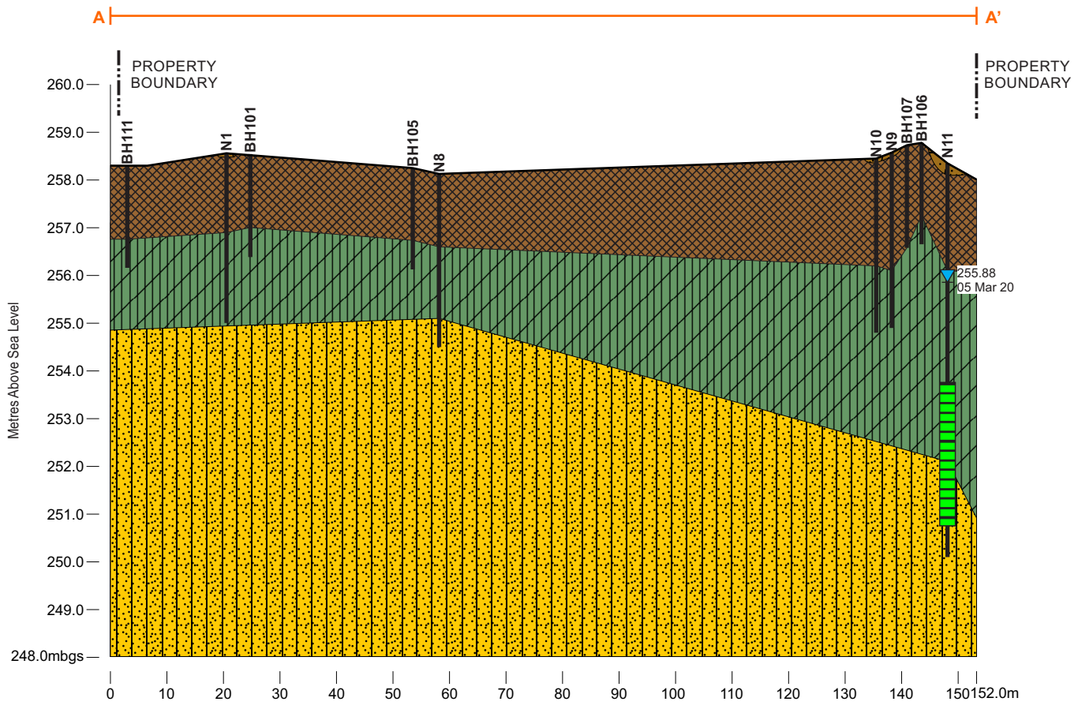
FIGURE 5F

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-MGRA_CP XSECA-JAN22: **SOIL PET**



SCALE:

6 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – GROUNDWATER ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS

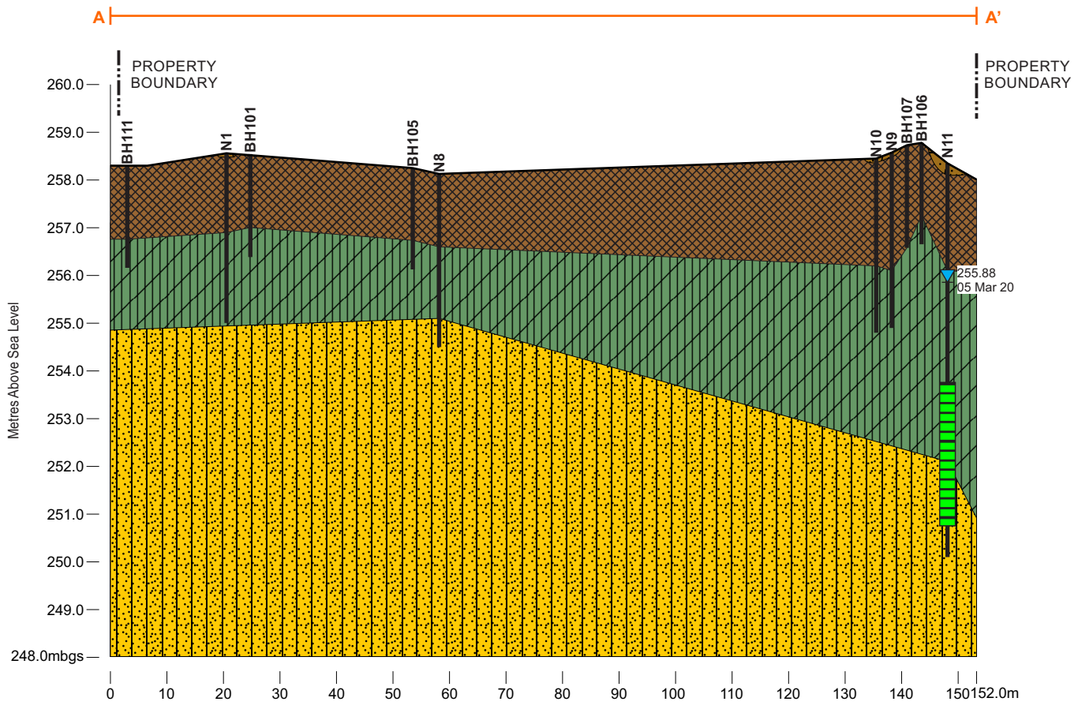
FIGURE 5G

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-MGRA_CP XSECA-JAN22: **SOIL PET**



SCALE:

6 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – GROUNDWATER ANALYTICAL RESULTS: POLYCYCLIC AROMATIC HYDROCARBONS

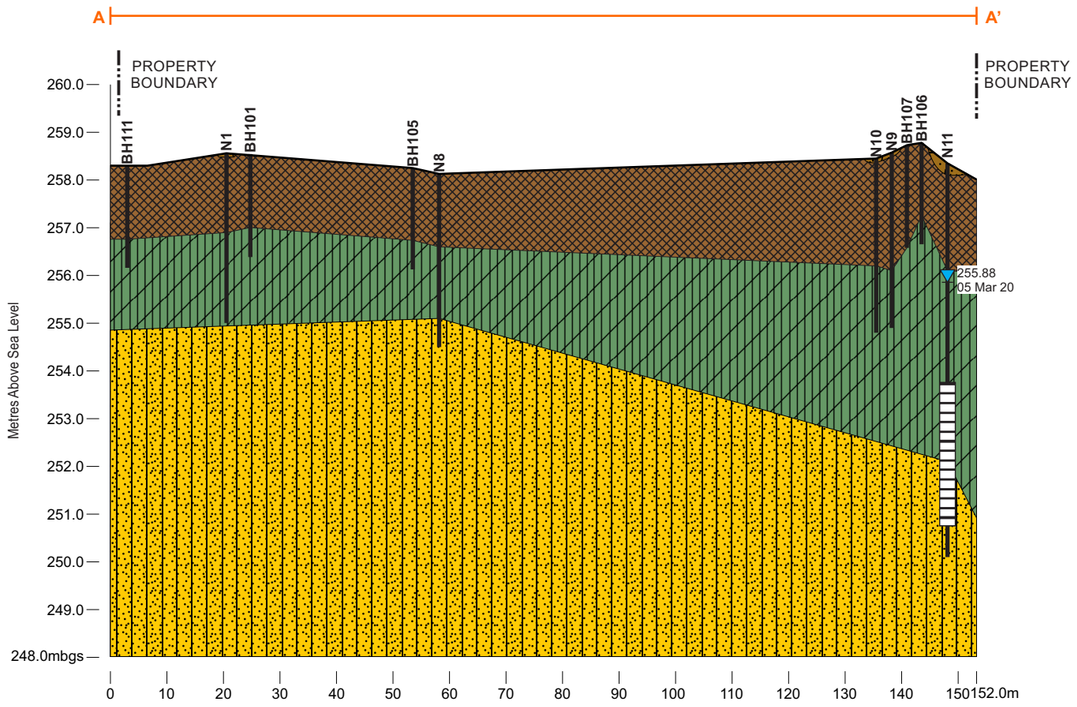
FIGURE 5H

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-MGRA_CP XSECA-JAN22: **SOIL PET**



SCALE:

6 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – GROUNDWATER ANALYTICAL RESULTS: METALS (INCLUDING HYDRIDE-FORMING METALS)

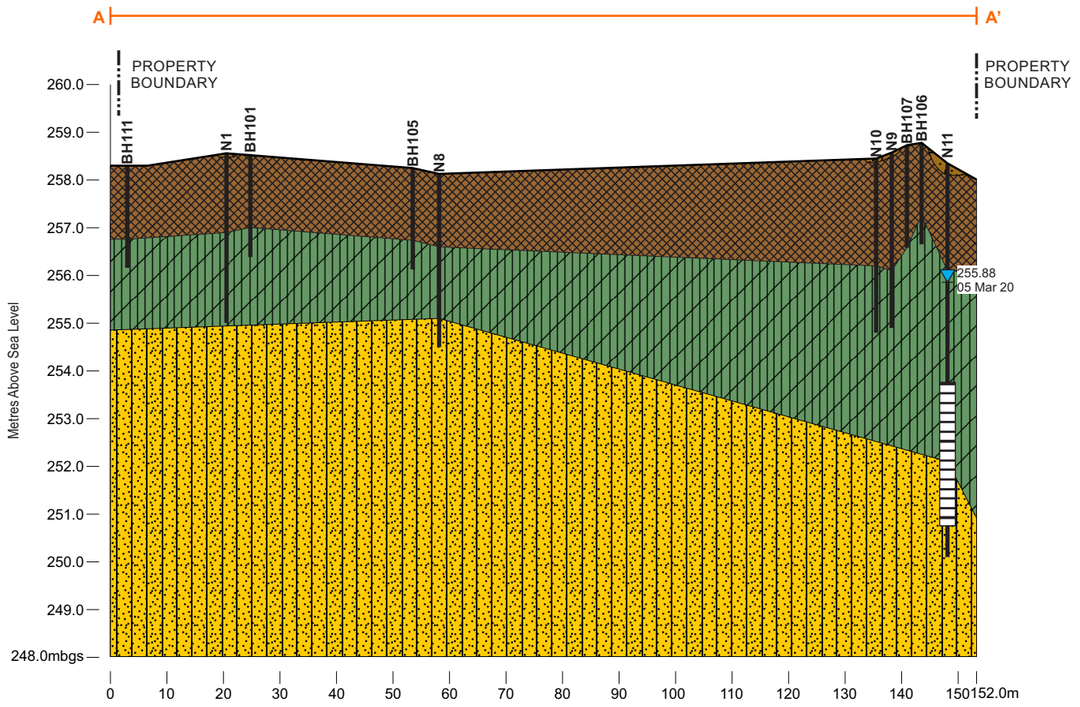
FIGURE 5I

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-MGRA_CP XSECA-JAN22: **SOIL PET**



SCALE:

6 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – GROUNDWATER ANALYTICAL RESULTS: OTHER REGULATED PARAMETERS (INCLUDING SODIUM AND CHLORIDE)

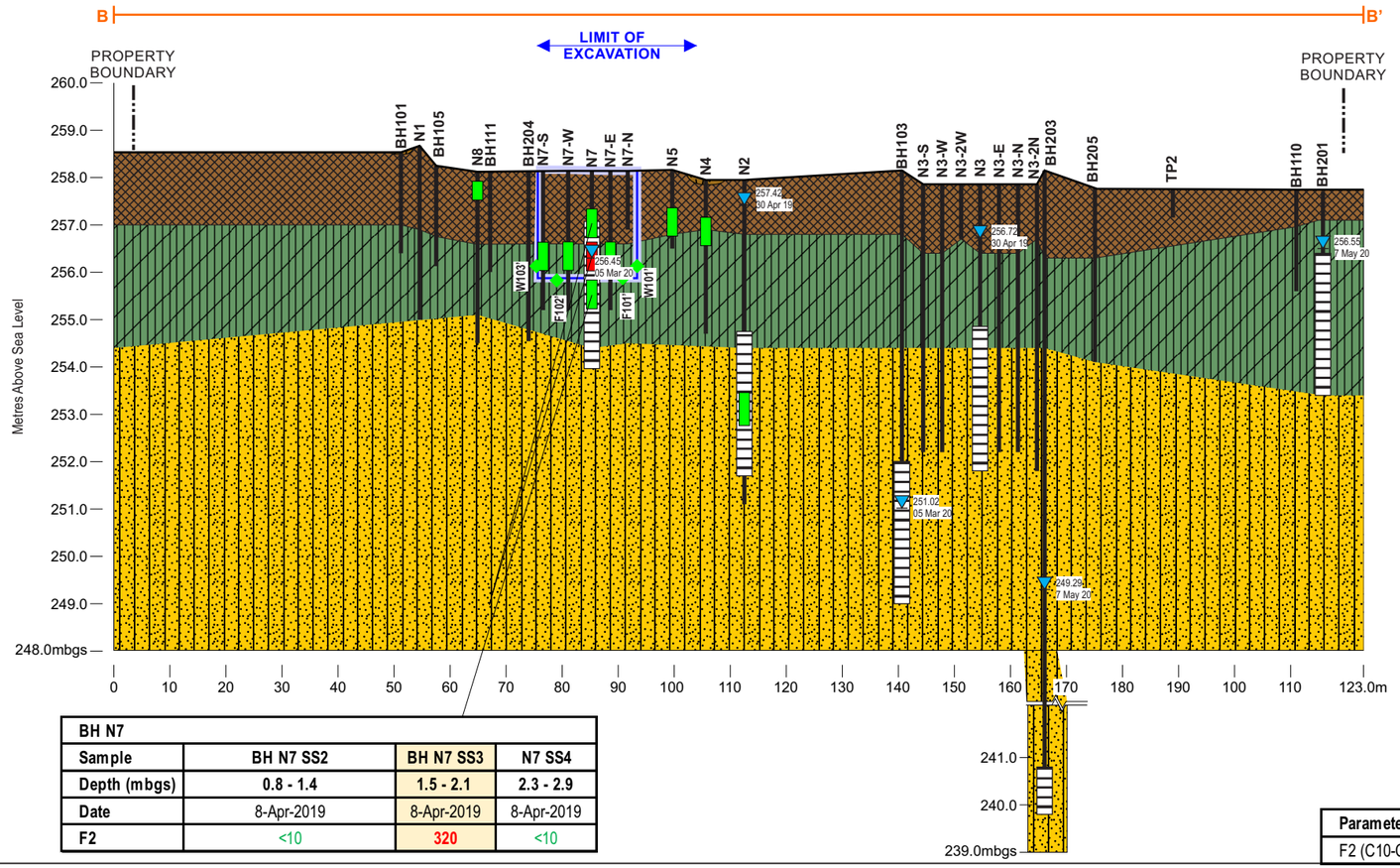
FIGURE 5J

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-MGRA_CP XSECA-JAN22: **SOIL PET**



BH N7			
Sample	BH N7 SS2	BH N7 SS3	N7 SS4
Depth (mbgs)	0.8 - 1.4	1.5 - 2.1	2.3 - 2.9
Date	8-Apr-2019	8-Apr-2019	8-Apr-2019
F2	<10	320	<10

Parameter	Abbreviation	TABLE 4 Soil Standards*	Units
F2 (C10-C16)	F2	150	µg/g

SCALE:

7 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- CONFIRMATORY SOIL SAMPLES (EXP, 2020)
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL
- SOIL REMOVED DURING REMEDIATION ACTIVITIES, NOT CARRIED FORWARD IN PHASE TWO CSM
- AREA OF CONTAMINATION AOC A

*STANDARDS SHOWN ARE FOR A **RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY** USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/g, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
LOCATION WHERE SAMPLE EXCEEDS O. REG. 153/04 TABLE 4 STANDARDS FOR AT LEAST ONE PARAMETER IS SHOWN IN RED
CONCENTRATION OF CONTAMINANT EXCEEDING TABLE 4 STANDARD SHOWN IN TEXT AS **RED BOLD**
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

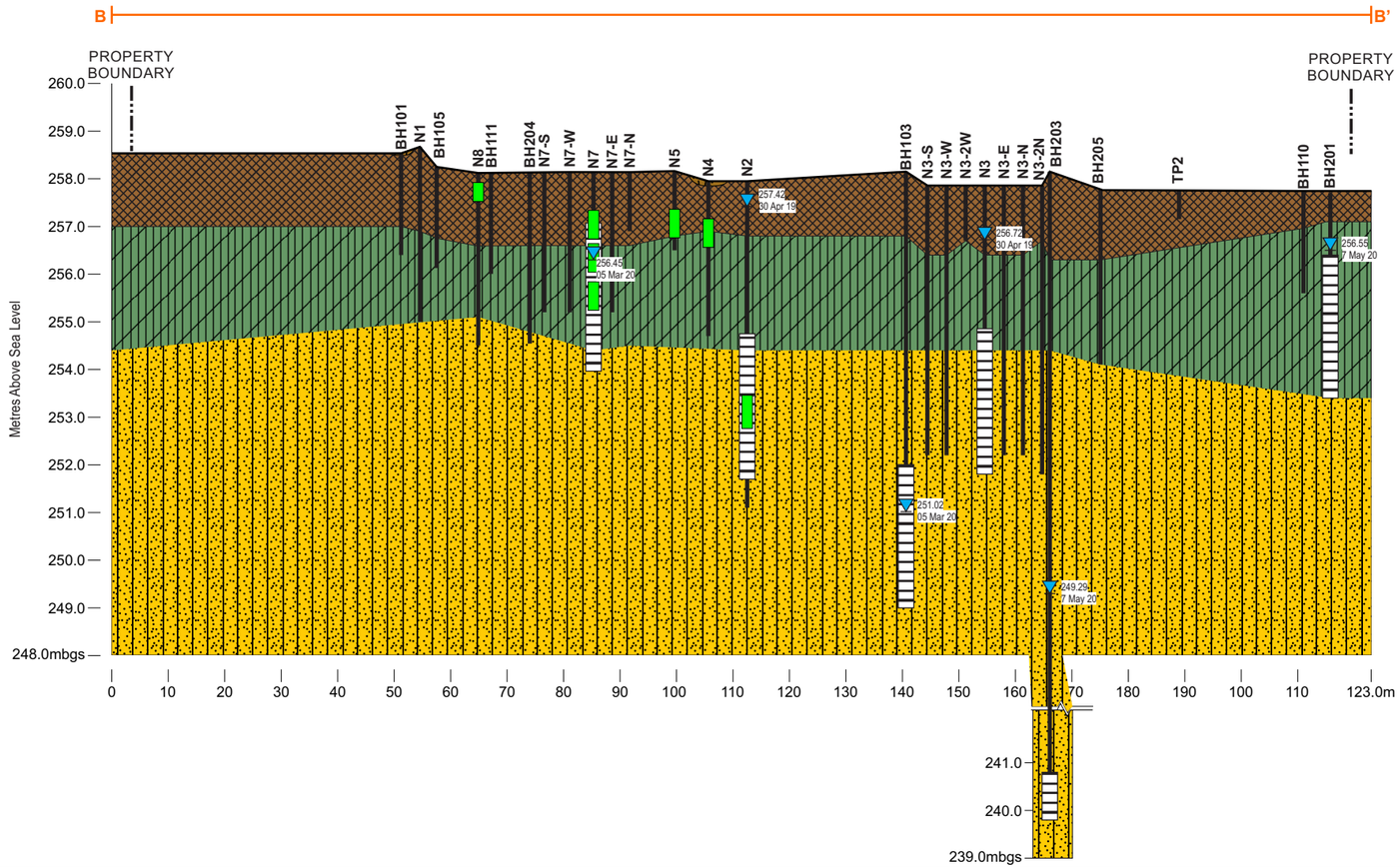
CROSS SECTION B-B' – SOIL ANALYTICAL RESULTS: PETROLEUM HYDROCARBONS

FIGURE 6A

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP XSECB-JAN22: **SOIL PET**



SCALE:

7 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR A RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – SOIL ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS

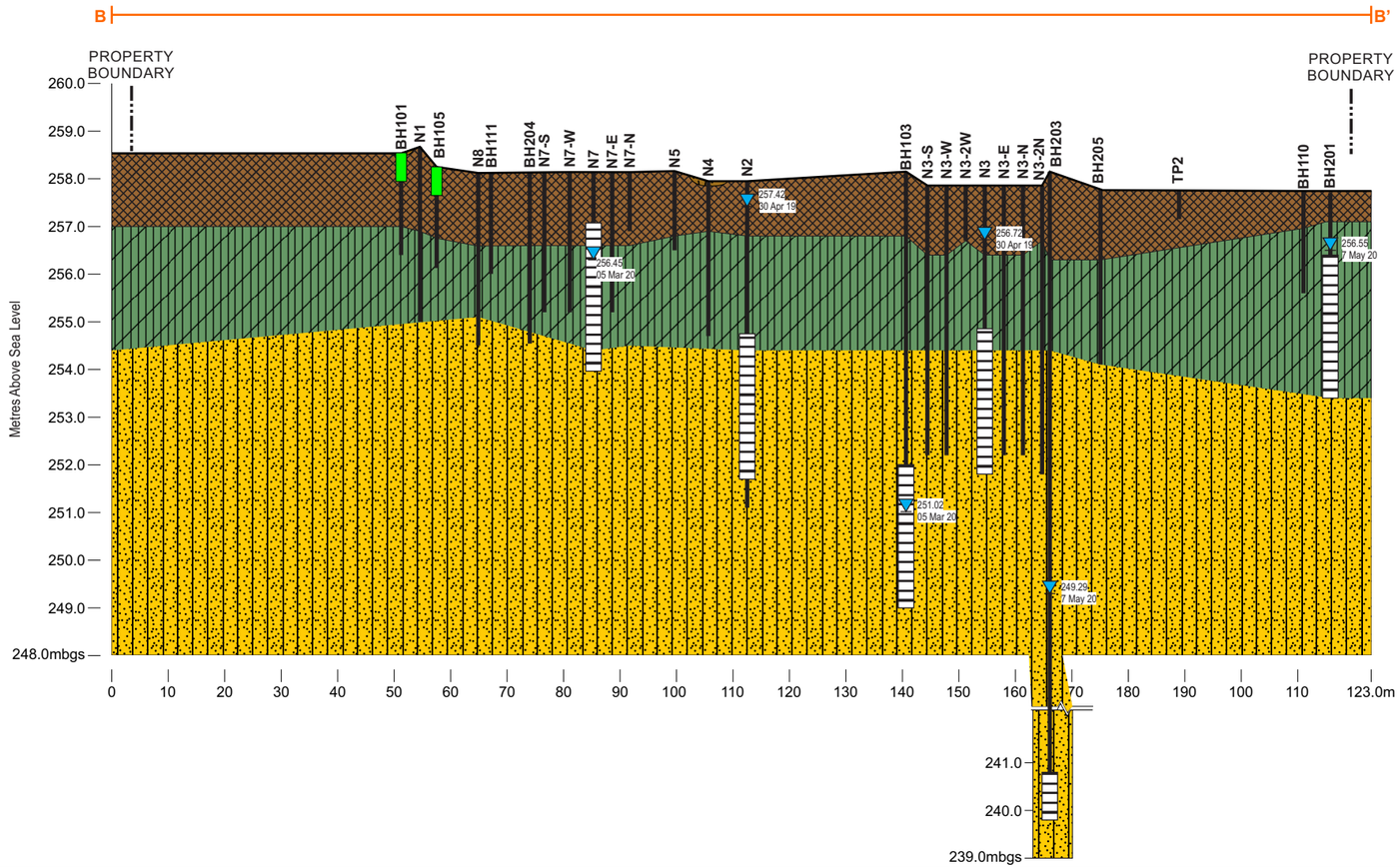
FIGURE 6B

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-XSEC A-A'-MAR20: **SOIL PET**



SCALE:

7 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR A RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION B-B' – SOIL ANALYTICAL RESULTS: POLYCYCLIC AROMATIC HYDROCARBONS

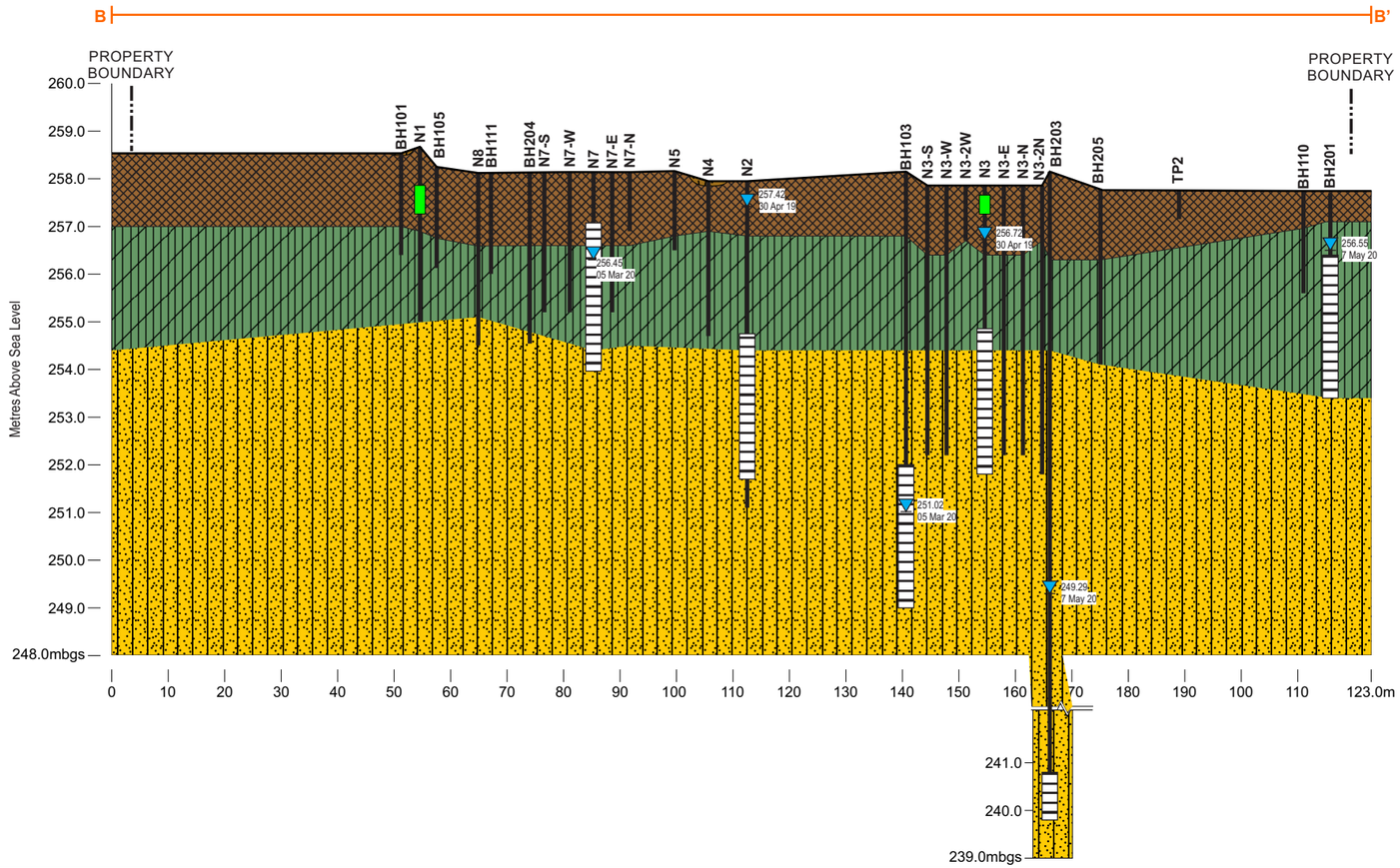
FIGURE 6C

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-MGRA_CP XSECB-JAN22: **SOIL PET**



SCALE:

7 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR A RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION A-A' – SOIL ANALYTICAL RESULTS: METALS (INCLUDING HYDRIDE-FORMING METALS)

FIGURE 6D

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-XSEC A-A'-MAR20: **SOIL PET**

CS-A-W108	
Sample	CS-A-W108
Depth (mbgs)	1.0
Date	3-Sep-2020
EC	0.311
SAR	4.16

N2	
Sample	N2 SS1
Depth (mbgs)	0.3 -0.6
Date	9-Apr-2019
EC	0.85
SAR	5.64

CS-A-W140	
Sample	CS-A-W140
Depth (mbgs)	1
Date	27-May-2021
EC	0.815
SAR	2.45

N3-S		
Sample	N3-S-S1	N3-S-S4
Depth (mbgs)	0.2 - 0.6	2.3 - 2.9
Date	23-Apr-2019	23-Apr-2019
EC	8.67	1.23
SAR	86	8.5

N3-2W		
Sample	N3-2W-S1	N3-2W-S2
Depth (mbgs)	0.2 - 0.6	0.6 - 1.2
Date	24-Apr-2019	24-Apr-2019
EC	3.29	2.35
SAR	30.1	6.56

N3					
Sample	N3 SS1	~N33 SS1	N3 SS3	N3 SS5	~N3 SS15
Depth (mbgs)	0.2 - 0.6	0.2 - 0.6	1.5-2.1	3.1 - 3.7	3.1 - 3.7
Date	8-Apr-2019	8-Apr-2019	8-Apr-2019	8-Apr-2019	8-Apr-2019
EC	3.11	1.75	1.42	0.4	0.39
SAR	60	30.5	2.28	0.58	0.59

CS-A-W113	
Sample	CS-A-W113
Depth (mbgs)	1.0
Date	18-May-2021
EC	0.293
SAR	0.772

N4	
Sample	N4 SS1
Depth (mbgs)	0.3 - 0.6
Date	9-Apr-2019
EC	0.38
SAR	3.91

CS-A-W114	
Sample	CS-A-W114
Depth (mbgs)	1
Date	18-May-2021
EC	0.898
SAR	3.97

CS-A-F109		
Sample	CS-A-F109	CS-A-F109-0
Depth (mbgs)	1.5	1.5
Date	18-May-2021	18-May-2021
EC	0.733	0.791
SAR	4.17	4.15

N3-W			
Sample	N3-W-S1	N3-W-S4	N3-WW-S4
Depth (mbgs)	0.2 - 0.6	2.3 - 2.9	2.3 - 2.9
Date	23-Apr-2019	23-Apr-2019	23-Apr-2019
EC	4.79	2.95	2.53
SAR	47.5	8.61	8.03

N3-E		
Sample	N3-E-S1	N3-E-S4
Depth (mbgs)	0.2 - 0.6	2.3 - 2.9
Date	23-Apr-2019	23-Apr-2019
EC	3.43	0.44
SAR	7.87	0.92

N3-N		
Sample	N3-N-S1	N3-N-S4
Depth (mbgs)	0.2 - 0.6	2.3 - 2.9
Date	23-Apr-2019	23-Apr-2019
EC	2.1	0.21
SAR	21.1	0.53

CS-A-F104	
Sample	CS-A-F104
Depth (mbgs)	1.5
Date	3-Sep-2020
EC	0.365
SAR	3.53

CS-A-F103	
Sample	CS-A-F103
Depth (mbgs)	1.5
Date	3-Sep-2020
EC	0.562
SAR	0.783

N3-2N		
Sample	N3-2N-S1	N3-2N-S2
Depth (mbgs)	0.2 - 0.6	0.6 - 1.2
Date	24-Apr-2019	24-Apr-2019
EC	1.91	0.87
SAR	20.6	45

BH204		
Sample	BH204 SS1	BH204 SS5
Depth (mbgs)	0.3 - 0.61	3.1 to 3.7
Date	1-May-2020	1-May-2020
EC	4.08	2.99
SAR	68.1	9.4

BH205		
Sample	BH205 SS1	BH205 SS5
Depth (mbgs)	0.3 - 0.61	3.1 to 3.7
Date	1-May-2020	1-May-2020
EC	0.782	0.576
SAR	4.56	NA

N1	
Sample	N1 SS2
Depth (mbgs)	0.8 - 1.4
Date	8-Apr-2019
EC	0.33
SAR	1.03

BH201		
Sample	BH201 SS1	~BH201 SS1
Depth (mbgs)	0 - 0.61	0 - 0.61
Date	28-Feb-2020	28-Feb-2020
EC	0.152	0.154
SAR	0.202	0.200

BH111	
Sample	BH111
Depth (mbgs)	0.3 - 0.61
Date	1-May-2020
EC	0.794
SAR	7.5

TP2	
Sample	TP2
Depth (mbgs)	0.3 -0.6
Date	9-May-2019
EC	0.47
SAR	6.25

BH110	
Sample	BH110
Depth (mbgs)	0 - 0.61
Date	28-Feb-2020
EC	0.194
SAR	0.584

CS-A-W105	
Sample	CS-A-W105
Depth (mbgs)	1.0
Date	3-Sep-2020
EC	0.333
SAR	1.33

CS-A-W106	
Sample	CS-A-W106
Depth (mbgs)	1.0
Date	3-Sep-2020
EC	0.158
SAR	0.397

CS-A-W118	
Sample	CS-A-W118
Depth (mbgs)	1
Date	19-May-2021
EC	1.9
SAR	7.99

CS-A-F101	
Sample	CS-A-F101
Depth (mbgs)	1.5
Date	3-Sep-2020
EC	0.252
SAR	0.54

CS-A-F102	
Sample	CS-A-F102
Depth (mbgs)	1.5
Date	3-Sep-2020
EC	0.151
SAR	0.423

CS-A-F114	
Sample	CS-A-F114
Depth (mbgs)	1.5
Date	19-May-2021
EC	1.55
SAR	1.82

CS-A-F112	
Sample	CS-A-F112
Depth (mbgs)	1.5
Date	19-May-2021
EC	1.19
SAR	0.615

CS-A-W107	
Sample	CS-A-W107
Depth (mbgs)	1.0
Date	3-Sep-2020
EC	0.254
SAR	2.33

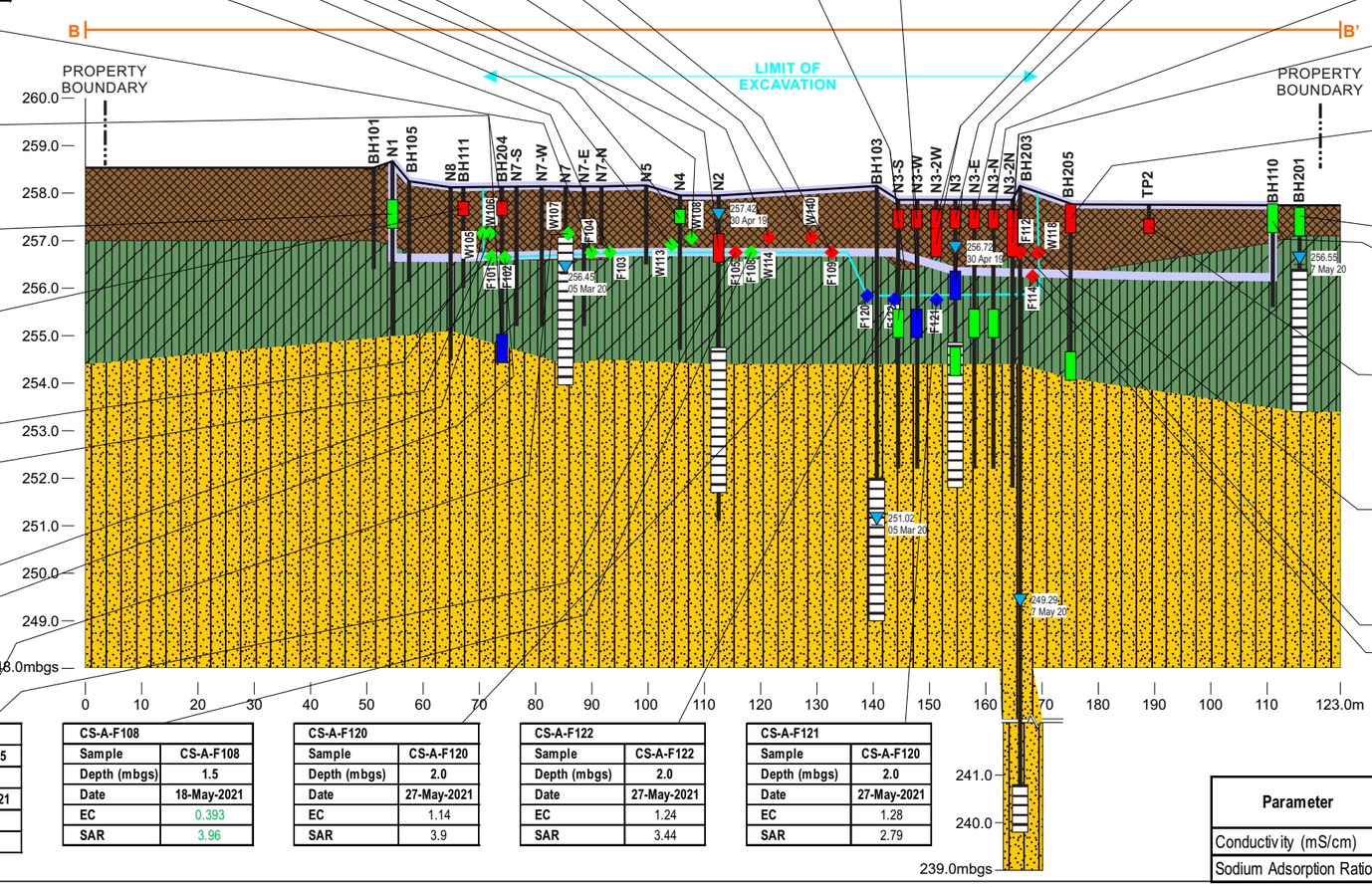
CS-A-F105	
Sample	CS-A-F105
Depth (mbgs)	1.5
Date	18-May-2021
EC	0.814
SAR	4.43

CS-A-F108	
Sample	CS-A-F108
Depth (mbgs)	1.5
Date	18-May-2021
EC	0.393
SAR	3.96

CS-A-F120	
Sample	CS-A-F120
Depth (mbgs)	2.0
Date	27-May-2021
EC	1.14
SAR	3.9

CS-A-F122	
Sample	CS-A-F122
Depth (mbgs)	2.0
Date	27-May-2021
EC	1.24
SAR	3.44

CS-A-F121	
Sample	CS-A-F120
Depth (mbgs)	2.0
Date	27-May-2021
EC	1.28
SAR	2.79



Parameter	Abbreviation	TABLE 4 Soil Standards - Surface*	TABLE 4 Soil Standards - Subsurface*	Units
Conductivity (mS/cm)	EC	0.7	NA	mS/cm
Sodium Adsorption Ratio	SAR	5	NA	µg/g

SCALE:

7 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL
- AREA OF CONTAMINATION AOC B
- SOIL REMOVED DURING REMEDIATION ACTIVITIES. NOT CARRIED FORWARD IN PHASE TWO CSM

*STANDARDS SHOWN ARE FOR A RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/g, UNLESS OTHERWISE NOTED

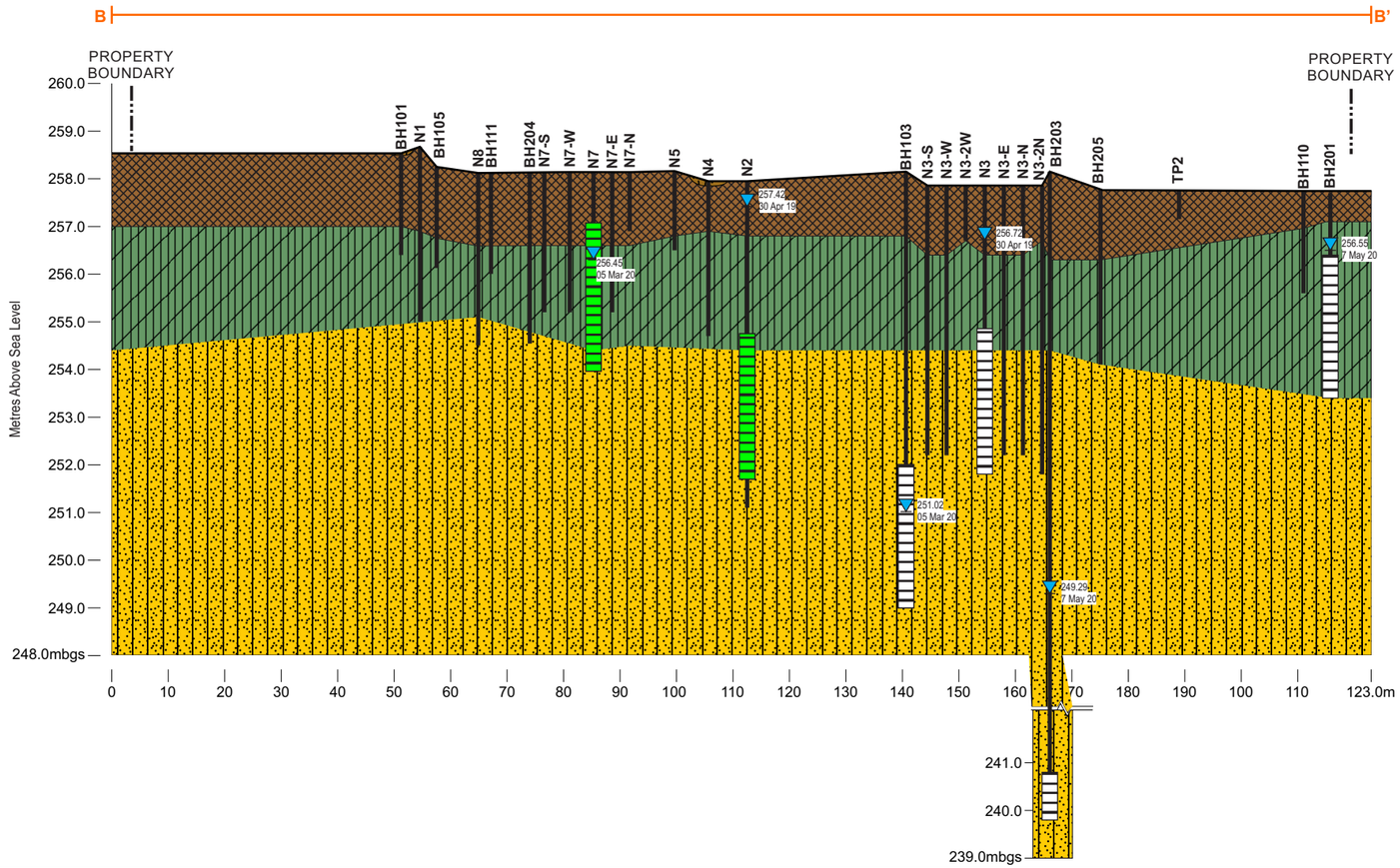
LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
LOCATION WHERE SAMPLE EXCEEDS O. REG. 153/04 TABLE 4 STANDARDS FOR AT LEAST ONE PARAMETER IS SHOWN IN RED
LOCATION WHERE SAMPLE COLLECTED BELOW 1.5 mbgs IS SHOWN IN DARK BLUE
CONCENTRATION OF CONTAMINANT EXCEEDING TABLE 4 STANDARD SHOWN IN TEXT AS **RED BOLD**
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD (SUBSURFACE/COLLECTED BELOW 1.5 mbgs) SHOWN IN TEXT AS BLACK.

