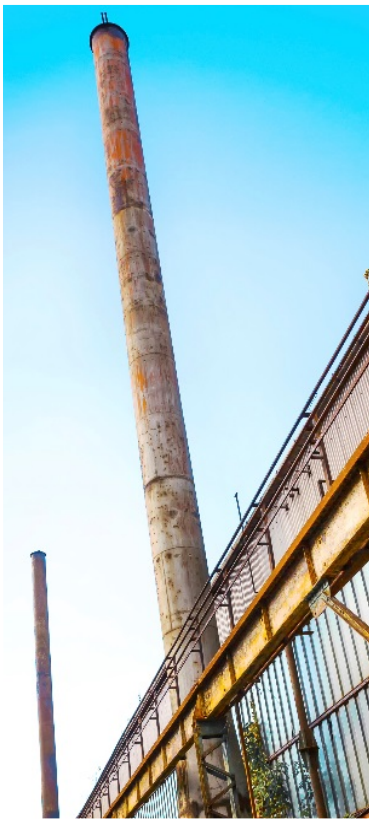
Phase Two Environmental Site Assessment

Existing Agricultural Property
3469 Concession Road 1
Township of Uxbridge, Ontario

Report for Grainboys Holdings Inc.



Executive Summary

Based on the results of a Phase One Environmental Site Assessment (ESA), a Phase Two ESA was conducted by GHD Limited (GHD) for Grainboys Holdings Inc. ("the Client") for land with the municipal address of 3469 Concession Road 1 in the Township of Uxbridge, Regional Municipality of Durham, Ontario ("the Property"). The Property encompasses an area on the order of 36.4 hectares (90 acres) and is agricultural, supporting one (1) residential dwelling. The Property and surrounding area are privately serviced for water and septic. Based on aerial photography, the Property has historically been used agriculturally by 1927.

The Phase One ESA identified potentially contaminating activities (PCAs) that, in the opinion of GHD, have resulted in areas of potential environmental concern (APECs) at the Property. The PCAs resulting in APECs were identified for a pole-mounted transformer, an above ground storage tank (AST), fill of unknown quality, adjacent rural industrial operations and a rail line in the vicinity of the Property.

The Phase Two ESA included the exploration of the subsurface by advancing six (6) boreholes to sample soil and groundwater. Monitoring wells were installed in three (3) of the boreholes. Soil samples were tested for pH, metals, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), organochlorine pesticides (OCPs), petroleum hydrocarbons (PHCs) and volatile organic compounds (VOCs). Groundwater samples were tested for metals, PAHS, PCBs, OCPs, PHCs and VOCs.

Results of the chemical analysis were compared to the Ministry of Environment, Conservation and Parks (MECP) Table 1 Full Depth Background Site Condition Standards for Agricultural or Other Property Use. The results meet the MECP Table 1 Standards.

Based on our observations, the information collected and the present land use, it is our opinion that the Property has a low level of concern from an environmental perspective and is suitable for its current use. No further environmental investigation is required at this time.

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*Note: Appendices continue in sequence from the Phase One ESA report.

1. Introduction

This report presents the results of a Phase Two Environmental Site Assessment (ESA) that was completed by GHD Limited (GHD) for Grainboys Holdings Inc. (herein referred to as "the Client") for land located at the municipal address of 3469 Concession Road 1 in the Township of Uxbridge, Ontario (herein referred to as “the Property”).

1.1 Site Description

The land encompasses an area on the order of 36.4 hectares (90 acres) and is agricultural, supporting one (1) residential dwelling. The Property and surrounding area are privately serviced for water and septic. Based on aerial photography, the Property has historically been used agriculturally by 1927.

1.2 Property Ownership

The Property is currently owned by Gary Grant and Randall Grant since December, 1994. The Phase One ESA document should be reviewed for additional information with regards to the ownership.

1.3 Current and Proposed Future Uses

The Property currently supports agricultural land and one (1) residential dwelling. It is GHD’s understanding that this ESA has been requested to provide a professional opinion of the site condition from an environmental assessment perspective. It is expected that the future use of the Property will remain agricultural.