CROSS SECTION B-B' – SOIL ANALYTICAL RESULTS: OTHER REGULATED PARAMETERS (INCLUDING EC AND SAR)

FIGURE 6E

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022



SCALE:

7 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

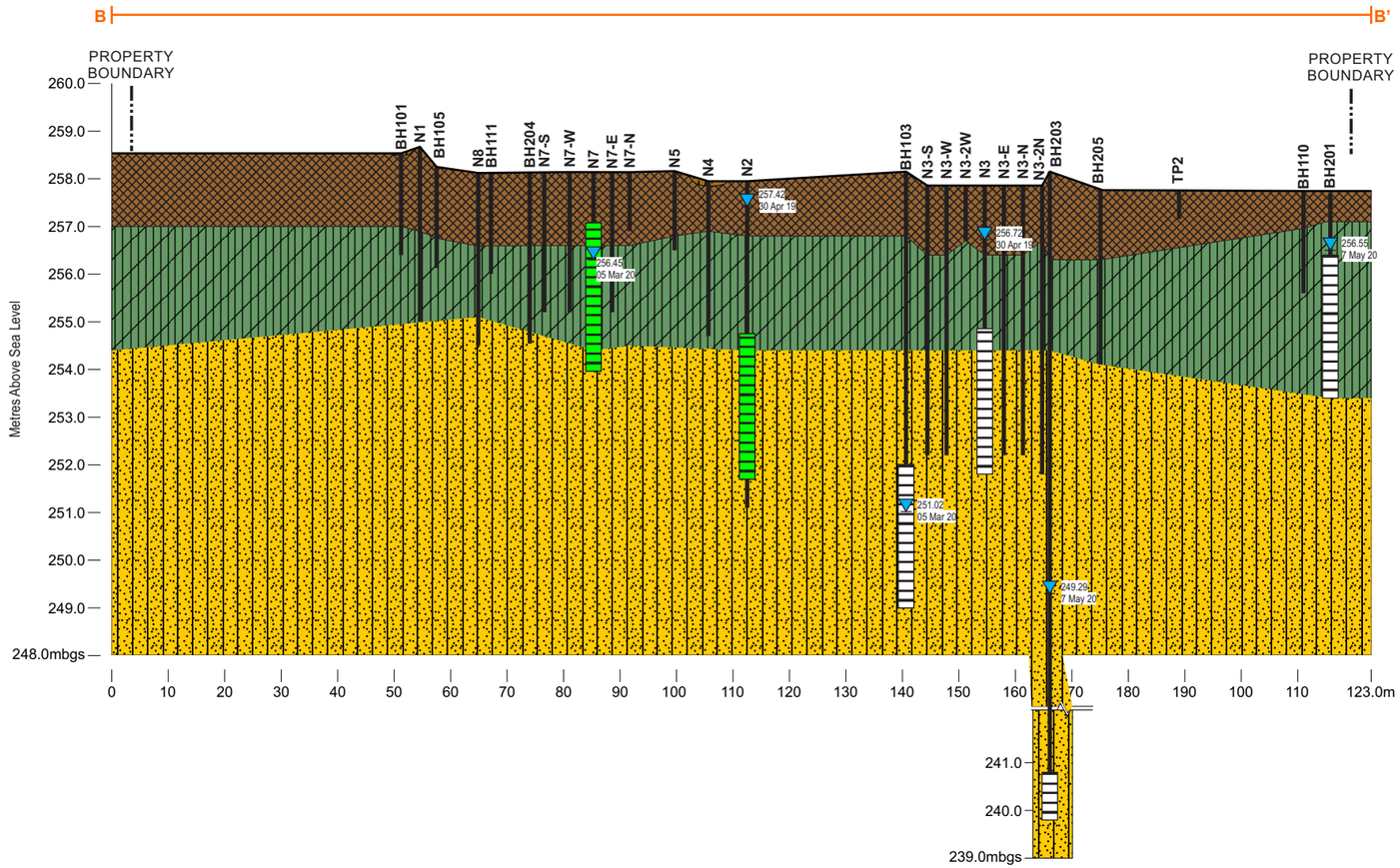
CROSS SECTION B-B' – GROUNDWATER ANALYTICAL RESULTS: PETROLEUM HYDROCARBONS

FIGURE 6F

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022



SCALE:

7 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

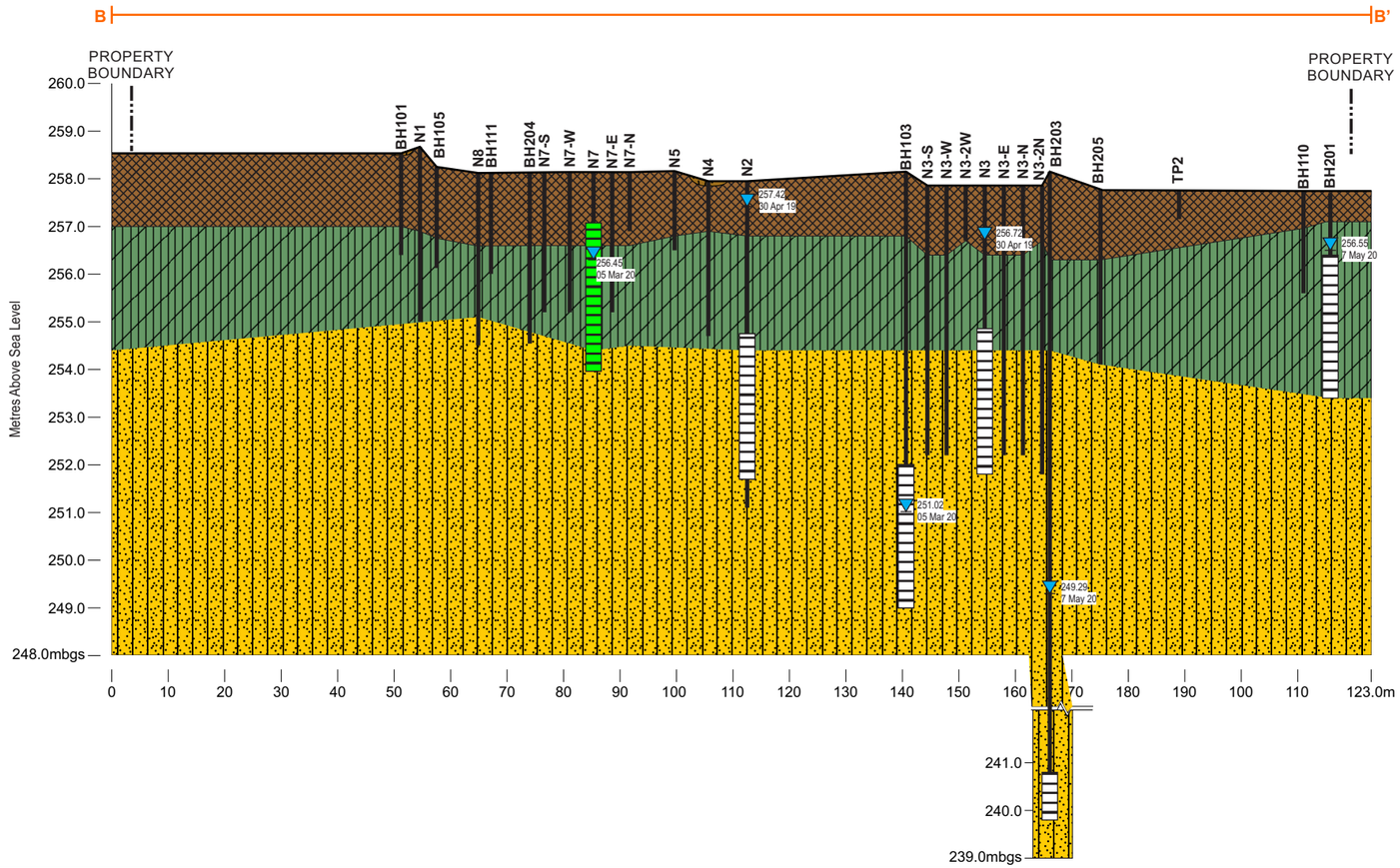
CROSS SECTION B-B' – GROUNDWATER ANALYTICAL RESULTS: VOLATILE ORGANIC COMPOUNDS

FIGURE 6G

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022



SCALE:

7 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION B-B' – GROUNDWATER ANALYTICAL RESULTS: POLYCYCLIC AROMATIC HYDROCARBONS

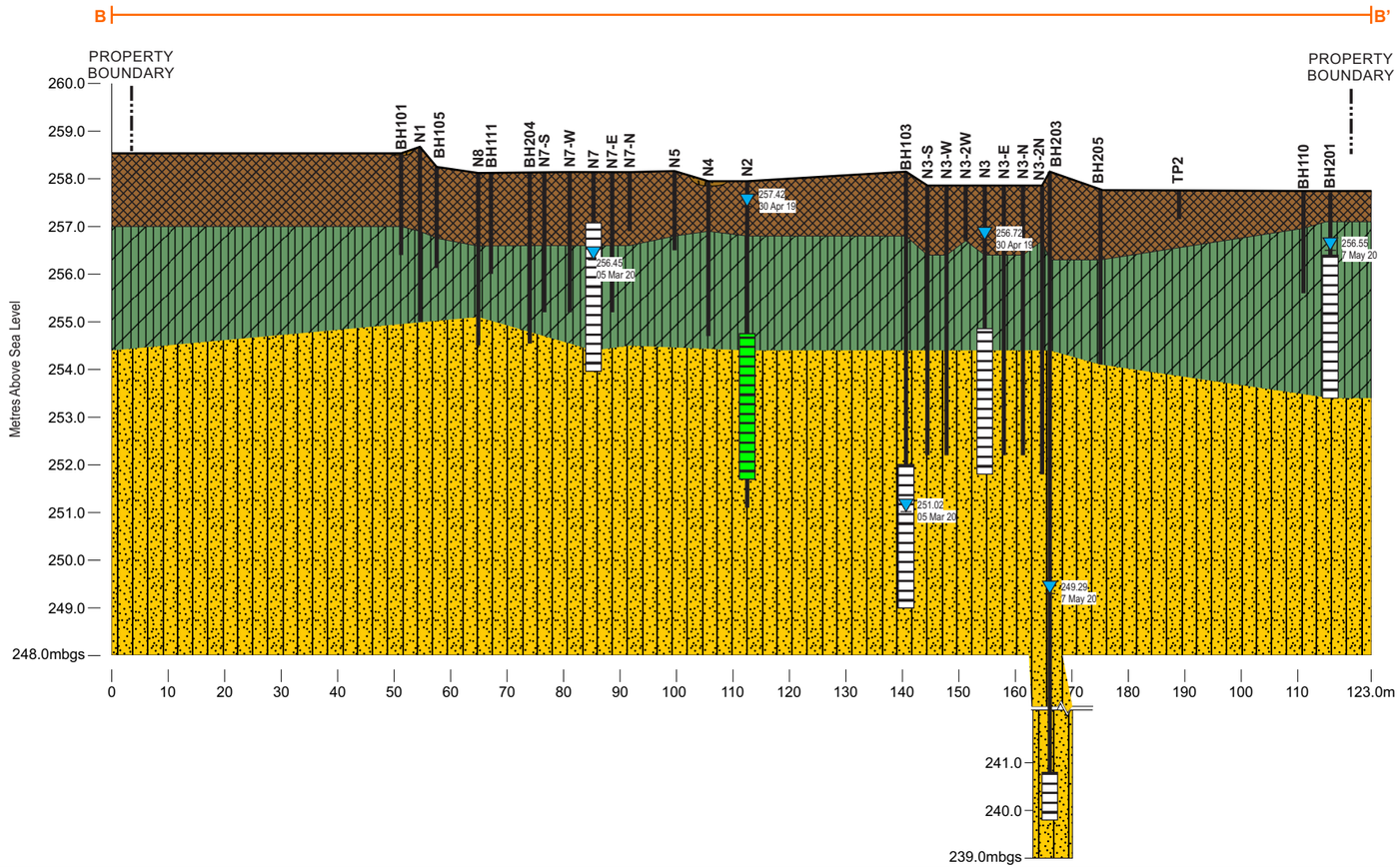
FIGURE 6H

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

257876-MGRA_CP XSECB-JAN22: **SOIL PET**



SCALE:

7 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOIL IS SHOWN IN GREEN

CROSS SECTION B-B' – GROUNDWATER ANALYTICAL RESULTS: METALS (INCLUDING HYDRIDE-FORMING METALS)

FIGURE 6I

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

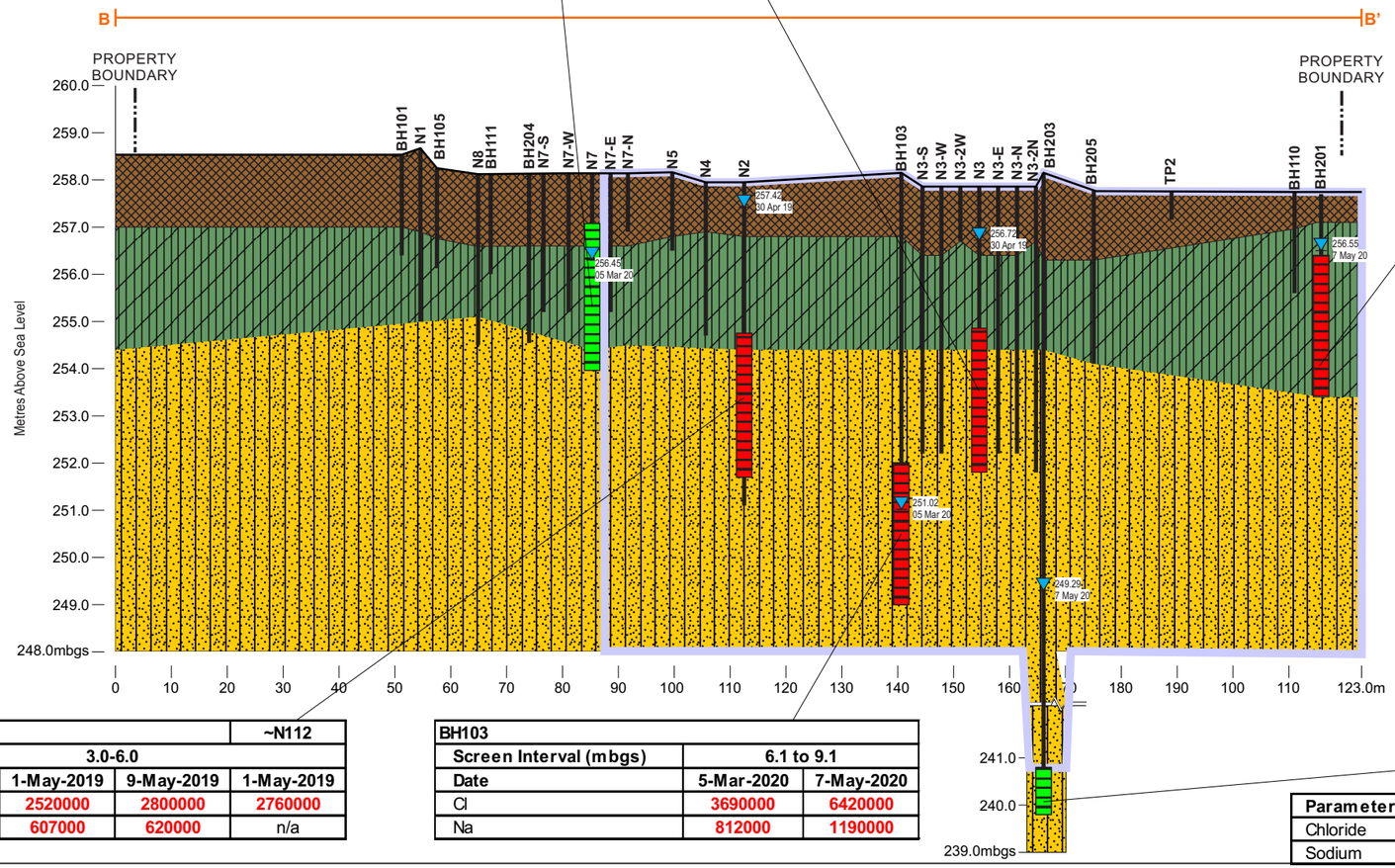
DATE: JANUARY 2022

257876-MGRA_CP XSECB-JAN22: **SOIL PET**

BH-N3				~N113
Screen Interval (mbgs)	3.0-6.0			
Date	25-Apr-2019	1-May-2019	9-May-2019	9-May-2019
Cl	1580000	1430000	1120000	1260000
Na	159000	113000	78000	78000

BH201	
Screen Interval (mbgs)	1.3 to 4.3
Date	7-May-2020
Cl	2280000
Na	361000

N7	
Screen Interval (mbgs)	3.0 to 6.0
Date	25-Apr-2019
Cl	102000
Na	40000



BH203		
Screen Interval (mbgs)	17.4 to 18.3	
Date	7-May-2020	~7-May-2020
Cl	25400	24400
Na	9830	9580

BH-N2				~N112
Screen Interval (mbgs)	3.0-6.0			
Date	25-Apr-2019	1-May-2019	9-May-2019	1-May-2019
Cl	1240000	2520000	2800000	2760000
Na	485000	607000	620000	n/a

BH103		
Screen Interval (mbgs)	6.1 to 9.1	
Date	5-Mar-2020	7-May-2020
Cl	3690000	6420000
Na	812000	1190000

Parameter	Abbreviation	Table 4 Soil Standards*	Units
Chloride	Cl	790000	µg/L
Sodium	Na	490000	µg/L

SCALE:

7 x VERTICAL EXAGGERATION

SOURCE:

BASED ON FIELD OBSERVATIONS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- TEST HOLE
- SCREEN INTERVAL
- GROUND WATER ELEVATION (masl, DATE OF MONITORING)
- *masl* METRES ABOVE SEA LEVEL
- TOPSOIL
- FILL
- CLAYEY SILT TILL
- SANDY SILT TILL
- AREA OF CONTAMINATION AOC B

*STANDARDS SHOWN ARE FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/L, UNLESS OTHERWISE NOTED

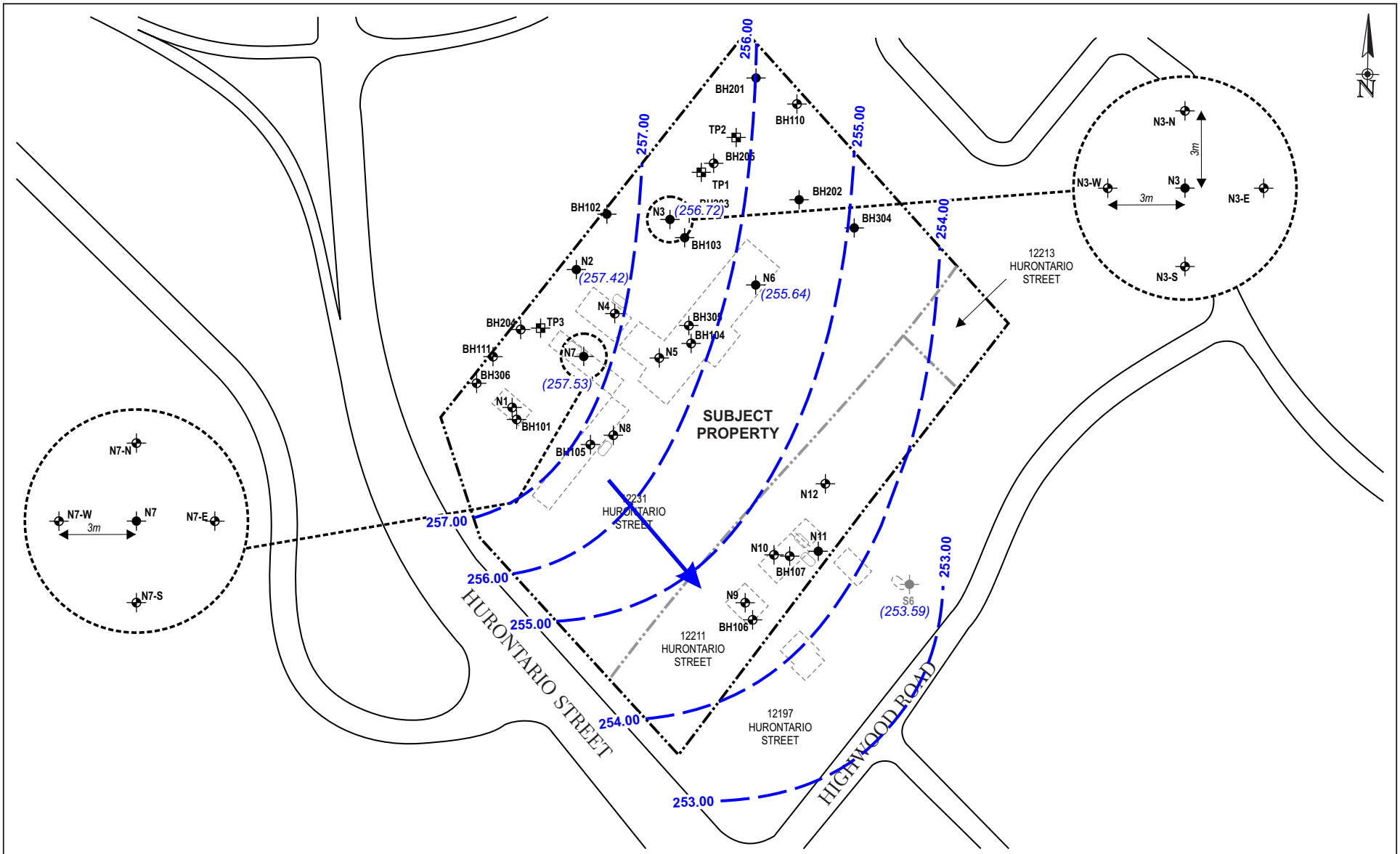
LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
LOCATION WHERE SAMPLE EXCEEDS O. REG. 153/04 TABLE 4 STANDARDS FOR AT LEAST ONE PARAMETER IS SHOWN IN RED
CONCENTRATION OF CONTAMINANT EXCEEDING TABLE 4 STANDARD SHOWN IN TEXT AS **RED BOLD**
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

CROSS SECTION B-B' – GROUNDWATER ANALYTICAL RESULTS: OTHER REGULATED PARAMETERS (INCLUDING SODIUM AND CHLORIDE)

FIGURE 6J

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022



SCALE: 0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR
  N SERIES(EXP, 2019)
  BH SERIES (EXP, 2020, 2021)
- TEST HOLE
  N SERIES(EXP, 2019)
  BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- (100.00) GROUND WATER ELEVATION (masl)
- 100.00 GROUND WATER ELEVATION CONTOUR (masl)
- GROUND WATER FLOW DIRECTION
- masl METRES ABOVE SEA LEVEL
- S6 OFF-SITE TEST HOLE WITH MONITOR (EXP, 2019)

GROUND WATER CONTOUR PLAN (APRIL 30, 2019)

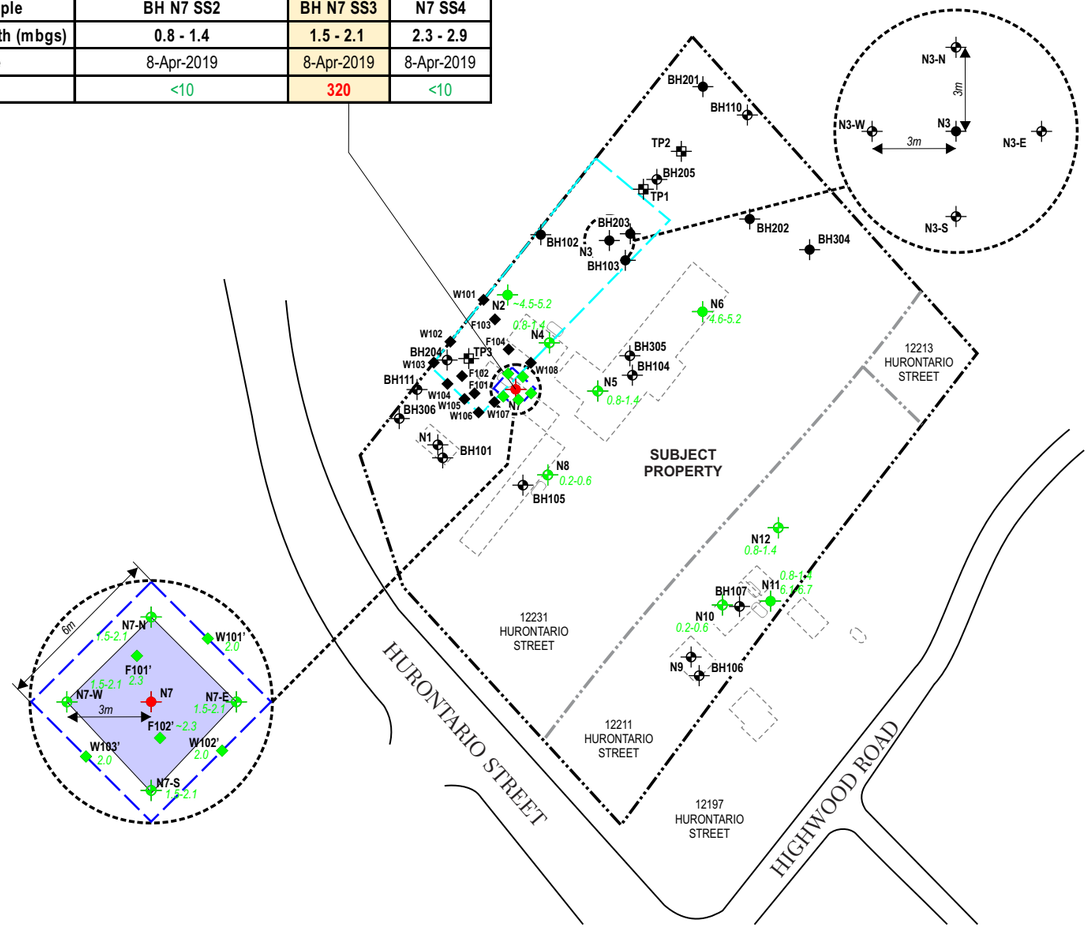
7

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP SITE PLAN-JAN22-GWC

BH N7			
Sample	BH N7 SS2	BH N7 SS3	N7 SS4
Depth (mbgs)	0.8 - 1.4	1.5 - 2.1	2.3 - 2.9
Date	8-Apr-2019	8-Apr-2019	8-Apr-2019
F2	<10	320	<10



Parameter	Abbreviation	TABLE 4 Soil Standards*	Units
F2 (C10-C16)	F2	150	µg/g

SCALE:

0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

exp.

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- 3.0-6.0 SAMPLE DEPTH (mbgs)
- AREA OF CONTAMINATION AOC A
- SOIL REMOVED DURING REMEDIATION ACTIVITIES. NOT CARRIED FORWARD IN PHASE TWO CSM

*STANDARDS SHOWN ARE FOR A RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/g, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
LOCATION WHERE SAMPLE EXCEEDS O. REG. 153/04 TABLE 4 STANDARDS FOR AT LEAST ONE PARAMETER IS SHOWN IN RED
CONCENTRATION OF CONTAMINANT EXCEEDING TABLE 4 STANDARD SHOWN IN TEXT AS **RED BOLD**
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

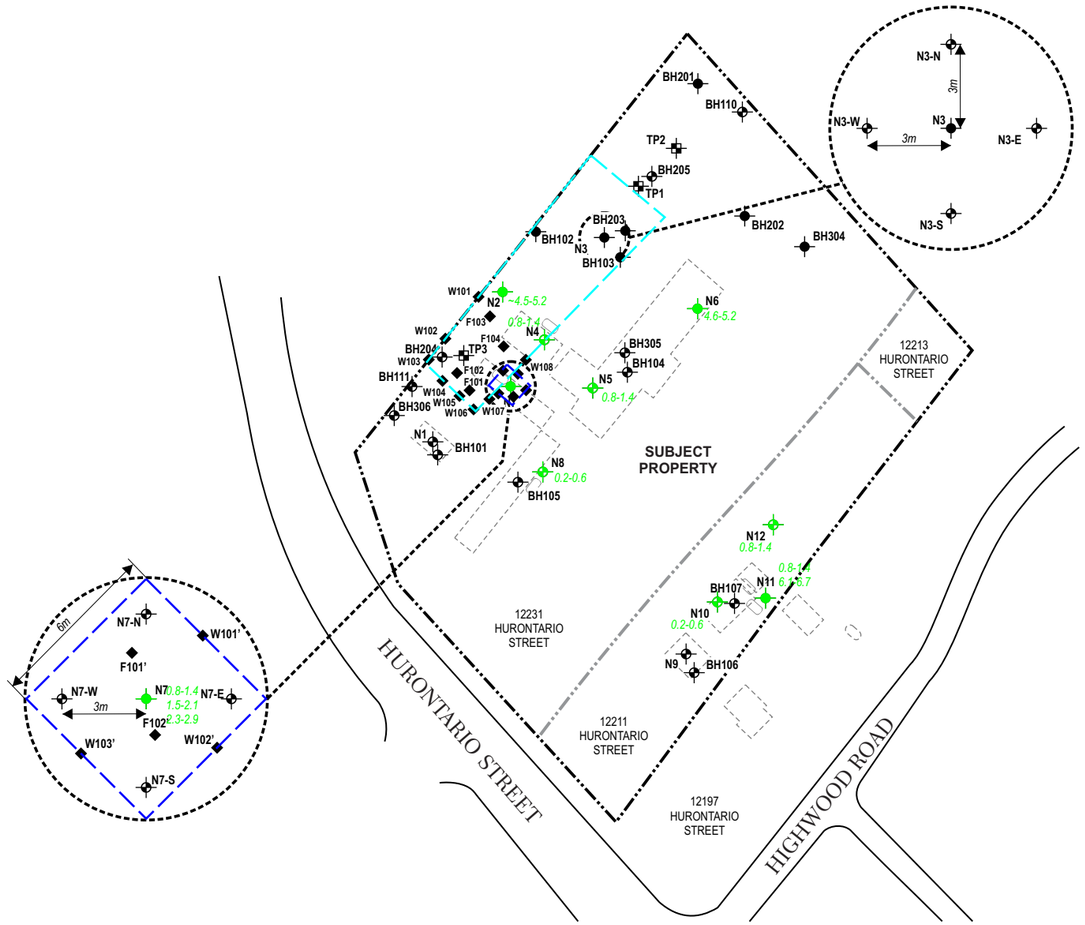
SOIL ANALYTICAL RESULTS – PETROLEUM HYDROCARBONS

FIGURE 8A

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP RESULTS-JAN22:SOIL PET



SCALE:

0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- *3.0-6.0* SAMPLE DEPTH (mbgs)

*STANDARDS SHOWN ARE FOR A RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/g, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

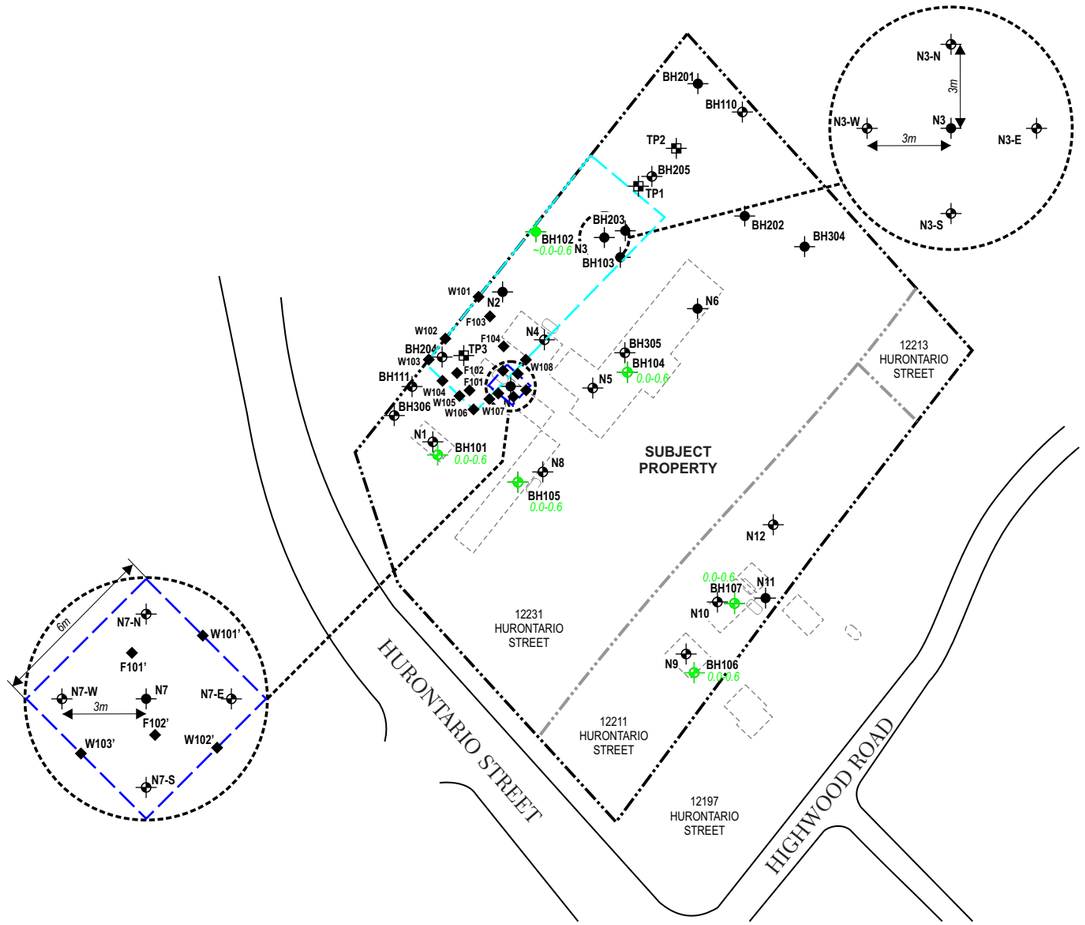
SOIL ANALYTICAL RESULTS – VOLATILE ORGANIC COMPOUNDS

FIGURE 8B

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-PH2 T4 RESULTS-JUL21:SOIL VOCs



SCALE:

0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- *3.0-6.0* SAMPLE DEPTH (mbgs)

*STANDARDS SHOWN ARE FOR A RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/g, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

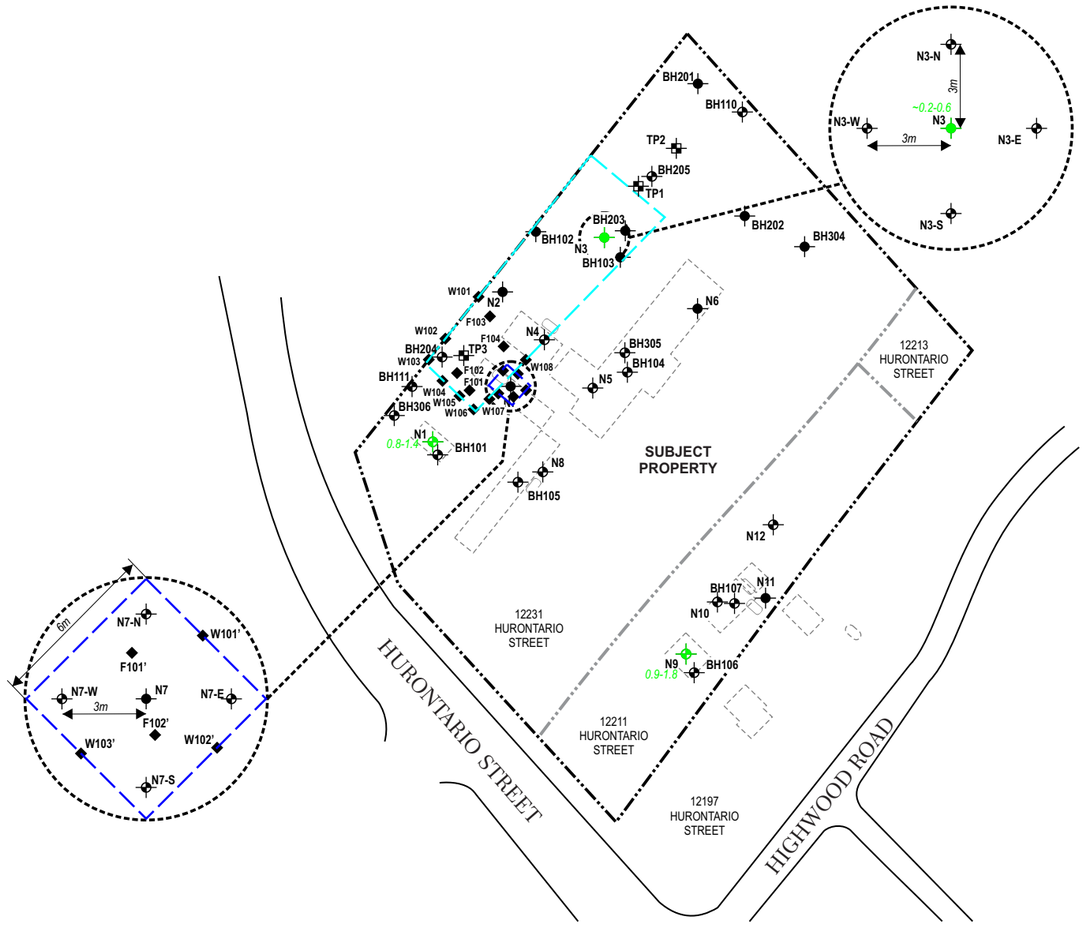
SOIL ANALYTICAL RESULTS – POLYCYCLIC AROMATIC HYDROCARBONS

FIGURE 8C

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP RESULTS-JAN22:SOIL PAHs



SCALE:

0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- *3.0-6.0* SAMPLE DEPTH (mbgs)

*STANDARDS SHOWN ARE FOR A RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/g, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