1.4 Applicable Site Condition Standard

The applicable site condition standard for this Property currently falls under the Ministry of the Environment, Conservation and Parks (MECP) Table 1 Full Depth Background Site Condition Standards for Agricultural or Other Property Use (MECP, April 15, 2011, “Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act”*). The MECP Standards provide generic soil and groundwater quality standards for certain chemicals based on combinations of the following site-specific conditions:

- *Property Use Type* – Agricultural or Residential / Parkland / Institutional / Industrial / Commercial / Community (RPIICC) Property use. The Property is mainly agricultural. Analytical results will be compared with the Agricultural or other standards.
- *Restoration of Groundwater Quality* – Potable or non-potable. The Property is privately serviced for water. Potable groundwater standards will be considered.
- *Restoration Depth* – Full depth or stratified depth. For comparative purposes, results will be compared to full depth standards.
- *Soil Texture* – Coarse or medium to fine textured soils. Medium to fine textured soils are defined under Section 42 of Ontario Regulation 153/04 as soil that contain more than 50 percent by mass of particles that are 75 µm or smaller in mean diameter. Coarse textured standards may be used if at least 1/3 of the soil at the property by volume consists of coarse textured soil.

For purposes of this assessment, the results will be compared with the more stringent coarse textured soil standards.

- *Shallow Soil Property* – Based on the subsurface investigation, greater than 2 m of overburden soils were encountered. The Property is not considered to be a shallow soil property.
- *Water Body* – There are no permanent water bodies within 30m of the Property. The specific standards relating to the protection of water bodies will not be considered.
- *Environmentally Sensitive Areas* – The Property is within a Natural Linkage Area as identified in the Oak Ridges Moraine Conservation Act. Provincially Significant Wetlands are also identified within the Phase One Study Area. The specific standards relating to environmentally sensitive areas will be considered.

Based upon this information, MECP Table 1 Standards will be applied.

2. Background Information

2.1 Physical Setting

The Property is used for agricultural purposes and supports one (1) residential dwelling. Topography is rolling with an overall slope to the south. Excess surface water run-off is expected to conform to topography and be towards local ponded water and to tributaries within low-lying areas.

The Property is situated in the physiographic region known as the Oak Ridges Moraine (Chapman and Putnam, 1984). The Oak Ridges Moraine is generally hilly, with a knob-and-basin relief typical of an end moraine. Overburden consists of a calcareous sandy till, with some deposits of gravel.

2.2 Past Investigations

Environmental sampling and testing of an area of fill material has previous been conducted by others. The past investigation was reviewed in GHD's Phase One ESA, which is the basis for this Phase Two ESA.

3. Scope of Investigation

3.1 Overview of Site Investigation

The Phase Two ESA activities have been prepared under the supervision of a Qualified Person, as defined by the Environmental Protection Act, using Ontario Regulation (O. Reg.) 153/04 (as periodically amended).

A field investigation was conducted under the supervision of GHD to characterize the subsurface conditions including soil and groundwater. The field activities included advancing and sampling six (6) boreholes including three (3) monitoring wells installed in select borehole locations. The boreholes were advanced by Strong Soil Search using a track mounted drill rig on June 26, 2019. The test holes were generally completed through surficial topsoil or silty sand, into glacial till. The till was generally comprised of sandy silt with varying amounts of clay and gravel.

The Phase Two investigation locations are presented on the Test Hole Plan, Figure 6. The following scope of work was conducted during the Phase Two ESA:

1. Advanced, sampled and logged six (6) representative boreholes. A monitoring well was installed in three (3) of the boreholes. The boreholes were advanced to depths from 3.5 m to 5.2 m. Soil samples were collected at regular intervals and monitored for volatile hydrocarbon vapours using an RKI Instruments Eagle 2 hydrocarbon gas detector.
2. Representative samples of the soil and groundwater were subjected to chemical analyses. Soil samples were analyzed for pH, metals, PAHs, PCBs, OCPs, PHCs and VOCs to assess soil quality. Groundwater samples were analyzed for metals, PAHs, PCBs, OCP, PHCs and VOCs to assess groundwater quality.
3. Data obtained from the investigation were analyzed and the findings presented in this report with conclusions and recommendations. The analytical results were compared to Table 1 Full Depth Background Site Condition Standards in a Non-Potable Groundwater Condition (Agricultural or Other Property use) (MECP, April 15, 2011, "Soil, Groundwater and Sediment Standards for use Under Part XV.1 of the *Environmental Protection Act").*

3.2 Media Investigated

Soil and groundwater conditions were investigated with a focus on the areas of potential environmental concern (APECs) outlined in the Phase One ESA. The following PCAs were identified as resulting in APECs at the Property:

1. PCAs have been identified for rural industrial use on the adjacent lot to the south.
2. Gasoline and Associated Products Storage in Fixed Tanks (PCA #28). This PCA is identified for one (1) 910L heating oil AST and one (1) suspect PCB pole-mounted transformer.
3. Importation of Fill Material of Unknown Quality (PCA #30). This PCA is identified for imported fill material, reportedly originating from vacuum trucks prior to 2015.
4. Rail Yards, Tracks and Spurs (PCA #46). This PCA is identified for a rail line which runs adjacent to the Property along the southeast corner.

The following field investigation activities were completed:

- Advancement of six (6) boreholes for soil sampling;
- Installation of three (3) monitoring wells;
- Water level measurements conducted at the monitoring wells;
- Development and sampling of two (2) of the monitoring wells; and
- Laboratory analysis of representative soil and groundwater samples.

3.3 Phase One Conceptual Site Model

A Phase One conceptual site model is presented on Figures 4 and 5. The model provides a basic overview, basic geological and hydrogeological information and any other pertinent data that may affect the Phase One ESA. The Property is situated in the physiographic region known as the Oak Ridges Moraine (Chapman and Putnam, 1984). The Oak Ridges Moraine is generally hilly, with a knob-and-basin relief typical of an end moraine.

Overburden consists of a calcareous sandy till, with some deposits of gravel. Based on aerial photography reviewed as part of the Phase One ESA, the Property has historically been used agriculturally by 1927. This environmental investigation identified PCAs on the Property based on the records reviewed and site reconnaissance carried out as part of the Phase One ESA. PCAs were identified on the Property for a heating oil AST, a suspect PCB-containing pole-mounted transformer and fill of unknown quality. PCAs were also identified within the Phase One Study Area for adjacent rural industrial use and a rail line. Based on information gathered, it is the opinion of GHD that the aforementioned PCAs have resulted in APECs for the Property. The contaminants of concern for the APECs are pH, metals, PAHs, PCBs, OCPs, PHCs, and VOCs.

3.4 Deviations from Sampling and Analysis Plan

A sampling and analysis plan was prepared based upon information from the Phase One ESA. There were no deviations from the sampling and analysis plan. The sampling plan is presented in Appendix E.

3.5 Impediments

Drilling was not conducted within the building footprint or within the buried utility corridors. There were no significant impediments for the Phase Two investigation program.

4. Investigation Method

4.1 General

This section of the report describes the field methods utilized during the investigation. The field activities were completed as per MECP protocols, GHD standard operating procedures and standard industry practices. The Phase Two ESA drilling was completed on June 26, 2019. The investigative tasks completed are described in detail in the following subsections:

- Advancement of boreholes at select locations;
- Completion of field screening measurements;
- Collection of soil samples;
- Analytical soil testing;
- Residual soil management;
- Installation of monitoring wells in select boreholes;
- Water level and development of the monitoring wells;
- Sampling of groundwater for analytical testing; and,
- Quality assurance and quality control measures.

Elevation surveying was not completed as part of this field program. Prior to the commencement of the subsurface investigation, GHD completed the appropriate public utility notifications.

4.2 Drilling

The subsurface exploration program consisted of six (6) boreholes drilled by Strong Soil Search using a track-mounted drill rig. The boreholes were advanced in the locations illustrated on the Test Hole Plan, Figure 6 and extended to depths ranging from 3.5 to 5.2 m.

Boreholes were generally advanced through surficial topsoil or silty sand into glacial till, which was comprised of sandy silt with varying amounts of clay and gravel. 2.3 m of silty sand fill material was encountered within BH-5 prior to encountering glacial till. Detailed borehole logs are provided in Appendix F and provide a further overview of the subsurface conditions encountered during drilling activities. Prior to use, during drilling and between each test hole, the drilling and sampling equipment was decontaminated. The wash procedure for decontamination of equipment was a water detergent wash and potable water rinse.

4.3 Soil Sampling

Based on the sampling plan, field observations, headspace analysis of organic vapour readings, visual and olfactory evidence of potential contamination and professional judgment, soil samples were selected for chemical analyses. GHD personnel collected soil samples for laboratory analysis directly from the sampling equipment.