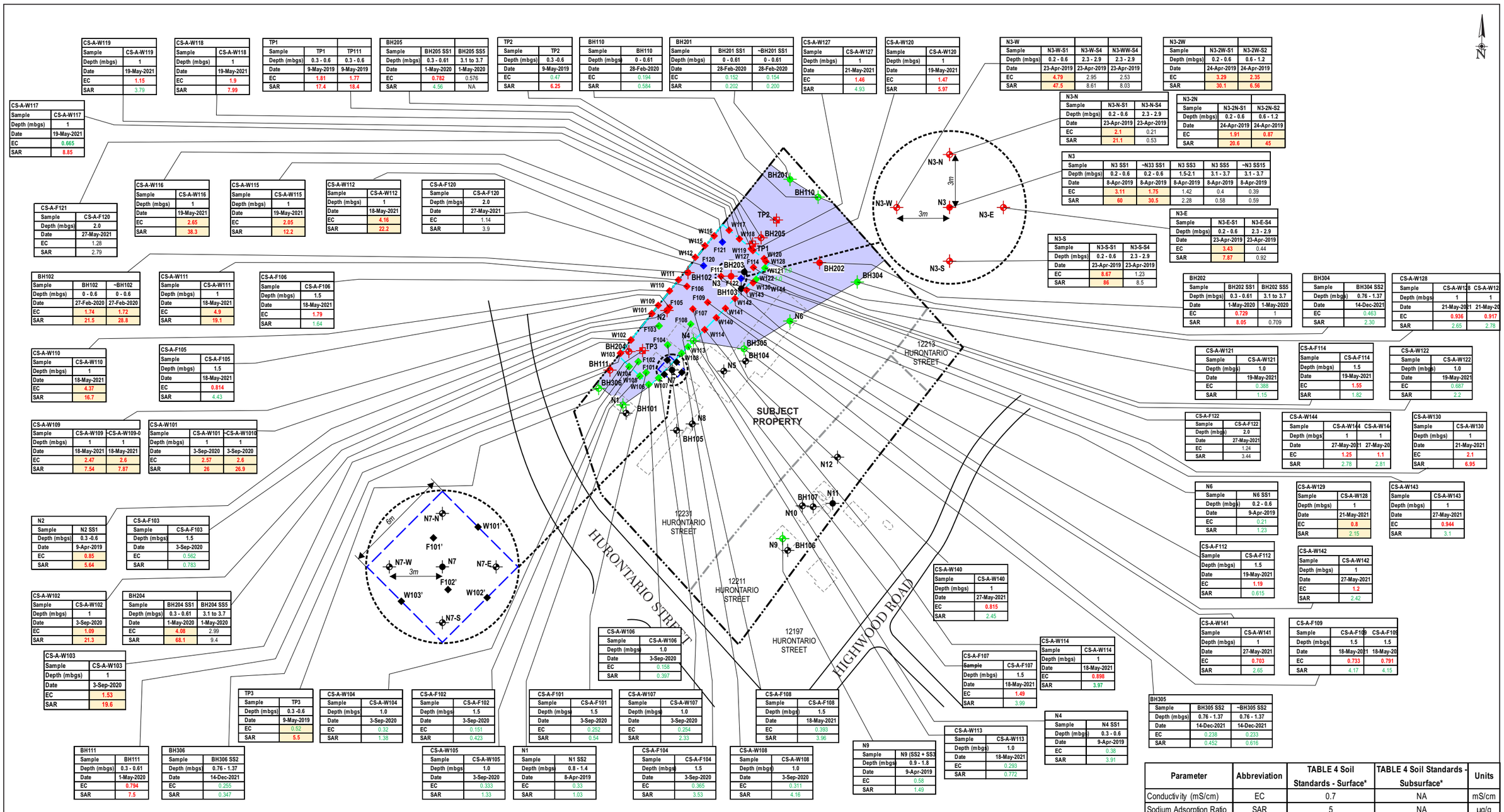
SOIL ANALYTICAL RESULTS – METALS (INCLUDING HYRIDE-FORMING)

FIGURE 8D

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP RESULTS-JAN22:SOIL METAL



CS-A-W119	
Sample	CS-A-W119
Depth (mbgs)	1
Date	19-May-2021
EC	1.15
SAR	3.79

CS-A-W118	
Sample	CS-A-W118
Depth (mbgs)	1
Date	19-May-2021
EC	1.9
SAR	7.99

TP1		
Sample	TP1	TP111
Depth (mbgs)	0.3 - 0.6	0.3 - 0.6
Date	9-May-2019	9-May-2019
EC	1.81	1.77
SAR	17.4	18.4

BH205		
Sample	BH205 SS1	BH205 SS5
Depth (mbgs)	0.3 - 0.61	3.1 to 3.7
Date	1-May-2020	1-May-2020
EC	0.782	0.576
SAR	4.56	NA

TP2	
Sample	TP2
Depth (mbgs)	0.3 -0.6
Date	9-May-2019
EC	0.47
SAR	6.25

BH110	
Sample	BH110
Depth (mbgs)	0 - 0.61
Date	28-Feb-2020
EC	0.194
SAR	0.584

BH201		
Sample	BH201 SS1	~BH201 SS1
Depth (mbgs)	0 - 0.61	0 - 0.61
Date	28-Feb-2020	28-Feb-2020
EC	0.152	0.154
SAR	0.202	0.200

CS-A-W127	
Sample	CS-A-W127
Depth (mbgs)	1
Date	21-May-2021
EC	1.46
SAR	4.93

CS-A-W120	
Sample	CS-A-W120
Depth (mbgs)	1
Date	19-May-2021
EC	1.47
SAR	5.97

N3-W			
Sample	N3-W-S1	N3-W-S4	N3-WW-S4
Depth (mbgs)	0.2 - 0.6	2.3 - 2.9	2.3 - 2.9
Date	23-Apr-2019	23-Apr-2019	23-Apr-2019
EC	4.79	2.95	2.53
SAR	47.5	8.61	8.03

N3-2W		
Sample	N3-2W-S1	N3-2W-S2
Depth (mbgs)	0.2 - 0.6	0.6 - 1.2
Date	24-Apr-2019	24-Apr-2019
EC	3.29	2.35
SAR	30.1	6.56

N3-N		
Sample	N3-N-S1	N3-N-S4
Depth (mbgs)	0.2 - 0.6	2.3 - 2.9
Date	23-Apr-2019	23-Apr-2019
EC	2.1	0.21
SAR	21.1	0.53

N3-2N		
Sample	N3-2N-S1	N3-2N-S2
Depth (mbgs)	0.2 - 0.6	0.6 - 1.2
Date	24-Apr-2019	24-Apr-2019
EC	1.91	0.87
SAR	20.6	45

N3						
Sample	N3 SS1	~N33 SS1	N3 SS3	N3 SS5	~N3 SS15	
Depth (mbgs)	0.2 - 0.6	0.2 - 0.6	1.5-2.1	3.1 - 3.7	3.1 - 3.7	
Date	8-Apr-2019	8-Apr-2019	8-Apr-2019	8-Apr-2019	8-Apr-2019	
EC	3.11	1.75	1.42	0.4	0.39	
SAR	60	30.5	2.28	0.58	0.59	

N3-E		
Sample	N3-E-S1	N3-E-S4
Depth (mbgs)	0.2 - 0.6	2.3 - 2.9
Date	23-Apr-2019	23-Apr-2019
EC	3.43	0.44
SAR	7.87	0.92

N3-S		
Sample	N3-S-S1	N3-S-S4
Depth (mbgs)	0.2 - 0.6	2.3 - 2.9
Date	23-Apr-2019	23-Apr-2019
EC	8.67	1.23
SAR	86	8.5

CS-A-W117	
Sample	CS-A-W117
Depth (mbgs)	1
Date	19-May-2021
EC	0.665
SAR	8.85

CS-A-W116	
Sample	CS-A-W116
Depth (mbgs)	1
Date	19-May-2021
EC	2.65
SAR	38.3

CS-A-W115	
Sample	CS-A-W115
Depth (mbgs)	1
Date	19-May-2021
EC	2.05
SAR	12.2

CS-A-W112	
Sample	CS-A-W112
Depth (mbgs)	1
Date	18-May-2021
EC	4.16
SAR	22.2

CS-A-F120	
Sample	CS-A-F120
Depth (mbgs)	2.0
Date	27-May-2021
EC	1.14
SAR	3.9

CS-A-F121	
Sample	CS-A-F120
Depth (mbgs)	2.0
Date	27-May-2021
EC	1.28
SAR	2.79

BH102		
Sample	BH102	~BH102
Depth (mbgs)	0 - 0.6	0 - 0.6
Date	27-Feb-2020	27-Feb-2020
EC	1.74	1.72
SAR	21.5	28.8

CS-A-W111	
Sample	CS-A-W111
Depth (mbgs)	1
Date	18-May-2021
EC	4.9
SAR	19.1

CS-A-F106	
Sample	CS-A-F106
Depth (mbgs)	1.5
Date	18-May-2021
EC	1.79
SAR	1.64

BH202		
Sample	BH202 SS1	BH202 SS5
Depth (mbgs)	0.3 - 0.61	3.1 to 3.7
Date	1-May-2020	1-May-2020
EC	0.729	1
SAR	8.05	0.709

BH304		
Sample	BH304 SS2	
Depth (mbgs)	0.76 - 1.37	
Date	14-Dec-2021	
EC	0.463	
SAR	2.30	

CS-A-W128		
Sample	CS-A-W128	CS-A-W12
Depth (mbgs)	1	1
Date	21-May-2021	21-May-20
EC	0.936	0.917
SAR	2.65	2.78

CS-A-W110	
Sample	CS-A-W110
Depth (mbgs)	1
Date	18-May-2021
EC	4.37
SAR	16.7

CS-A-F105	
Sample	CS-A-F105
Depth (mbgs)	1.5
Date	18-May-2021
EC	0.814
SAR	4.43

CS-A-W121	
Sample	CS-A-W121
Depth (mbgs)	1.0
Date	19-May-2021
EC	0.388
SAR	1.15

CS-A-F114	
Sample	CS-A-F114
Depth (mbgs)	1.5
Date	19-May-2021
EC	1.55
SAR	1.82

CS-A-W122	
Sample	CS-A-W122
Depth (mbgs)	1.0
Date	19-May-2021
EC	0.687
SAR	2.2

CS-A-W109		
Sample	CS-A-W109	CS-A-W109-D
Depth (mbgs)	1	1
Date	18-May-2021	18-May-2021
EC	2.47	2.6
SAR	7.54	7.87

CS-A-W101		
Sample	CS-A-W101	~CS-A-W1010
Depth (mbgs)	1	1
Date	3-Sep-2020	3-Sep-2020
EC	2.57	2.6
SAR	26	26.9

CS-A-F122	
Sample	CS-A-F122
Depth (mbgs)	2.0
Date	27-May-2021
EC	1.24
SAR	3.44

CS-A-W144		
Sample	CS-A-W144	CS-A-W14
Depth (mbgs)	1	1
Date	27-May-2021	27-May-20
EC	1.25	1.1
SAR	2.78	2.81

CS-A-W130	
Sample	CS-A-W130
Depth (mbgs)	1
Date	21-May-2021
EC	2.1
SAR	6.95

N6	
Sample	N6 SS1
Depth (mbgs)	0.2 - 0.6
Date	9-Apr-2019
EC	0.21
SAR	1.23

CS-A-W129	
Sample	CS-A-W128
Depth (mbgs)	1
Date	21-May-2021
EC	0.8
SAR	2.15

CS-A-W143	
Sample	CS-A-W143
Depth (mbgs)	1
Date	27-May-2021
EC	0.944
SAR	3.1

CS-A-F112	
Sample	CS-A-F112
Depth (mbgs)	1.5
Date	19-May-2021
EC	1.19
SAR	0.615

CS-A-W142	
Sample	CS-A-W142
Depth (mbgs)	1
Date	27-May-2021
EC	1.2
SAR	2.42

N2	
Sample	N2 SS1
Depth (mbgs)	0.3 -0.6
Date	9-Apr-2019
EC	0.85
SAR	5.64

CS-A-F103	
Sample	CS-A-F103
Depth (mbgs)	1.5
Date	3-Sep-2020
EC	0.562
SAR	0.783

CS-A-W140	
Sample	CS-A-W140
Depth (mbgs)	1
Date	27-May-2021
EC	0.815
SAR	2.45

CS-A-W102	
Sample	CS-A-W102
Depth (mbgs)	1
Date	3-Sep-2020
EC	1.09
SAR	21.3

BH204		
Sample	BH204 SS1	BH204 SS5
Depth (mbgs)	0.3 - 0.61	3.1 to 3.7
Date	1-May-2020	1-May-2020
EC	4.08	2.99
SAR	68.1	9.4

CS-A-W106	
Sample	CS-A-W106
Depth (mbgs)	1.0
Date	3-Sep-2020
EC	0.158
SAR	0.397

CS-A-F107	
Sample	CS-A-F107
Depth (mbgs)	1.5
Date	18-May-2021
EC	1.49
SAR	3.99

CS-A-W114	
Sample	CS-A-W114
Depth (mbgs)	1
Date	18-May-2021
EC	0.898
SAR	3.97

CS-A-W141	
Sample	CS-A-W141
Depth (mbgs)	1
Date	27-May-2021
EC	0.703
SAR	2.65

CS-A-F109		
Sample	CS-A-F109	CS-A-F105
Depth (mbgs)	1.5	1.5
Date	18-May-2021	18-May-20
EC	0.733	0.791
SAR	4.17	4.15

BH305		
Sample	BH305 SS2	~BH305 SS2
Depth (mbgs)	0.76 - 1.37	0.76 - 1.37
Date	14-Dec-2021	14-Dec-2021
EC	0.238	0.233
SAR	0.452	0.616

CS-A-W103	
Sample	CS-A-W103
Depth (mbgs)	1
Date	3-Sep-2020
EC	1.53
SAR	19.6

TP3	
Sample	TP3
Depth (mbgs)	0.3 -0.6
Date	9-May-2019
EC	0.52
SAR	5.5

CS-A-W104	
Sample	CS-A-W104
Depth (mbgs)	1.0
Date	3-Sep-2020
EC	0.32
SAR	1.38

CS-A-F102	
Sample	CS-A-F102
Depth (mbgs)	1.5
Date	3-Sep-2020
EC	0.151
SAR	0.423

CS-A-F101	
Sample	CS-A-F101
Depth (mbgs)	1.5
Date	3-Sep-2020
EC	0.252
SAR	0.54

CS-A-W107	
Sample	CS-A-W107
Depth (mbgs)	1.0
Date	3-Sep-2020
EC	0.254
SAR	2.33

CS-A-F108	
Sample	CS-A-F108
Depth (mbgs)	1.5
Date	18-May-2021
EC	0.393
SAR	3.96

CS-A-W113	
Sample	CS-A-W113
Depth (mbgs)	1.0
Date	18-May-2021
EC	0.293
SAR	0.772

N4	
Sample	N4 SS1
Depth (mbgs)	0.3 - 0.6
Date	9-Apr-2019
EC	0.38
SAR	3.91

BH111	
Sample	BH111
Depth (mbgs)	0.3 - 0.61
Date	1-May-2020
EC	0.794
SAR	7.5

BH306	
Sample	BH306 SS2
Depth (mbgs)	0.76 - 1.37
Date	14-Dec-2021
EC	0.255
SAR	0.347

CS-A-W105	
Sample	CS-A-W105
Depth (mbgs)	1.0
Date	3-Sep-2020
EC	0.333
SAR	1.33

N1	
Sample	N1 SS2
Depth (mbgs)	0.8 - 1.4
Date	8-Apr-2019
EC	0.33
SAR	1.03

CS-A-F104	
Sample	CS-A-F104
Depth (mbgs)	1.5
Date	3-Sep-2020
EC	0.365
SAR	3.83

CS-A-W108	
Sample	CS-A-W108
Depth (mbgs)	1.0
Date	3-Sep-2020
EC	0.311
SAR	4.16

N9	
Sample	N9 (SS2 + SS3
Depth (mbgs)	0.9 - 1.8
Date	9-Apr-2019
EC	0.58
SAR	1.49

Parameter	Abbreviation	TABLE 4 Soil Standards - Surface*	TABLE 4 Soil Standards - Subsurface*	Units
Conductivity (mS/cm)	EC	0.7	NA	mS/cm
Sodium Adsorption Ratio	SAR	5	NA	µg/g

SCALE:

0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- AREA OF CONTAMINATION AOC B
- SOIL REMOVED DURING REMEDIATION ACTIVITIES. NOT CARRIED FORWARD IN PHASE TWO CSM

*STANDARDS SHOWN ARE FOR A RESIDENTIAL/PARKLAND/INSTITUTIONAL PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/g, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
LOCATION WHERE SAMPLE EXCEEDS O. REG. 153/04 TABLE 4 STANDARDS FOR AT LEAST ONE PARAMETER IS SHOWN IN RED
LOCATION WHERE SAMPLE COLLECTED BELOW 1.5 mbgs IS SHOWN IN DARK BLUE
CONCENTRATION OF CONTAMINANT EXCEEDING TABLE 4 STANDARD SHOWN IN TEXT AS **RED BOLD**
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD (SUBSURFACE/COLLECTED BELOW 1.5 mbgs) SHOWN IN TEXT AS BLACK.

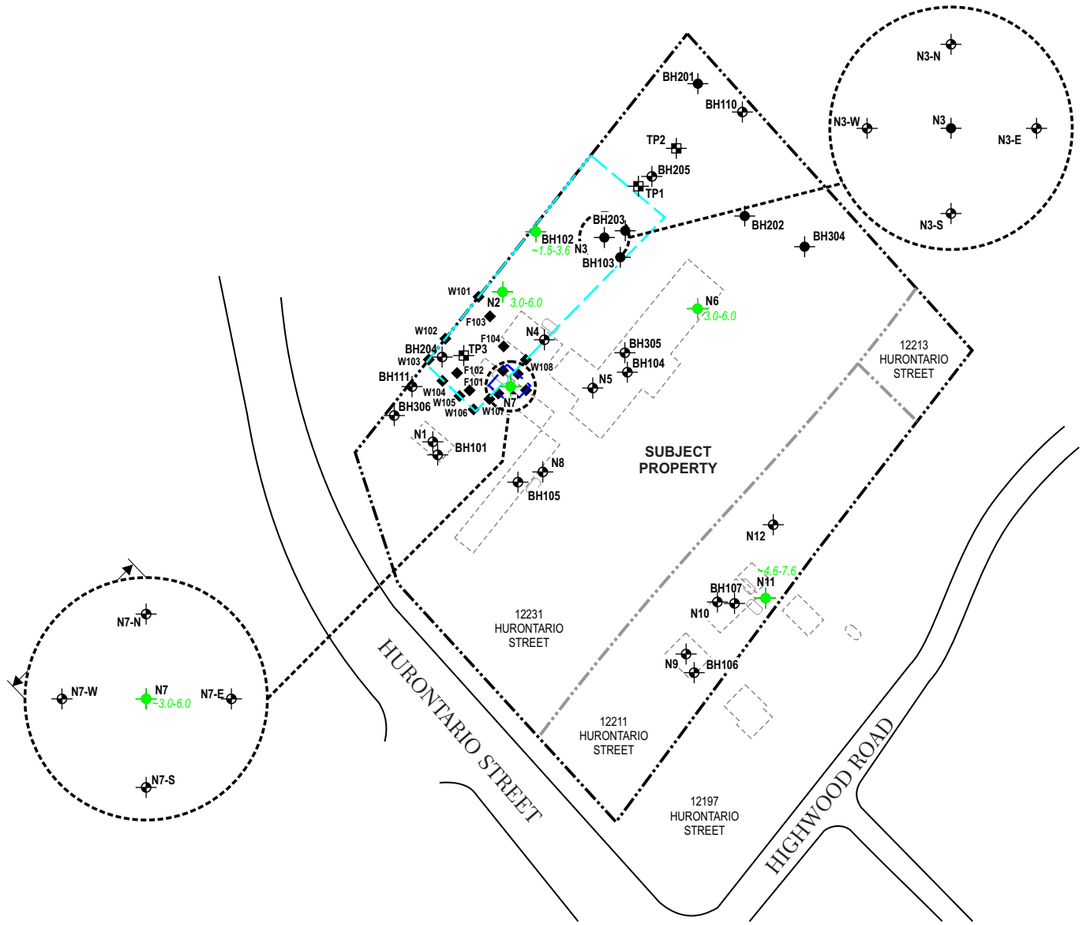
SOIL ANALYTICAL RESULTS – OTHER REGULATED PARAMETERS (INCLUDING EC AND SAR)

FIGURE 8E

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP RESULTS-JAN22:SOIL EC & SAR



SCALE:

0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- 3.0-6.0 SCREEN INTERVAL (mbgs)

*STANDARDS SHOWN ARE FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/L, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

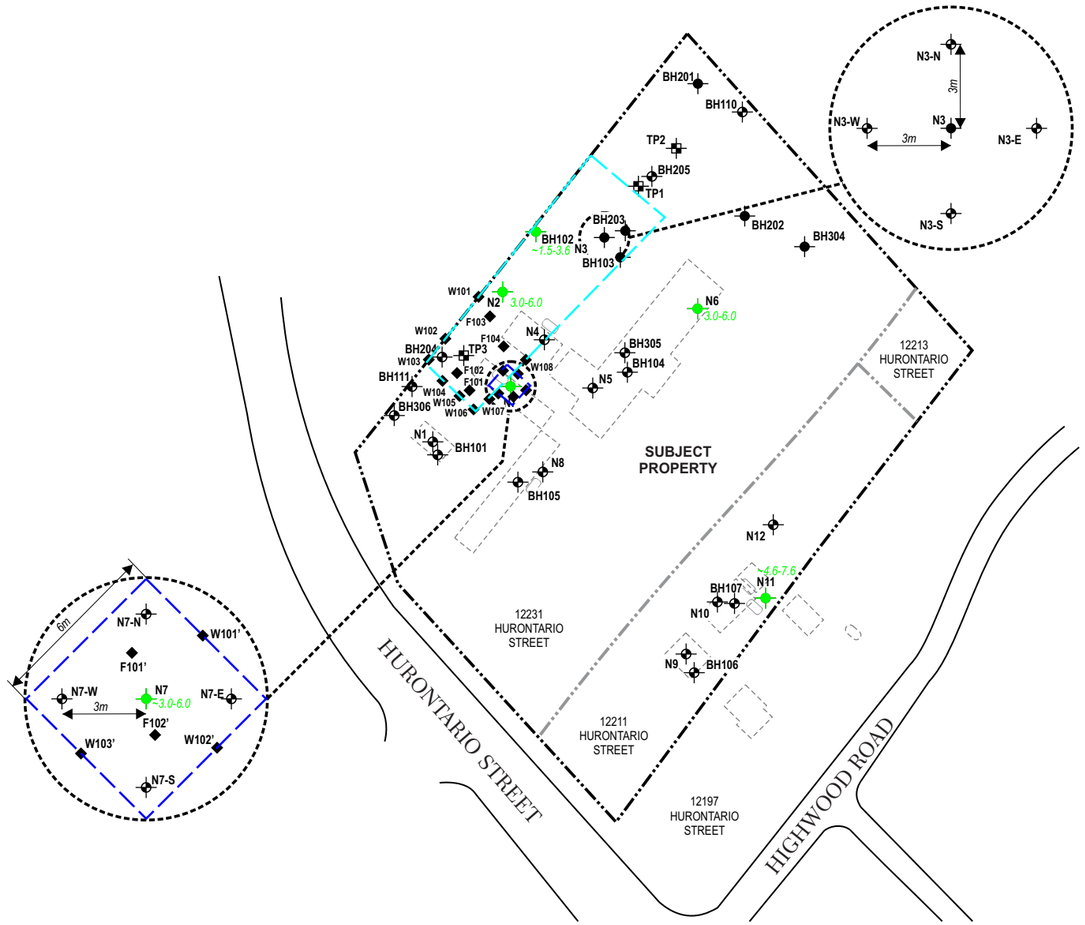
GROUND WATER ANALYTICAL RESULTS – PETROLEUM HYDROCARBONS

FIGURE 9A

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP RESULTS-JAN22:GW PET



SCALE:

0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- 3.0-6.0 SCREEN INTERVAL (mbgs)

*STANDARDS SHOWN ARE FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/L, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

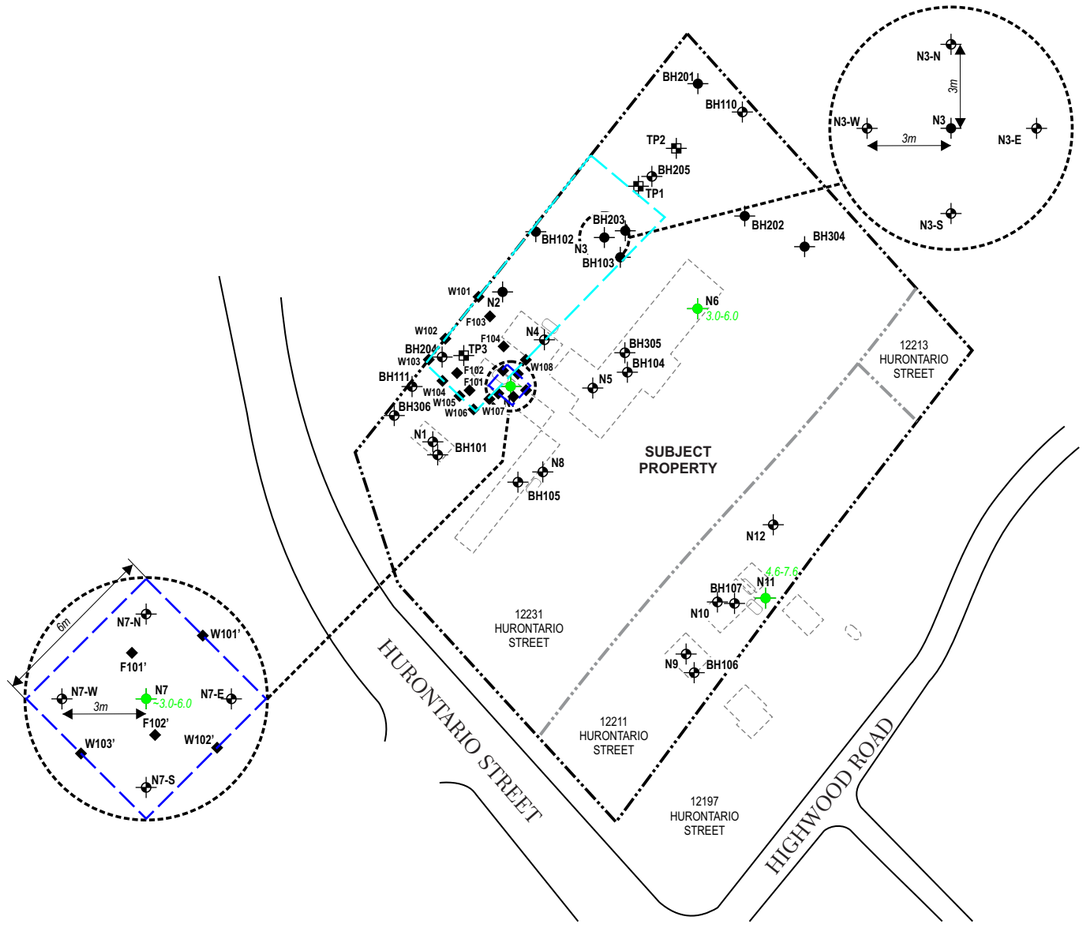
GROUND WATER ANALYTICAL RESULTS – VOLATILE ORGANIC COMPOUNDS

FIGURE 9B

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP RESULTS-JAN22:GW VOCs



SCALE:

0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- 3.0-6.0 SCREEN INTERVAL (mbgs)

*STANDARDS SHOWN ARE FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/L, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

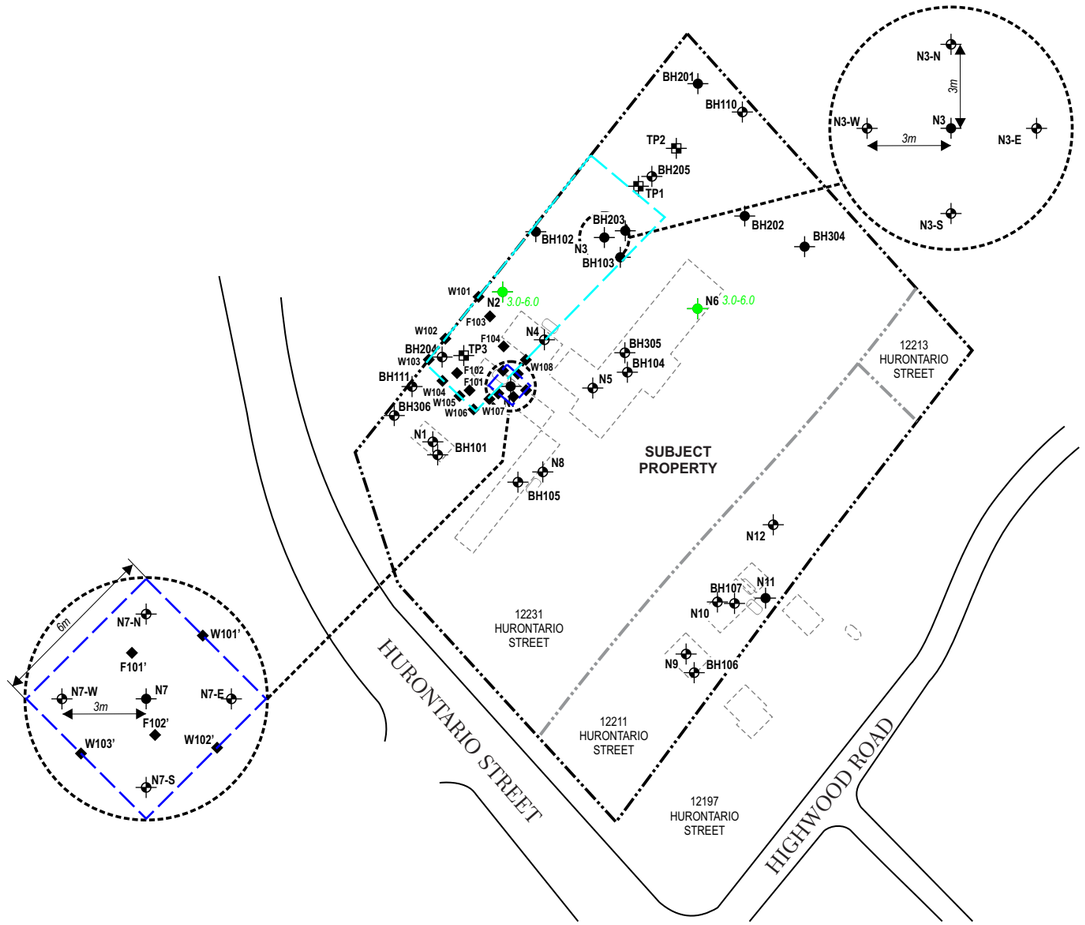
GROUND WATER ANALYTICAL RESULTS – POLYCYCLIC AROMATIC HYDROCARBONS

FIGURE 9C

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP RESULTS-JAN22:GW PAHs



SCALE:

0 25 50m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

DRAWN BY	CHECKED BY
K.G.	T.N.T.

LEGEND:

- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- *3.0-6.0* SCREEN INTERVAL (mbgs)

*STANDARDS SHOWN ARE FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/L, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

GROUND WATER ANALYTICAL RESULTS – METALS (INCLUDING HYDRIDE-FORMING)

FIGURE 9D

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP RESULTS-JAN22:GW METAL

BH201	
Screen Interval (mbgs)	1.3 to 4.3
Date	7-May-2020
Cl	2280000
Na	361000

BH-N3				~N113
Screen Interval (mbgs)	3.0-6.0			
Date	25-Apr-2019	1-May-2019	9-May-2019	9-May-2019
Cl	1580000	1430000	1120000	1260000
Na	159000	113000	78000	78000

BH102	~BH102	
Screen Interval (mbgs)	1.5 to 3.6	
Date	5-Mar-2020	5-Mar-2020	7-May-2020
Cl	8140000	8150000	8400000
Na	3350000	3320000	3360000

BH-N2				~N112
Screen Interval (mbgs)	3.0-6.0			
Date	25-Apr-2019	1-May-2019	9-May-2019	1-May-2019
Cl	1240000	2520000	2800000	2760000
Na	485000	607000	620000	n/a

BH304		
Screen Interval (mbgs)	2.29 to 5.33	
Date	20-Dec-2021	~20-Dec-2021
Cl	264000	269000
Na	111000	112000

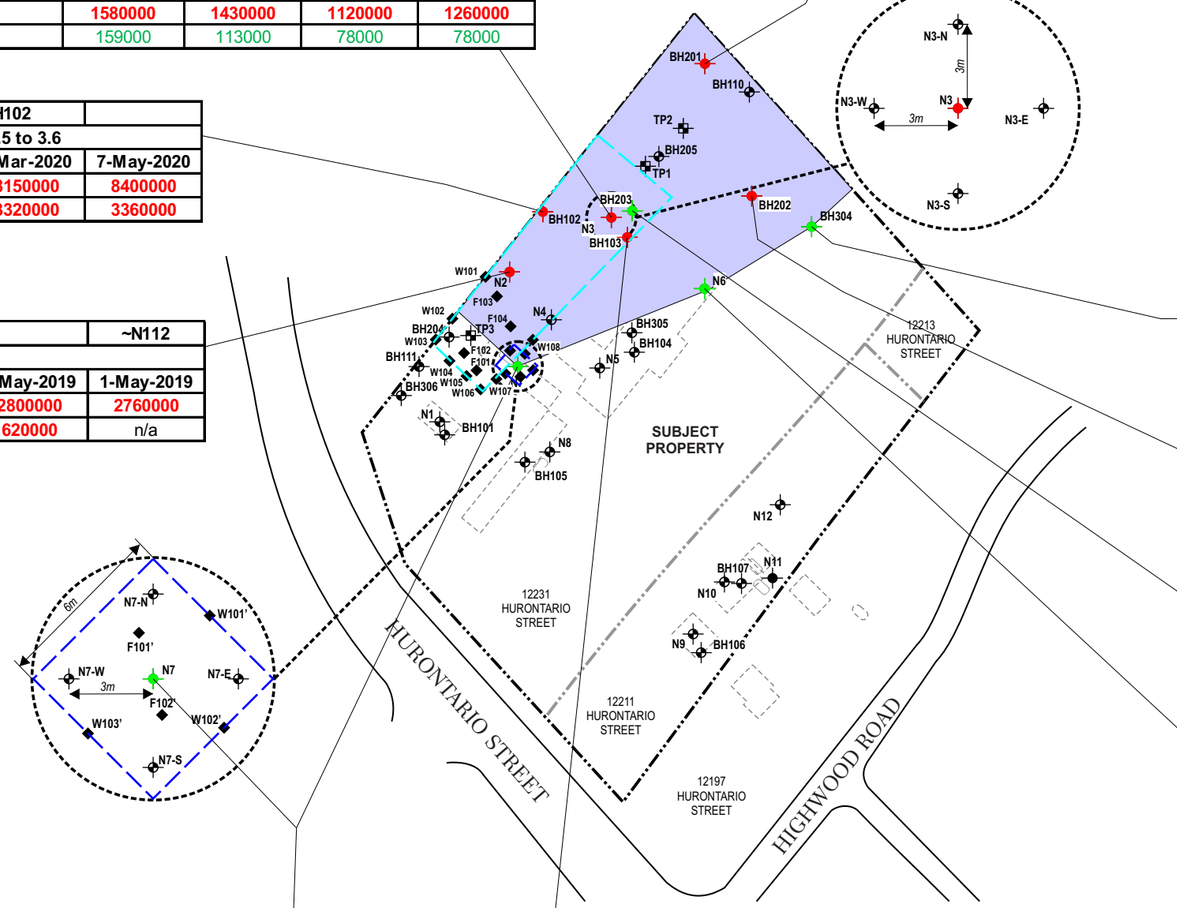
BH202	
Screen Interval (mbgs)	1.3 to 4.3
Date	7-May-2020
Cl	1950000
Na	491000

BH203		
Screen Interval (mbgs)	17.4 to 18.3	
Date	7-May-2020	~7-May-2020
Cl	25400	24400
Na	9830	9580

N6	
Screen Interval (mbgs)	3.0 to 6.0
Date	12-Apr-2019
Cl	106000
Na	35000

N7	
Screen Interval (mbgs)	3.0 to 6.0
Date	25-Apr-2019
Cl	102000
Na	40000

BH103		
Screen Interval (mbgs)	6.1 to 9.1	
Date	5-Mar-2020	7-May-2020
Cl	3690000	6420000
Na	812000	1190000



Parameter	Abbreviation	Table 4 Soil Standards*	Units
Chloride	Cl	790000	µg/L
Sodium	Na	490000	µg/L

SCALE: 0 25 50m

SOURCE: BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

exp. | DRAWN BY: K.G. | CHECKED BY: T.N.T.

LEGEND:
- PROPERTY BOUNDARY EXTENT
- PROPERTY BOUNDARY
- TEST HOLE WITH MONITOR N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST HOLE N SERIES(EXP, 2019) BH SERIES (EXP, 2020, 2021)
- TEST PIT (EXP, 2019)
- CONFIRMATORY SOIL SAMPLES (EXP, 2020, 2021)
- FORMER FEATURES
- FORMER ABOVE GROUND STORAGE TANK LOCATION
- FORMER UNDER GROUND STORAGE TANK LOCATION
- EXCAVATION 1
- EXCAVATION 2
- AREA OF CONTAMINATION AOC C

*STANDARDS SHOWN ARE FOR ALL TYPE OF PROPERTY USE AND MEDIUM/FINE TEXTURED SOILS
~ INDICATES FIELD DUPLICATE SAMPLE
mbgs - METRES BELOW GROUND SURFACE
ALL RESULTS IN UNITS OF µg/L, UNLESS OTHERWISE NOTED

LOCATION WHERE SAMPLE IS WITHIN O. REG. 153/04 TABLE 4 STANDARDS FOR ALL PARAMETERS ANALYZED IS SHOWN IN GREEN
LOCATION WHERE SAMPLE EXCEEDS O. REG. 153/04 TABLE 4 STANDARDS FOR AT LEAST ONE PARAMETER IS SHOWN IN RED
CONCENTRATION OF CONTAMINANT EXCEEDING TABLE 4 STANDARD SHOWN IN TEXT AS **RED BOLD**
CONCENTRATION OF CONTAMINANT WITHIN TABLE 4 STANDARD SHOWN IN TEXT AS GREEN

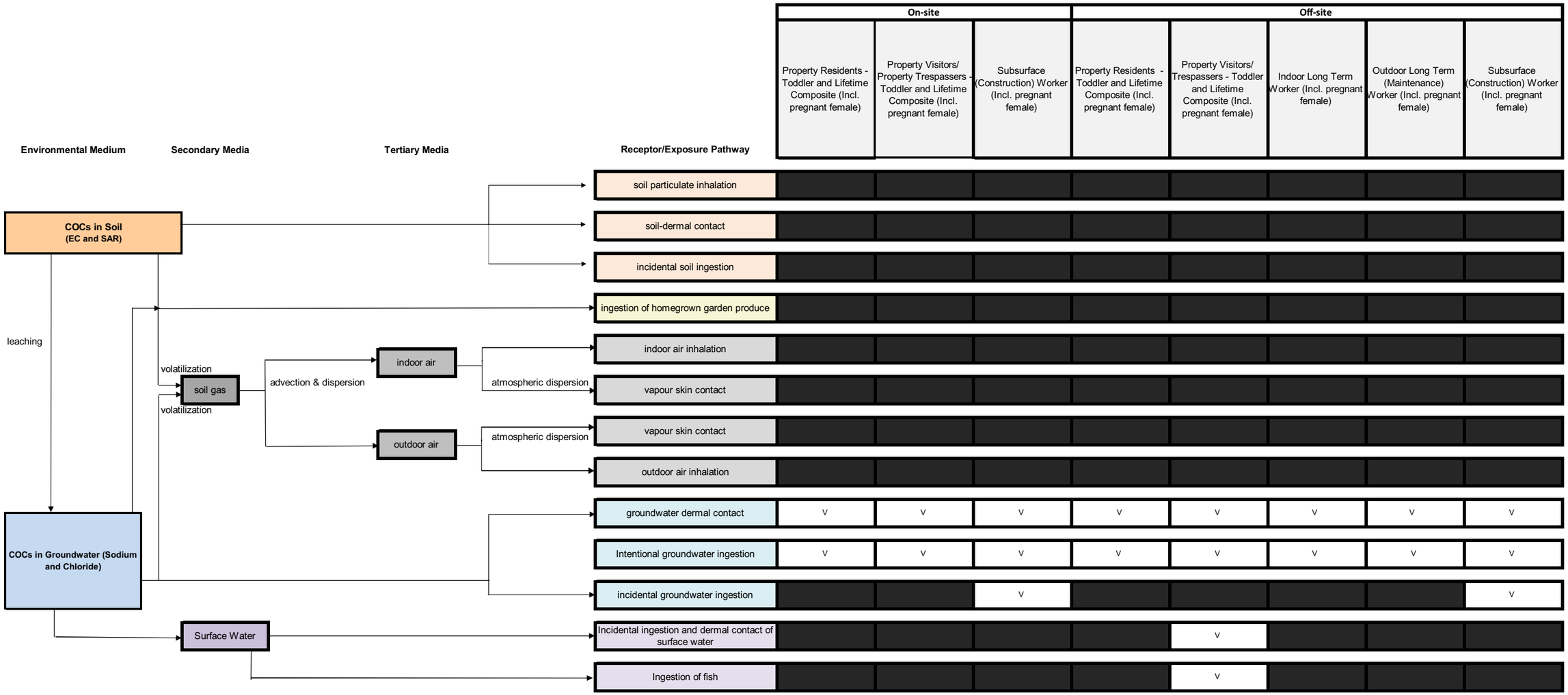
GROUND WATER ANALYTICAL RESULTS – OTHER REGULATED PARAMETERS (INCLUDING SODIUM AND CHLORIDE)

FIGURE 9E

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP RESULTS-JAN22:GW SODIUM & CHLORIDE



LEGEND:

	Pathway is incomplete
V	Pathway is complete

DRAWN BY	CHECKED BY
K.G.	T.N.T.