The samples to be submitted for analysis were placed into clean laboratory prepared sample bottles. Fresh nitrile gloves were worn when collecting the samples. The soil samples selected for chemical analyses were kept in a cooler on ice and delivered to Caduceon Laboratories (Caduceon). The following soil samples were submitted for analysis during the Phase Two ESA program:

- BH-3, SS-2 – pH, OCPs, PCBs, PHCs and VOCs;
- BH-4, SS-1 – PCBs, PHCs and VOCs;
- BH-5, SS-2 – Metals, PAHs, PCBs, PHCs and VOCs;
- BH-6, SS-2 – Metals and PAHs; and,
- BH-6, SS-4 – pH.

4.4 Field Screening Measurements

Field screening measurements were completed using a RKI Instruments Eagle 2 portable gas detector. The soil samples obtained during the test hole program were subjected to hydrocarbon vapour testing or “headspace analysis” using the gas detector. Prior to sample collection events, the gas detector was inspected and calibrated according to the manufacturer’s recommendations. The vapour readings are shown on the logs in Appendix F and were at ambient levels.

4.5 Groundwater: Monitoring Well Installation

As part of the Phase Two ESA, monitoring wells were installed within the APECs during the drilling activities. The monitoring wells were installed within boreholes BH-1, BH-3, and BH-4. Monitoring wells were installed to assess potential groundwater impacts with the well screen placed to straddle the water table, if possible. The monitoring wells were constructed of 51 mm diameter PVC well pipes and 10-slot well screen. The wells consisted of 1.5m long screens with sand extending above the screen and a bentonite seal.

4.6 Groundwater: Field Measurement of Water Quality

The monitoring wells were measured for groundwater level and developed with dedicated Waterra tubing and an inertial foot valve prior to sampling. No light or dense non-aqueous phase liquids were observed during the well development activities.

4.7 Groundwater: Sampling

After well development, water samples were collected using dedicated sampling equipment. The water samples were submitted for analysis of the following parameters:

- BH-3 – PCBs, OCPs, PHCs and VOCs; and,
- BH-4 – Metals, PAHs, PCBs, PHCs and VOCs.

The water samples were kept in a cooler on ice and delivered to Caduceon.

4.8 Sediment: Sampling

Sediment sampling is not applicable.

4.9 Analytical Testing

The analytical testing was completed in accordance with the requirements of Ontario Regulation 153/04 (as amended) and associated MECP analytical guidance documents. Sampling was completed based upon information available from the Phase One ESA, visual and olfactory observations, field screening and professional judgment.

The analytical testing was completed at Caduceon, an accredited laboratory with the Canadian Association for Laboratory Accreditation (CALA) for the parameters tested during this investigation. Sampling and analysis were completed for pH, metals, PAHs, PCBs, OCPs, PHCs, and VOCs. Copies of the Certificates of Analysis are provided in Appendix G of this report.

4.10 Elevation Surveying

An elevation survey was not completed of the test hole locations. If required, topographic elevations can be inferred from an Ontario Base Map or Google Earth.

4.11 Quality Assurance and Quality Control Measures

The Quality Assurance and Quality Control (QAQC) program was implemented during the ESA to ensure quality data was generated. Soil samples were collected with pre-cleaned sampling equipment and placed directly into laboratory supplied dedicated jars. Samples were submitted under chain-of-custody protocol to an analytical laboratory that is accredited with the CALA for the parameters tested for. From the time of collection to the time of submission to the laboratory, samples were kept cool to maintain sample integrity.

The QAQC measures implemented by the laboratory were maintained throughout the investigation and are included in the laboratory's Certificate of Chemical Analysis included in Appendix G. There were no QAQC issues.

5. Review and Evaluation

GHD completed the Phase Two ESA investigation activities to address the APECs defined in the Phase One ESA. This review and evaluation section describes the results of the Phase Two ESA.

5.1 Geology

Reference is made to the borehole logs in Appendix F for details including local soil and geology classification and stratigraphy. The stratigraphy in the areas where boreholes were advanced consisted of surficial topsoil or silty sand which was underlain by sandy silt glacial till with varying amounts of clay and gravel.

Grain size distribution analyses conducted on a representative samples of the glacial till suggests the following composition: 8% gravel, 26% sand and 66% silt and clay-sized particles. Grain size distribution analysis conducted on a sample of the fill material at BH-5 suggests the following composition: 3% gravel, 40% sand and 57% silt and clay-sized particles.

Groundwater seepage was encountered in three (3) of the boreholes at depths ranging from 3.8 to 4.6 metres within the till. No groundwater seepage was observed within the fill material in BH-5.

5.2 Groundwater: Elevations and Flow Direction

The groundwater elevations were not assessed in this report. Groundwater is expected towards low-lying tributaries to the south.

5.3 Groundwater: Hydraulic Gradient

An assessment of the groundwater hydraulic gradient was not calculated for this investigation.

5.4 Fine-Medium Soil Texture

Based upon field observations, the native overburden soils are typically sandy silt with varying amounts of gravel and clay. The soils will be compared to the more stringent coarse textured MECP Standards for purposes of this assessment.

5.5 Soil: Field Screening

Field screening of total organic vapours was measured by GHD of each sample using a RKI Instruments Eagle 2 hydrocarbon gas detector. No elevated vapours were detected in the samples.

5.6 Soil Quality

Five (5) soil samples were submitted for chemical analyses. Soil samples analyzed were selected from the APECs based upon visual and olfactory observations, field screening activities and professional judgment. The laboratory certificates of analysis are provided in Appendix G.

Two (2) samples were submitted for the analysis of pH. The results are compared with Ontario Regulation 153 Standards in Table 5.1. The results meet the Standards.

Table 5.1: Summary of pH in Soil

Parameter	Sample Identification		Acceptable MECP Ranges
	BH-3, SS-2 (0.8 m – 1.4 m) June 26, 2019	BH-6, SS-4 (2.3 m – 2.9 m) June 26, 2019	
pH (surface soil ≤ 1.5m)	7.71	-	5 – 9*
pH (subsurface soil > 1.5m)	-	7.89	5 – 11*

*pH values are based on Ontario Regulation 153 MECP acceptable pH ranges.

Two (2) soil samples from the areas of fill material and nearby rail line were submitted for the analysis of metals and are compared to the MECP Table 1 Standards in Table 5.2. The results meet the MECP Table 1 Standards.

Table 5.2: Summary of Metals in Soil

Parameter	Sample Identification		MECP Table 1 Standards
	BH-5, SS-5 (0.8 m – 1.4 m) June 26, 2019	BH-6, SS-2 (0.8 m – 1.4 m) June 26, 2019	
Antimony	< 0.5	< 0.5	1
Arsenic	1.9	1.7	11
Barium	46	51	210
Beryllium	0.2	0.2	2.5
Boron	12.3	10.3	36
Boron (HWS)	0.19	0.31	NS
Cadmium	< 0.5	< 0.5	1
Chromium	14	15	67
Chromium (VI)	< 0.2	< 0.2	0.66
Cobalt	6	5	19
Copper	11	8	62
Lead	6	9	45
Mercury	0.015	0.019	0.16
Molybdenum	< 1	< 1	2
Nickel	14	11	37
Selenium	< 0.5	< 0.5	1.2
Silver	< 0.2	< 0.2	0.5
Thallium	0.1	< 0.1	1
Uranium	0.4	0.4	1.9
Vanadium	22	27	86
Zinc	31	39	290

Notes: Analytical results presented as µg/g (parts per million) unless otherwise noted.
"<" indicates parameter is below the laboratory reporting limit (i.e. non-detect). HWS = hot water soluble
MECP "Table 1 Full Depth Background Site Condition Standards for Agricultural or Other Property Use."
NS indicates "no standard"

Two (2) soil samples from the areas of fill material and rail line were submitted for the analysis of PAHs and are compared to the MECP Table 1 Standards in Table 5.3. The results meet the MECP Table 1 Standards.