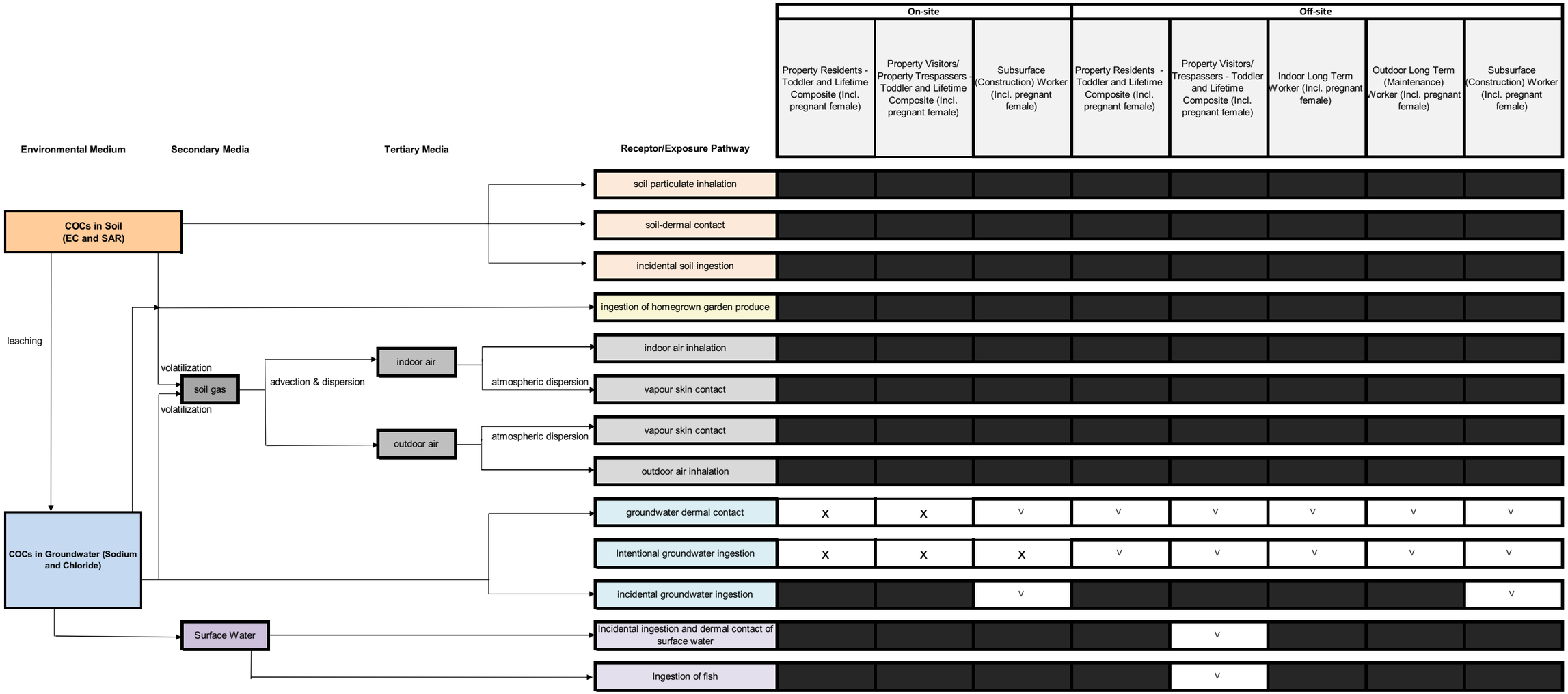
HUMAN HEALTH CONCEPTUAL SITE MODEL WITHOUT RMM

FIGURE 10A

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP HHCSM_ECSM-JAN22:HHCSM W/O RMM



LEGEND:

	Pathway is incomplete
V	Pathway is complete
X	Pathway is mitigated by RMM

RMMS TO BE APPLIED AT THE SITE FOR HUMAN HEALTH PROTECTION INCLUDE A RESTRICTION OF THE CONSTRUCTION OF WELLS FOR POTABLE USE.

DRAWN BY	CHECKED BY
K.G.	T.N.T.

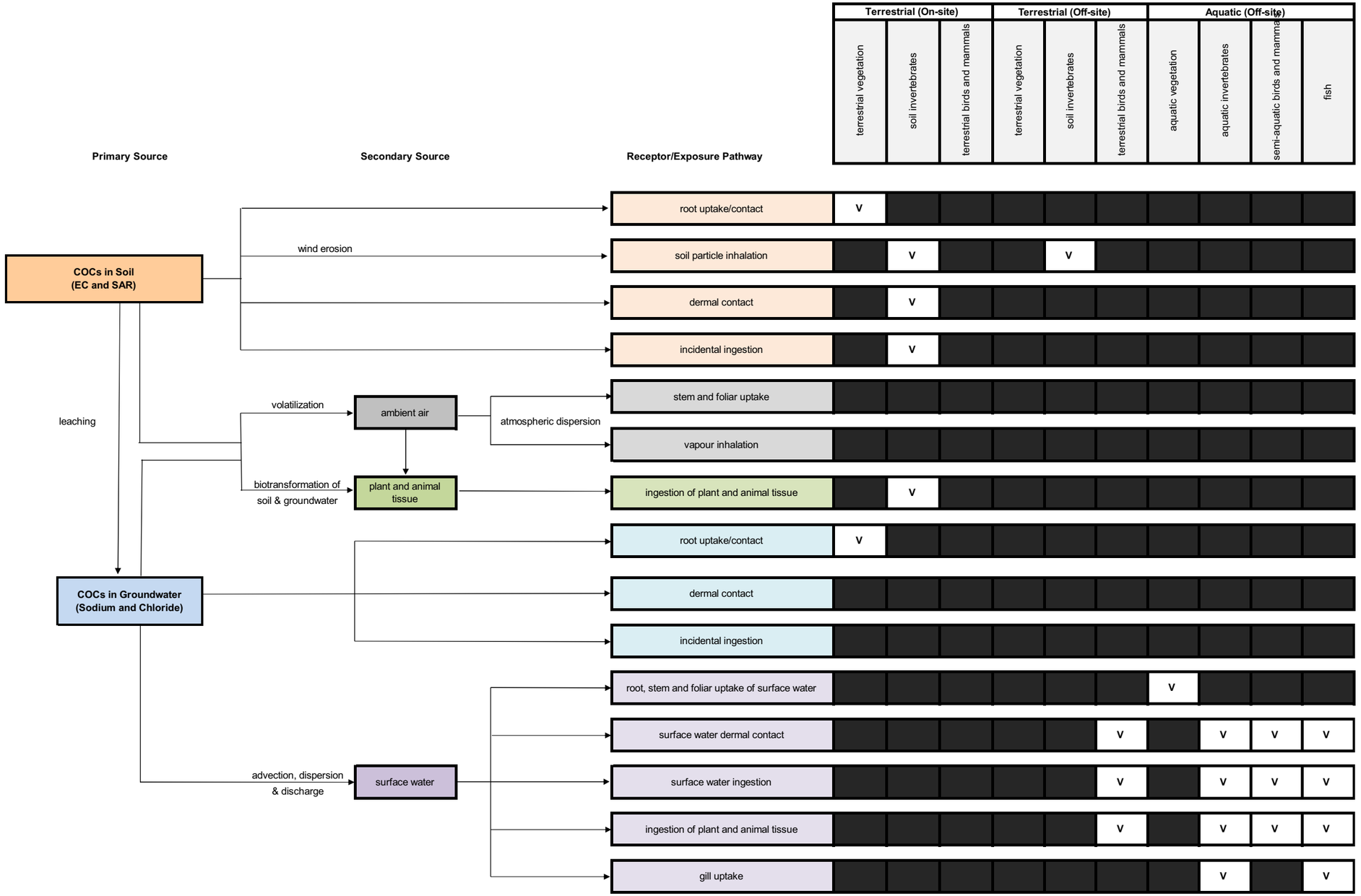
HUMAN HEALTH CONCEPTUAL SITE MODEL WITH RMM

FIGURE 10B

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP HHCSM_ECSM-JAN22:HHCSM WITH RMM



LEGEND:

	Pathway is incomplete
V	Pathway is complete

DRAWN BY	CHECKED BY
K.G.	T.N.T.

257876-MGRA_CP HHCSM_ECSM-JAN22:ECSM

ECOLOGICAL CONCEPTUAL SITE MODEL

FIGURE 11

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876

DATE: JANUARY 2022

Appendix B – Notifications

July 10, 2020

Regional Clerk
The Regional Municipality of Peel
10 Peel Centre Drive, 5th Floor, Suite A
Brampton, Ontario
L6T 4B9

Via Email: regional.clerk@peelregion.ca

Re: MRK-00257876-A0 Notice of Risk Assessment and Intent to Apply Restriction on Use of Groundwater for Potable Purposes
12197 Hurontario Street, Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario

EXP Services Inc. (EXP) was retained by Sobeys Capital Incorporated to undertake remediation and risk assessment (RA) work and file a Record of Site Condition (RSC) under Ontario Regulation (O. Reg.) 153/04 for the above-noted property (the "site").

The purpose of this letter is to notify you of the intention to conduct RA work for the site. As a conservative measure, the RA has concluded that a restriction on the use of groundwater for potable purposes be stated on a Certificate of Property Use (CPU) prepared for the site following RA acceptance by the Ontario Ministry of the Environment, Conservation and Parks (MECP). Therefore, this letter also serves to notify you of the intent to apply this restriction to the site. Additional details are provided in the section below.

1 Site Description

The site is located on the east side of Hurontario Street and the north side of Highwood Road, in Brampton and Caledon, Ontario with the municipal address of 12197 Hurontario Street, and 12211, 12213, 12231, and 12233 Hurontario Street. The site measures approximately 3.6 hectares (8.9 acres) in area and is irregular in shape. A locality plan is provided as Figure 1.

The legal description and Property Identification Number (PIN) of the site are as follows:

- 14235-0001 (LT);
- 14235-0025 (LT);
- 14235-1665 (LT); and,
- 14235-1693 (LT)

2 Background

The site was first developed for residential and commercial use (trailer sales and service, and livestock auctions) in the late 1950s. The on-site structures were demolished between 2013 and 2014. At the time of the Phase One investigation, the site was vacant (EXP, 2020a).

It is intended that the site be developed for residential use.

220 Commerce Valley Drive West, Suite 110 | Markham, ON, L3T 0A8 | Canada
t: 905.695.3217 | f: 905.695.0169 | exp.com

The potentially contaminating activities (PCAs) identified on-site, identified from Schedule D of O. Reg. 153/04, that are thought to contribute to areas of environmental concern (APECs) on-site are listed below:

- (28) Gasoline and associated product storage in fixed tanks;
- (30) Importation of fill material of unknown quality;
- (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems;
- (Other) Salt storage;
- (Other) Garage operations; and,
- (Other) Fuel leak

Two off-site PCAs, considered to contribute to an APEC on-site, were identified within the Phase One Study Area as follows:

- (28) Gasoline and associated product storage in fixed tanks;
- (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems;

This site is not considered to be potentially sensitive for the following reasons: There are no areas of natural or scientific interest on or within 30 metres of the site boundaries, bedrock is present at a depth greater than 2.0 metres below ground surface (mbgs), and pH for soil samples tested is between 5 and 9 for surficial soils and between 5 and 11 for subsurface soils. The presence of potable water use in the vicinity of the site and current field observations concerning soil texture support the use of Table 2 Generic Site Condition Standards (SCS) for a residential/parkland/institutional land use with medium to fine textured soil in a potable groundwater condition.

Phase Two ESAs were completed by EXP on June 11, 2019 and May 22, 2020. The field work program involved the advancement of 44 boreholes to depths ranging from 0.6 to 18.3 metres below ground surface (mbgs), 12 of which were completed as monitoring wells. Additionally, three hand dug test pits were advanced along the northwestern boundary.

Groundwater was found to range from 1.05 to 3.24 mbgs during the Phase Two ESA. Based on the recorded groundwater elevations collected on May 5 and May 7, 2020, the interpreted direction of groundwater flow is generally southeast towards Lake Ontario and Etobicoke Creek.

Soil and groundwater samples were analyzed for petroleum hydrocarbon (PHC) fractions F1 to F4, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), metal and inorganic parameters.

All soil samples were within the Table 2 SCS with the exception of PHC fraction F2 at N7 at depths ranging from 1.5 to 2.3 mbgs and electrical conductivity (EC) and sodium adsorption ratio (SAR) along the north portion of 12231 Hurontario Street at depths ranging from grade to 3.7 mbgs.

All groundwater samples were within the Table 2 SCS with the exception of sodium and chloride along the north portion of 12231 Hurontario Street.

It is intended that PHC fraction F2 exceedances in soil and some of the EC and SAR exceedances in soil be remediated. The remaining EC and SAR exceedances in soil and the sodium and chloride exceedances in groundwater will be addressed via the risk assessment.

3 Risk Assessment

To address the salt-related impacts in soil and groundwater, an RA is intended to be conducted. The RA addresses the potential for human exposure via intentional ingestion and dermal contact with groundwater via potable use.

Sodium and chloride are both considered non-toxic to humans and the drinking water standards are based on aesthetic criteria objectives (MECP, 2006[1]). A potable water supply well servicing the former on-site buildings is present on-site. However, this well is no longer in use and is expected to be decommissioned during redevelopment of the site. Furthermore, the site will be serviced by the municipality, where the potable water source is Lake Ontario, following redevelopment. Off-site potable water wells were completed to depths ranging between 15.2 to 45.72 mbgs and are located up- and trans-gradient (southeast) from the area of contamination (at least 150 metres). Sodium and chloride exceedances on-site were found to extend to a depth of 17.4 mbgs. As sodium and chloride concentrations were met south and southeast of the area of contamination, at N6, N7 and S3, the domestic wells located south and southeast of the site are not expected to be impacted. Additionally, a walkaround was conducted in May 2020 and domestic water wells could not be located.

According to the Ontario Drinking Water Standards (MECP, 2006), chloride produces a detectable salty taste at an aesthetic objective level of 250 mg/L but is a non-toxic material. Given that the maximum concentration of chloride on-site was found to be 8,400 mg/L and exceeds this aesthetic objective level, a restriction on the use of potable groundwater at the site will be recommended in the RA.

No toxicity benchmarks for sodium are available. However, information regarding the dietary reference intakes for sodium is available from the National Academies of Science, Engineering and Medicine (2005[2]). According to this reference, the adequate sodium intake per day can range from 120 (infants) to 1,500 milligrams per day (adults). Note that these intakes are not the maximum allowable intakes, rather, they are meant to meet the minimum nutritional needs of each human receptor group. No upper limit value is provided. However, given that the maximum concentration for sodium in groundwater on-site is 3,360 mg/L and with the assumption that an adult drinks approximately 2.3 L/day (MECP, 2011[3]), the maximum intake of salt sourced from groundwater would be 7,728 mg (approximately 5X the adequate intake) of sodium. The on-site values do not appear to be sufficiently large to pose any toxicity to the human population. However, as a conservative measure a restriction on the use of potable groundwater at the site will be recommended in the RA.

[1] Ontario Ministry of the Environment, Conservation and Parks (MECP). 2006. *Technical support Document for Ontario Drinking Water Standards, Objectives and Guidelines*, PIBS 4449e01, June 2003, Revised June 2005

[2] The National Academies of Sciences, Engineering and Medicine. 2005. *Dietary Reference Intakes for Water, Potassium, Sodium, Chloride and Sulfate*.

[3] MECP. 2011. *Rationale for the Development of Soil and Ground Water Standards for Use at Contaminated Sites in Ontario*. April 15, 2011

4 Conclusion

We trust this letter is satisfactory for the purposes of notification of the intent to restrict the use of groundwater for potable purposes at the site.

Should you have any questions concerning this letter, please do not hesitate to contact the undersigned.

Yours very truly,

EXP Services Inc.

Andrew How Soon Yuen, M.E.Sc.
Environmental Scientist
Environmental Services
andrew.howsoonyuen@exp.com

Ruxandra Côté, M.E.Sc.
Team Lead - Markham
Environmental Services
ruxandra.cote@exp.com

Attachments

Figure 1 - Locality Plan

Figures

SCALE:	SOURCE:	LOCALITY PLAN	FIGURE 1
0 1000 2000m	GOOGLE MAPS	12197 HURONTARIO STREET, BRAMPTON, ONTARIO AND 12211, 12213, 12231, AND 12233 HURONTARIO STREET, CALEDON, ONTARIO	
exp.	DRAWN BY: K.G.	CHECKED BY: A.B.	PROJECT NUMBER: 257876

257876-LOCALITY

From: Grzesiak, Ryan <ryan.grzesiak@peelregion.ca>
Sent: Wednesday, July 22, 2020 10:00 AM
To: Andrew How Soon Yuen
Cc: Sniatenchuk, Bernadette
Subject: RE: Restriction on Use of Groundwater for Potable Use - 12197 Hurontario Street, Brampton, Ontario, 12211, 12213, 12231, and 12233 Hurontario Street, Brampton, Ontario

Hi Andrew,

Thanks very much for the clarification on all of my questions; I don't have any additional comments on the potable groundwater use restriction. Given that the site is now using the Table 2 SCS for the Phase Two ESA, RA and RSC it appears that there is really nothing on our end that requires any action.

Happy to discuss things more if needed.

Take care,
Ryan

Ryan Grzesiak, B.A.
Environmental Advisor
Engineering Technical Services
Operations Support Division, Public Works
Region of Peel
2 Copper Road, Brampton ON L6T 4W5
Phone: 905-791-7800 ext. 3036
ryan.grzesiak@peelregion.ca

Region of Peel
working with you

From: Andrew How Soon Yuen <Andrew.HowSoonYuen@exp.com>
Sent: July 20, 2020 12:33 PM
To: Grzesiak, Ryan <ryan.grzesiak@peelregion.ca>

Cc: Sniatenchuk, Bernadette <bernadette.sniatenchuk@peelregion.ca>
Subject: RE: Restriction on Use of Groundwater for Potable Use - 12197 Hurontario Street, Brampton, Ontario, 12211, 12213, 12231, and 12233 Hurontario Street, Brampton, Ontario

Hello Ryan,

Please see below for comments to your questions in red.

Regards,

Andrew

Andrew How Soon Yuen, M.EnvSc.
EXP | Field Scientist
t : +1.905.695.3217 | e : andrew.howsoonyuen@exp.com

exp.com | legal disclaimer
keep it green, read from the screen

From: Grzesiak, Ryan <ryan.grzesiak@peelregion.ca>
Sent: Thursday, July 16, 2020 3:52 PM
To: Andrew How Soon Yuen <Andrew.HowSoonYuen@exp.com>
Cc: Sniatenchuk, Bernadette <bernadette.sniatenchuk@peelregion.ca>
Subject: FW: Restriction on Use of Groundwater for Potable Use - 12197 Hurontario Street, Brampton, Ontario, 12211, 12213, 12231, and 12233 Hurontario Street, Brampton, Ontario

Hi Andrew,

I wanted to connect with you for more information on your request. I understand that you are required to notify The Region of Peel of the RA approach where the QPRA intends to prepare an RA that assumes groundwater at the site does not or will not serve as a municipal water supply for a drinking water system and non-potable standards are to be developed.

However, can you explain to me what is involved with applying a restriction on the site for the use of groundwater for potable purposes? This is an administrative condition that would be applied to the property, which would prohibit the construction of any wells at the site for potable use. This restriction is noted on a Certificate of Property Use (CPU) for the property, which is generated by the

MECP upon acceptance of the risk assessment. The CPU would then be registered on title for the property.

Is this something that goes on title of the property? Yes, it will be listed in the CPU which gets registered on title for the property (see above).

Who approves of the restriction? Ultimately, as part of the RA, the MECP approves the restriction but takes into consideration any municipal comments.

Lastly, back in February of 2020 the Region of Peel issued an objection letter based on lack of information requiring the potential for drinking water wells within 250 metres of the site. Please see attached letter. Kate Miles from EXP was the original applicant contact. Was there any follow up on that situation? No additional work was completed as part of the non-potable application request submitted by EXP. In lieu of the additional information to support the application of non-potable standards, the applicable MECP potable SCS (i.e. MECP Table 2 SCS) are being applied to the property for the purposes of the Phase Two ESA, risk assessment and RSC filing.

Thanks and I look forward to discussing things further.

Take care,
Ryan

Ryan Grzesiak, B.A.
Environmental Advisor
Engineering Technical Services
Operations Support Division, Public Works
Region of Peel
2 Copper Road, Brampton ON L6T 4W5
Phone: 905-791-7800 ext. 3036
ryan.grzesiak@peelregion.ca

Hello,

EXP Services Inc. (EXP) has been retained by Sobeys Capital Inc. to conduct a risk assessment at the contiguous property with municipal addresses of 12197 Hurontario Street, Brampton, Ontario, 12211,

12213, 12231, and 12233 Hurontario Street, Brampton, Ontario. The property is located on the east side of Hurontario Street and the north side of Highwood Road, in Brampton and Caledon, Ontario and is 3.6 hectares (8.9 acres) in area.

The purpose of the attached letter is to notify you of the intention to conduct risk assessment work at the site and the intent to apply a restriction on the use of groundwater for potable purposes.

Please do not hesitate to contact me for additional information.

Thank you,

Andrew

Andrew How Soon Yuen, M.EnvSc.
EXP | Field Scientist
t : +1.905.695.3217 | e : andrew.howsoonyuen@exp.com
220 Commerce Valley Drive West, Suite 110
Markham, ON L3T 0A8
CANADA

July 10, 2020

Town Clerk
Town of Caledon
6311 Old Church Road
Caledon, Ontario
L7C 1J6

Via Email : info@caledon.ca

Re: MRK-00257876-A0 Notice of Risk Assessment and Intent to Apply Restriction on Use of Groundwater for Potable Purposes
12197 Hurontario Street, Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario

EXP Services Inc. (EXP) was retained by Sobeys Capital Incorporated to undertake remediation and risk assessment (RA) work and file a Record of Site Condition (RSC) under Ontario Regulation (O. Reg.) 153/04 for the above-noted property (the "site").

The purpose of this letter is to notify you of the intention to conduct RA work for the site. As a conservative measure, the RA has concluded that a restriction on the use of groundwater for potable purposes be stated on a Certificate of Property Use (CPU) prepared for the site following RA acceptance by the Ontario Ministry of the Environment, Conservation and Parks (MECP). Therefore, this letter also serves to notify you of the intent to apply this restriction to the site. Additional details are provided in the section below.

1 Site Description

The site is located on the east side of Hurontario Street and the north side of Highwood Road, in Brampton and Caledon, Ontario with the municipal address of 12197 Hurontario Street, and 12211, 12213, 12231, and 12233 Hurontario Street. The site measures approximately 3.6 hectares (8.9 acres) in area and is irregular in shape. A locality plan is provided as Figure 1.

The legal description and Property Identification Number (PIN) of the site are as follows:

- 14235-0001 (LT);
- 14235-0025 (LT);
- 14235-1665 (LT); and,
- 14235-1693 (LT)

2 Background

The site was first developed for residential and commercial use (trailer sales and service, and livestock auctions) in the late 1950s. The on-site structures were demolished between 2013 and 2014. At the time of the Phase One investigation, the site was vacant (EXP, 2020a).

It is intended that the site be developed for residential use.

220 Commerce Valley Drive West, Suite 110 | Markham, ON, L3T 0A8 | Canada
t: 905.695.3217 | f: 905.695.0169 | exp.com

The potentially contaminating activities (PCAs) identified on-site, identified from Schedule D of O. Reg. 153/04, that are thought to contribute to areas of environmental concern (APECs) on-site are listed below:

- (28) Gasoline and associated product storage in fixed tanks;
- (30) Importation of fill material of unknown quality;
- (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems;
- (Other) Salt storage;
- (Other) Garage operations; and,
- (Other) Fuel leak

Two off-site PCAs, considered to contribute to an APEC on-site, were identified within the Phase One Study Area as follows:

- (28) Gasoline and associated product storage in fixed tanks;
- (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems;

This site is not considered to be potentially sensitive for the following reasons: There are no areas of natural or scientific interest on or within 30 metres of the site boundaries, bedrock is present at a depth greater than 2.0 metres below ground surface (mbgs), and pH for soil samples tested is between 5 and 9 for surficial soils and between 5 and 11 for subsurface soils. The presence of potable water use in the vicinity of the site and current field observations concerning soil texture support the use of Table 2 Generic Site Condition Standards (SCS) for a residential/parkland/institutional land use with medium to fine textured soil in a potable groundwater condition.

Phase Two ESAs were completed by EXP on June 11, 2019 and May 22, 2020. The field work program involved the advancement of 44 boreholes to depths ranging from 0.6 to 18.3 metres below ground surface (mbgs), 12 of which were completed as monitoring wells. Additionally, three hand dug test pits were advanced along the northwestern boundary.

Groundwater was found to range from 1.05 to 3.24 mbgs during the Phase Two ESA. Based on the recorded groundwater elevations collected on May 5 and May 7, 2020, the interpreted direction of groundwater flow is generally southeast towards Lake Ontario and Etobicoke Creek.

Soil and groundwater samples were analyzed for petroleum hydrocarbon (PHC) fractions F1 to F4, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), metal and inorganic parameters.

All soil samples were within the Table 2 SCS with the exception of PHC fraction F2 at N7 at depths ranging from 1.5 to 2.3 mbgs and electrical conductivity (EC) and sodium adsorption ratio (SAR) along the north portion of 12231 Hurontario Street at depths ranging from grade to 3.7 mbgs.

All groundwater samples were within the Table 2 SCS with the exception of sodium and chloride along the north portion of 12231 Hurontario Street.

It is intended that PHC fraction F2 exceedances in soil and some of the EC and SAR exceedances in soil be remediated. The remaining EC and SAR exceedances in soil and the sodium and chloride exceedances in groundwater will be addressed via the risk assessment.

3 Risk Assessment

To address the salt-related impacts in soil and groundwater, an RA is intended to be conducted. The RA addresses the potential for human exposure via intentional ingestion and dermal contact with groundwater via potable use.

Sodium and chloride are both considered non-toxic to humans and the drinking water standards are based on aesthetic criteria objectives (MECP, 2006[1]). A potable water supply well servicing the former on-site buildings is present on-site. However, this well is no longer in use and is expected to be decommissioned during redevelopment of the site. Furthermore, the site will be serviced by the municipality, where the potable water source is Lake Ontario, following redevelopment. Off-site potable water wells were completed to depths ranging between 15.2 to 45.72 mbgs and are located up- and trans-gradient (southeast) from the area of contamination (at least 150 metres). Sodium and chloride exceedances on-site were found to extend to a depth of 17.4 mbgs. As sodium and chloride concentrations were met south and southeast of the area of contamination, at N6, N7 and S3, the domestic wells located south and southeast of the site are not expected to be impacted. Additionally, a walkaround was conducted in May 2020 and domestic water wells could not be located.

According to the Ontario Drinking Water Standards (MECP, 2006), chloride produces a detectable salty taste at an aesthetic objective level of 250 mg/L but is a non-toxic material. Given that the maximum concentration of chloride on-site was found to be 8,400 mg/L and exceeds this aesthetic objective level, a restriction on the use of potable groundwater at the site will be recommended in the RA.

No toxicity benchmarks for sodium are available. However, information regarding the dietary reference intakes for sodium is available from the National Academies of Science, Engineering and Medicine (2005[2]). According to this reference, the adequate sodium intake per day can range from 120 (infants) to 1,500 milligrams per day (adults). Note that these intakes are not the maximum allowable intakes, rather, they are meant to meet the minimum nutritional needs of each human receptor group. No upper limit value is provided. However, given that the maximum concentration for sodium in groundwater on-site is 3,360 mg/L and with the assumption that an adult drinks approximately 2.3 L/day (MECP, 2011[3]), the maximum intake of salt sourced from groundwater would be 7,728 mg (approximately 5X the adequate intake) of sodium. The on-site values do not appear to be sufficiently large to pose any toxicity to the human population. However, as a conservative measure a restriction on the use of potable groundwater at the site will be recommended in the RA.

[1] Ontario Ministry of the Environment, Conservation and Parks (MECP). 2006. *Technical support Document for Ontario Drinking Water Standards, Objectives and Guidelines*, PIBS 4449e01, June 2003, Revised June 2005

[2] The National Academies of Sciences, Engineering and Medicine. 2005. *Dietary Reference Intakes for Water, Potassium, Sodium, Chloride and Sulfate*.

[3] MECP. 2011. *Rationale for the Development of Soil and Ground Water Standards for Use at Contaminated Sites in Ontario*. April 15, 2011

4 Conclusion

We trust this letter is satisfactory for the purposes of notification of the intent to restrict the use of groundwater for potable purposes at the site.

Should you have any questions concerning this letter, please do not hesitate to contact the undersigned.

Yours very truly,

EXP Services Inc.

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Attachments

Figure 1 - Locality Plan

Figures

SCALE:	SOURCE:	LOCALITY PLAN	FIGURE 1
0 1000 2000m	GOOGLE MAPS	12197 HURONTARIO STREET, BRAMPTON, ONTARIO AND 12211, 12213, 12231, AND 12233 HURONTARIO STREET, CALEDON, ONTARIO	
exp.	DRAWN BY: K.G.	CHECKED BY: A.B.	PROJECT NUMBER: 257876

257876-LOCALITY

Appendix C – Phase One and Two Environmental Site Assessment Summaries

Appendix C: Summary of Phase One and Two Environmental Site Assessments

All figures referenced throughout this Appendix are provided in the Phase Two CSM provided in Appendix A.

1. Summary of Phase One Environmental Site Assessments

The following Phase One ESAs *were* ~~was~~ completed for the RA Property:

- EXP Services Inc. (2020a), *Phase One Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, January 20, 2020.
- EXP Services Inc. (2022a), *Phase One Environmental Site Assessment Update, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, January 5, 2022.

A copy of these ~~is~~ reports are ~~is~~ included on the USB attached in Appendix H. It is noted that the Phase One ESAs above also included 12197 Hurontario Street in Brampton, Ontario, which is not part of the RA property. It is further noted that on the Town of Caledon maps, the RA property also includes the municipal address of 12233 Hurontario Street, Caledon, which comprises the westernmost portion of 12231 Hurontario Street. However, as there are no legal records pertaining to this address, this municipal address has been removed from reference in the RA.

The site, municipally addressed as ~~12197 Hurontario Street, Brampton, Ontario,~~ 12211, 12213 and ~~,~~ 12231 ~~, and 12233~~ Hurontario Street, Caledon, Ontario. A locality plan is provided as Figure 1. The site is irregular in shape and measures approximately 3.09 ~~6~~ hectares (7.6 ~~8.9~~ acres) in area. A site plan is provided as Figure 2.

The site was first developed for residential and commercial use (trailer sales and service, and livestock auctions) in the late 1950s. Prior to the 1950s the site was under agricultural use or vacant; based on the documents reviewed as part of the Phase One ESA, no orchards were present on, or in the vicinity of the site. The on-site structures were demolished between 2013 and 2014. The site was vacant at the time of the Phase One ESAs (EXP, 2020a, 2022a).

Surrounding properties include mixed vacant and community (Highway 401 and ramps) land to the northwest, mixed commercial and residential use to the southwest and residential use to the northeast and southeast. Surrounding land uses are shown on Figure 3A.

The PCAs identified on-site, identified from Schedule D of O. Reg. 153/04, that are thought to contribute to an APEC are listed below:

- (28) Gasoline and associated product storage in fixed tanks;
- (30) Importation of fill material of unknown quality;
- (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems;
- (Other) Salt storage;
- (Other) Garage operations; and,
- (Other) Fuel leak.

Two off-site PCA, considered to contribute to an APEC, were identified within the Phase One Study Area:

- (28) Gasoline and associated product storage in fixed tanks; and,
- (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems.

Four~~One~~ additional off-site PCAs was identified within the Phase One Study Area and includes the following:

- (30) Importation of fill material of unknown quality - This PCA is associated with potential fill within the footprint of a former residential building on the south adjacent property (12197 Hurontario Street) and illegal dumping of contaminated soil at Hutchinson Farm Lane, located southwest of the site, across Hurontario Street. Given that this PCA is anticipated to impact soil only, any potential contamination is unlikely to migrate on to the site, given the location of these~~is~~ PCAs down-gradient and ~~across Hurontario Street and is~~ cross-gradient to the site, respectively. It is further noted that the quality of potential fill on the south adjacent property was evaluated by EXP (EXP, 2020b) and no soil impacts were identified. As such, ~~this PCA~~ these PCAs are~~is~~ considered to be of *de minimis* concern.
- (28) Gasoline and associated products storage in fixed tanks – This PCA is associated with a former UST located at 12267 Hurontario Street, southeast adjacent to the site. This PCA is located downgradient of the site. Furthermore, this PCA was investigated at the source by EXP (2020b) and no impacts were identified. As such, this PCA is considered to be of *de minimis* concern.
- (other) Garage operations – According to previous reports, garage operations were historically present at 12267 Hurontario Street, southeast adjacent to the site garage. This PCA is located downgradient of the site. Furthermore, this PCA was investigated at the source by EXP (2020b) and no impacts were identified. As such, this PCA is considered to be of *de minimis* concern.

The number presented in brackets beside each PCA above is associated with the PCA number in Table 2, Schedule D of O. Reg. 153/04. Where an activity is not provided, it is listed as "other".

The PCAs that contribute to an APEC are summarized in Table C-1.

The locations of all PCAs and APECs are shown on Figures 3A and 3B, respectively. Off-site PCAs that are considered to be *de minimis* are shown in green on Figure 3A.

Table C-1. Areas of Potential Environmental Concern

APEC	Location of APEC on Phase One Property	PCA	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
A	Northwestern portion of site	S1: (28) Gasoline and associated product storage in fixed tanks - Former AST located at 12231 Hurontario Street (rear building)	On-site	PHCs, VOCs	Soil
B	Northwestern portion of site	S2: (28) Gasoline and associated product storage in fixed tanks - Former AST located at 12231 Hurontario Street (front building)	On-site	PHCs, VOCs	Soil
C1	Northwestern portion of site	S3a: (28) Gasoline and associated product storage in fixed tanks	On-site	PHCs, VOCs	Soil

		- Former AST located at 12231 Hurontario Street (front building)			
C2	Northwestern portion of site	S3b: (Other) – Fuel leak - Fuel spill at 12231 Hurontario Street from AST in front building	On-site	PHCs, BTEX	Soil and groundwater
D1	Southeastern~~Central~~ portion of site	S4a: (28) Gasoline and associated product storage in fixed tanks - ~~Two f~~Former AST~~s~~ at 12211 Hurontario Street	On-site	PHCs, VOCs	Soil
D2	Southeastern portion of site	S4b: (28) Gasoline and associated product storage in fixed tanks Former AST at 12211 Hurontario Street	On-site	PHCs, VOCs	Soil
E	North~~eastern~~ portion of site	S5: (other) salt storage - Former salt storage at 12231 Hurontario Street	On-site	EC, SAR Sodium, chloride	Soil Groundwater
F	Northwestern portion of site	S6: (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems - Former trailer maintenance activities at 12231 Hurontario Street (rear building)	On-site	PHCs, VOCs, PAHs	Soil and groundwater
G	Northwestern portion of site	S7: (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems - Former trailer maintenance activities at 12231 Hurontario Street (front building)	On-site	PHCs, VOCs, PAHs	Soil and groundwater
H	Southeastern~~Central~~ portion of site	S8: (other) garage operations - Former garage operations located at 12211 Hurontario Street	On-site	PHCs, VOCs, PAHs	Soil and groundwater
I	Northwestern portion of site	S9: (30) Importation of Fill Material of Unknown Quality - Former residential building with a basement located at 122313~~3~~ Hurontario Street	On-site	PAHs, metals (including hydride forming metals)	Soil
J	Southeastern~~Central~~ portion of the site	S10: (30) Importation of Fill Material of Unknown Quality - Former residential building with a basement located at 12211 Hurontario Street	On-site	PAHs, metals (including hydride forming metals)	Soil
~~K~~	~~Southern portion of the site~~	~~S11: (30) Importation of Fill Material of Unknown Quality~~ ~~- Former residential building with a basement~~	~~On-site~~	~~PAHs, metals (including hydride~~	~~Soil~~

		~~located at 12197 Hurontario Street~~		~~forming metals)~~	
~~L~~	~~Southeastern portion of the site~~	~~S12: (28) Gasoline and Associated Products Storage in Fixed Tanks~~ ~~- Former UST located at 12197 Hurontario Street~~	~~On-site~~	~~PHCs, VOCs~~	~~Soil and groundwater~~
~~M~~	~~Southeastern portion of the site~~	~~S13: (other) garage operations~~ ~~- Former garage operations at 12197 Hurontario Street~~	~~On-site~~	~~PHCs, VOCs, PAHs~~	~~Soil and groundwater~~
~~N~~K	Northern and northwestern portion of the site	S14: (28) Gasoline and Associated Products Storage in Fixed Tanks - Former USTs located at 12267 Hurontario Street S15: (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems - Former school bus maintenance activities at 12267 Hurontario Street	Off-site	PHCs, VOCs	Groundwater

[1] The number presented in brackets is the PCA number listed in Table 2, Schedule D of O. Reg. 153/04. Where the activity is not listed, it is identified as "Other".
PHCs – Petroleum hydrocarbons; BTEX – benzene, toluene, ethylbenzene, xylenes; VOC – volatile organic compounds;
PAH – polycyclic aromatic hydrocarbons; EC – Electrical Conductivity; and, SAR – Sodium Adsorption Ratio

2. Summary of Phase Two Environmental Assessments

The following Phase Two ESA, or related documents were prepared for the RA property:

- EXP Services Inc. (2019), *Subsurface Environmental Investigation 12197 Hurontario Street, City of Brampton, 12211, 12213, 12231, 12233 Hurontario Street, Town of Caledon*, June 11, 2019.
- EXP Services Inc. (2020b), *Phase Two Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, May 22, 2020.
- EXP Services Inc. (2021), *Remediation Report, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, July 29, 2021.
- EXP Services Inc. (2022b), *Phase Two Environmental Site Assessment Update, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, January 27, 2022.

A copy of each report is included on the USB attached in Appendix H. It is noted that the Phase Two ESA and remediation reports above also included 12197 Hurontario Street in Brampton, Ontario, which is not part of the RA property. As part of the Phase Two ESA Update (EXP, 2022b), separate Phase Two CSMs were prepared. The summaries provided in this section pertain to the site only.

Appropriate Standards Selection

As part of the RA process, EXP determined the appropriate soil and groundwater Standards for the screening of the COCs on the RA Property. The Standards were determined per O. Reg. 153/04. Parameters that did not meet the appropriate Standards in soil and/or groundwater were considered COCs and will be further evaluated in the RA.

The area within the vicinity of the site is serviced by a municipal water source or rely on domestic wells. While the area in the vicinity of the site has been moving towards the use of municipal drinking water in the past 5 years, it was conservatively assumed that the SCS for a potable groundwater condition is considered applicable.

During the Phase Two ESA work (EXP, 2020b, 2022b), the site stratigraphy was determined to be a thin layer of sand and gravel fill (generally less than 0.6 metres in thickness) or reworked native clayey silt to silty clay to a maximum depth of 1.5 mbgs, underlain by native clayey silt to clayey silt till a maximum depth of 9.1 mbgs, underlain by sandy silt till to a depth greater than 18.3 mbgs. Bedrock was not encountered during any of the investigations. However, based on MECP well records in the vicinity of the site, shale bedrock is present at approximately 38 mbgs. Thus, greater than two-thirds of the site has soil to depths greater than 2 metres, and the site is not considered to be within a shallow soil condition, as per O. Reg. 153/04, Section 43.1.

A cross section plan is provided as Figure 4. Cross sections illustrating the geology at the site are attached as Figures 5A to 5J, and 6A to 6J.

Three (3) surface soil samples including one field duplicate sample and one (1) subsurface soil sample were analyzed for soil pH. Soil pH ranged from 6.62 to 7.25.~~As part of the Phase Two ESA (EXP, 2019), six (6) surficial and two (2) field duplicate samples (depths less than 1.5 mbgs) and one subsurface soil sample (depths greater than 1.5 mbgs) for the analysis of pH. Measured soil pH levels ranged from 6.62 to 7.25 in surficial soil and was~~

~~6.90 in subsurface soil.~~ Therefore, the pH for soil samples tested is between 5 and 9 for surface soils and 5 to 11 for subsurface soils. Therefore, the site is not considered to be a "Sensitive Site" as per O. Reg. 153/04, Section 41.