Table 5.3: Summary of PAHs in Soil

Parameter	Sample Identification		MECP Table 1 Standards
	BH-5, SS-5 (0.8 m – 1.4 m) June 26, 2019	BH-6, SS-2 (0.8 m – 1.4 m) June 26, 2019	
Acenaphthene	< 0.05	< 0.05	0.05
Acenaphthylene	< 0.05	< 0.05	0.093
Anthracene	< 0.05	< 0.05	0.05
Benzo(a)anthracene	< 0.05	< 0.05	0.095
Benzo(a)pyrene	< 0.05	< 0.05	0.05
Benzo(b)fluoranthene	< 0.05	< 0.05	0.3
Benzo(b+k)fluoranthene	< 0.05	< 0.05	NS
Benzo(g,h,i)perylene	< 0.05	< 0.05	0.2
Benzo(k)fluoranthene	< 0.05	< 0.05	0.05
Chrysene	< 0.05	< 0.05	7.8
Dibenzo(a,h)anthracene	< 0.05	< 0.05	0.1
Fluoranthene	< 0.05	0.06	0.24
Fluorene	< 0.05	< 0.05	0.05
Indeno(1,2,3,-cd)pyrene	< 0.05	< 0.05	0.11
Methylnaphthalene,1-	< 0.05	< 0.05	0.05
Methylnaphthalene,2-	< 0.05	< 0.05	0.05
Methylnaphthalene 2-(1-)	< 0.05	< 0.05	0.05
Naphthalene	< 0.05	< 0.05	0.05
Phenanthrene	< 0.05	< 0.05	0.19
Pyrene	< 0.05	0.05	0.19

Notes: Analytical results presented as µg/g (parts per million) unless otherwise noted. NS = no standard.
"<" indicates parameter is below the laboratory reporting limit (i.e. non-detect)
MECP "Table 1 Full Depth Background Site Condition Standards for Agricultural or Other Property Use."
NS indicates "no standard"

Three (3) soil samples were submitted for analysis of PCBs from the areas adjacent to rural industrial operations, pole-mounted transformer and fill material. One (1) sample from an area adjacent to the rural industrial operations was also submitted for OCPs. The results are summarized and compared with the MECP Table 1 Standards in Table 5.4. The results meet the MECP Table 1 Standards.

Table 5.4: Summary of PCBs and OCPs in Soil

Parameter	Sample Identification			MECP Table 1 Standards
	BH-3, SS-2 (0.8 m – 1.4 m) June 26, 2019	BH-4, SS-1 (0.0 m – 0.6 m) June 26, 2019	BH-5, SS-2 (0.8 m – 1.4 m) June 26, 2019	
PCBs	< 0.3	< 0.3	< 0.3	0.3
Aldrin	< 0.05	-	-	0.05
Chlordane Total (alpha+gamma)	< 0.05	-	-	0.05
DDD Total	< 0.05	-	-	0.05
DDE Total	< 0.05	-	-	0.05
DDT Total	< 0.05	-	-	0.078
Dieldrin	< 0.05	-	-	0.05
Lindane (Hexachlorocyclohexane, Gamma)	< 0.01	-	-	0.01
Endosulfan I	< 0.04	-	-	NS
Endosulfan II	< 0.04	-	-	NS
Endosulfan I/II	< 0.04	-	-	0.04
Endrin	< 0.04	-	-	0.04
Heptachlor	< 0.05	-	-	0.05
Heptachlor Epoxide	< 0.05	-	-	0.05
Hexachlorobenzene	< 0.01	-	-	0.01
Hexachlorobutadiene	< 0.01	-	-	0.01
Hexachloroethane	< 0.01	-	-	0.01
Methoxychlor	< 0.05	-	-	0.05

Notes: Analytical results presented as µg/g (parts per million) unless otherwise noted. NS = no standard.
"<" indicates parameter is below the laboratory reporting limit (i.e. non-detect). NS indicates "no standard"
MECP "Table 1 Full Depth Background Site Condition Standards for Agricultural or Other Property Use."

Three (3) soil samples were submitted for analysis of PHCs and VOCs from the areas adjacent to rural industrial operations, pole-mounted transformer, heating oil AST and fill material. The results are summarized and compared with the MECP Table 1 Standards in Table 5.5. The results meet the MECP Table 1 Standards.

Table 5.5: Summary of PHCs and VOCs in Soil

Parameter	Sample Identification			MECP Table 1 Standards
	BH-3, SS-2 (0.8 m –1.4 m) June 26, 2019	BH-4, SS-1 (0.0 m – 0.6 m) June 26, 2019	BH-5, SS-2 (0.8 m – 1.4 m) June 26, 2019	
Acetone	< 0.5	< 0.5	< 0.5	0.5
Benzene	< 0.02	< 0.02	< 0.02	0.02
Bromodichloromethane	< 0.02	< 0.02	< 0.02	0.05
Bromoform	< 0.02	< 0.02	< 0.02	0.05
Bromomethane	< 0.05	< 0.05	< 0.05	0.05
Carbon Tetrachloride	< 0.05	< 0.05	< 0.05	0.05
Monochlorobenzene (Chlorobenzene)	< 0.02	< 0.02	< 0.02	0.05
Chloroform	< 0.02	< 0.02	< 0.02	0.05
Dibromochloromethane	< 0.02	< 0.02	< 0.02	0.05
Dichlorobenzene,1,2-	< 0.05	< 0.05	< 0.05	0.05
Dichlorobenzene,1,3-	< 0.05	< 0.05	< 0.05	0.05
Dichlorobenzene,1,4-	< 0.05	< 0.05	< 0.05	0.05
Dichlorodifluoromethane	< 0.05	< 0.05	< 0.05	0.05
Dichloroethane,1,1-	< 0.02	< 0.02	< 0.02	0.05
Dichloroethane,1,2-	< 0.02	< 0.02	< 0.02	0.05
Dichloroethylene,1,1-	< 0.02	< 0.02	< 0.02	0.05
Dichloroethene, cis-1,2-	< 0.02	< 0.02	< 0.02	0.05
Dichloroethene, trans-1,2-	< 0.02	< 0.02	< 0.02	0.05
Dichloropropane,1,2-	< 0.02	< 0.02	< 0.02	0.05
Dichloropropene, cis-1,3-	< 0.02	< 0.02	< 0.02	NS
Dichloropropene, trans-1,3-	< 0.02	< 0.02	< 0.02	NS
Dichloropropene 1,3- cis+trans	< 0.02	< 0.02	< 0.02	0.05
Ethylbenzene	< 0.05	< 0.05	< 0.05	0.05
Dibromoethane,1,2- (Ethylene Dibromide)	< 0.02	< 0.02	< 0.02	0.05
Hexane	< 0.02	< 0.02	< 0.02	0.05
Methyl Ethyl Ketone	< 0.5	< 0.5	< 0.5	0.5
Methyl Isobutyl Ketone	< 0.5	< 0.5	< 0.5	0.5
Methyl-t-butyl Ether	< 0.05	< 0.05	< 0.05	0.05
Dichloromethane (Methylene Chloride)	< 0.05	< 0.05	< 0.05	0.05
Styrene	< 0.05	< 0.05	< 0.05	0.05
Tetrachloroethane,1,1,1,2-	< 0.02	< 0.02	< 0.02	0.05
Tetrachloroethane,1,1,2,2-	< 0.05	< 0.05	< 0.05	0.05
Tetrachloroethylene	< 0.05	< 0.05	< 0.05	0.05
Toluene	< 0.2	< 0.2	< 0.2	0.2
Trichloroethane,1,1,1-	< 0.02	< 0.02	< 0.02	0.05
Trichloroethane,1,1,2-	< 0.02	< 0.02	< 0.02	0.05
Trichloroethylene	< 0.05	< 0.05	< 0.05	0.05
Trichlorofluoromethane	< 0.02	< 0.02	< 0.02	0.05
Vinyl Chloride	< 0.02	< 0.02	< 0.02	0.02
Xylene, m,p-	< 0.03	< 0.03	< 0.03	NS
Xylene, o-	< 0.03	< 0.03	< 0.03	NS
Xylene, m,p,o-	< 0.03	< 0.03	< 0.03	0.05
PHC F1 (C6-C10)	< 10	< 10	< 10	17
PHC F2 (>C10-C16)	< 5	< 5	< 5	10
PHC F3 (>C16-C34)	88	15	54	240
PHC F4 (>C34-C50)	22	< 10	14	120

Notes: Analytical results presented as µg/g (parts per million) unless otherwise noted. NS = no standard.
"<" indicates parameter is below the laboratory reporting limit (i.e. non-detect). NS indicates "no standard"
MECP "Table 1 Full Depth Background Site Condition Standards for Agricultural or Other Property Use.

5.7 Groundwater Quality

One (1) groundwater sample was submitted for the analysis of metals. The sample results are summarized and compared to the MECP Table 1 Standards in Table 5.6. The results meet the Table 1 Standards.