Information available on the Ministry of Natural Resources and Forestry (MNRF) website indicated that the site is not located on or within 30 m of any Areas of Natural and Scientific Interest (ANSIs) such as provincial parks, conservation reserves, wilderness areas, or wetlands. Furthermore, the site is not located within 30 metres of a "environmentally sensitive/significant area", "area of natural and scientific interest – life science", or an "area of natural and scientific interest – earth science" according to Schedule D of the *City of Brampton Official Plan* (2015), or an "environmental policy area" according to Schedule B of the *Town of Caledon Official Plan* (2018).

Grain size analysis was performed on representative soil samples collected at BH101-SS3 (1.52 to 2.13 metres) within the clayey silt till, at BH102-SS1 (grade to 0.61 mbgs) within the clayey silt fill and BH104-SS3 (1.52 to 2.13 mbgs) within the clayey silt till as part of the phase two ESA (EXP, 2020b). Samples BH101-SS3, BH102-SS1 and BH104-SS3 were classified as medium to fine. The clayey silt layer on-site appears to be the dominant soil type at the site. According to O. Reg.153/04, to be classified as medium to fine textured soil, at least 2/3 of the soil on site, measured by volume, must contain 50% or more by mass of particles that are less than 75 micrometres in mean diameter. As all samples were considered fine, the soil type at the site is medium to fine textured in accordance with O. Reg. 153/04.

Based on the above information, the appropriate generic SCS for the RA property were determined to be Table 4 Stratified SCS for Residential/Parkland/Institutional land use with medium to fine textured soil in a potable groundwater condition (herein referred to as Table 4 SCS), as listed in the MECP technical document *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* referenced by O. Reg. 153/04.

In order to support the assumptions of the RA, the site-specific hydrogeological and geological interpretations were compared with the generic MECP assumptions for medium to fine textured soil as shown in Table C-2.

Table C-2: Comparison between Site-Specific Hydrogeological and Geological Interpretations and the Generic MECP Assumptions for Coarse-Textured Soil

Parameters	Site Specific Value	Rationale	Generic MECP Value
Soil Above Water Table			
Soil type	Clayey Silt	Drilling observations	Medium/fine (loam)
Total porosity (v/v)	0.47	MECP default value for medium/fine soil	0.47
Moisture-filled porosity (v/v)	0.170	MECP default value for medium/fine soil	0.170
Fraction of organic carbon (g/g)	0.005	MECP default value	0.005
Dry bulk density (g/cm^3)	1.40	MECP default value for medium/fine soil	1.40
Temperature (ºC)	15	MECP generic value	15
Depth to water table (mbgs)	0.33	Minimum depth measured on-site	3.00
Soil of Capillary Fringe			
Soil type	Clayey Silt	Field observation	Medium/fine (loam)
A1 (1/cm)	0.0111	MECP default value for loam	0.0111
N (unitless)	1.472	MECP default value for loam	1.472
M (unitless)	0.3207	MECP default value for loam	0.3207
Total porosity (v/v)	0.3990	MECP default value for loam	0.3990
Residual moisture content (v/v)	0.0610	MECP default value for loam	0.0610
Mean grain diameter (cm)	0.0200	MECP default value for loam	0.0200
Aquifer Soil			
Soil type	Clayey Silt	Field observation	Medium/fine (loam)
Hydraulic conductivity (m/s)	1.00E-06	Measured on-site	3.0E-05
Horizontal hydraulic gradient	0.025	Measured on-site	0.003
Effective porosity (v/v)	0.2	Mid-range of effective porosity for sandy silt (McWhorter and Sunada, 1977)	0.25
Fraction of organic carbon	0.0003	MECP default value	0.0003

Phase Two Environmental Site Assessments

Subsurface Environmental Investigation – EXP, 2019

The objective of the Phase Two ESA was to evaluate subsurface conditions at the site and also included the southeast adjacent parcel not considered part of the site. Only relevant details pertaining to the site are summarized. The Phase Two ESA involved a soil and groundwater sampling program. The wok program was carried out between April 9 to May 9, 2019 and involved the advancement of twenty-one~~eight~~ (21~~8~~) test holes (N1 to N12, N7-N, N7-S, N7-E, N7-W, N3-N, N3-S, N3-E, N3-W, N3-2N and~~,~~ N3-2W~~, and S1 to S6~~), five~~seven~~ (5~~7~~) of which were completed as groundwater monitors (N2, N3, N6, N7 and~~,~~ N11~~, S3 and S6~~), to a maximum depth of 8.2 mbgs and three (3) test pits (TP1 to TP3) to a depth of approximately 0.6 mbgs .

The stratigraphy was generally comprised of topsoil/asphalt (only at test hole N3-S)/surficial granular material followed by fill (generally reworked material) to a maximum depth of 2.44 mbgs, followed by native deposits of clayey silt till and sandy silt till.

On April 30, 2019 the depth to groundwater was determined to range from 0.33 to 2.25~~3.24~~ mbgs.

Soil and groundwater samples were analyzed for VOCs, PHC fractions F1 to F4, metals and inorganic parameters. The O. Reg. 153/04, Table 4 Standards for a Residential/Parkland/Institutional land use with medium to fine textured soil were deemed appropriate for evaluating conditions at the site.

All soil samples were within the Table 4 SCS with the exception of:

- One (1) soil sample (N7 SS3) at depth ranging from 1.5 to 2.1 mbgs had concentrations of PHC fraction F2 in excess of Table 4 SCS. Horizontal and vertical delineation were achieved for PHC fraction F2 impact at borehole N7 as demonstrated in Figure 8A of Appendix A – Phase Two CSM. The depth of PHC impact was found to extend to 2.3 mbgs.
- Thirteen (13) soil samples (N2 SS1, N3 SS1 and field duplicate N33 SS1, N3-N-S1, N3-S-S1, N3-E-S1, N3-W-S1, N3-2N-S1, N3-2N-S2, N3-2W-S1, N3-2W-S2 TP1 and field duplicate TP111, TP2 and TP3) at depths ranging from 0.2 to 0.6 mbgs had concentrations of EC and/or SAR in excess of Table 4 Surface SCS. Horizontal delineation for EC and SAR impacts were not achieved. It is noted that EC and SAR are not applicable below 1.5 mbgs under the Table 4 SCS.

All groundwater samples were within the Table 4 SCS with the exception of:

- Two (2) groundwater samples (N2 and N3) screened from 3.0 to 6.0 mbgs had concentrations of sodium and/or chloride in excess of Table 4 SCS

Phase Two Environmental Site Assessment – EXP, 2020b

The objective of the Phase Two ESA was to evaluate subsurface conditions at the site in support of a RSC filing with the Ontario MECP. The Phase Two ESA involved the advancement of ~~sixteen~~ fourteen (14~~6~~) boreholes (BH101 to BH107, BH110 to BH111 and BH201 to BH205) to a maximum depth of 18.3 mbgs on-site, ~~five~~ four (4~~5~~) of which were completed as groundwater monitors (BH102, BH103, BH202, and BH203) on February 27 and 28, April 30, and May 1, 2020. Groundwater sampling was completed on March 5 and May 7, 2020.

The site stratigraphy was determined to be sand and gravel fill or reworked native clayey silt to a maximum depth of 1.5 mbgs, underlain by native clayey silt to silty clay till to a maximum depth of 9.1 mbgs, underlain by sandy silt till to a depth greater than 18.3 mbgs.

Depth to groundwater was measured to range from 1.05 to 3.24 mbgs on March 5 and May 7, 2020.

Soil samples were analyzed for PAHs, EC and SAR. Groundwater samples were sampled for PHC fractions F1 to F4, PAHs, VOCs, sodium and chloride. The O. Reg. 153/04, Table 4 Standards for a Residential/Parkland/Institutional land use with medium to fine textured soil were deemed appropriate for evaluating conditions at the site.

All soil samples were within the Table 4 SCS with the exception of:

- Five (5) soil samples (BH102 and field duplicate BH1020, BH111, TH202 SS1, TH204 SS1, and BH205 SS1) at depths ranging from grade to 0.61 mbgs had concentrations of EC and/or SAR in excess of Table 4 Surface SCS.

All groundwater samples were within the Table 4 SCS with the exception of:

- Six (6) groundwater samples (BH102 and field duplicate BH1020, BH103, BH201 and BH202 with screened intervals of 1.1 to 3.6 mbgs, 6.1 to 9.1, 1.3 to 4.3 mbgs and 1.3 to 4.3 mbgs respectively, had concentrations of sodium and/or chloride in excess of Table 4 SCS.

Remediation Report – EXP, 2021

The objective of the remedial program was to remove soil impacted with PHC fraction F2 on the central portion of the Site to within the Table 4 SCS and remove soil impacted with EC and SAR on northern portion of the Site to

within PSS, derived through the MGRA. The excavation activities were divided into two areas: Area 1 (PHC remediation) and Area 2 (EC/SAR Remediation). A total of 7,820 tonnes (approximately 3,910 m^3) of PHC, EC, and SAR impacted soil was removed from the Site as part of the remedial excavation. The remedial excavation was completed between August 28 to September 3, 2020 and May 17 to May 28, 2021.

Area 1 Excavation

The objective of remedial excavation at Area 1 was to remove the PHC impacted soil near N7. The final size of the Area 1 Excavation was square in shape and measured approximately 6 metres at its maximum length and 6 metres at its maximum width, with a total area of approximately 36 m^2. The depth of excavation within Area 1 was 2.3 metres in depth.

A total of three (3) floor samples, two (2) wall samples, and one field duplicate sample were obtained to verify the extent of the soil PHCs and BTEX in Area 1. The soil samples were chosen at worst-case locations, based on field observations and where historical exceedances were identified. It is to be noted that the floor samples were collected from the bottom of the excavation at 2.3 mbgs. All six (6) confirmatory floor samples for PHCs within Area 1 Excavation met MECP Table 4 SCS for residential/parkland/institutional land use with medium to fine textured soil.

Area 2 Excavation

The objective of Area 2 was to remove the EC and SAR impacted soil in the northern portion of the Site to within remedial targets (i.e. PSS). The lateral extent of the EC/SAR impacted soil has been identified in the delineation program during the Phase Two ESAs (EXP, 2019; EXP, 2020b). The final size of the Area 2 Excavation was rectangular in shape and measured approximately 98 metres at its maximum length and 37 metres at its maximum width, with a total area of approximately 2,550 m^2. The depth of excavation within Area 2 ranged from approximately 1.5 to 2.0 metres in depth.

A total of seventeen (17) floor samples, thirty-four (34) wall samples, and six (6) field duplicate samples were collected as part of the remedial activities. In the case where a sample was found to be in exceedance of the PSS, the excavation was further extended until a 'clean' boundary was found. The Area 2 excavation was advanced to the northern site boundary and as such, the wall samples from this portion of the Site were subsequently removed. A total of fourteen (14) floor samples and twenty-one (21) wall samples were collected from the final extent of the excavation along the floor and the east, south and west walls to verify the extent of the remediation. The floor samples were collected from the bottom of the excavation between 1.5 mbgs to 2.0 mbgs across the entire span of the Site, including the locations where EC and SAR exceedances were identified pre-remediation. Wall samples were collected at a depth of 1.0 mbgs.

The soil remaining on-Site and at the final extent of the Area 2 excavation was found to be within the PSS.

Phase Two ESA Update – EXP, 2022b

The objective of the Phase Two ESA Update was to address delineation data gaps at the site. The Phase Two ESA involved the advancement of three (3) boreholes on-site (BH304 to BH306) to a maximum depth of 5.3 mbgs, one (1) of which was completed as a groundwater monitor (BH304) on December 14, 2021. It is noted that the drilling program was conducted concurrently with a program on the southeast adjacent property. Groundwater sampling was completed on December 20, 2021. Soil samples from each borehole were submitted for laboratory analysis of EC and SAR. One (1) groundwater sample was collected from BH304 for laboratory analysis of sodium and chloride. One (1) field duplicate sample was collected from each media.

The O. Reg. 153/04, Table 4 Standards for a Residential/Parkland/Institutional land use with medium to fine textured soil were deemed appropriate for evaluating conditions at the site. No exceedances of the Table 4 SCS were identified in soil or groundwater.

Justification for Sampling Program

A summary of the sampling completed to assess soil and groundwater within each APEC identified on-site is provided in Section 4 of the Phase Two CSM (Appendix A).

Summary of Quality Assurance and Quality Control used during the Sampling Programs

To meet the requirements of O. Reg. 153/04, quality assurance and quality control (QA/QC) measures were implemented during all sampling and analysis programs performed by EXP.

During the EXP (2019, 2020b, ~~and~~ 2021 and 2022b) Phase Two ESA investigations and remediation program, field duplicate samples were collected from each medium sampled, so that at least one field duplicate sample was submitted for laboratory analysis for every ten samples collected. Insufficient duplicate samples were collected for BTEX and PHC fractions F1 to F4 and VOCs in soil, and metals in groundwater during the 2019 Phase Two ESA. This is not anticipated to affect the conclusions of the Phase Two ESA or MGRA given that duplicate samples were collected for other parameter groups and the same technician and sampling procedures were used to collect the samples. With the exception of one duplicate sample collected for metals in soil, further discussed below, no relative percent difference (RPD) issues were identified, and the RPD issues identified are attributed to soil heterogeneity. Table C-3 presents the number of duplicates taken per parameter group in soil while Table C-4 presents the number of duplicates taken per parameter group in groundwater.

Two trip blank samples (EXP 2019 and 2020b) were submitted for laboratory analysis with the laboratory submission of groundwater samples to be analyzed for VOCs. The primary purpose of the trip blank is to identify any contaminants introduced into samples during transit. All trip blanks were below the laboratories (AGAT and Eurofins Environmental Testing) Reporting Detection Limit (RDL) for all VOCs analyzed (see Table C-13).

The RPD for each original and field duplicate sample set is provided in Tables C-5 to C-8 for soil and Tables C-9 to C-12 for groundwater. RPDs were only calculated if the concentration of both the duplicate sample and the original sample are above the analytical RDL and the average of the two sample concentrations are greater than 5x the RDL.

Table C-3: Summary of QA/QC programs (Soil)

Sampling Group	Total number of Original Samples	Number of Field Duplicate Samples	Alert Criteria Met (Yes/No)*
BTEX, PHC F1 to F4	~~26~~20	2	Yes
VOCs	~~16~~10	0	N/A
PAHs	~~8~~6	1	Yes
Metals (including hydride forming)	~~7~~3	~~2~~1	No
EC and SAR	~~89~~88	13	~~Yes~~No

*RPDs and alert criteria are presented in Tables C-5 to C-8.

Table C-4: Summary of QA/QC programs (Groundwater)

Sampling Group	Total number of Original Samples	Number of Field Duplicate Samples	Alert Criteria Met (Yes/No)*
BTEX, PHC F1 to F4	~~8~~5	~~4~~3	Yes
VOCs	~~6~~3	~~3~~2	Yes
PAHs	~~4~~3	1	Yes
Metals (including hydride forming)	~~3~~2	0	N/A
Sodium and chloride	16	~~4~~5	Yes

*RPDs and alert criteria are presented in Tables C-9 to C-12.

For soil samples, the alert limit criteria for the field duplicate RPD is >30% for PHCs, >50% for VOCs, >40% for PAHs, >30% for metals and hydride-forming metals and >10% for EC. The calculated RPD between the duplicate samples and the original samples for soil was below the applicable alert limits for all of the parameters analyzed with the exception of barium, chromium VI, cobalt, lead, nickel, vanadium, zinc, EC and SAR in the original/duplicate sample N3 SS1/N33 SS1, ~~and~~ EC in the original/duplicate samples N3-W-S4/N3-WW-S4, ~~and~~ confirmatory samples CS-A-W144/CS-A-W144-0 and SAR in the original/duplicate samples BH305-SS2/BH305 SS2-0. The RPD exceedances in soil at these locations can likely be attributed to the heterogeneity of soil. The conclusions of the Phase Two ESA were not anticipated to be affected by these RPD exceedances; the overall objectives of the investigation were met and the higher of the sample and field duplicate was considered when determining site maximum concentrations.

For groundwater samples, the alert limit criteria for the field duplicate RPD is >30% for PHCs, VOCs and PAHs and >20% for metals and hydride-forming metals. The calculated RPD between the duplicate samples and the original samples for groundwater were below the applicable alert limit criteria for all of the parameters analyzed.

Adequacy of Data

Based on the completed subsurface assessments, all APECs have been addressed, as summarized in Table A-2 of the Phase Two CSM (Appendix A). Soil and groundwater samples were collected within APECs and analyzed for the various pCOCs as summarized in Tables C-3 and C-4.

Overall, it is in the opinion of the QP_{ESA} and QP_{RA} that the sampling program is adequate for the MGRA objectives for the following reasons:

- APECs identified in Phase One ESA have been assessed;
- Soil and groundwater impacts have been sufficiently delineated, vertically and horizontally;
- Site geology and hydrogeology have been sufficiently characterized;
- QA/QC measures were in place during EXP sampling and based on the results of the QA/QC, the quality of the data was considered sufficient to meet the objectives of the MGRA.

A Phase Two CSM has been prepared based on the environmental assessments conducted at the site and is provided as Appendix A.

Table C-5: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Petroleum Hydrocarbons

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole BH N2 SS6	Duplicate of BH N2 SS6 BH N2 SS16	RPD	Alert Limit
Depth (m)		4.5 to 5.2	4.5 to 5.2		
Soil Type		Sandy Silt Till	Sandy Silt Till		
Date of Sample Collection		9-Apr-19	9-Apr-19		
Date of Sample Analysis		17-Apr-19	17-Apr-19		
Certificate of Analysis Number		1905398	1905398		
Laboratory I.D.		1420336	1420347		
Benzene	0.05	<0.02	<0.02	nc	>30%
Toluene	0.05	<0.20	<0.20	nc	>30%
Ethylbenzene	0.05	<0.05	<0.05	nc	>30%
Xylene Mixture (Total)	0.05	<0.05	<0.05	nc	>30%
PHC F1 (C6 to C10)	0.05	<10	<10	nc	>30%
PHC F2 (C10 to C16)	0.05	<10	10	nc	>30%
PHC F3 (C16 to C34)	0.05	50	60	18	>30%
PHC F4 (C34 to C50)	0.05	<20	<20	nc	>30%

NOTES:
Analysis by Eurofins Environmental Testing .
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the RDL.
Exceedences of alert limits are shown in **bold**.

Table C-5: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Petroleum Hydrocarbons

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole CS-B-F102	Duplicate of CS-B-F102 CS-B-F1020	RPD	Alert Limit
Depth (m)		2.3	2.3		
Soil Type		Fill	Fill		
Date of Sample Collection		1-Sep-20	1-Sep-20		
Date of Sample Analysis		2-Sep-20	2-Sep-20		
Certificate of Analysis Number		20T645229	20T645229		
Laboratory I.D.		1407082	1407083		
Benzene	0.05	<0.02	<0.02	nc	>30%
Toluene	0.05	<0.05	<0.05	nc	>30%
Ethylbenzene	0.05	<0.05	<0.05	nc	>30%
Xylene Mixture (Total)	0.05	<0.05	<0.05	nc	>30%
PHC F1 (C6 to C10)	0.05	<5	<5	nc	>30%
PHC F2 (C10 to C16)	0.05	<10	<10	nc	>30%
PHC F3 (C16 to C34)	0.05	<50	<50	nc	>30%
PHC F4 (C34 to C50)	0.05	<50	<50	nc	>30%

NOTES:
Analysis by Eurofins Environmental Testing .
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the RDL.
Exceedences of alert limits are shown in **bold**.

Table C-6: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Volatile Organic Compounds

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole BH N2 SS6	Duplicate of BH N2 SS6 BH N2 SS16	RPD	Alert Limit
Depth (m)		4.5 to 5.2	4.5 to 5.2		
Soil Type		Sandy Silt Till	Sandy Silt Till		
Date of Sample Collection		9-Apr-19	9-Apr-19		
Date of Sample Analysis		17-Apr-19	17-Apr-19		
Certificate of Analysis Number		1905398	1905398		
Laboratory I.D.		1420336	1420347		
Benzene	0.02	<0.02	<0.02	nc	>50%
Ethylbenzene	0.05	<0.05	<0.05	nc	>50%
Toluene	0.2	<0.20	<0.20	nc	>50%
Xylene Mixture	0.05	<0.05	<0.05	nc	>50%

NOTES:

Analysis by Eurofins Environmental Testing .

All results in ppm (µg/g) and based on dry weight basis.

* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.

'nc' means "not calculable", since one (or both) of the results are less than the RDL.

Exceedences of alert limits are shown in **bold**.

Table C-7: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Polycyclic Aromatic Hydrocarbons

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole BH102	Duplicate of BH102 BH1020	RPD	Alert Limit
Depth (m)		0 to 0.61	0 to 0.61		
Soil Type		Fill	Fill		
Date of Sample Collection		27-Feb-20	27-Feb-20		
Date of Sample Analysis		3-Mar-20	3-Mar-20		
Certificate of Analysis Number		20T580535	20T580535		
Laboratory I.D.		987830	987831		
2-and 1-methyl Naphthalene	0.05	<0.05	<0.05	nc	>40%
Acenaphthene	0.05	<0.05	<0.05	nc	>40%
Acenaphthylene	0.05	<0.05	<0.05	nc	>40%
Anthracene	0.05	<0.05	<0.05	nc	>40%
Benzo(a)anthracene	0.05	<0.05	<0.05	nc	>40%
Benzo(a)pyrene	0.05	<0.05	<0.05	nc	>40%
Benzo(b)fluoranthene	0.05	<0.05	<0.05	nc	>40%
Benzo(g,h,i)perylene	0.05	<0.05	<0.05	nc	>40%
Benzo(k)fluoranthene	0.05	<0.05	<0.05	nc	>40%
Chrysene	0.05	<0.05	<0.05	nc	>40%
Dibenzo(a,h)anthracene	0.05	<0.05	<0.05	nc	>40%
Fluoranthene	0.05	<0.05	<0.05	nc	>40%
Fluorene	0.05	<0.05	<0.05	nc	>40%
Indeno(1,2,3-cd)pyrene	0.05	<0.05	<0.05	nc	>40%
Naphthalene	0.05	<0.05	<0.05	nc	>40%
Phenanthrene	0.05	<0.05	<0.05	nc	>40%
Pyrene	0.05	<0.05	<0.05	nc	>40%

NOTES:

Analysis by AGAT Laboratories.

All results in ppm (µg/g) and based on dry weight basis.

* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.

'nc' means "not calculable", since one (or both) of the results are less than the RDL.

Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Metals and Inorganic Parameters

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole N3 SS1	Duplicate of N3 SS1 N33 SS1	RPD	Alert Limit
Depth (m)		0.2 to 0.6	0.2 to 0.6		
Soil Type		Fill	Fill		
Date of Sample Collection		8-Apr-19	8-Apr-19		
Date of Sample Analysis		17-Apr-19	17-Apr-19		
Certificate of Analysis Number		1905398	1905398		
Laboratory I.D.		1420334	1420348		
Antimony	1	<1	<1	nc	>30%
Arsenic	1	5	3	nc	>30%
Barium	1	54	37	**37**	>30%
Beryllium	1	<1	<1	nc	>30%
Boron (Hot Water Soluble)	0.5	<0.5	<0.5	nc	>30%
Boron Total	5	6	7	15	>30%
Cadmium	0.4	<0.4	<0.4	nc	>30%
Chromium Total	1	30	27	11	>30%
Chromium VI	0.2	0.55	3.64	**147**	>30%
Cobalt	1	7	4	**55**	>30%
Copper	1	24	28	15	>30%
Lead	1	29	43	**39**	>30%
Mercury	0.1	<0.1	<0.1	nc	>30%
Molybdenum	1	<1	<1	nc	>30%
Nickel	1	17	12	**34**	>30%
Selenium	1	<1	<1	nc	>30%
Silver	0.2	<0.2	<0.2	nc	>30%
Thallium	1	<1	<1	nc	>30%
Uranium	0.5	<0.5	<0.5	nc	>30%
Vanadium	2	23	15	**42**	>30%
Zinc	2	48	33	**37**	>30%
Cyanide	0.03	<0.03	<0.03	nc	>30%
Electrical Conductivity	0.05	3.11	1.75	**56**	>10%
Sodium Adsorption Ratio	0.01	60	30.5	**65**	>30%

NOTES:
Analysis by Eurofins Environmental Testing .
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole N3 SS5	Duplicate of N3 SS5 N3 SS15	RPD	Alert Limit
Depth (m)		3.1 to 3.7	3.1 to 3.7		
Soil Type		Clayey Silt Till	Clayey Silt Till		
Date of Sample Collection		8-Apr-19	8-Apr-19		
Date of Sample Analysis		23-Apr-19	23-Apr-19		
Certificate of Analysis Number		1905818	1905818		
Laboratory I.D.		1421782	1421783		
Electrical Conductivity	0.05	0.40	0.39	3	>10%
Sodium Adsorption Ratio	0.01	0.58	0.59	2	>30%

NOTES:
Analysis by Eurofins Environmental Testing .
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole N3-W-S4	Duplicate of N3-W-S4 N3-WW-S4	RPD	Alert Limit
Depth (m)		2.3 to 2.9	2.3 to 2.9		
Soil Type		Clayey Silt Till	Clayey Silt Till		
Date of Sample Collection		23-Apr-19	23-Apr-19		
Date of Sample Analysis		26-Apr-19	26-Apr-19		
Certificate of Analysis Number		1906042	1906042		
Laboratory I.D.		1422475	1422476		
Electrical Conductivity	0.05	2.95	2.53	**15**	>10%
Sodium Adsorption Ratio	0.01	8.61	8.03	7	>30%

NOTES:
Analysis by Eurofins Environmental Testing .
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Pit TP1	Duplicate of TP1 TP111	RPD	Alert Limit
Depth (m)		0.3 to 0.6	0.3 to 0.6		
Soil Type		Fill	Fill		
Date of Sample Collection		9-May-19	9-May-19		
Date of Sample Analysis		13-May-19	13-May-19		
Certificate of Analysis Number		1907194	1907194		
Laboratory I.D.		1425564	1425567		
Electrical Conductivity	0.05	1.81	1.77	2	>10%
Sodium Adsorption Ratio	0.01	17.40	18.4	6	>30%

NOTES:
Analysis by Eurofins Environmental Testing .
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole BH102	Duplicate of BH102 BH1020	RPD	Alert Limit
Depth (m)		0 to 0.61	0 to 0.61		
Soil Type		Fill	Fill		
Date of Sample Collection		27-Feb-20	27-Feb-20		
Date of Sample Analysis		3-Mar-20	3-Mar-20		
Certificate of Analysis Number		20T580535	20T580535		
Laboratory I.D.		987830	987831		
Electrical Conductivity (2:1)	0.005	1.74	1.72	1	>10%
Sodium Adsorption Ratio	NV	21.5	28.8	29	>30%

NOTES:
Analysis by AGAT Laboratories.
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole TH201 SS1	Duplicate of TH201 SS1 TH2010 SS1	RPD	Alert Limit
Depth (m)		0 to 0.61	0 to 0.61		
Soil Type		Fill	Fill		
Date of Sample Collection		1-May-20	1-May-20		
Date of Sample Analysis		7-May-20	7-May-20		
Certificate of Analysis Number		20T598026	20T598026		
Laboratory I.D.		1106093	1106095		
Electrical Conductivity (2:1)	0.005	0.15	0.15	1	>10%
Sodium Adsorption Ratio	NV	0.2	0.2	1	>30%

NOTES:
Analysis by AGAT Laboratories.
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole BH305 SS2	Duplicate of BH305-SS2 BH305 SS2-0	RPD	Alert Limit
Depth (m)		0.76 to 1.37	0.76 to 1.37		
Soil Type		Silt Till	Silt Till		
Date of Sample Collection		14-Dec-21	14-Dec-21		
Date of Sample Analysis		22-Dec-21	22-Dec-21		
Certificate of Analysis Number		21T844771	21T844771		
Laboratory I.D.		3345052	3345053		
Electrical Conductivity (2:1)	0.005	0.238	0.233	2	>10%
Sodium Adsorption Ratio	NV	0.452	0.616	**31**	>30%

NOTES:
Analysis by AGAT Laboratories.
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole CS-A-W101	Duplicate of CS-A-W101 CS-A-W1010	RPD	Alert Limit
Depth (m)		1.0	1.0		
Soil Type		Fill	Fill		
Date of Sample Collection		3-Sep-20	3-Sep-20		
Date of Sample Analysis		4-Sep-20	4-Sep-20		
Certificate of Analysis Number		20T646377	20T646377		
Laboratory I.D.		1416322	1416325		
Electrical Conductivity (2:1)	0.005	2.57	2.60	1	>10%
Sodium Adsorption Ratio	NV	26.0	26.9	3	>30%

NOTES:
Analysis by AGAT Laboratories.
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole CS-A-W109	Duplicate of CS-A-W109 CS-A-W109-0	RPD	Alert Limit
Depth (m)		1.0	1.0		
Soil Type		Fill	Fill		
Date of Sample Collection		18-May-21	18-May-21		
Date of Sample Analysis		19-May-21	19-May-21		
Certificate of Analysis Number		21T749132	21T749132		
Laboratory I.D.		2486677	2486678		
Electrical Conductivity (2:1)	0.005	2.47	2.60	5	>10%
Sodium Adsorption Ratio	NV	7.5	7.9	4	>30%

NOTES:
Analysis by AGAT Laboratories.
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole CS-A-F109	Duplicate of CS-A-F109 CS-A-F109-0	RPD	Alert Limit
Depth (m)		1.5	1.5		
Soil Type		Fill	Fill		
Date of Sample Collection		18-May-21	18-May-21		
Date of Sample Analysis		19-May-21	19-May-21		
Certificate of Analysis Number		21T749132	21T749132		
Laboratory I.D.		2486688	2486689		
Electrical Conductivity (2:1)	0.005	0.73	0.79	8	>10%
Sodium Adsorption Ratio	NV	4.2	4.2	0	>30%

NOTES:
Analysis by AGAT Laboratories.
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole CS-A-F110	Duplicate of CS-A-F110 CS-A-F110-0	RPD	Alert Limit
Depth (m)		1.5	1.5		
Soil Type		Fill	Fill		
Date of Sample Collection		19-May-21	19-May-21		
Date of Sample Analysis		20-May-21	20-May-21		
Certificate of Analysis Number		21T749603	21T749603		
Laboratory I.D.		2490661	2490663		
Electrical Conductivity (2:1)	0.005	2.32	2.46	6	>10%
Sodium Adsorption Ratio	NV	8.5	7.5	13	>30%

NOTES:
Analysis by AGAT Laboratories.
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole CS-A-W128	Duplicate of CS-A-W128 CS-A-W128-0	RPD	Alert Limit
Depth (m)		1.0	1.0		
Soil Type		Fill	Fill		
Date of Sample Collection		21-May-21	21-May-21		
Date of Sample Analysis		27-May-21	27-May-21		
Certificate of Analysis Number		21T750356	21T750356		
Laboratory I.D.		2499719	2499720		
Electrical Conductivity (2:1)	0.005	0.94	0.92	2	>10%
Sodium Adsorption Ratio	NV	2.7	2.8	5	>30%

NOTES:
Analysis by AGAT Laboratories.
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-8: SOIL FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Electrical Conductivity and Sodium Adsorption Ratio

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Test Hole CS-A-W144	Duplicate of CS-A-W144 CS-A-W144-0	RPD	Alert Limit
Depth (m)		1.0	1.0		
Soil Type		Fill	Fill		
Date of Sample Collection		27-May-21	27-May-21		
Date of Sample Analysis		28-May-21	28-May-21		
Certificate of Analysis Number		21T752357	21T752357		
Laboratory I.D.		2517750	2517751		
Electrical Conductivity (2:1)	0.005	1.25	1.10	**13**	>10%
Sodium Adsorption Ratio	NV	2.8	2.8	1	>30%

NOTES:
Analysis by AGAT Laboratories.
All results in ppm (µg/g) and based on dry weight basis.
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the Reporting Detection Limit (RDL).
Exceedences of alert limits are shown in **bold**.

Table C-9: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Petroleum Hydrocarbon Parameters

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor BH-N7	Duplicate of BH-N7 BH-N117	RPD	Alert Limit
Depth (m)		3.0 to 6.0	3.0 to 6.0		
Date of Sample Collection		25-Apr-19	25-Apr-19		
Date of Sample Analysis		29-Apr-19	29-Apr-19		
Certificate of Analysis Number		1906182	1906182		
Laboratory I.D.		1422868	1422869		
Benzene	0.20	<0.5	<0.5	nc	>30%
Toluene	0.20	<0.5	<0.5	nc	>30%
Ethylbenzene	0.10	<0.5	<0.5	nc	>30%
Xylene Mixture (Total)	0.20	<0.5	<0.5	nc	>30%
PHC F1 (C6 to C10) - BTEX	25	<20	<20	nc	>30%
PHC F2 (C10 to C16)	100	<20	<20	nc	>30%
PHC F3 (C16 to C34)	100	<50	<50	nc	>30%
PHC F4 (C34 to C50)	100	<50	<50	nc	>30%

NOTES:
Analysis by Eurofins Environmental Testing.
NA means 'not analyzed'.
All results in ppb (µg/L).
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the RDL.
Exceedences of alert limits are shown in **bold**.

Table C-9: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Petroleum Hydrocarbon Parameters

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor BH-N11	Duplicate of BH-N11 BH-N112	RPD	Alert Limit
Depth (m)		4.6 to 7.6	4.6 to 7.6		
Date of Sample Collection		12-Apr-19	12-Apr-19		
Date of Sample Analysis		22-Apr-19	22-Apr-19		
Certificate of Analysis Number		1905458	1905458		
Laboratory I.D.		1420477	1420478		
Benzene	0.20	<0.5	<0.5	nc	>30%
Toluene	0.20	<0.5	<0.5	nc	>30%
Ethylbenzene	0.10	<0.5	<0.5	nc	>30%
Xylene Mixture (Total)	0.20	<0.5	<0.5	nc	>30%
PHC F1 (C6 to C10) - BTEX	25	<20	<20	nc	>30%
PHC F2 (C10 to C16)	100	<20	<20	nc	>30%
PHC F3 (C16 to C34)	100	<50	110	nc	>30%
PHC F4 (C34 to C50)	100	<50	<50	nc	>30%

NOTES:
Analysis by Eurofins Environmental Testing.
NA means 'not analyzed'.
All results in ppb (µg/L).
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the RDL.
Exceedences of alert limits are shown in **bold**.

Table C-9: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Petroleum Hydrocarbon Parameters

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor BH102	Duplicate of BH102 BH1020	RPD	Alert Limit
Depth (m)		1.5 to 3.6	1.5 to 3.6		
Date of Sample Collection		5-Mar-20	5-Mar-20		
Date of Sample Analysis		11-Mar-20	11-Mar-20		
Certificate of Analysis Number		20T581990	20T581990		
Laboratory I.D.		999486	999489		
Benzene	0.20	<0.20	<0.20	nc	>30%
Toluene	0.20	<0.20	<0.20	nc	>30%
Ethylbenzene	0.10	<0.10	<0.10	nc	>30%
Xylene Mixture (Total)	0.20	<0.20	<0.20	nc	>30%
PHC F1 (C6 to C10) - BTEX	25	<25	<25	nc	>30%
PHC F2 (C10 to C16)	100	<100	<100	nc	>30%
PHC F3 (C16 to C34)	100	<100	<100	nc	>30%
PHC F4 (C34 to C50)	100	<100	<100	nc	>30%

NOTES:

Analysis by AGAT Laboratories.

NA means 'not analyzed'.

All results in ppb (µg/L).

* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.

'nc' means "not calculable", since one (or both) of the results are less than the RDL.

Exceedences of alert limits are shown in **bold**.

Table C-10: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Volatile Organic Compounds

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor BH-N7	Duplicate of BH-N7 BH-N117	RPD	Alert Limit
Depth (m)		3.0 to 6.0	3.0 to 6.0		
Date of Sample Collection		25-Apr-19	25-Apr-19		
Date of Sample Analysis		29-Apr-19	29-Apr-19		
Certificate of Analysis Number		1906182	1906182		
Laboratory I.D.		1422868	1422869		
Benzene	0.5	<0.5	<0.5	nc	>30%
Ethylbenzene	0.5	<0.5	<0.5	nc	>30%
Toluene	0.5	<0.5	<0.5	nc	>30%
Xylene Mixture	0.5	<0.5	<0.5	nc	>30%

NOTES:
Analysis by Eurofins Environmental Testing.
All results in ppb (µg/L).
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the RDL.
Exceedences of alert limits are shown in **bold**.

Table C-10: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Volatile Organic Compounds

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor BH-N11	Duplicate of BH-N11 BH-N112	RPD	Alert Limit
Depth (m)		4.6 to 7.6	4.6 to 7.6		
Date of Sample Collection		12-Apr-19	12-Apr-19		
Date of Sample Analysis		22-Apr-19	22-Apr-19		
Certificate of Analysis Number		1905458	1905458		
Laboratory I.D.		1420477	1420478		
1,1,1,2-Tetrachloroethane	0.5	<0.5	<0.5	nc	>30%
1,1,1-Trichloroethane	0.4	<0.4	<0.4	nc	>30%
1,1,2,2-Tetrachloroethane	0.5	<0.5	<0.5	nc	>30%
1,1,2-Trichloroethane	0.4	<0.4	<0.4	nc	>30%
1,1-Dichloroethane	0.4	<0.4	<0.4	nc	>30%
1,1-Dichloroethylene	0.5	<0.5	<0.5	nc	>30%
1,2-Dichlorobenzene	0.4	<0.4	<0.4	nc	>30%
1,2-Dichloroethane	0.2	<0.2	<0.2	nc	>30%
1,2-Dichloropropane	0.5	<0.5	<0.5	nc	>30%
1,3-Dichlorobenzene	0.4	<0.4	<0.4	nc	>30%
1,3-Dichloropropene	0.3	<0.3	<0.3	nc	>30%
1,4-Dichlorobenzene	0.4	<0.4	<0.4	nc	>30%
Acetone	30	<30	<30	nc	>30%
Benzene	0.5	<0.5	<0.5	nc	>30%
Bromodichloromethane	0.3	<0.3	<0.3	nc	>30%
Bromoform	0.4	<0.4	<0.4	nc	>30%
Bromomethane	0.5	<0.5	<0.5	nc	>30%
Carbon Tetrachloride	0.2	<0.2	<0.2	nc	>30%
Chlorobenzene	0.5	<0.5	<0.5	nc	>30%
Chloroform	0.5	<0.5	<0.5	nc	>30%
Cis- 1,2-Dichloroethylene	0.4	<0.4	<0.4	nc	>30%
Dibromochloromethane	0.3	<0.3	<0.3	nc	>30%
Dichlorodifluoromethane	0.5	<0.5	<0.5	nc	>30%
Ethylbenzene	0.5	<0.5	<0.5	nc	>30%
Ethylene Dibromide	0.2	<0.2	<0.2	nc	>30%
Methyl Ethyl Ketone	10	<10	<10	nc	>30%
Methyl Isobutyl Ketone	10	<10	<10	nc	>30%
Methyl tert-butyl Ether	2	<2	<2	nc	>30%
Methylene Chloride	4	<4.0	<4.0	nc	>30%
n-Hexane	5	<5	<5	nc	>30%
Styrene	0.5	<0.5	<0.5	nc	>30%
Tetrachloroethylene	0.3	<0.3	<0.3	nc	>30%
Toluene	0.5	<0.5	<0.5	nc	>30%
Trans- 1,2-Dichloroethylene	0.4	<0.4	<0.4	nc	>30%
Trichloroethylene	0.3	<0.3	<0.3	nc	>30%
Trichlorofluoromethane	0.5	<0.5	<0.5	nc	>30%
Vinyl Chloride	0.2	<0.2	<0.2	nc	>30%
Xylene Mixture	0.5	<0.5	<0.5	nc	>30%

NOTES:

Analysis by Eurofins Environmental Testing.

All results in ppb (µg/L).

* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.

'nc' means "not calculable", since one (or both) of the results are less than the RDL.

Exceedences of alert limits are shown in **bold**.

Table C-10: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Volatile Organic Compounds

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor BH102	Duplicate of BH102 BH1020	RPD	Alert Limit
Depth (m)		1.5 to 3.6	1.5 to 3.6		
Date of Sample Collection		5-Mar-20	5-Mar-20		
Date of Sample Analysis		11-Mar-20	11-Mar-20		
Certificate of Analysis Number		20T581990	20T581990		
Laboratory I.D.		999486	999489		
1,1,1,2-Tetrachloroethane	0.10	<0.10	<0.10	nc	>30%
1,1,1-Trichloroethane	0.30	<0.30	<0.30	nc	>30%
1,1,2,2-Tetrachloroethane	0.10	<0.10	<0.10	nc	>30%
1,1,2-Trichloroethane	0.20	<0.20	<0.20	nc	>30%
1,1-Dichloroethane	0.30	<0.30	<0.30	nc	>30%
1,1-Dichloroethylene	0.30	<0.30	<0.30	nc	>30%
1,2-Dichlorobenzene	0.10	<0.10	<0.10	nc	>30%
1,2-Dichloroethane	0.20	<0.20	<0.20	nc	>30%
1,2-Dichloropropane	0.20	<0.20	<0.20	nc	>30%
1,3-Dichlorobenzene	0.10	<0.10	<0.10	nc	>30%
1,3-Dichloropropene	0.30	<0.30	<0.30	nc	>30%
1,4-Dichlorobenzene	0.10	<0.10	<0.10	nc	>30%
Acetone	1.0	<1.0	<1.0	nc	>30%
Benzene	0.20	<0.20	<0.20	nc	>30%
Bromodichloromethane	0.20	<0.20	<0.20	nc	>30%
Bromoform	0.10	<0.10	<0.10	nc	>30%
Bromomethane	0.20	<0.20	<0.20	nc	>30%
Carbon Tetrachloride	0.20	<0.20	<0.20	nc	>30%
Chlorobenzene	0.10	<0.10	<0.10	nc	>30%
Chloroform	0.20	<0.20	<0.20	nc	>30%
cis- 1,2-Dichloroethylene	0.20	<0.20	<0.20	nc	>30%
Dibromochloromethane	0.10	<0.10	<0.10	nc	>30%
Dichlorodifluoromethane	0.20	<0.20	<0.20	nc	>30%
Ethylbenzene	0.10	<0.10	<0.10	nc	>30%
Ethylene Dibromide	0.10	<0.10	<0.10	nc	>30%
Methyl Ethyl Ketone	1.0	<1.0	<1.0	nc	>30%
Methyl Isobutyl Ketone	1.0	<1.0	<1.0	nc	>30%
Methyl tert-butyl ether	0.20	<0.20	<0.20	nc	>30%
Methylene Chloride	0.30	<0.30	<0.30	nc	>30%
n-Hexane	0.20	<0.20	<0.20	nc	>30%
Styrene	0.10	<0.10	<0.10	nc	>30%
Tetrachloroethylene	0.20	<0.20	<0.20	nc	>30%
Toluene	0.20	<0.20	<0.20	nc	>30%
trans- 1,2-Dichloroethylene	0.20	<0.20	<0.20	nc	>30%
Trichloroethylene	0.20	<0.20	<0.20	nc	>30%
Trichlorofluoromethane	0.40	<0.40	<0.40	nc	>30%
Vinyl Chloride	0.17	<0.17	<0.17	nc	>30%
Xylene Mixture	0.20	<0.20	<0.20	nc	>30%

NOTES:

Analysis by AGAT Laboratories.

All results in ppb (µg/L).

* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.

'nc' means "not calculable", since one (or both) of the results are less than the RDL.

Exceedences of alert limits are shown in **bold**.

Table C-11: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Polycyclic Aromatic Hydrocarbons

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor N7	Duplicate of N7 N70	RPD	Alert Limit
Depth (m)		3.0 to 6.0	3.0 to 6.0		
Date of Sample Collection		5-Mar-20	5-Mar-20		
Date of Sample Analysis		13-Mar-20	13-Mar-20		
Certificate of Analysis Number		20T581990	20T581990		
Laboratory I.D.		999492	999493		
2-and 1-methyl Naphthalene	0.20	<0.20	<0.20	nc	>30%
Acenaphthene	0.20	<0.20	<0.20	nc	>30%
Acenaphthylene	0.20	<0.20	<0.20	nc	>30%
Anthracene	0.10	<0.10	<0.10	nc	>30%
Benz(a)anthracene	0.20	<0.20	<0.20	nc	>30%
Benzo(a)pyrene	0.01	<0.01	<0.01	nc	>30%
Benzo(b)fluoranthene	0.10	<0.10	<0.10	nc	>30%
Benzo(g,h,i)perylene	0.20	<0.20	<0.20	nc	>30%
Benzo(k)fluoranthene	0.10	<0.10	<0.10	nc	>30%
Chrysene	0.10	<0.10	<0.10	nc	>30%
Dibenz(a,h)anthracene	0.20	<0.20	<0.20	nc	>30%
Fluoranthene	0.20	<0.20	<0.20	nc	>30%
Fluorene	0.20	<0.20	<0.20	nc	>30%
Indeno(1,2,3-cd)pyrene	0.20	<0.20	<0.20	nc	>30%
Naphthalene	0.20	<0.20	<0.20	nc	>30%
Phenanthrene	0.10	<0.10	<0.10	nc	>30%
Pyrene	0.20	<0.20	<0.20	nc	>30%

NOTES:

Analysis by AGAT Laboratories.

All results in ppb (µg/L).

* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.

'nc' means "not calculable", since one (or both) of the results are less than the RDL.

Exceedences of alert limits are shown in **bold**.

Table C-12: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Sodium and Chloride

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor N2	Duplicate of N2 N112	RPD	Alert Limit
Depth (m)		3.0 to 6.0	3.0 to 6.0		
Date of Sample Collection		1-May-19	1-May-19		
Date of Sample Analysis		3-May-19	3-May-19		
Certificate of Analysis Number		1906642	1906642		
Laboratory I.D.		1424141	1424143		
Sodium	2,000	607,000	-	nc	>20%
Chloride	1,000	2,520,000	2,760,000	9	>20%

NOTES:
Analysis by Eurofins Environmental Testing.
All results in ppb (µg/L).
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the RDL.
Exceedences of alert limits are shown in **bold**.

Table C-12: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Sodium and Chloride

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor BH-N3	Duplicate of BH-N3 BH-N113	RPD	Alert Limit
Depth (m)		3.0 to 6.0	3.0 to 6.0		
Date of Sample Collection		9-May-19	9-May-19		
Date of Sample Analysis		13-May-19	13-May-19		
Certificate of Analysis Number		1907196	1907196		
Laboratory I.D.		1425569	1425570		
Sodium	2,000	78,000	78,000	0	>20%
Chloride	1,000	1,120,000	1,260,000	12	>20%

NOTES:
Analysis by Eurofins Environmental Testing.
All results in ppb (µg/L).
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the RDL.
Exceedences of alert limits are shown in **bold**.

Table C-12: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Sodium and Chloride

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor BH102	Duplicate of BH102 BH1020	RPD	Alert Limit
Depth (m)		1.5 to 3.6	1.5 to 3.6		
Date of Sample Collection		5-Mar-20	5-Mar-20		
Date of Sample Analysis		11-Mar-20	11-Mar-20		
Certificate of Analysis Number		20T581990	20T581990		
Laboratory I.D.		999486	999489		
Sodium	50,000	3,350,000	3,320,000	1	>20%
Chloride	20,000	8,140,000	8,150,000	0	>20%

NOTES:
Analysis by AGAT Laboratories.
All results in ppb (µg/L).
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the RDL.
Exceedences of alert limits are shown in **bold**.

Table C-12: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Sodium and Chloride

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor TH203	Duplicate of TH203 TH2030	RPD	Alert Limit
Depth (m)		17.4 to 18.3	17.4 to 18.3		
Date of Sample Collection		7-May-20	7-May-20		
Date of Sample Analysis		14-May-20	14-May-20		
Certificate of Analysis Number		20T599788	20T599788		
Laboratory I.D.		1115972	1115973		
Sodium	50,000	9,830	9,580	3	>20%
Chloride	20,000	25,400	24,400	4	>20%

NOTES:
Analysis by AGAT Laboratories.
All results in ppb (µg/L).
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the RDL.
Exceedences of alert limits are shown in **bold**.

Table C-12: GROUND WATER FIELD DUPLICATES - RELATIVE PERCENT DIFFERENCES
Sodium and Chloride

12211, 12213 and 12231 Hurontario Street, Caledon, Ontario
February 2022

Sample I.D.	MDL*	Monitor BH304	Duplicate of BH304 BH304D	RPD	Alert Limit
Depth (m)		2.29 to 5.33	2.29 to 5.33		
Date of Sample Collection		20-Dec-21	20-Dec-21		
Date of Sample Analysis		7-Jan-21	7-Jan-21		
Certificate of Analysis Number		21T847305	21T847305		
Laboratory I.D.		3372159	3372160		
Sodium	50,000	111,000	112,000	1	>20%
Chloride	20,000	264,000	269,000	2	>20%

NOTES:
Analysis by AGAT Laboratories.
All results in ppb (µg/L).
* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.
'nc' means "not calculable", since one (or both) of the results are less than the RDL.
Exceedences of alert limits are shown in **bold**.

Table C-13: GROUND WATER CHEMICAL ANALYSIS - Trip Blank

12197 Hurontario Street, Brampton and 12211, 12213 and 12231 Hurontario Street, Caledon, Ontario

February 2022

Sample I.D.	Units	MDL*	Trip Blank Trip Blank	Trip Blank Trip Blank	Ontario Regulation 153/04 Table 3 Ground Water Standards**
Date of Sample Collection			12-Apr-19	5-Mar-20	
Date of Sample Analysis			22-Apr-19	12-Mar-20	
Certificate of Analysis Number			1905459	20T581990	
Laboratory I.D.			1420483	999498	
1,1,1,2-Tetrachloroethane	µg/L	0.1	<0.5	<0.10	1.1
1,1,1-Trichloroethane	µg/L	0.3	<0.4	<0.30	200
1,1,2,2-Tetrachloroethane	µg/L	0.1	<0.5	<0.10	1
1,1,2-Trichloroethane	µg/L	0.2	<0.4	<0.20	5
1,1-Dichloroethane	µg/L	0.3	<0.4	<0.30	5
1,1-Dichloroethylene	µg/L	0.3	<0.5	<0.30	14
1,2-Dichlorobenzene	µg/L	0.1	<0.4	<0.10	3
1,2-Dichloroethane	µg/L	0.2	<0.2	<0.20	5
1,2-Dichloropropane	µg/L	0.2	<0.5	<0.20	5
1,3-Dichlorobenzene	µg/L	0.1	<0.4	<0.10	59
1,3-Dichloropropene	µg/L	0.3	<0.3	<0.30	0.5
1,4-Dichlorobenzene	µg/L	0.1	<0.4	<0.10	1
Acetone	µg/L	1	<30	<1.0	2700
Benzene	µg/L	0.2	<0.5	<0.20	5
Bromodichloromethane	µg/L	0.2	<0.3	<0.20	16
Bromoform	µg/L	0.1	<0.4	<0.10	25
Bromomethane	µg/L	0.2	<0.5	<0.20	0.89
Carbon Tetrachloride	µg/L	0.2	<0.2	<0.20	5
Chlorobenzene	µg/L	0.1	<0.5	<0.10	30
Chloroform	µg/L	0.2	<0.5	<0.20	22
cis- 1,2-Dichloroethylene	µg/L	0.2	<0.4	<0.20	17
Dibromochloromethane	µg/L	0.1	<0.3	<0.10	25
Dichlorodifluoromethane	µg/L	0.2	<0.5	<0.20	590
Ethylbenzene	µg/L	0.1	<0.5	<0.10	2.4
Ethylene Dibromide	µg/L	0.1	<0.2	<0.10	0.2
Methyl Ethyl Ketone	µg/L	1	<10	<1.0	1800
Methyl Isobutyl Ketone	µg/L	1	<10	<1.0	640
Methyl tert-butyl ether	µg/L	0.2	<2	<0.20	15
Methylene Chloride	µg/L	0.3	<4.0	<0.30	50
n-Hexane	µg/L	0.2	<5	<0.20	520
Styrene	µg/L	0.1	<0.5	<0.10	5.4
Tetrachloroethylene	µg/L	0.2	<0.3	<0.20	17
Toluene	µg/L	0.2	<0.5	<0.20	24
trans- 1,2-Dichloroethylene	µg/L	0.2	<0.4	<0.20	17
Trichloroethylene	µg/L	0.2	<0.3	<0.20	5
Trichlorofluoromethane	µg/L	0.4	<0.5	<0.40	150
Vinyl Chloride	µg/L	0.17	<0.2	<0.17	1.7
Xylene Mixture	µg/L	0.2	<0.5	<0.20	300

NOTES:

Analysis by Eurofins Environmental Testing or AGAT Laboratories.

All results in ppb (µg/L).

N/A means "not applicable". NA mean "not analyzed".

* Minimum Analytical Reporting Detection Limit (MDL) is listed. Refer to individual Certificate of Analyses for sample-specific Reporting Detection Limit (RDL) value.

** Standards shown are for all types of property use and medium/fine textured soils in a non-potable ground water condition. Exceedances of Table 3 Standards are shown in **bold**.

Appendix D – Risk Assessment Assumption Deviations from Generic Values in the Approved Model

APPENDIX D: Risk Assessment Assumption Deviations from Generic Values in the Approved Model

Property Information

The site comprises the contiguous properties municipally addressed as ~~12197 Hurontario Street, Brampton, Ontario and~~ 12211, 12213 and~~,~~ 12231~~, and 12233~~ Hurontario Street, Caledon, Ontario. The site is irregular in shape and measures approximately ~~3.6~~3.09 hectares (~~8.9~~7.6 acres) in area. A locality plan is provided as Figure 1 (Appendix A). A site plan is provided as Figure 2 (Appendix A).

Based on a review of historical aerial photographs, chain of title information, historical maps, other historical documentation as well as interviews with the present and past property owners completed as part of the Phase One ESAs completed by EXP (2020a and 2022a), it was determined that the site was first developed for residential and commercial use (trailer sales and service, and livestock auctions) in the late 1950s. The on-site structures were demolished between 2013 and 2014. Prior to that time, the site was under agricultural use or vacant; no orchards were present on, or in the vicinity of the site. At the time of EXP's latest site visit, the site was a vacant lot covered in grass, with small areas containing asphalt, gravel and concrete pads. Some construction debris from the demolition of the previous structures was present on-site.

The site is located in an area of primarily mixed residential and commercial land use.

Further information can be found in Appendix A (Phase Two CSM).

Distance to Nearest Downgradient Water Body

(Approved Generic Value 36.5 m; Revised Value is 610 m)

Geographically, the nearest surface water body is a tributary of Etobicoke Creek, located approximately 180 metres to the west at its closest point. Based on the southeast groundwater flow direction, the nearest downgradient location of the tributary of Etobicoke Creek is 610 metres to the southeast. As such, the value of 610 metres was selected as the distance to the nearest downgradient water body in the MGRA model. This is shown in Figure D-1.

Depth to Groundwater Table

(Approved Generic Value is 300 cm; Revised value is 0.1 cm)

The shallowest depth to groundwater was set to 0.1 cm, given the shallow groundwater condition at the site (minimum depth measured of 0.33 mbgs).

Aquifer Hydraulic Gradient

(Approved Generic Value 0.003 m/m; Revised Value is 0.025 m/m)

The horizontal hydraulic gradient was calculated to be 0.025 m/m to the southeast based on the ground water contour plan (Figure 3A of Appendix A; EXP, 2020).

References:

EXP Services Inc. (2020a), Phase One Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario, January 20, 2020.

EXP Services Inc., (2020b). *Phase Two Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, May 22, 2020.

EXP Services Inc. (2022a), Phase One Environmental Site Assessment Update, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario, January 5, 2022.

EXP Services Inc. (2022b), Phase Two Environmental Site Assessment Update, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario, January 27, 2022.

SCALE:

0 100 200m

SOURCE:

BASED ON GOOGLE EARTH IMAGE, DATED MAY 7, 2018 AND FIELD MEASUREMENTS BY EXP STAFF

LEGEND:

PROPERTY BOUNDARY

DRAWN BY	CHECKED BY
K.G.	A.C.

DISTANCE TO NEAREST DOWNGRADIENT WATERBODY

FIGURE D-1

12211, 12213 AND 12231 HURONTARIO STREET, CALEDON, ONTARIO

PROJECT NUMBER: 257876 | DATE: JANUARY 2022

257876-MGRA_CP DIS TO WATER-JAN22

Appendix E – Supporting Legal Information

agrozaffiro LLP

David A. Elliot, B.A., LL.B.
Barrister & Solicitor, Trade-Mark Agent
Partner
Tel: 905-527-6877 ext. 414
Direct Fax: 905-527-6169
e-mail – delliot@agrozaffiro.com

February 2, 2022

EXP
220 Commerce Valley Drive West
Suite 110
Markham, Ontario L3T 0A8

Attention: Amanda Catenaro, M.E.Sc., P.Geo.
Senior Project Manager

Dear Madam:

Re: Argo Caivan Summer Valley Limited Partnership and Argo Summer Valley Limited Risk Assessment

We are the solicitors for Argo Caivan Summer Valley Limited Partnership and Argo Summer Valley Limited being the owners of the below noted lands. We confirm the following:

All of the below noted lands are owned by Argo Caivan Summer Valley Limited Partnership and Argo Summer Valley Limited in its capacity as General Partner of the limited partnership, Property described in PIN 14235 – 1665 and PIN 14235 – 1693 are Fee Simple Absolute and property described in PIN 14235 - 0025 is Fee Simple LT Conversion Qualified.

1. The Transfer for the property described in PIN 14235 – 1693, PIN 14235 - 1665 and PIN 14235 - 0025 (the "Lands") which was registered as Instrument Number PR3955208 on November 1, 2021, showing Argo Summer Valley Limited in the capacity of General Partner and Argo Caivan Summer Valley Limited Partnership in the capacity of Limited Partnership Firm as registered owners is enclosed.

2. Enclosed is the Survey Plan prepared by David B. Searles Surveying Ltd. dated August 24, 2021.

3. The current property identifier numbers (PINs) of the Lands are as follows:

PIN 14235 – 1693 (LT),
PIN 14235 - 1665 (LT) and
PIN 14235 – 0025 (LT)
(copies of parcel abstracts enclosed)

4. The current legal description of the Lands is as follows:

PT LT 19 CON 1 EHS (CHING), DES AS PTS 1, 2 PL 43R-32579 S/T EASEMENT IN FAVOUR OF THE BELL TELEPHONE COMPANY OF CANADA OVER PTS 6, 9, PL43R27780, AS IN CH32238; TOWN OF CALEDON, being all of PIN 14235 – 1693 (LT)

PT LT 19 CON 1 EHS (CHING) DES AS PT 5, PL 43R32579; TOWN OF CALEDON, being all of PIN 14235 - 1665 (LT)

PT LT 19 CON 1 EHS CHINGUACOUSY PTS 3, 4, PL 43R32579; S/T CH32238; TOWN OF CALEDON, being all of PIN 14235 - 0025 (LT)

5. Certificate of Status for Argo Summer Valley Limited, and Limited Partnership Report for Argo Caivan Summer Valley Limited Partnership is enclosed.

6. Argo Caivan Summer Valley Limited Partnership is the registered owner of the property and title is held by Argo Summer Valley Limited in its capacity as General Partner for the limited partnership.

7. The municipal addresses of the Lands are: 12231, 12213 and 12211 Hurontario Street, Caledon.

8. The assessment roll number for the property is 2124130 – 00604900 for 12211 Hurontario Street, 2124130 – 00605000 for 12213 Hurontario Street, 2124130 – 00605100 for 12231 Hurontario Street.

Should you require any additional information, please do not hesitate to contact our office.

Yours truly,
AGRO ZAFFIRO LLP

DAVID A. ELLIOT, B.A., LL.B.
Barrister & Solicitor, Trade-Mark Agent
Partner
:KMS/Enclosures

PLAN OF SURVEY OF
PART OF LOT 18, CONCESSION 1 EAST OF HURONTARIO STREET
(GEOGRAPHIC TOWNSHIP OF CHINGUACOUSY, COUNTY OF PEEL)
CITY OF BRAMPTON
REGIONAL MUNICIPALITY OF PEEL
AND
PART OF LOT 19, CONCESSION 1 EAST OF HURONTARIO STREET
(GEOGRAPHIC TOWNSHIP OF CHINGUACOUSY, COUNTY OF PEEL)
TOWN OF CALEDON
REGIONAL MUNICIPALITY OF PEEL

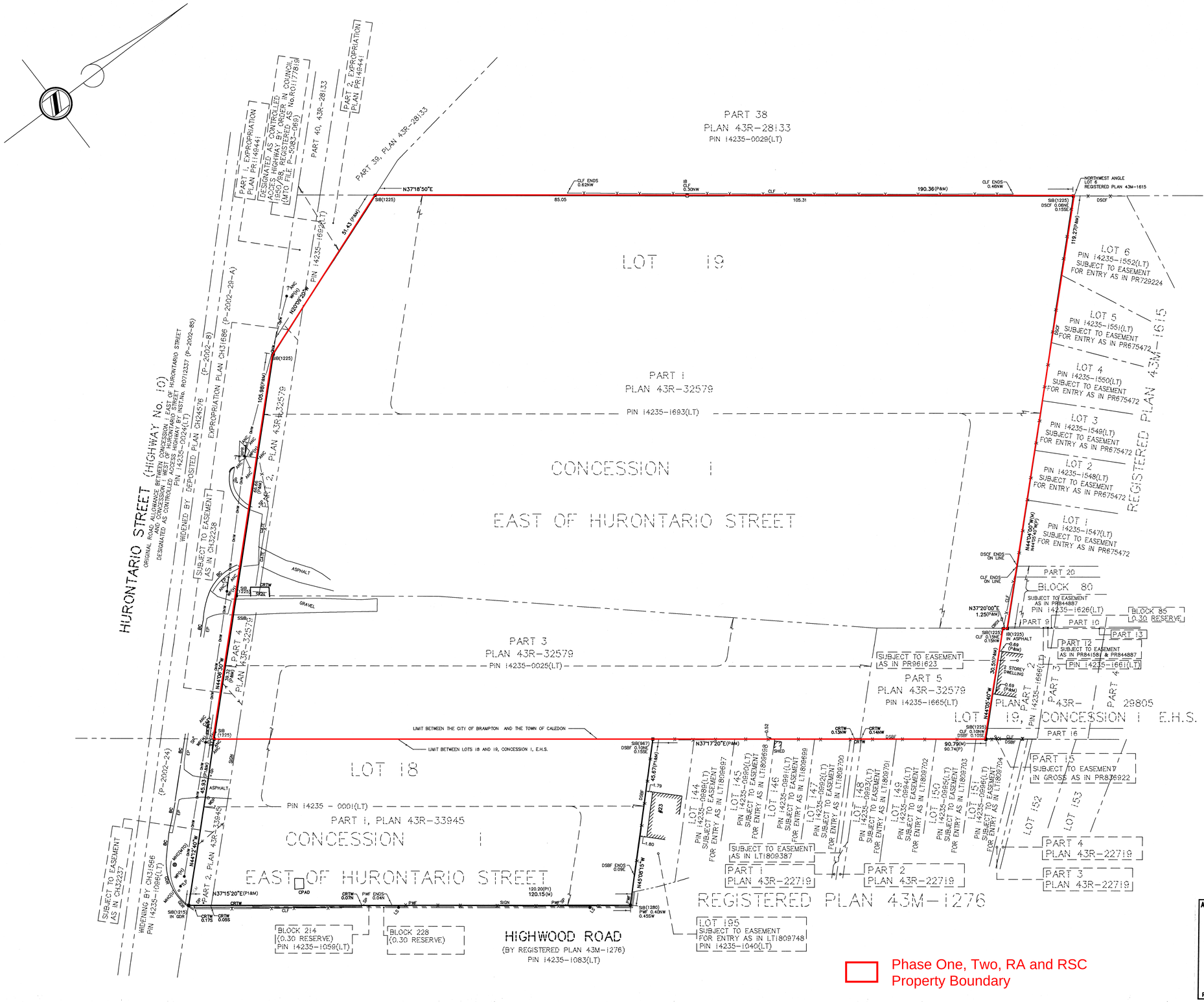
SCALE 1: 500

10 5 0 5 10 15 20 30 40 50 metres

David B. Searles Surveying Ltd.
ONTARIO LAND SURVEYORS

METRIC

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



Phase One, Two, RA and RSC Property Boundary

LEGEND

□	DENOTES	MONUMENT SET
■	DENOTES	MONUMENT FOUND
SIB	DENOTES	STANDARD IRON BAR
IB	DENOTES	IRON BAR
1225	DENOTES	DAVID B. SEARLES SURVEYING LTD
967	DENOTES	W.N. WILDMAN O.L.S.
1280	DENOTES	ANTON KIKAS, O.L.S.
1215	DENOTES	OTTO ERTL, O.L.S.
OU	DENOTES	ORIGIN UNKNOWN
P	DENOTES	PLAN 43R-32579
P1	DENOTES	PLAN 43R-33945
E.H.S.	DENOTES	EAST OF HURONTARIO STREET
ANC	DENOTES	ANCHOR
BB	DENOTES	BELL BOX
BC	DENOTES	BACK OF CURB
BF	DENOTES	BOARD FENCE
BPED	DENOTES	BELL PEDESTAL
BOS	DENOTES	BOTTOM OF SLOPE
CATV	DENOTES	CABLE TELEVISION BOX
CB	DENOTES	CATCH BASIN
COP	DENOTES	CULVERT (CONCRETE PIPE)
CCUT	DENOTES	CURB CUT
CLF	DENOTES	CHAIN LINK FENCE
CPAD	DENOTES	CONCRETE PAD
CRTW	DENOTES	CONCRETE RETAINING WALL
CSP	DENOTES	CULVERT (STEEL PIPE)
CSW	DENOTES	CONCRETE SIDE WALK
CBOX	DENOTES	COMMUNICATION BOX
DICB	DENOTES	DITCH INLET CATCH BASIN
DP	DENOTES	DRAIN PIPE
DSBF	DENOTES	DOUBLE-SIDED BOARD FENCE
DSCF	DENOTES	DOUBLE-COMPOSITE FENCE
EG	DENOTES	EDGE OF GRAVEL
EP	DENOTES	EDGE OF PAVEMENT
FH	DENOTES	FIRE HYDRANT
GDR	DENOTES	GUARDRAIL
GLM	DENOTES	GAS LINE MARKER
LS	DENOTES	LIGHT STANDARD
MHC(STM)	DENOTES	MAINTENANCE HOLE COVER (STORM)
MHC(U)	DENOTES	MAINTENANCE HOLE COVER (UTILITIES)
MHC(MTO)	DENOTES	MAINTENANCE HOLE COVER (MTO)
MW	DENOTES	MONITORING WELL
PWF	DENOTES	POST AND WIRE FENCE
RPB	DENOTES	ROCK PROTECTION
SP	DENOTES	SIGN POST
TLP	DENOTES	TRAFFIC LIGHT POLE
WDP	DENOTES	WOODEN POST
WP(H)	DENOTES	WOODEN POLE (HYDRO)
WV	DENOTES	WATER VALVE

BEARING NOTE

BEARINGS ARE GRID BEARINGS DERIVED FROM GPS OBSERVATIONS USING THE SMARTNET NETWORK AND ARE REFERRED TO THE CENTRAL MERIDIAN OF UTM ZONE 17 (81°00' WEST), NAD83 (ORIGINAL).

DISTANCES SHOWN HEREON ARE GROUND DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.9997674

BEARINGS ON PLAN 43R-32579 (P) HAVE BEEN ROTATED BY 00°48'00" COUNTERCLOCKWISE TO MAKE COMPARISONS.

NOTE

PROPERTY LIMITS ARE NOT FENCED UNLESS OTHERWISE NOTED ON THE FACE OF THE PLAN.

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 REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 13th DAY OF AUGUST, 2021.

AUGUST 24, 2021
DATE

ALISTER SANKEY
ONTARIO LAND SURVEYOR

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2175665
THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR In accordance with Regulation 1026, Section 29(3).

David B. Searles Surveying Ltd.
ONTARIO LAND SURVEYORS
4255 Sherwoodtowne Blvd., Suite 206, Mississauga, Ontario L4Z 1Y5
Tel: (905) 273-6840 Fax: (905) 896-4410
Email: info@dbsearles.ca

Calculator BJ		Draftsperson RM/PG	
Editor ADS/BJ		Plan Index No. E 19	
Calculation File 71-20CALC.DWG	Drawing File 71-1-20.DWG	File No. 71-1-20	

* CERTIFIED IN ACCORDANCE WITH THE LAND TITLES ACT * SUBJECT TO RESERVATIONS IN CROWN GRANT *

PROPERTY DESCRIPTION: PT LT 19 CON 1 EHS CHINGUACOUSY PTS 3, 4, PL 43R32579; S/T CH32238; TOWN OF CALEDON

PROPERTY REMARKS:

ESTATE/QUALIFIER:
FEE SIMPLE
LT CONVERSION QUALIFIED

RECENTLY:
RE-ENTRY FROM 14235-1118

PIN CREATION DATE:
1999/03/25

OWNERS' NAMES	CAPACITY	SHARE
ARGO SUMMER VALLEY LIMITED	GPAR	
ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	FIRM	

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
EFFECTIVE 2000/07/29 THE NOTATION OF THE "BLOCK IMPLEMENTATION DATE" OF 1997/06/24 ON THIS PIN						
WAS REPLACED WITH THE "PIN CREATION DATE" OF 1999/03/25						
*** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 1999/03/25 ***						
***SUBJECT, ON FIRST REGISTRATION UNDER THE LAND TITLES ACT, TO:*						
*** SUBSECTION 44(1) OF THE LAND TITLES ACT, EXCEPT PARAGRAPH 11, PARAGRAPH 14, PROVINCIAL SUCCESSION DUTIES **						
*** AND ESCHEATS OR FORFEITURE TO THE CROWN.*						
*** THE RIGHTS OF ANY PERSON WHO WOULD, BUT FOR THE LAND TITLES ACT, BE ENTITLED TO THE LAND OR ANY PART OF*						
*** IT THROUGH LENGTH OF ADVERSE POSSESSION, PRESCRIPTION, MISDESCRIPTION OR BOUNDARIES SETTLED BY*						
*** CONVENTION.*						
*** ANY LEASE TO WHICH THE SUBSECTION 70(2) OF THE REGISTRY ACT APPLIES.*						
***DATE OF CONVERSION TO LAND TITLES: 1999/03/26 ***						
CH32238	1963/06/10	TRANSFER EASEMENT			THE BELL TELEPHONE COMPANY OF CANADA	C
43R7911	1980/04/03	PLAN REFERENCE				C
RO551122	1980/06/25	TRANSFER		**** DELETED AGAINST THIS PROPERTY ****	REINHART, DORIS JEAN	
43R27781	2002/12/13	PLAN REFERENCE				C
PR1339303	2007/09/20	APL (GENERAL)		**** COMPLETELY DELETED **** REINHART, DORIS JEAN	REINHART, DORIS JEAN	
	REMARKS: DELETES S/T RO551122					
PR1339304	2007/09/20	TRANSFER REL&ABAND		**** COMPLETELY DELETED **** REINHART, DORIS JEAN	REINHART, DONALD WALTER	

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
	REMARKS: VS180593					
PR1368059	2007/11/07	CHARGE		*** COMPLETELY DELETED *** REINHART, DORIS JEAN	HSBC BANK CANADA	
43R32579	2008/12/03	PLAN REFERENCE				C
PR1833807	2010/06/07	APL COURT ORDER		*** COMPLETELY DELETED *** ONTARIO SUPERIOR COURT OF JUSTICE	REINHART, DONALD WALTER REINHART, DORIS JEAN	
	REMARKS: TO DELETE VS180593 AND RO551122					
PR1854155	2010/07/05	LR'S ORDER		*** COMPLETELY DELETED *** LAND REGISTRAR, LRO NO. 43		
	REMARKS: AMENDS INSTRUMENT FILE BY DELETING REFERENCE TO PR1338000, PR1339961 & PR1339304.					
PR1864795	2010/07/26	TRANSFER		*** COMPLETELY DELETED *** REINHART, DORIS JEAN	2248811 ONTARIO INC.	
	REMARKS: PLANNING ACT STATEMENTS					
PR1864841	2010/07/26	CHARGE		*** COMPLETELY DELETED *** 2248811 ONTARIO INC.	SOBEYS CAPITAL INCORPORATED	
PR1879482	2010/08/23	DISCH OF CHARGE		*** COMPLETELY DELETED *** HSBC BANK CANADA		
	REMARKS: PR1368059.					
PR2039976	2011/07/19	DISCH OF CHARGE		*** COMPLETELY DELETED *** SOBEYS CAPITAL INCORPORATED		
	REMARKS: PR1864841.					
PR3831221	2021/05/10	NOTICE	$2	THE CORPORATION OF THE TOWN OF CALEDON		C
PR3955208	2021/12/01	TRANSFER	$20,000,000	2248811 ONTARIO INC.	ARGO SUMMER VALLEY LIMITED ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	C
	REMARKS: PLANNING ACT STATEMENTS.					
PR3955209	2021/12/01	CHARGE PARTNERSHIP	$50,000,000	ARGO SUMMER VALLEY LIMITED ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	THE BANK OF NOVA SCOTIA	C
	REMARKS: DEBENTURE					
PR3955210	2021/12/01	NO ASSGN RENT GEN		ARGO SUMMER VALLEY LIMITED ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	THE BANK OF NOVA SCOTIA	C

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
REMARKS: PR3955209						

* CERTIFIED IN ACCORDANCE WITH THE LAND TITLES ACT * SUBJECT TO RESERVATIONS IN CROWN GRANT *

PROPERTY DESCRIPTION: PT LT 19 CON 1 EHS (CHING) DES AS PT 5, PL 43R32579; TOWN OF CALEDON

PROPERTY REMARKS:

ESTATE/QUALIFIER:
FEE SIMPLE
ABSOLUTE

RECENTLY:
DIVISION FROM 14235-1638

PIN CREATION DATE:
2005/05/16

OWNERS' NAMES / CAPACITY / SHARE
ARGO SUMMER VALLEY LIMITED — GPAR
ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP — FIRM

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 2005/05/16 **						
43R7911	1980/04/03	PLAN REFERENCE				C
43R27781	2002/12/13	PLAN REFERENCE				C
PR764063	2004/11/30	TRANSFER		*** COMPLETELY DELETED *** 2008609 ONTARIO LIMITED	1360287 ONTARIO LIMITED	
43R29805	2005/02/16	PLAN REFERENCE				C
PR821918	2005/03/23	NOTICE		*** DELETED AGAINST THIS PROPERTY *** THE CORPORATION OF THE TOWN OF CALEDON		
PR902832	2005/08/09	TRANSFER		*** COMPLETELY DELETED *** 1360287 ONTARIO LIMITED	REINHART, DORIS JEAN	
43R30347	2005/10/21	PLAN REFERENCE				C
PR1338000	2007/09/18	LR'S ORDER		*** COMPLETELY DELETED *** LAND REGISTRAR, LRO 43	LAND REGISTRAR, LRO 43	
REMARKS: AMENDS DESCRIPTION TO REFER TO T/W ROW AS IN RO551122						
PR1339303	2007/09/20	APL (GENERAL)		*** COMPLETELY DELETED *** REINHART, DORIS JEAN	REINHART, DORIS JEAN	
REMARKS: DELETES S/T RO551122						
43R32579	2008/12/03	PLAN REFERENCE				C
PR1833807	2010/06/07	APL COURT ORDER		*** COMPLETELY DELETED *** ONTARIO SUPERIOR COURT OF JUSTICE	REINHART, DONALD WALTER REINHART, DORIS JEAN	
REMARKS: TO DELETE VS180593 AND RO551122						

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

* CERTIFIED IN ACCORDANCE WITH THE LAND TITLES ACT * SUBJECT TO RESERVATIONS IN CROWN GRANT *

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
PR1854155	2010/07/05	LR'S ORDER		*** COMPLETELY DELETED *** LAND REGISTRAR, LRO NO. 43		
	REMARKS: AMENDS INSTRUMENT FILE BY DELETING REFERENCE TO PR1338000, PR1339961 & PR1339304.					
PR1864795	2010/07/26	TRANSFER		*** COMPLETELY DELETED *** REINHART, DORIS JEAN	2248811 ONTARIO INC.	
	REMARKS: PLANNING ACT STATEMENTS					
PR1864841	2010/07/26	CHARGE		*** COMPLETELY DELETED *** 2248811 ONTARIO INC.	SOBEYS CAPITAL INCORPORATED	
PR2039976	2011/07/19	DISCH OF CHARGE		*** COMPLETELY DELETED *** SOBEYS CAPITAL INCORPORATED		
	REMARKS: PR1864841.					
PR3955208	2021/12/01	TRANSFER	$20,000,000	2248811 ONTARIO INC.	ARGO SUMMER VALLEY LIMITED ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	C
	REMARKS: PLANNING ACT STATEMENTS.					
PR3955209	2021/12/01	CHARGE PARTNERSHIP	$50,000,000	ARGO SUMMER VALLEY LIMITED ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	THE BANK OF NOVA SCOTIA	C
	REMARKS: DEBENTURE					
PR3955210	2021/12/01	NO ASSGN RENT GEN		ARGO SUMMER VALLEY LIMITED ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	THE BANK OF NOVA SCOTIA	C
	REMARKS: PR3955209					

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

* CERTIFIED IN ACCORDANCE WITH THE LAND TITLES ACT * SUBJECT TO RESERVATIONS IN CROWN GRANT *

PROPERTY DESCRIPTION: PT LT 19 CON 1 EHS (CHING),DES AS PTS 1, 2 PL 43R-32579 S/T EASEMENT IN FAVOUR OF THE BELL TELEPHONE COMPANY OF CANADA OVER PTS 6, 9, PL 43R27780, AS IN CH32238; TOWN OF CALEDON

PROPERTY REMARKS: SUBJECT TO SUBSECTION 44 (1) OF THE LAND TITLES ACT, EXCEPT PARAGRAPHS 3 AND 14 AND PROVINCIAL SUCCESSION DUTIES AND EXCEPT PARAGRAPH 11 AND ESCHEATS OR FORFEITURE TO THE CROWN UP TO THE DATE OF REGISTRATION WITH AN ABSOLUTE TITLE.

ESTATE/QUALIFIER:	RECENTLY:	PIN CREATION DATE:
FEE SIMPLE ABSOLUTE	DIVISION FROM 14235-1545	2006/10/13

OWNERS' NAMES	CAPACITY	SHARE
ARGO SUMMER VALLEY LIMITED	GPAR	
ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	FIRM	

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
*** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 2006/10/13 ***						
CH32238	1963/06/10	TRANSFER EASEMENT			THE BELL TELEPHONE COMPANY OF CANADA	C
43R7911	1980/04/03	PLAN REFERENCE				C
43R17356	1989/11/06	PLAN REFERENCE				C
RO1012012	1992/07/16	AGREEMENT			THE TOWN OF CALEDON	C
RO1177819	1998/10/09	ORDER IN COUNCIL		HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO, REPRESENTED BY THE MINISTER OF TRANSPORTATION FOR THE PROVINCE OF ONTARIO		C
		REMARKS: - LANDS DESIGNATED AS A CONTROLLED-ACCESS HIGHWAY.				
		CORRECTIONS: 'PARTY' CHANGED FROM 'H.M. THE QUEEN-ONTARIO' TO 'HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO, REPRESENTED BY THE MINISTER OF TRANSPORTATION FOR THE PROVINCE OF ONTARIO' ON 1999/05/31 BY LAND REGISTRAR #17.				
43R27780	2002/12/13	PLAN REFERENCE				C
PR594535	2004/02/24	TRANSFER		*** DELETED AGAINST THIS PROPERTY *** 1360287 ONTARIO LIMITED	REINHART, DONALD WALTER	
PR1339304	2007/09/20	TRANSFER REL&ABAND		*** COMPLETELY DELETED *** REINHART, DORIS JEAN	REINHART, DONALD WALTER	
		REMARKS: VS180593				
PR1339961	2007/09/21	LR'S ORDER		*** COMPLETELY DELETED *** LAND REGISTRAR, LRO 43	LAND REGISTRAR, LRO 43	
		REMARKS: AMENDS DESCRIPTION BY ADDING S/T ROW OVER PTS 8 & 9, 43R27780, AS IN VS180593				
PR1370078	2007/11/09	CERTIFICATE		*** COMPLETELY DELETED *** THE CORPORATION OF THE TOWN OF CALEDON		

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
PR1406427	2008/01/25	APL (GENERAL)		*** COMPLETELY DELETED *** THE CORPORATION OF THE TOWN OF CALEDON		
	REMARKS: TAX ARREARS CANCELLATION RE: PR1370078					
43R32579	2008/12/03	PLAN REFERENCE				C
PR1833807	2010/06/07	APL COURT ORDER		*** COMPLETELY DELETED *** ONTARIO SUPERIOR COURT OF JUSTICE	REINHART, DONALD WALTER REINHART, DORIS JEAN	
	REMARKS: TO DELETE VS180593 AND RO551122					
PR1854155	2010/07/05	LR'S ORDER		*** COMPLETELY DELETED *** LAND REGISTRAR, LRO NO. 43		
	REMARKS: AMENDS INSTRUMENT FILE BY DELETING REFERENCE TO PR1338000, PR1339961 & PR1339304.					
PR1864796	2010/07/26	TRANSFER		*** COMPLETELY DELETED *** REINHART, DONALD WALTER	2248811 ONTARIO INC.	
	REMARKS: PLANNING ACT STATEMENTS					
PR1864841	2010/07/26	CHARGE		*** COMPLETELY DELETED *** 2248811 ONTARIO INC.	SOBEYS CAPITAL INCORPORATED	
PR2039976	2011/07/19	DISCH OF CHARGE		*** COMPLETELY DELETED *** SOBEYS CAPITAL INCORPORATED		
	REMARKS: PR1864841.					
PR3831221	2021/05/10	NOTICE	$2	THE CORPORATION OF THE TOWN OF CALEDON		C
PR3875725	2021/07/22	LR'S ORDER		LAND REGISTRAR, PEEL LAND REGISTRY OFFICE		C
	REMARKS: AMENDING DESCRIPTION					
PR3955208	2021/12/01	TRANSFER	$20,000,000	2248811 ONTARIO INC.	ARGO SUMMER VALLEY LIMITED ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	C
	REMARKS: PLANNING ACT STATEMENTS.					
PR3955209	2021/12/01	CHARGE PARTNERSHIP	$50,000,000	ARGO SUMMER VALLEY LIMITED ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	THE BANK OF NOVA SCOTIA	C
	REMARKS: DEBENTURE					
PR3955210	2021/12/01	NO ASSGN RENT GEN		ARGO SUMMER VALLEY LIMITED ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP	THE BANK OF NOVA SCOTIA	C
	REMARKS: PR3955209					

Properties

PIN	14235 - 0001	LT	*Interest/Estate*	Fee Simple
Description	PT LT 18 CON 1 EHS CHINGUACOUSY DES AS PTS 1 & 2 PL 43R33945; S/T CH32237; CITY OF BRAMPTON			
Address	12197 HURONTARIO STREET BRAMPTON			
PIN	14235 - 1693	LT	*Interest/Estate*	Fee Simple
Description	PT LT 19 CON 1 EHS (CHING),DES AS PTS 1, 2 PL 43R-32579 S/T EASEMENT IN FAVOUR OF THE BELL TELEPHONE COMPANY OF CANADA OVER PTS 6, 9, PL 43R27780, AS IN CH32238; TOWN OF CALEDON			
Address	12231 HURONTARO STREET CALEDON			
PIN	14235 - 1665	LT	*Interest/Estate*	Fee Simple
Description	PT LT 19 CON 1 EHS (CHING) DES AS PT 5, PL 43R32579; TOWN OF CALEDON			
Address	12213 HURONTARIO STREET CALEDON			
PIN	14235 - 0025	LT	*Interest/Estate*	Fee Simple
Description	PT LT 19 CON 1 EHS CHINGUACOUSY PTS 3, 4, PL 43R32579; S/T CH32238; TOWN OF CALEDON			
Address	12211 HURONTARIO ST CALEDON			

Consideration

Consideration $20,000,000.00

Transferor(s)

The transferor(s) hereby transfers the land to the transferee(s).

Name 2248811 ONTARIO INC.

Address for Service 151 Spinnaker Way, Unit 5
Concord, Ontario, L4K 4C3

I, Howard Walton, President and Orland Espinola, Chairman, have the authority to bind the corporation.

This document is not authorized under Power of Attorney by this party.

Transferee(s) *Capacity* *Share*

Name ARGO SUMMER VALLEY LIMITED — General Partner

Address for Service 4900 Palladium Way, Suite 105
Burlington, ON, L7M 0W7

This transaction is for a partnership purpose within the meaning of the Limited Partnerships Act.

I am a general partner, the firm name of the Limited Partnership is ARGO CAVIAN SUMMER VALLEY LIMITED PARTNERSHIP.

Name ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP — Firm Name

Address for Service 4900 Palladium Way, Suite 105
Burlington, ON, L7M 0W7

This transaction is for a partnership purpose within the meaning of the Limited Partnerships Act.

Statements

STATEMENT OF THE TRANSFEROR (S): The transferor(s) verifies that to the best of the transferor's knowledge and belief, this transfer does not contravene the Planning Act.

STATEMENT OF THE SOLICITOR FOR THE TRANSFEROR (S): I have explained the effect of the Planning Act to the transferor(s) and I have made inquiries of the transferor(s) to determine that this transfer does not contravene that Act and based on the information supplied by the transferor(s), to the best of my knowledge and belief, this transfer does not contravene that Act. I am an Ontario solicitor in good standing.

STATEMENT OF THE SOLICITOR FOR THE TRANSFEREE (S): I have investigated the title to this land and to abutting land where relevant and I am satisfied that the title records reveal no contravention as set out in the Planning Act, and to the best of my knowledge and belief this transfer does not contravene the Planning Act. I act independently of the solicitor for the transferor(s) and I am an Ontario solicitor in good standing.

Signed By

Meghan Elizabeth Schwan	181 Bay Street, Suite 4400, Brookfield Place Toronto M5J 2T3	acting for Transferor(s)	Signed	2021 12 01

Tel 416-865-7931

Fax 416-865-7048

I am the solicitor for the transferor(s) and I am not one and the same as the solicitor for the transferee(s).

I have the authority to sign and register the document on behalf of the Transferor(s).

Philip Robert Cumbo	21 King Street West, 11th Floor Hamilton L8P 4W7	acting for Transferee(s)	Signed	2021 12 01

Tel 905-527-6877

Fax 905-527-6169

I am the solicitor for the transferee(s) and I am not one and the same as the solicitor for the transferor(s).

I have the authority to sign and register the document on behalf of the Transferee(s).

Submitted By

AGRO ZAFFIRO LLP	21 King Street West, 11th Floor Hamilton L8P 4W7	2021 12 01

Tel 905-527-6877

Fax 905-527-6169

Fees/Taxes/Payment

Statutory Registration Fee	$66.30
Provincial Land Transfer Tax	$396,475.00
Total Paid	$396,541.30

File Number

Transferee Client File Number : MAT30397

LAND TRANSFER TAX STATEMENTS

In the matter of the conveyance of:	14235 - 0001	PT LT 18 CON 1 EHS CHINGUACOUSY DES AS PTS 1 & 2 PL 43R33945; S/T CH32237; CITY OF BRAMPTON
	14235 - 1693	PT LT 19 CON 1 EHS (CHING),DES AS PTS 1, 2 PL 43R-32579 S/T EASEMENT IN FAVOUR OF THE BELL TELEPHONE COMPANY OF CANADA OVER PTS 6, 9, PL 43R27780, AS IN CH32238; TOWN OF CALEDON
	14235 - 1665	PT LT 19 CON 1 EHS (CHING) DES AS PT 5, PL 43R32579; TOWN OF CALEDON
	14235 - 0025	PT LT 19 CON 1 EHS CHINGUACOUSY PTS 3, 4, PL 43R32579; S/T CH32238; TOWN OF CALEDON

BY: 2248811 ONTARIO INC.

TO: ARGO SUMMER VALLEY LIMITED — General Partner
ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP — Firm Name

1. GORD BUCK

I am

- ☐ (a) A person in trust for whom the land conveyed in the above-described conveyance is being conveyed;
- ☐ (b) A trustee named in the above-described conveyance to whom the land is being conveyed;
- ☐ (c) A transferee named in the above-described conveyance;
- ☐ (d) The authorized agent or solicitor acting in this transaction for _____ described in paragraph(s) (_) above.
- ☑ (e) The President, Vice-President, Manager, Secretary, Director, or Treasurer authorized to act for ARGO SUMMER VALLEY LIMITED AND ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP described in paragraph(s) (c) above.
- ☐ (f) A transferee described in paragraph (_) and am making these statements on my own behalf and on behalf of _____ who is my spouse described in paragraph (_) and as such, I have personal knowledge of the facts herein deposed to.

2. I have read and considered the definition of "single family residence" set out in subsection 1(1) of the Act. The land being conveyed herein:
does not contain a single family residence or contains more than two single family residences.

3. **The total consideration for this transaction is allocated as follows:**

(a) Monies paid or to be paid in cash	$20,000,000.00
(b) Mortgages (i) assumed (show principal and interest to be credited against purchase price)	$0.00
(ii) Given Back to Vendor	$0.00
(c) Property transferred in exchange (detail below)	$0.00
(d) Fair market value of the land(s)	$0.00
(e) Liens, legacies, annuities and maintenance charges to which transfer is subject	$0.00
(f) Other valuable consideration subject to land transfer tax (detail below)	$0.00
(g) Value of land, building, fixtures and goodwill subject to land transfer tax (total of (a) to (f))	$20,000,000.00
(h) VALUE OF ALL CHATTELS -items of tangible personal property	$0.00
(i) Other considerations for transaction not included in (g) or (h) above	$0.00
(j) Total consideration	$20,000,000.00

6. Other remarks and explanations, if necessary.

1. The information prescribed for purposes of section 5.0.1 of the Land Transfer Tax Act is not required to be provided for this conveyance.

2. The transferee(s) has read and considered the definitions of "designated land", "foreign corporation", "foreign entity", "foreign national", "specified region" and "taxable trustee" as set out in subsection 1(1) of the Land Transfer Tax Act. The transferee(s) declare that this conveyance is not subject to additional tax as set out in subsection 2(2.1) of the Act because:

3. (b) This is not a conveyance of "designated land".

4. The transferee(s) declare that they will keep at their place of residence in Ontario (or at their principal place of business in Ontario) such documents, records and accounts in such form and containing such information as will enable an accurate determination of the taxes payable under the Land Transfer Tax Act for a period of at least seven years.

5. The transferee(s) agree that they or the designated custodian will provide such documents, records and accounts in such form and containing such information as will enable an accurate determination of the taxes payable under the Land Transfer Tax Act, to the Ministry of Finance upon request.

PROPERTY Information Record

A. Nature of Instrument: Transfer

LRO 43 Registration No. PR3955208 Date: 2021/12/01

B. Property(s):

PIN 14235 - 0001	Address 12197 HURONTARIO STREET BRAMPTON	Assessment Roll No	2110070 - 00604900
PIN 14235 - 1693	Address 12231 HURONTARO STREET CALEDON	Assessment Roll No	-
PIN 14235 - 1665	Address 12213 HURONTARIO STREET CALEDON	Assessment Roll No	-

LAND TRANSFER TAX STATEMENTS

PIN	14235 - 0025	Address	12211 HURONTARIO ST CALEDON	Assessment Roll No	2124130 - 00604900

C. Address for Service: 4900 Palladium Way, Suite 105
Burlington, ON, L7M 0W7

D. (i) Last Conveyance(s):

PIN	14235 - 0001	Registration No.	PR2026287
PIN	14235 - 1693	Registration No.	PR1864796
PIN	14235 - 1665	Registration No.	PR1864795
PIN	14235 - 0025	Registration No.	PR1864795

(ii) Legal Description for Property Conveyed: Same as in last conveyance? Yes ☑ No ☐ Not known ☐

E. Tax Statements Prepared By: Philip Robert Cumbo
21 King Street West, 11th Floor
Hamilton L8P 4W7

Transaction Number / Numéro de transaction: APP-101069049509
Generated on: February 04, 2022, 16:35 / Généré le: 04 février 2022, 16:35

Ontario

Ministry of Government and Consumer Services
Ministère des Services gouvernementaux et des Services aux consommateurs

Certificate of Status

Attestation du statut juridique

Business Corporations Act

Loi sur les sociétés par actions

This is to certify that

La présente vise à attester que

ARGO SUMMER VALLEY LIMITED

Corporation Name / Dénomination sociale

2868054

Ontario Corporation Number / Numéro de société de l'Ontario

is a corporation incorporated, amalgamated or continued under the laws of the Province of Ontario according to the electronic records maintained by the Ministry of Government and Consumer Services.

est une société constituée en personne morale, fusionnée ou maintenue conformément aux lois de la province de l'Ontario, selon les dossiers électroniques tenus par le ministère des Services gouvernementaux et des Services aux consommateurs.

The corporation came into existence on September 20, 2021
and has not been dissolved.

La société a vu le jour le 20 septembre 2021

et n'a pas été dissoute.

Barbara Ducketts

Director / Directeur
Business Corporations Act / Loi sur les sociétés par actions

Certified a true copy of the record of the Ministry of Government and Consumer Services.

Barbara Ducketts

Director/Registrar

Copie certifiée conforme du dossier du ministère des Services gouvernementaux et des Services aux consommateurs.

Barbara Ducketts

Directeur ou registrateur

Ontario

Ministry of Government and Consumer Services

Profile Report

ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP as of February 04, 2022

Act	Limited Partnerships Act
Type	Ontario Limited Partnership
Firm Name	ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP
Business Identification Number (BIN)	1000036682
Declaration Status	Active
Declaration Date	November 25, 2021
Expiry Date	November 24, 2026
Principal Place of Business	4900 Palladium Way, 105, Burlington, Ontario, Canada, L7M 0W7
Activity (NAICS Code)	531390 - Specialized Activities Related to Real Estate

Certified a true copy of the record of the Ministry of Government and Consumer Services.

Barbara Ducketts

Director/Registrar

This report sets out the most recent information filed on or after June 27, 1992 in respect of corporations and April 1, 1994 in respect of Business Names Act and Limited Partnerships Act filings and recorded in the electronic records maintained by the Ministry as of the date and time the report is generated, unless the report is generated for a previous date. If this report is generated for a previous date, the report sets out the most recent information filed and recorded in the electronic records maintained by the Ministry up to the "as of" date indicated on the report. Additional historical information may exist in paper or microfiche format.

General Partners

Number of General Partners 2

Partners

Partner 1

Name	ARGO SUMMER VALLEY LIMITED
Ontario Corporation Number (OCN)	2868054
Entity Type	Ontario Business Corporation
Registered or Head Office Address	4900 Palladium Way, 105, Burlington, Ontario, Canada, L7M 0W7

Partner 2

Name	CAIVAN (SUMMER VALLEY) INC.
Ontario Corporation Number (OCN)	2867883
Entity Type	Ontario Business Corporation
Registered or Head Office Address	2934 Baseline Road, 302, Ottawa, Ontario, Canada, K2H 1B2

Firm Name History

Name	ARGO CAIVAN SUMMER VALLEY LIMITED PARTNERSHIP
Effective Date	November 25, 2021

Certified a true copy of the record of the Ministry of Government and Consumer Services.

Barbara Ducketts

Director/Registrar

This report sets out the most recent information filed on or after June 27, 1992 in respect of corporations and April 1, 1994 in respect of Business Names Act and Limited Partnerships Act filings and recorded in the electronic records maintained by the Ministry as of the date and time the report is generated, unless the report is generated for a previous date. If this report is generated for a previous date, the report sets out the most recent information filed and recorded in the electronic records maintained by the Ministry up to the "as of" date indicated on the report. Additional historical information may exist in paper or microfiche format.

Active Business Names

This entity does not have any active business names registered under the Business Names Act in Ontario.

Expired or Cancelled Business Names

This entity does not have any expired or cancelled business names registered under the Business Names Act in Ontario.

Document List

Filing Name	Effective Date
Declaration of Change to an Ontario Limited Partnership	November 26, 2021
LPA - File a Declaration of an Ontario Limited Partnership	November 25, 2021

Certified a true copy of the record of the Ministry of Government and Consumer Services.

Barbara Ducketts

Director/Registrar

This report sets out the most recent information filed on or after June 27, 1992 in respect of corporations and April 1, 1994 in respect of Business Names Act and Limited Partnerships Act filings and recorded in the electronic records maintained by the Ministry as of the date and time the report is generated, unless the report is generated for a previous date. If this report is generated for a previous date, the report sets out the most recent information filed and recorded in the electronic records maintained by the Ministry up to the "as of" date indicated on the report. Additional historical information may exist in paper or microfiche format.

Appendix F – Qualifications of Risk Assessment Team

Amanda Catenaro, M.E.Sc., P.Geo., QP¬ESA

Project Manager

Education + Training

- B.Sc. (Honours), Earth and Environmental Sciences, McMaster University, 2012
- M.E.Sc., Environmental Science, University of Toronto, 2013

Languages Spoken

- English
- Italian (Basic)

Amanda Catenaro graduated from McMaster University in 2012 with a Bachelor of Science degree in Environmental Science, specialized in Hydrogeology and Climatology. She completed her Master of Environmental Science Degree from the University of Toronto in 2013. Ms. Catenaro is a Professional Geologist (P.Geo.) in Ontario and is a Qualified Person (QP) for environmental site assessments under Ontario Regulation 153/04. Ms. Catenaro has worked on a number of Phase One and Two environmental assessments since joining EXP Services Inc. and has been involved in the design and application of several remediation projects. She has over eight years experience in the environmental consulting industry, including international experience in the United States of America and the United Kingdom, working on large scale infrastructure and development projects.

Project Experience

Phase One Environmental Assessments – Several Sites in Ontario

Ms. Catenaro has been involved in several Phase One Investigations, including site reconnaissance, interviews, report writing, and records review.

Phase Two Environmental Site Assessments – Several Sites in Ontario

Ms. Catenaro has been involved in several Phase Two investigations, including site visits, drilling supervision, ground water and soil sampling, and report preparation.

Remediation of Impacted Soil – Residential Development, Markham, Ontario, Canada

The subject property had historically been occupied by a former gravel quarry. The site was undergoing excavation for pre-site servicing and development as a public roadway (community land use) supporting a residential development. The surficial soil to a depth of approximately 5.0 metres below ground surface required removal and remediation prior to the filing of an RSC. Ms. Catenaro has been involved in the remediation, excavation, confirmatory soil sampling, and disposal of approximately 2,600 m^3 of impacted soil.

Amanda Catenaro, M.E.Sc., P.Geo., QP¬ESA - *continued*

Project Manager

Remediation of Impacted Soil – Community Development, Brampton, Ontario, Canada

The subject property has historically been occupied by orchards. Historical pesticide use at the site had resulted in soil impacts to a maximum depth of 0.6 mbgs. Ms. Catenaro conducted a Phase One assessment, Phase Two site investigation, and facilitated the in-situ chemical treatment of pesticides on the former farmland being converted into a large residential subdivision. Ms. Catenaro supervised and managed several contractors during the surficial application of zero valent iron (ZVI) and was responsible for planning and conducting the site wide sampling program.

Contaminant Hydrogeology Investigation and Risk Assessment – Thames Tideway Tunnel projects across London, U.K.

Participated in a number of project-related activities, including costing and completion of the reporting of the generic and detailed risk assessments for human health, controlled waters, and property / services. Amanda carried out document review; data analysis including screening of groundwater, soil and leachate quality data; and produced figures indicating exceedances, ground water flow direction, and geologic stratigraphy.

Large Scale Remediation - Former Gun Range, Florida, USA

Field supervisor of a 50 hectare former gun range with soil and surface water heavily impacted with lead. Ms. Catenaro was responsible for the design, implementation, and technical work of the large multi-phase environmental investigation. The project included working with the multiple contractors and Environmental Protection Agency to ensure that the remedial objectives were being met.

Soil remediation at a condominium construction site - Toronto, Canada

Site supervisor on a property impacted by a significant fuel oil leak. The site was being redeveloped for residential use and required extensive soil analysis and monitoring. Ms. Catenaro was involved in both the field work, reporting and modelling of the contaminant plume. She worked on-site with contractors for six months delineating and removing soil impacts.

Phase One assessments and Phase Two site investigations - Gas bars across northern Ontario, Canada

Technical supervisor for the investigation of a several sites occupied by active petroleum stations and gas bars. Works were required to define areas of petroleum hydrocarbon contamination and to complete an options appraisal for over 40 different locations across northern Ontario.

Roadworks Environmental Design - M25 Roadworks, Highways England, UK

Project Manager for the assessment of potential land contamination risks associated with several major road investment schemes as part of the Highways England's Road Investment Strategy (RIS). Ms. Catenaro has been involved in assessing the land contamination risks and constraints, determining the mitigation measures, writing the Preliminary Sources Study Reports and Environmental Study Reports, and developing the sampling plan associated with various scheme options.

Tara Tait, M.Sc., QP$_{RA}$

Environmental Toxicologist, Project Manager

Professional Registrations

- QPRA - ON

Education + Training

- M.Sc. Chemistry, Wilfrid Laurier University, 2013
- B.Sc. Biomedical Toxicology (Co-operative Education), University of Guelph, 2011
- Certificate in Environmental Conservation, University of Guelph, 2011

Languages Spoken

- English

Tara Tait has over seven (7) years of consulting experience in the environmental field, specializing in site assessment, project management, due diligence, risk assessment and risk management. Ms. Tait has been involved in the preparation of over 30 environmental risk assessments at the due diligence, provincial and federal levels. She is responsible for providing technical support at all stages of human and ecological risk assessment including, but not limited to, problem formulation, exposure assessment, hazard assessment and risk management.

Ms. Tait graduated from Wilfrid Laurier University with a Master of Science degree in Chemistry, having previously completed an Honours Bachelor of Science degree with specialization in Biomedical Toxicology at the University of Guelph. While completing her undergraduate degree, Ms. Tait had the opportunity to work in a variety of scientific positions. These include work as a Student Applications Chemist with Mandel Scientific Company Inc. and as Research Technician with Environment Canada.

Since joining EXP, Ms. Tait has been involved in the management, planning and execution of a variety of projects including Phase One and Two Environmental Site Assessments (ESAs), site remediation and risk assessment projects. Key roles include client liaison, overall project management, delineation and data gap analysis and technical reporting and review. The next page presents highlights of projects Ms. Tait has been involved in at EXP.

Tara Tait, M. Sc. - *continued*

Environmental Toxicologist, Project Manager

Project Experience

Tier 3 Risk Assessment (2020 to present) – Former Industrial Property and Gasoline Service Station, Toronto

Senior Human Health and Ecological Risk Assessor (QP_{RA}) for a Tier 3 Risk Assessment (RA) to support residential redevelopment of former industrial property and gasoline service station, currently under commercial use. Contaminants of concern (COCs) include volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs) and metals in soil. Due to shallow groundwater considerations, VOCs in groundwater were also identified as COCs.

Site Characterization and Risk Assessment (2017 to present) – Former Power (Coal) Generating Plant, Mississauga

Responsible for delineation and data gap analysis, Phase Two Conceptual Site Model (CSM) preparation and technical support for several Phase Two ESAs, Modified Generic Risk Assessments (MGRAs) and Tier 3 Risk Assessments at a former 72-hectare coal generating plant. At present, two (2) MGRAs and four (4) Tier 3 RAs are being conducted for the site in additional to several Phase Two ESAs. Portions of the property are within 30 metres of a water body and adjacent to environmentally sensitive areas. The ESAs and Risk Assessments are intended to support Record of Site Condition (RSC) filings and facilitate site permitting on the over $6 billion redevelopment. The redevelopment will include mixed residential, institutional, commercial and parkland uses. Since March 2019, Ms. Tait has also been responsible for the day-to-day data management of the project. COCs include VOCs, petroleum hydrocarbons (PHCs), PAHs, polychlorinated biphenyls (PCBs), metals and inorganics in soil and/or ground water.

Due Diligence Environmental Assessments, Remediation, Screening Level Risk Assessment and Risk Management Consultation (2018 to present) – Former Aluminum Manufacturing Facility and Automotive Parts Manufacturing Facility, Toronto, Ontario

Overall project manager for due diligence consultation in support of a potential property transaction for a property historically occupied for industrial use. The due diligence work included environmental, geotechnical and hydrogeological investigations and was completed under a challenging timeline. Ms. Tait was also responsible for preparing a remedial action plan, risk management scope and budget for the redevelopment, including considerations for municipal land conveyances. COCs include PAHs, PHCs, VOCs, metals and inorganics in soil and/or ground water with chlorinated solvents at very high concentrations in both soil and ground water. Following the due diligence ESA work, screening level risk assessments were completed for two blocks within the property. Risk Mitigation Measures (RMM) design and implementation are currently underway.

Phase One and Two ESAs, Tier 3 Risk Assessment, RSC and Certificate of Property Use Risk Management Monitoring (2012 to present) – Former Foundry, Cambridge, Ontario

Provided technical support for a Tier 3 RA for a former foundry, intended to be redeveloped for mixed residential and commercial land use. COCs include chlorinated solvents, PAHs, metals and inorganics in soil and groundwater. Since 2017, Ms. Tait has been acting as the overall project manager and client liaison and was responsible for Phase One and Two ESA Updates, RA Addendum submissions and RSC filing. Current responsibilities relate to Certificate of Property Use (CPU) requirements including preparation and oversight of soil and ground water management plans, health and safety plans, a ground water monitoring program and soil barrier construction during redevelopment of the site.

Tara Tait, M. Sc. - *continued*

Environmental Toxicologist, Project Manager

Tier 3 Risk Assessments (2015 to 2017 and 2017 to 2018)– Adjacent Properties, Former Plastics and Glass Manufacturing Facility and Electronic Equipment Warehouse, Toronto, Ontario

Provided technical support for a Tier 3 RA for two properties created during in-filling activities of the Toronto waterfront and historically occupied by a plastics and glass manufacturing facility. COCs include PHCs, PAHs and metals in soil and/or ground water. The sites are intended to be conveyed to the City of Toronto for a road extensions and parkland use.

Modified Generic Risk Assessment Phase One and Two Environmental Assessment, Remediation and Record of Site Condition (2016 to 2017) – Residential Development, Toronto, Ontario, Canada

Project manager for environmental site assessment, soil remediation, modified generic risk assessment (MGRA) and record of site condition for residential redevelopment of former commercial property. COCs included PAHs, metals and inorganics in soil and carbon tetrachloride in ground water from an off-site source.

Modified Generic Risk Assessments and Tier 3 Risk Assessments (2015 to present) – Various Sites across the Greater Toronto Area

Responsible for the preparation of several MGRAs, former Streamlined Tier 3 and Tier 3 RAs for properties located across the Greater Toronto Area with salt impacted soil and/or groundwater. Properties are typically occupied for commercial/industrial use and are intended for residential redevelopment and included municipal land conveyances. For some of these projects, Ms. Tait acted as the project manager and oversaw all stages of the project from site assessment to RSC filing.

Screening Level Risk Assessment (2018) – Commercial Property, St. Jacobs, Ontario

Responsible for the preparation of a screening level risk assessment for a commercial property located within 30 metres of a water body that contained species at risk. COCs include various PAHs and metals in soil and ground water.

Tier 3 Risk Assessment (2014 to 2020) – Former Tannery, Aurora, Ontario

Responsible for the preparation of the human and ecological risk assessment portions of a Tier 3 RA for a property formerly occupied by a tannery to support the filing of an RSC for redevelopment for residential land use. The property is under a shallow ground water condition and contains a creek. COCs include PHCs, chlorinated solvents, PAHs, hydrogen sulphide and metals in soil, ground water and/or sediment located in the creek on-site.

Screening Level Ecological Risk Assessment (2017) – Experimental Farm, Ottawa, Ontario

Provided technical support for the Screening Level Ecological Risk Assessment for an experimental farm, located in Ottawa, Ontario, contracted by the Public Works and Government Services Canada (PWGSC) on behalf of Agri-Food Canada (AAFC). COCs included metals, PAHs and organochlorine pesticides (OCPs) in soil and metals in ground water.

Problem Formulation (2017) – Former Marina, Ottawa, Ontario

Responsible for the preparation of the Problem Formulation of a former marina, located in Ottawa Ontario for Public Services and Procurement Canada (PSPC) on behalf of the Department of National Defence (DND). COCs included VOCs, metals and PHCs in soil and ground water. PAHs were also identified in ground water at the site.

Tara Tait, M. Sc. - *continued*

Environmental Toxicologist, Project Manager

Employment History

EXP Services Inc., Environmental Toxicologist, Assistant Project Manager, Project Manager

Employment: June 2013 – present

Overall Project Manager, QP_{RA} and client liaison for a variety of Risk Assessments and Phase One and Two Environmental Site Assessments. Provide technical support at all stages of human health and ecological risk assessment.

Wilfrid Laurier University, Teaching Assistant (Introductory Chemistry and Analytical Chemistry)

Employment: September 2011 – 2013 April 2013

Instructed and supervised students to complete experiments accurately, safely and in a timely manner for Introductory Chemistry and Analytical Chemistry labs.

Environment Canada, Research Technician/Student Research Assistant

Employment: May 2010 – August 2010 and January 2011 – April 2011

Responsible for the extraction and measurement of volatile methylsiloxanes in sediment, waste water and receiving water in support of Canada's Chemical Management Plan.

Mandel Scientific Inc., Student Applications Chemist

Employment: May 2009 – August 2009

Responsible for adapting Standard Methods, trouble-shooting and ensuring proper performance of environmental monitoring systems (ex. alkalinity, hardness, fluoride, ammonium) using PC-Titrate software.

Pioneer Hi-Bred International Inc., Research Assistant (Double Haploid, Biotechnology R&D)

Publications

- Tait, T., Cooper, C.A., McGeer, J.C., Wood, C.M., Smith, D.S. 2016. Influence of dissolved organic matter (DOM) source on copper speciation and toxicity to Brachionus plicatilis. Environmental Chemistry, 13: 496-506.
- Tait, T., Rabson, L.M., Diamond, R.L., Cooper, C.A., McGeer, J.C., Smith, D.S. 2015. Determination of cupric ion concentrations in marine waters: an improved procedure and comparison with other speciation methods. Environmental Chemistry, 13(1): 140-148.
- Cooper, C.A., Tait, T., Gray, H., Cimprich, G., Santore, R., McGeer, J., Wood, C.M., Smith, D.S. 2014. Influence of salinity and dissolved organic carbon on acute Cu toxicity to the rotifer Brachionus plicatilis. Environmental Science and Technology, 48: 1213-1221.
- Wang, D., Alaee, M., Steer, H., Tait, T., Williams, Z., Brimble, S., Svoboda, L., Barresi, E., Dejong, M., Schachtschneider, J., Kaminski, E., Norwood, W., Sverko, E. 2013. Determination of cyclic volatile methylsiloxanes in water, sediment, soil, biota, and biosolid using large-volume injection-gas chromatography-mass spectrometry. Chemosphere, 93(5): 741-748.
- Wang, D., Aggarwal, M., Tait, T., Brimble, S., Pacepavicius, G., Kinsman, L., Theocharides, M., Smyth, S.A., Alaee, M. 2014. Fate of anthropogenic cyclic volatile methylsiloxanes in a wastewater treatment plant. Water Research, doi: 10.1016/j.watres.2014.10.007.

Andrew How Soon Yuen, M.Env.Sc.

Environmental Scientist

Education + Training

- M.Env.Sc., Environmental Sciences, University of Toronto, 2015
- B.Sc. Environmental Sciences with a concentration in Earth Science and Economics, McGill University, 2014

Languages Spoken

- English
- French

Andrew How Soon Yuen graduated from the University of Toronto with a Master's in Environmental Sciences in 2015 and obtained his Bachelor of Science degree from McGill in 2014.

Mr. How has three years of environmental consulting experience. Since joining EXP in 2018, Mr. How has been involved in the oversight, planning and execution of numerous Phase One and Two Environmental Site Assessments, and remediation projects. His work has included test hole drilling, soil and ground water sampling and analysis. Furthermore, he has completed human health and ecological risk assessment in Ontario, following the Ontario Regulation 153/04

Project Experience

Tier 3 Risk Assessment (2019 to present) – Former coal generating plant, Mississauga, Ontario

Completed a human health and ecological risk assessment for a Tier 3 RA conducted at a former coal generating plant. The RA was conducted to facilitate a $6 billion re-development of a 72-hectare former coal generating plant. The re-development will include mixed residential, institutional, commercial and parkland uses. The contaminants of concern (COCs) include petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons and metals in soil.

Screening Level Risk Assessment (2021) – Residential apartment, Toronto, Ontario

Completed a screening level risk assessment report of a residential building for due diligence purposes. Based on the residential use of the site, the human health and ecological risk assessment was conducted. COCs included PHCs, VOCs and metals in soil.

Screening Level Risk Assessment (2021) – Pet food facility, Toronto, Ontario

Completed a screening level risk assessment report of a pet food manufacturing plant in support of a potential purchase of the site. A human health and ecological risk assessment were conducted based on the PHC, VOC and PAH impacts in soil, and PHC and inorganic parameter impacts in groundwater.

Andrew How Soon Yuen, M.Env.Sc. - *continued*

Environmental Scientist

Phase Two Assessments (2018) – Former garage, Toronto, Ontario

Completed Phase Two Environmental Site Assessment for a former garage undergoing redevelopment for residential use. Oversaw drilling activities and collected soil and groundwater samples for the analysis of the following COCs in soil and/or groundwater: PHCs, VOCs, PAHs, and metals and inorganics. Following field activities, Mr. How completed the Phase Two Environmental Site Assessment (ESA) documenting the field work program methodology and results.

Employment History

EXP Services Inc., Markham – Environmental Scientist

Employment: July 2018 – Present

Conducting field work, including Phase One site visits, soil and ground water sampling, test pitting, bore hole drilling, ground water monitor installation. Completion of Phase One and Two Environmental Site Assessment, Tier 3 Risk Assessment, Modified Generic Risk Assessment and Screening Level Risk Assessment reports.

City of Ottawa – GIS Assistant

Employment: May to August 2015

Updated the City of Ottawa's 2015 land use map by collecting, collating and injecting the most recent data available onto their existing templates. The resulting updated maps combined with illustrated natural surface features, aerial photographs construction and development permits into multiple layers.

Osisko Mining Corporation – Junior Exploration Geologist

Employment: May to August 2011

Collected and categorized rock samples to produce a geological map illustrating geological formations to identify regions of potential interest for low-grade gold deposits.

Zenith Wong, M.A.Sc., P.Eng., QP$_{ESA}$

Project Manager – Markham, Environmental Services

Education + Training

- B.A,Sc., Environmental Engineering, University of Waterloo, 2012
- M.A.Sc., Civil Engineering, Queen's University, 2021

Languages Spoken

- English

Mr. Wong graduated from University of Waterloo in 2012 with a Bachelor of Applied Science degree in Environmental Engineering. He completed his Master of Applied Science degree in Civil Engineering from Queen's University in 2021. Mr. Wong is a Professional Engineer (P.Eng.) in Ontario and is a Qualified Person (QP) for environmental site assessments under Ontario Regulation 153/04. Mr. Wong has worked on a number of Phase One and Two environmental site assessments and Risk Assessments with various consulting companies including EXP Services Inc. He has six years of experience in the environmental consulting industry across Ontario, working on various development projects.

Project Experience

Phase One Environmental Assessments – Several Sites in Ontario

Mr. Wong has been involved in several Phase One Investigations, including site reconnaissance, interviews, report writing, and records review.

Phase Two Environmental Site Assessments – Several Sites in Ontario

Mr. Wong has been involved in several Phase Two investigations, including site visits, drilling supervision, groundwater and soil sampling, and report preparation.

Tier III Risk Assessments – Several Sites in Ontario

Mr. Wong was involved in the preparation of Risk Assessments for several sites including the preparation of Phase One and Phase Two ESA summaries and design of Risk Management Measures to support filing Records of Site Condition.

Remediation of Impacted Soil, Groundwater, and Tank Removal – Residential Development – Several Sites in Ontario

Mr. Wong has been involved in several remediation projects. In tank removal projects, Mr. Wong organized the removal of the contents and the tanks, removal of impacted soils, completed confirmatory sampling in soil and groundwater, and disposal of the impacted soils. For groundwater impacts, Mr. Wong has organized the use of in-situ chemical reduction with injection of zero valent iron and the use of bioremediation to reduce VOC and PHC concentrations, respectively, and designed the monitoring plans and prepared the associated remediation reports.

Appendix G – Grain Size Rationale

APPENDIX G: RATIONALE FOR SOIL TEXTURE SELECTION

Based on previous subsurface investigations completed at the site, the site stratigraphy is generally described as sand and gravel fill or reworked native clayey silt to a maximum depth of 1.5 mbgs, underlain by native clayey silt to silt clay till to a maximum depth if 9.1 mbgs, underlain by sandy silt till to a depth greater than 18.3 mbgs.

Grain size analysis was performed on three representative soil samples collected at BH101-SS3 (1.52 to 2.13 metres) within the clayey silt till, at BH102-SS1 (grade to 0.61 mbgs) within the clayey silt fill and BH104-SS3 (1.52 to 2.13 mbgs) within the clayey silt till as part of the Phase Two ESA (EXP, 2020b). Approximately 70.3, 63.7, and 70.0% by mass of the samples consisted of a particle size smaller than 75 micrometres in diameter for the samples. A copy of the Laboratory Certificate of Analysis (Work Order 20T580535) reporting the results of the grain size analysis is attached. The grain size analysis is presented on Page 3 of the Certificate of Analysis.

As per Section 42 of O. Reg. 153/04, coarse textured soil means soil that contains more than 50 percent by mass of particles that are 75 micrometres or larger in mean diameter and medium and fine textured soil means soil that contains 50 percent or more by mass of particles that are smaller than 75 micrometres in mean diameter.

Based on the observations made during previous drilling investigations and the results of the grain size analysis, the QP_{ESA} has determined that more than 2/3 of the soil at the property, measured by volume, consists of medium to fine textured soil and hence standards for medium and fine textured soil are applicable at the site, in accordance with Section 42 of O. Reg. 153/04.

References:

EXP Services Inc. (2020b). *Phase Two Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, May 22, 2020.

Laboratory Certificate of Analysis 20T580535

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CLIENT NAME: **EXP Services Inc**
220 Commerce Valley Drive West,Suite 500
Markham, ON, ON L3T0A8
(905) 695-3217

ATTENTION TO: **Amanda Catenaro**

PROJECT: **MRK-00257876-A0-C200**

AGAT WORK ORDER: **20T580535**

SOIL ANALYSIS REVIEWED BY: **Nivine Basily, Inorganics Report Writer**

TRACE ORGANICS REVIEWED BY: **Neli Popnikolova, Senior Chemist**

DATE REPORTED: **Mar 10, 2020**

PAGES (INCLUDING COVER): **10**

VERSION*: **2**

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

Notes

VERSION 2:Revised report issued March 23, 2020.

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Certificate of Analysis

AGAT WORK ORDER: 20T580535

PROJECT: MRK-00257876-A0-C200

CLIENT NAME: EXP Services Inc

ATTENTION TO: Amanda Catenaro

SAMPLING SITE:Brampton/Caledon, ON

SAMPLED BY:H.N.

O. Reg. 153(511) - ORPs (Soil)

DATE RECEIVED: 2020-03-03 **DATE REPORTED: 2020-03-10**

		SAMPLE DESCRIPTION:		BH102	BH1020	BH110	BH111
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-02-27	2020-02-27	2020-02-28	2020-02-28
Parameter	Unit	G / S	RDL	987830	987831	987838	987839
Electrical Conductivity (2:1)	mS/cm	0.7	0.005	**1.74**	**1.72**	0.194	**0.794**
Sodium Adsorption Ratio	NA	5	NA	**21.5**	**28.8**	0.584	**7.50**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

987830-987839 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Vivine Basily

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Certificate of Analysis

AGAT WORK ORDER: 20T580535

PROJECT: MRK-00257876-A0-C200

CLIENT NAME: EXP Services Inc

ATTENTION TO: Amanda Catenaro

SAMPLING SITE:Brampton/Caledon, ON

SAMPLED BY:H.N.

Particle Size by Sieve (Wet)

DATE RECEIVED: 2020-03-03

DATE REPORTED: 2020-03-10

		SAMPLE DESCRIPTION:		BH101	BH102	BH104
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2020-02-28	2020-02-27	2020-02-27
Parameter	Unit	G / S	RDL	987825	987830	987832
Sieve Analysis - 75 µm (retained)	%		NA	29.70	36.30	30.00
Sieve Analysis - 75 µm (passing)	%		NA	70.30	63.70	70.00
Soil Texture (Toronto)				Fine	Fine	Fine

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

987825-987832 Value reported is the amount of sample passing through or retained on sieve after wash with water and represents proportion by weight particles smaller or larger than indicated sieve size.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Vivine Basily

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Certificate of Analysis

AGAT WORK ORDER: 20T580535

PROJECT: MRK-00257876-A0-C200

CLIENT NAME: EXP Services Inc

ATTENTION TO: Amanda Catenaro

SAMPLING SITE:Brampton/Caledon, ON

SAMPLED BY:H.N.

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2020-03-03 **DATE REPORTED: 2020-03-10**

		SAMPLE DESCRIPTION:		BH101	BH102	BH1020	BH104	BH105	BH106	BH107	BH108
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-02-28	2020-02-27	2020-02-27	2020-02-27	2020-02-27	2020-02-28	2020-02-28	2020-02-28
Parameter	**Unit**	**G / S**	**RDL**	**987825**	**987830**	**987831**	**987832**	**987833**	**987834**	**987835**	**987836**
Naphthalene	µg/g	0.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.23	<0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.29	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.25	<0.05	<0.05
Benz(a)anthracene	µg/g	0.5	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	<0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	15.5	17.9	25.2	21.3	14.9	13.1	16.4	20.5
Surrogate	**Unit**	**Acceptable Limits**									
Naphthalene-d8	%	50-140		90	98	71	90	95	79	79	82
Acenaphthene-d10	%	50-140		88	98	71	94	94	78	82	82
Chrysene-d12	%	50-140		88	110	78	94	95	87	86	83

Certified By: NPopowkolof

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Certificate of Analysis

AGAT WORK ORDER: 20T580535

PROJECT: MRK-00257876-A0-C200

CLIENT NAME: EXP Services Inc

ATTENTION TO: Amanda Catenaro

SAMPLING SITE:Brampton/Caledon, ON

SAMPLED BY:H.N.

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2020-03-03 **DATE REPORTED: 2020-03-10**

		SAMPLE DESCRIPTION:		BH109
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2020-02-28
Parameter	**Unit**	**G / S**	**RDL**	**987837**
Naphthalene	µg/g	0.6	0.05	<0.05
Acenaphthylene	µg/g	0.15	0.05	<0.05
Acenaphthene	µg/g	7.9	0.05	<0.05
Fluorene	µg/g	62	0.05	<0.05
Phenanthrene	µg/g	6.2	0.05	<0.05
Anthracene	µg/g	0.67	0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05
Benz(a)anthracene	µg/g	0.5	0.05	<0.05
Chrysene	µg/g	7	0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.38	0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05
Benzo(g,h,i)perylene	µg/g	6.6	0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.99	0.05	<0.05
Moisture Content	%		0.1	14.1
Surrogate	**Unit**	**Acceptable Limits**		
Naphthalene-d8	%	50-140		90
Acenaphthene-d10	%	50-140		91
Chrysene-d12	%	50-140		87

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

987825-987837 Results are based on the dry weight of the soil.
Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&j)Fluoranthene isomers because the isomers co-elute on the GC column.
2- and 1-Methyl Naphthalene is a calculated parameter. The calculated value is the sum of 2-Methyl Naphthalene and 1-Methyl Naphthalene.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

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Guideline Violation

AGAT WORK ORDER: 20T580535

PROJECT: MRK-00257876-A0-C200

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ATTENTION TO: Amanda Catenaro

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
987830	BH102	ON T2 S RPI CT	O. Reg. 153(511) - ORPs (Soil)	Electrical Conductivity (2:1)	mS/cm	0.7	1.74
987830	BH102	ON T2 S RPI CT	O. Reg. 153(511) - ORPs (Soil)	Sodium Adsorption Ratio	NA	5	21.5
987831	BH1020	ON T2 S RPI CT	O. Reg. 153(511) - ORPs (Soil)	Electrical Conductivity (2:1)	mS/cm	0.7	1.72
987831	BH1020	ON T2 S RPI CT	O. Reg. 153(511) - ORPs (Soil)	Sodium Adsorption Ratio	NA	5	28.8
987839	BH111	ON T2 S RPI CT	O. Reg. 153(511) - ORPs (Soil)	Electrical Conductivity (2:1)	mS/cm	0.7	0.794
987839	BH111	ON T2 S RPI CT	O. Reg. 153(511) - ORPs (Soil)	Sodium Adsorption Ratio	NA	5	7.50

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Quality Assurance

CLIENT NAME: EXP Services Inc

AGAT WORK ORDER: 20T580535

PROJECT: MRK-00257876-A0-C200

ATTENTION TO: Amanda Catenaro

SAMPLING SITE:Brampton/Caledon, ON

SAMPLED BY:H.N.

Soil Analysis

RPT Date: Mar 10, 2020			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - ORPs (Soil)															
Electrical Conductivity (2:1)	981828		0.113	0.113	0.0%	< 0.005	114%	80%	120%						
Sodium Adsorption Ratio	988569		0.918	0.854	7.2%	NA									
Comments: NA signifies Not Applicable.															
Particle Size by Sieve (Wet)															
Sieve Analysis - 75 µm (retained)	1031446		92.98	92.34	0.7%	NA	107%	70%	130%						
Sieve Analysis - 75 µm (passing)	1031446		7.02	7.66	8.7%	NA									
Comments: NA - Not Applicable															

Certified By: Nivine Basily

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Quality Assurance

CLIENT NAME: EXP Services Inc
AGAT WORK ORDER: 20T580535
PROJECT: MRK-00257876-A0-C200
ATTENTION TO: Amanda Catenaro
SAMPLING SITE:Brampton/Caledon, ON
SAMPLED BY:H.N.

Trace Organics Analysis

RPT Date: Mar 10, 2020			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	987117		<0.05	<0.05	NA	< 0.05	100%	50%	140%	94%	50%	140%	100%	50%	140%
Acenaphthylene	987117		<0.05	<0.05	NA	< 0.05	107%	50%	140%	94%	50%	140%	101%	50%	140%
Acenaphthene	987117		<0.05	<0.05	NA	< 0.05	114%	50%	140%	94%	50%	140%	101%	50%	140%
Fluorene	987117		<0.05	<0.05	NA	< 0.05	111%	50%	140%	98%	50%	140%	106%	50%	140%
Phenanthrene	987117		<0.05	<0.05	NA	< 0.05	107%	50%	140%	107%	50%	140%	97%	50%	140%
Anthracene	987117		<0.05	<0.05	NA	< 0.05	100%	50%	140%	91%	50%	140%	93%	50%	140%
Fluoranthene	987117		<0.05	<0.05	NA	< 0.05	103%	50%	140%	95%	50%	140%	102%	50%	140%
Pyrene	987117		<0.05	<0.05	NA	< 0.05	108%	50%	140%	95%	50%	140%	102%	50%	140%
Benz(a)anthracene	987117		<0.05	<0.05	NA	< 0.05	111%	50%	140%	98%	50%	140%	111%	50%	140%
Chrysene	987117		<0.05	<0.05	NA	< 0.05	103%	50%	140%	104%	50%	140%	102%	50%	140%
Benzo(b)fluoranthene	987117		<0.05	<0.05	NA	< 0.05	79%	50%	140%	92%	50%	140%	86%	50%	140%
Benzo(k)fluoranthene	987117		<0.05	<0.05	NA	< 0.05	75%	50%	140%	102%	50%	140%	96%	50%	140%
Benzo(a)pyrene	987117		<0.05	<0.05	NA	< 0.05	99%	50%	140%	88%	50%	140%	99%	50%	140%
Indeno(1,2,3-cd)pyrene	987117		<0.05	<0.05	NA	< 0.05	75%	50%	140%	85%	50%	140%	99%	50%	140%
Dibenz(a,h)anthracene	987117		<0.05	<0.05	NA	< 0.05	72%	50%	140%	86%	50%	140%	89%	50%	140%
Benzo(g,h,i)perylene	987117		<0.05	<0.05	NA	< 0.05	77%	50%	140%	93%	50%	140%	103%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popnikolof

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: EXP Services Inc

AGAT WORK ORDER: 20T580535

PROJECT: MRK-00257876-A0-C200

ATTENTION TO: Amanda Catenaro

SAMPLING SITE:Brampton/Caledon, ON

SAMPLED BY:H.N.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Electrical Conductivity (2:1)	INOR-93-6036	modified from MSA PART 3, CH 14 and SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010C	ICP/OES
Sieve Analysis - 75 µm (retained)	INOR-93-6065	ASTM D1140	SIEVE
Sieve Analysis - 75 µm (passing)	INOR-93-6065	ASTM D1140	SIEVE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Benz(a)anthracene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Moisture Content	ORG-91-5106	Tier 1 Method	BALANCE
Naphthalene-d8	ORG-91-5106	modified from EPA SW-846 3541 & 8270E50	GC/MS
Acenaphthene-d10	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS
Chrysene-d12	ORG-91-5106	modified from EPA SW-846 3541 & 8270E	GC/MS

AGAT Laboratories

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only
Work Order #: 20T580535
Cooler Quantity: 1 cooler
Arrival Temperatures: 3.9 3.7 3.5 / 3 2.8 2.6
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes:

Report Information:
Company: EXP Services Inc
Contact: Amanda Catenaro
Address: 220 Commerce Valley Dr W, Markham, ON
Phone: 905 695 3217 Fax:
Reports to be sent to:
1. Email: amanda.catenaro@exp.com
2. Email: harry.nandakumar@exp.com

Regulatory Requirements: ☐ No Regulatory Requirement
(Please check all applicable boxes)

☒ Regulation 153/04 — Table 2 (Indicate One) — ☐ Ind/Com ☒ Res/Park ☐ Agriculture
Soil Texture (Check One): ☐ Coarse ☐ Fine
☐ Sewer Use — ☐ Sanitary ☐ Storm — Region (Indicate One) — ☐ MISA
☐ Regulation 558 ☐ CCME ☐ Prov. Water Quality Objectives (PWQO) ☐ Other (Indicate One)

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Turnaround Time (TAT) Required:
Regular TAT ☒ 5 to 7 Business Days
Rush TAT (Rush Surcharges Apply) ☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day
OR Date Required (Rush Surcharges May Apply):
Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*
For 'Same Day' analysis, please contact your AGAT CPM

Project Information:
Project: MRL-0025776-A0-C200
Site Location: BRAMPTON / CALEDON, ON
Sampled By: H.N
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information: Bill To Same: Yes ☒ No ☐
Company:
Contact:
Address:
Email:

Sample Matrix Legend
B Biota
GW Ground Water
O Oil
P Paint
S Soil
SD Sediment
SW Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics (☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides))	O. Reg 153: ORPs (☐ B-HWS ☐ Cl ☐ CN ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR)	O. Reg 153: Full Metals Scan	O. Reg 153: Regulation/Custom Metals	O. Reg 153: Nutrients (☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2)	O. Reg 153: Volatiles (☐ VOC ☐ BTEX ☐ THM)	O. Reg 153: PHCs F1 - F4	O. Reg 153: ABNs	O. Reg 153: PAHs	O. Reg 153: PCBs (☐ Total ☐ Aroclors)	O. Reg 153: Organochlorine Pesticides	O. Reg 153: TCLP (☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs)	O. Reg 153: Sewer Use	Potentially Hazardous or High Concentration (Y/N)
BH101	Feb 28/20	AM / PM	1	S										X					
BH102	Feb 27/20							X						X					
BH1030 BH1020	Feb 29/20							X						X					
BH104	Feb 27/20													X					
BH105	Feb 27/20													X					
BH106	Feb 28/20													X					
BH107	Feb 28/20													X					
BH108	Feb 28/20													X					
BH109	Feb 28/20													X					
BH0 BH110	Feb 28/20	↓	↓	↓				X											
BH111								X											

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Harry Nandakumar	Mar 3/20			3/3/20	10:22
	3/3/20	3:40			

Page 1 of 1
N°: T100449

Document ID: DW 78 1511 016
Pink Copy - Client | Yellow Copy - AGAT | White Copy- AGAT
Date Issued: March 23, 2019

Appendix H – USB

List of Reports Relied Upon

1. EXP Services Inc. (2019), *Subsurface Environmental Investigation 12197 Hurontario Street, City of Brampton, 12211, 12213, 12231, 12233 Hurontario Street, Town of Caledon*, June 11, 2019.

2. EXP Services Inc. (2020), *Phase One Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, January 20, 2020.

3. EXP Services Inc. (2020), *Phase Two Environmental Site Assessment, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, May 22, 2020.

4. EXP Services Inc. (2021), *Remediation Report, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario*, July 29, 2021.

5. EXP Services Inc. (2022a), Phase One Environmental Site Assessment Update, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario, January 5, 2022.

~~4.~~6. EXP Services Inc. (2022b), Phase Two Environmental Site Assessment Update, 12197 Hurontario Street, Brampton, Ontario, and 12211, 12213, 12231, and 12233 Hurontario Street, Caledon, Ontario, January 27, 2022.

Appendix I – Soil Management Plan

APPENDIX I: Soil Management Plan

The Soil Management Plan requirement is set out below.

Soil Management Plan Requirement

a) Preparing and implementing a written soil and ground water management plan for the Property, prepared by a Qualified Person and to be retained by the Owner, and be available for inspection upon request by a Provincial Officer, for managing excavated soil or soil brought to the Property, and, if any, ground water from dewatering during Intrusive Activities at the Property, so as to prevent exposure to or uncontrolled movement or discharge of the Property Specific Contaminants of Concern in soil or ground water at the Property, including, at a minimum:

   i. procedures and timing for implementing the plan, including the supervision of person implementing the plan;

   ii. measures to control dust and prevent tracking of soil by vehicles and persons from the Property, including the cleaning of equipment and vehicles;

   iii. measures, in addition to any applicable measures specified in O.Reg. 153/04, to manage soil excavated at the Property and any soil brought to or removed from the Property, including:

      (a) characterizing for contaminant quality all excavated soil and any soil brought to the Property, including determining whether the soil:

         1. is Capping Soil;

         2. meets the Property Specific Standards; or

         3. exceeds the Property Specific Standards;

      (b) managing excavated soil separately from any soil brought to the Property, including any excavated soil that is to be:

         1. used as Capping Soil at the Property;

         2. otherwise used as fill at the Property;

         3. removed from the Property for off-site storage or processing but is to be returned for use as fill at the Property; or

         4. removed from the Property for off-site use as fill or disposal; and

      (c) stockpiling of excavated soil and any soil brought to the Property in separate designated areas that:

         1. reflect the distinctions described in parts iii (a) and (b);

         2. have been lined and covered, as appropriate, to prevent uncontrolled movement or discharged of the Property Specific Contaminants of Concern;

         3. have been bermed or fenced, as appropriate, to restrict access by persons; and

         4. have storm water runoff controls in place to minimize storm water runoff contacting stockpiled soil, with provisions for discharge of storm water runoff to a sanitary sewer or to other approved treatment if needed;

   iv. measures to manage storm water and any ground water from dewatering at the Property to prevent the movement of entrained soil and Property Specific Contaminants of Concern within and away from the Property, including, in addition to any applicable measures specified pursuant to other applicable law or other

instruments, measures such as silt fences, filter socks for catch-basins and utility covers, and provision for discharge to a sanitary sewer or to other approved treatment if needed; and

v. recording, in writing, the soil, storm water and any ground water management measures undertaken, in addition to any applicable record keeping requirements specified in O.Reg.153/04 or pursuant to other applicable law or other instruments, to be retained by the Owner, and be available for inspection upon request by a Provincial Offer, including:

(a) dates and duration of the Intrusive Activities being undertaken;

(b) weather and site conditions during the Intrusive Activities;

(c) the location and depth of excavation activities, and dewatering activities, if any;

(d) dust control and soil tracking measures;

(e) characterization results for excavated soil and any soil brought to or removal from the Property, and for any ground water from dewatering;

(f) soil management activities including soil quantities excavated and brought to and removed from the Property, and stockpile management and storm water runoff control;

(g) management activities for any ground water from dewatering;

(h) names and contact information for the Qualified Persons and on-site contractors involved in the Intrusive Activities;

(i) names and contact information for any haulers and receiving sites for soil and any ground water removed from the Property, and for haulers and source sites of any soil brought to the Property; and

(j) any complaints received relating to the Intrusive Activities, including the soil storm water and any ground water management activities;

And which is,

vi. delivered to the Owner before any Intrusive Activities are undertaken at the Property; and

vii. updated and delivered to the Owner within 30 days following making any alteration to the plan.

Appendix J – Professional Engineer Letter

February 9, 2022

The Director
Environmental Approvals Access and Service Integration Branch
Ontario Ministry of the Environment, Conservation and Parks
135 St. Clair Avenue West, 1st Floor
Toronto, ON, M4V 1P5

Re: GTR-00257876-C0 **12211, 12213 and 12231 Hurontario Street, Caledon, Ontario**
Modified Generic Risk Assessment – Risk Management

Attention: The Director

In support of the completion of the MGRA for the above-captioned property, I hereby confirm that I am the engineer of record for the above referenced MGRA. Furthermore, I have reviewed the results of the MGRA and confirm that the required RMM for the Site (No Groundwater Use for Drinking Water) and Soil Management Plan (SMP), as outlined in the MGRA "Approved Model" (last updated November 1st, 2016), are appropriate for the subject property. It is my opinion that the No Groundwater Use for Drinking Water and SMP will be sufficient in blocking exposure to on-site contaminants of concern in soil and groundwater and achieving the required level of risk reduction.

It should be noted that the SMP follows the generic wording found in the MGRA Approved Model "RMM Descriptions".

Should the MECP require clarification or additional information, please do not hesitate to contact the undersigned.

Sincerely,

Zenith

Zenith Wong, P.Eng.
Project Manager
Environmental Services

220 Commerce Valley Drive West, Suite 110 | Markham, ON, L3T 0A8 | Canada
t: 905.695.3217 | f: 905.695.0169 | exp.com

Appendix K – MECP Comments

Ministry of the Environment, Conservation and Parks

Technical Assessment and Standards Development Branch
7th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Direction des évaluations techniques et de l'élaboration des normes
7e étage
40, avenue St. Clair Ouest
Toronto (Ontario) M4V 1M2

September 29, 2021

2248811 Ontario Inc.

Attention: Orlando Espinola, Vice President, Real Estate Development & Transactions

RE: **Notice of a Circumstance requiring additional information for 12197 Hurontario Street, in Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, in Caledon, Ontario**
IDS No 6236-C5QQWK
SDB file number MGRA1985-21

This is to acknowledge your submission of a risk assessment report on August 9, 2021 regarding the Property to the Ministry of the Environment, Conservation and Parks (Ministry). By way of this letter I am providing you written notice, prior to making a decision under section 168.5 of the *Environmental Protection Act* (the Act), that the Director is aware of the following circumstance:

- The risk assessment report does not contain sufficient data or information to support the conclusions reached in the report.

Due to the above-noted circumstance, this is to request that you revise and resubmit the risk assessment to the Director in accordance with the directions specified **in Schedule A.**

By way of this letter the Director is providing you notice that a new time to respond to a risk assessment will commence on the date that the Qualified Person submits the revised risk assessment in accordance with this notice

At any time the property owner may withdraw the risk assessment by giving written notice to the Director.

For your information the Act, Regulation, guidance documents and associated fact sheets have been posted on the world wide web at: https://www.ontario.ca/page/brownfields-redevelopment

Please do not hesitate to call if you have any questions.

Paul Welch
Director, Environmental Protection Act s. 168.5 and s.168.6

cc Tara Tait, exp Services Inc
Rebekah Blok, Streamlined Risk Assessment Coordinator
Tim Edwards, P.Eng., District Engineer (Halton-Peel District Office)

Attach

SCHEDULE A

To Director's Notice dated September 29 2021

Comments by Ministry of Environment, Conservation and Parks On Modified Generic Risk Assessment

12197 Hurontario Street, in Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, in Caledon, Ontario MGRA1985-21

(IDS Ref No. 6340-C4EQ4C)

The following are Ministry of Environment, Conservation and Parks (MECP) comments on the following Documents:

- **"Modified Generic Risk Assessment for 12197 Hurontario Street, in Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, in Caledon, Ontario," report prepared by exp Services Inc., dated August 3, 2021**

General Comments on the RA

The MGRA property is located at 12197 Hurontario Street, in Brampton, Ontario and 12211, 12213, 12231, and 12233 Hurontario Street, in Caledon, Ontario (hereinafter referred to as the "Site"). The Site is irregular in shape and measures approximately 3.6 hectares (8.9 acres) in area. It is currently vacant.

Past uses include agricultural/other, residential, and commercial. On-Site potentially contaminating activities (PCAs) include: (28) Gasoline and associated product storage in fixed tanks; (30) Importation of Fill Material of Unknown Quality; (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems; (Other) fuel leak; (Other) salt storage; (Other) garage operations.

Land uses adjacent to the Site include residential, community (highway), commercial, and industrial. Off-Site PCAs include: (28) Gasoline and Associated Products Storage in Fixed Tanks and S15: (52) Storage, maintenance, fueling and repair of equipment, vehicles, and material used to maintain transportation systems.

The intended use of the property is residential.

Table 4 generic SCS (stratified, potable groundwater condition, medium/fine textured soils; Residential/Parkland/Institutional land use) were used to screen COCs. 4 COCs were carried forward

into the MGRA: 2 in soil including EC, SAR; 2 COCs were identified in GW: Na, Cl. Proposed RMMs include: No Groundwater Use. MEP was also proposed to develop PSS for EC and SAR.

Phase One and Two ESAs used to support the RA

The QP is reminded that the Phase One and Two ESA reports (including the Phase Two CSM) used to support the filing of the RSC will need to be in compliance with the amended O. Reg. 153/04 Schedules D and E.

Comments on Pre-Submission Form

1. *Section 1 Property Information:* Although contiguous, the MGRA Property spans two different local municipalities. This is a unique situation that has not been encountered in previous risk assessment or record of site condition submissions. It is recommended that risk assessments be limited to parcels that are located within a single lower tier municipality. This is to avoid circumstances where there could be conflicting municipal requirements such as the potable condition of ground water, risk management measures for lands to be conveyed for use as municipal roadways and parks, etc. This also has the potential to present challenges with future compliance activities related to a certificate of property use where more than one building official may become involved. It is recommended that the owner consider the above and re-evaluate the strategy for obtaining record of site condition(s) for the lands. Since impacts appear to be limited to lands located within Caledon, it may be that the Brampton parcel can be filed generically, without risk assessment however this would need to be confirmed by the QP. This path forward would also eliminate the requirement for completion of a new survey, as the RA/RSC property must be shown on a single figure.

2. *Introduction and General Approach:* As the QP has indicated that Table 4 (stratified soil) is the applicable table of site condition standards, please note that O.Reg 153/04 s.21 applies.

3. The QP has selected the modified ecological protection pathway option for the Site. Please note that a statement indicating this will need to be put on the RSC at the time of filing. Please refer to Appendix 4 of the MGRA User Guide.

4. *Section 3.5 Selection of the Applicable SCS:* While the QP has included rationale for grain size determination in Appendix G, the actual grain size curve associated with the samples collected were not provided. Please include it in the resubmission.

5. Section 11 of the PSF form states that GW1 will likely be met at nearest off-site human receptors. MGRA Tables 4-5 and 5-4 indicate that the contaminants will likely exceed Table 2 SCS at nearest off-site receptor. Please clarify, as the certification statement regarding the applicable SCS being met off-site may have signed in error.

Comments on Risk Assessment

6. Table 4-5: Off-site Human Receptors is missing from the PDF submission.

Comments on Phase Two Conceptual Site Model

7. A description and assessment of areas where potentially contaminating activities (PCAs) and areas of potential environmental concern (APECs) have occurred is required to be provided in the phase two conceptual site model (P2CSM). The following issues were identified:

    a. Limited details were provided in the APEC Summary Table presented in Section 1 of the P2CSM for the ASTs/USTs, former trailer maintenance activities, former garage operations, former school bus maintenance activities, and imported fill. Information on the nature of each specific PCA, including capacity, age, condition of tanks, and any other infrastructure or environmental concerns associated with the commercial activity should be provided. If limited information was obtained, then this should be stated in the phase two CSM along with the records that were reviewed.
    b. On and off-site PCAs are shown as PCA numbers on Figure 3A, and while the outlines of USTs are shown, it is often unclear which PCAs they represent. Please label and show the specific locations/outlines of all on- and nearby off-site PCAs on both Figures 3A and 3B in order to demonstrate that all APECs have been adequately assessed.
    c. The way the information was presented on Figure 3B made it hard for the reviewer to follow and cross-reference with the P2CSM narrative. While APECs are included in the legend to the right of the figure, the number/shades of colours used to identify separate APECs made it difficult to distinguish which APECs were located where. Please label PCAs and APECs on Figure 3B.
    d. Please note that unless the two former ASTs associated with APEC D are located adjacent to one another, each AST should contribute to its own separate APEC, which should be appropriately refined and assessed (i.e. boreholes and/or monitoring wells should be placed within of very close to the footprint of each PCA/APEC). Please clarify and revise.

    Given the above deficiencies and the presence of a historic auto garage, it is currently unclear whether all APECs have been adequately assessed as per Section 5, paragraphs 2 and 3 of Schedule E.

8. Section 5, paragraphs 2 and 3 of Schedule E – One of the specific objectives of the site investigation component of a phase two environmental site assessment ESA is to confirm whether contaminants are present on, in or under the phase two property, and, if so, what the contaminants are, where they are located on, in or under the phase two property and at what concentrations. Another specific objective is to determine whether any contaminants on, in or under the phase two property are present at concentrations higher than applicable site condition standards by, among other things, investigating and characterizing soil, ground water and sediment on, in or under the phase two property. As indicated above in Comment 3, the

reviewer needs additional information in order to assess whether these two objectives were met, and all APECs were identified and assessed. However, based on the information presented in the P2CSM, the reviewer has identified the following issues:

a. As indicated above, the reviewer needs additional information in order to assess whether all other APECs were identified and assessed.
b. Boreholes/monitoring wells appear to be located outside the limits APECs A and B. The QP should ensure that APECs are appropriately refined and assessed.

9. Subsection 7(1) of Schedule E requires that the qualified person (QP) ensures that all areas on, in or under the phase two property where a contaminant is present at a concentration greater than the applicable site condition standard for the contaminant shall be delineated laterally and vertically in soil and ground water for each contaminant present. In reviewing Figure 9 showing PAHs in soil, it does not appear that exceedences have been adequately laterally or vertically delineated.

    a. In reviewing Figures 8A and 8E (showing PHC F2 and EC/SAR in soil, respectively) it is currently unclear to the reviewer whether lateral delineation has been achieved. To facilitate the review, please address the comment below on revising figures.

10. To facilitate the P2CSM review, the following issues involving figures should be addressed:

    a. In the PDF, after page 90, the search bar has names like “257876-LOCALITY", which requires the reviewer to manually scroll through the file in order to find specific figures. For ease of review, it would be appreciated if the QP could number pages sequentially throughout the entire file.
    b. Plan view figures showing lateral and vertical distribution of contaminants that exceeded the SCS were generally hard to follow and the reviewer was unable to tell whether delineation has been achieved. For Figures 8A (PHC F2 in soil), 8E (showing EC and SAR in soil) and Figure 9E (showing sodium and chloride in ground water), including call out boxes with no connecting lines and including a table showing sampling depth intervals and dates of samples that were less than the SCS to the right of the drawing is not conducive to a thorough review. Please see examples of other recently revised EXP MGRAs for help on updating figures.

<u>Mandatory Appendices and Supporting Documentation</u>

11. *Date of phase one and two ESA reports* – The QP is reminded requirement that phase one and two ESA reports used to support filing of an RSC be based on current work (ie: date of the last work is no later than 18 months before the submission of the RSC)

Comments on Risk Management

General Comments from the District Office

12. The ministry has prepared a lawyer's letter template for risk assessment submission. A revised lawyer's letter is required that includes all the information and documentation as described in the template. A copy of the lawyer's letter template and Certificate of Requirement Registration Procedure is attached.

Specific Review Comments on Risk Management

13. The QP has opted to apply the Table 4 Stratified Site Condition Standards to the property. Given the size of the property and future development plans there will likely be significant movement of soil within the site. A soil management plan is needed to ensure that soil exhibiting EC in excess of the Surface Soil PSS of 2.5 mS/cm is not relocated to the surface during intrusive activities.

RESUBMISSION

The risk assessment should be revised and resubmitted to the following address:

The Director
Client Services and Permissions
135 St. Clair Avenue West, 1st Floor
Toronto, ON, M4V 1P5

Four hard copies of the risk assessment should be submitted (one marked original), including a stand-alone, electronic copy of the risk assessment report (in USB format). However, if the ministry is still working remotely, then please follow the interim submission process for risk assessments. Please ensure the electronic copy submitted during the interim submission process is a stand-alone document and that all sections within the submission are bookmarked.

To assist MECP in its review of the resubmission, changes to the risk assessment from the version that is the subject of the above review should be outlined in a revision table or errata sheet attached to the resubmission. Use of a redline method in the body of the revised risk assessment also is recommended, if possible and where practicable.

It also is recommended that the QP_{RA} provide responses to the MECP review comments as an attachment to the submission or as an appendix in the revised risk assessment. This will provide an opportunity for the QP_{RA} to explain to MECP reviewers how the MECP review comments have been addressed in the risk assessment. The QP_{RA} should note that submission of a response to the MECP review comments without a revised risk assessment or addendum is not considered to be a resubmission of the risk assessment under the Regulation and it may not be reviewed.

The Property Owner and QP_{RA} should note that upon receipt and review of the resubmission, the Director may issue a decision under Section 168.5 (1) EPA to accept or not to accept the risk assessment. If the decision is not to accept the risk assessment, then subsequent resubmissions or provision of additional information cannot be accepted by the Ministry for review. Advancement of a risk assessment of the subject property will require submission of a new Pre Submission Form followed by a new risk assessment of the site in accordance with Schedule C of the Regulation.

It is recommended that before resubmission of the risk assessment, the QP_{RA} should review the mandatory requirements for risk assessments submitted under the Regulation, as outlined in Section 4 and Table 1 of Schedule C of the Regulation. As well, the Ministry's *Procedures for Use of Risk Assessment Under Part XV.1 of the Environmental Protection Act* should be used for guidance in how to satisfy the requirements of the Regulation. **It is important that the QP_{RA} also confer with the QP_{ESA} to determine whether the PSS provided will support filing of a record of site condition.**

Some of the comments included in this document (Schedule A) may be related to the adequacy of the environmental site assessment (ESA) work performed to support the approach and conclusions of the

risk assessment (RA). Note that acceptance of the qualified person (QP's) responses on these ESA-related matters will be for the purpose of supporting a decision on the RA only; a full regulatory review of the ESAs will not be conducted as part of any future RA review. MECP may undertake a more in depth review of the Phase One and Phase Two ESA reports at the time the record of site condition (RSC) is submitted for filing to ensure that all the regulatory requirements have been met. Information relevant to the Phase One and Two ESA reports (e.g., table of areas of environmental concern, the conceptual site models) that may be amended as part of the RA should be reflected in updated Phase One and Two ESA reports prior to submitting RSCs for filing. In addition, if the work on the Phase One and Two ESA exceeds 18 months prior to the submission date of the RSC, the Phase One and Two ESA reports will need to be updated prior to submitting RSCs for filing.

If the QP_{ESA} has any questions regarding meeting the ESA requirements at the time of RSC filing, it is suggested that they contact Sridhar Sangaraju of Environmental Permissions Branch; email: Sridhar.Sangaraju@ontario.ca.

If the QP_{RA} has questions regarding the application of the Regulation or the above comments, they should be forwarded by email to:

Rebekah Blok
Streamlined Risk Assessment Coordinator
Technical Assessment and Standards Development Branch
Ontario Ministry of the Environment, Conservation and Parks
rebekah.blok@ontario.ca

Schedule A
Comments by the MECP on Modified Generic Risk Assessment for 12197 Hurontario Street, in Brampton, ntario and 12211, 12213, 12231, and 12233 Hurontario Street, in Caledon, Ontario
MGRA1985-21
IDS Ref No. 6340-C4EQ4C

MECP Comments (September 2021) MGRA1985-21 IDS Ref No. 6340-C4EQ4C		EXP Response (February 2022)
General Comments on the RA		
Comments on Pre-submission Form:		
1	*Section 1 Property Information:* Although contiguous, the MGRA Property spans two different local municipalities. This is a unique situation that has not been encountered in previous risk assessment or record of site condition submissions. It is recommended that risk assessments be limited to parcels that are located within a single lower tier municipality. This is to avoid circumstances where there could be conflicting municipal requirements such as the potable condition of ground water, risk management measures for lands to be conveyed for use as municipal roadways and parks, etc. This also has the potential to present challenges with future compliance activities related to a certificate of property use where more than one building official may become involved. It is recommended that the owner consider the above and re-evaluate the strategy for obtaining record of site condition(s) for the lands. Since impacts appear to be limited to lands located within Caledon, it may be that the Brampton parcel can be filed generically, without risk assessment however this would need to be confirmed by the QP. This path forward would also eliminate the requirement for completion of a new survey, as the RA/RSC property must be shown on a single figure.	Acknowledged, the portion of the MGRA Property municipally addressed as 12197 Hurontario Street, in Brampton, Ontario has been removed from the MGRA Property boundaries. Therefore, the new RA property boundary is within Caledon only. It is further noted that there is no reference in the legal documents to 12233 Hurontario Road, Caledon. As such, reference to this municpial address has also been removed from the MGRA submission. The PSF and MGRA submission have been updated to reflect this change, where applicable.
2	*Introduction and General Approach:* As the QP has indicated that Table 4 (stratified soil) is the applicable table of site condition standards, please note that O.Reg 153/04 s.21 applies.	Acknowledged.
3	The QP has selected the modified ecological protection pathway option for the Site. Please note that a statement indicating this will need to be put on the RSC at the time of filing. Please refer to Appendix 4 of the MGRA User Guide.	Acknowledged.
4	*Section 3.5 Selection of the Applicable SCS:* While the QP has included rationale for grain size determination in Appendix G, the actual grain size curve associated with the samples collected were not provided. Please include it in the resubmission.	The certificate of analysis containing the grain size analysis for BH101-SS3, BH102-SS1 and BH104-SS has been added to Appendix G.
5	Section 11 of the PSF form states that GW1 will likely be met at nearest off-site human receptors. MGRA Tables 4-5 and 5-4 indicate that the contaminants will likely exceed Table 2 SCS at nearest off-site receptor. Please clarify, as the certification statement regarding the applicable SCS being met off-site may have signed in error.	MGRA Tables 4-5 and 5-4 were updated to state that groundwater will likely NOT result in an exceedance of the applicable full depth Site Condition Standards at the nearest off-site human and ecological receptors, respectively. The text below Tables 4-5 and 5-4 have been updated to provide additional rationale to support this conclusion.
6	Table 4-5: Off-site Human Receptors is missing from the PDF submission.	Acknowledged, Table 4-5 is included in the current submission.
	Comments on Phase Two Conceptual Site Model	
7	A description and assessment of areas where potentially contaminating activities (PCAs) and areas of potential environmental concern (APECs) have occurred is required to be provided in the phase two conceptual site model (P2CSM). The following issues were identified:	*See responses below:*
a.	Limited details were provided in the APEC Summary Table presented in Section 1 of the P2CSM for the ASTs/USTs, former trailer maintenance activities, former garage operations, former school bus maintenance activities, and imported fill. Information on the nature of each specific PCA, including capacity, age, condition of tanks, and any other infrastructure or environmental concerns associated with the commercial activity should be provided. If limited information was obtained, then this should be stated in the phase two CSM along with the records that were reviewed.	Additional details pertaining to each APEC has been added to Section 1 of the Phase Two CSM, where available. It is noted that limited information on previous activities, ASTs/USTs etc. at the site were available as operations had ceased prior to EXP'sinvolvement at the site and limited records were available. Furthermore, no TSSA records of USTs/ASTs at the RA property were available.
b.	On and off-site PCAs are shown as PCA numbers on Figure 3A, and while the outlines of USTs are shown, it is often unclear which PCAs they represent. Please label and show the specific locations/outlines of all on- and nearby off-site PCAs on both Figures 3A and 3B in order to demonstrate that all APECs have been adequately assessed.	Figure 3A has been updated to clarify the location of PCAs.
c.	The way the information was presented on Figure 3B made it hard for the reviewer to follow and cross-reference with the P2CSM narrative. While APECs are included in the legend to the right of the figure, the number/shades of colours used to identify separate APECs made it difficult to distinguish which APECs were located where. Please label PCAs and APECs on Figure 3B.	Figure 3B has been revised to show and label all APECs and their corresponding PCAs.

MECP Comments (September 2021)		
d.	Please note that unless the two former ASTs associated with APEC D are located adjacent to one another, each AST should contribute to its own separate APEC, which should be appropriately refined and assessed (i.e. boreholes and/or monitoring wells should be placed within of very close to the footprint of each PCA/APEC). Please clarify and revise.	APEC D has been revised as two separate APECs (APECs D1 and D2). The Phase Two CSM and figures have been updated accordingly.
	Given the above deficiencies and the presence of a historic auto garage, it is currently unclear whether all APECs have been adequately assessed as per Section 5, paragraphs 2 and 3 of Schedule E.	Figures 3A and 3B have been updated to demonstrate that APECs have been adequately assessed. A summary of the assessment of each APEC is provided in Section 4 of the Phase Two CSM.
8	Section 5, paragraphs 2 and 3 of Schedule E – One of the specific objectives of the site investigation component of a phase two environmental site assessment ESA is to confirm whether contaminants are present on, in or under the phase two property, and, if so, what the contaminants are, where they are located on, in or under the phase two property and at what concentrations. Another specific objective is to determine whether any contaminants on, in or under the phase two property are present at concentrations higher than applicable site condition standards by, among other things, investigating and characterizing soil, ground water and sediment on, in or under the phase two property. As indicated above in Comment 3, the reviewer needs additional information in order to assess whether these two objectives were met, and all APECs were identified and assessed. However, based on the information presented in the P2CSM, the reviewer has identified the following issues:	*See responses below:*
a.	As indicated above, the reviewer needs additional information in order to assess whether all other APECs were identified and assessed.	Please refer to Responses to Comment 7.
b.	Boreholes/monitoring wells appear to be located outside the limits APECs A and B. The QP should ensure that APECs are appropriately refined and assessed.	Figures 3A and 3B have been updated to demonstrate that APECs have been adequately assessed as indicated in response to Comment 7.
9	Subsection 7(1) of Schedule E requires that the qualified person (QP) ensures that all areas on, in or under the phase two property where a contaminant is present at a concentration greater than the applicable site condition standard for the contaminant shall be delineated laterally and vertically in soil and ground water for each contaminant present. In reviewing Figure 9 showing PAHs in soil, it does not appear that exceedences have been adequately laterally or vertically delineated.	Please note that analytical results for soil PAHs is shown on Figure 8C and no exceedances of the Table 4 SCS were identified for this parameter group. Reference to Figure 9 and delineation of PAHs in soil is assumed to be a typo in the comments received by MECP.
a.	In reviewing Figures 8A and 8E (showing PHC F2 and EC/SAR in soil, respectively) it is currently unclear to the reviewer whether lateral delineation has been achieved. To facilitate the review, please address the comment below on revising figures.	Figures 8A and 8E have been revised to better demonstrate lateral delineation: - Figure 8A - PHC F2 impacts in soil at BH N7 is laterally delineated by N7-N, N7-W, N7-E and N7-S and vertically delineated by the deeper sample collected at N7. - Figure 8E - EC/SAR in soil are laterally delineated to the west, south and east based on the results at BH306, N1, confirmatory wall samples W106, W107, W108 and W113, N4, BH305, N6, BH304, BH110 and BH201. These impacts extend vertically to 1.5 mbgs.
10	To facilitate the P2CSM review, the following issues involving figures should be addressed:	*See responses below:*
a.	In the PDF, after page 90, the search bar has names like "257876-LOCALITY", which requires the reviewer to manually scroll through the file in order to find specific figures. For ease of review, it would be appreciated if the QP could number pages sequentially throughout the entire file.	Acknowledged, page numbering has been updated in the electronic file.
b.	Plan view figures showing lateral and vertical distribution of contaminants that exceeded the SCS were generally hard to follow and the reviewer was unable to tell whether delineation has been achieved. For Figures 8A (PHC F2 in soil), 8E (showing EC and SAR in soil) and Figure 9E (showing sodium and chloride in ground water), including call out boxes with no connecting lines and including a table showing sampling depth intervals and dates of samples that were less than the SCS to the right of the drawing is not conducive to a thorough review. Please see examples of other recently revised EXP MGRAs for help on updating figures.	Acknowledged, figures have been updated to include connecting lines to call out boxes. In addition, sampling depths have been provided next to the sampling location when call out boxes are not provided. For COCs, call out boxes showing concentrations have also been added for locations where concentrations above the detection limit has been identified but are within the Table 4 SCS.
	Manadatory Appendices and Supporting Doocumentation	
11	*Date of phase one and two ESA reports* – The QP is reminded requirement that phase one and two ESA reports used to support filing of an RSC be based on current work (ie: date of the last work is no later than 18 months before the submission of the RSC)	Acknowledged.

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13	The QP has opted to apply the Table 4 Stratified Site Condition Standards to the property. Given the size of the property and future development plans there will likely be significant movement of soil within the site. A soil management plan is needed to ensure that soil exhibiting EC in excess of the Surface Soil PSS of 2.5 mS/cm is not relocated to the surface during intrusive activities.	Acknowledged. A soil management plan is provided in Appendix I.