Table 5.6: Summary of Metals in Groundwater

Parameter	Sample Identification	MECP Table 1 Standards
	BH-4 July 4, 2019	
Antimony	< 0.1	1.5
Arsenic	0.7	13
Barium	254	610
Beryllium	< 0.1	0.5
Boron	56	1700
Cadmium	< 0.015	0.5
Chromium	< 2	11
Chromium (VI)	< 10	25
Cobalt	0.7	3.8
Copper	< 2	5
Lead	< 0.02	1.9
Mercury	< 0.02	0.1
Molybdenum	2.1	23
Nickel	2.5	14
Selenium	< 1	5
Silver	< 0.1	0.3
Thallium	< 0.05	0.5
Uranium	1.44	8.9
Vanadium	0.2	3.9
Zinc	< 5	160

Notes: Analytical results presented as µg/L (parts per billion) unless otherwise noted. NS = no standard.
"<" indicates parameter is below the laboratory reporting limit (i.e. non-detect) MECP "Table 1 Full Depth Background Site Condition Standards for All Type of Property Uses."

One (1) groundwater sample was submitted for the analysis of PAHs. The sample results are summarized and compared to the MECP Table 1 Standards in Table 5.7. The results meet the Table 1 Standards.

Table 5.7: Summary of PAHs in Groundwater

Parameter	Sample Identification	MECP Table 1 Standards
	BH-4 July 4, 2019	
Acenaphthene	< 0.06	4.1
Acenaphthylene	< 0.06	1
Anthracene	< 0.06	0.1
Benzo(a)anthracene	< 0.06	0.2
Benzo(a)pyrene	< 0.01	0.01
Benzo(b)fluoranthene	< 0.06	0.1
Benzo(b+k)fluoranthene	< 0.1	NS
Benzo(g,h,i)perylene	< 0.06	0.2
Benzo(k)fluoranthene	< 0.06	0.1
Chrysene	< 0.06	0.1
Dibenzo(a,h)anthracene	< 0.06	0.2
Fluoranthene	< 0.06	0.4
Fluorene	< 0.06	120
Indeno(1,2,3,-cd)pyrene	< 0.06	0.2
Methylnaphthalene,1-	< 0.06	2
Methylnaphthalene,2-	< 0.09	2
Methylnaphthalene 2-(1-)	< 1	2
Naphthalene	< 0.06	7
Phenanthrene	< 0.06	0.1
Pyrene	< 0.06	0.2

Notes: Analytical results presented as µg/L (parts per billion) unless otherwise noted. NS = no standard.
"<" indicates parameter is below the laboratory reporting limit (i.e. non-detect) MECP "Table 1 Full Depth Background Site Condition Standards for All Type of Property Uses." NS indicates "no standard"

Two (2) groundwater samples were submitted for the analysis of PCBs. One (1) sample was also submitted for the analysis of OCPs. The sample results are summarized and compared to the MECP Table 1 Standards in Table 5.8. The results meet the Table 1 Standards.

Table 5.8: Summary of PCBs and OCPs in Groundwater

Parameter	Sample Identification		MECP Table 1 Standards
	BH-3 July 4, 2019	BH-4 July 4, 2019	
PCBs	<0.05	<0.05	0.2
Aldrin	<0.01	-	0.01
Chlordane Total (alpha+gamma)	<0.05	-	0.06
DDD Total	<0.05	-	1.8
DDE Total	<0.01	-	10
DDT Total	<0.05	-	0.05
Dieldrin	<0.05	-	0.05
Lindane (Hexachlorocyclohexane, Gamma)	<0.01	-	0.01
Endosulfan I	<0.05	-	NS
Endosulfan II	<0.05	-	NS
Endosulfan I/II	<0.05	-	NS
Endrin	<0.05	-	0.05
Heptachlor	<0.01	-	0.01
Heptachlor Epoxide	<0.01	-	0.01
Hexachlorobenzene	<0.01	-	0.01
Hexachlorobutadiene	<0.01	-	0.01
Hexachloroethane	<0.01	-	0.01
Methoxychlor	<0.05	-	0.05

Notes: Analytical results presented as µg/L (parts per billion) unless otherwise noted. NS = no standard.
"<" indicates parameter is below the laboratory reporting limit (i.e. non-detect) MECP "Table 1 Full Depth Background Site Condition Standards for All Type of Property Uses."

Two (2) groundwater samples were submitted for the analysis of PHCs and VOCs. The sample results are summarized and compared to the MECP Table 1 Standards in Table 5.9. The results meet the Table 1 Standards.

Table 5.9: Summary of PHCs and VOCs in Groundwater

Parameter	Sample Identification		MECP Table 1 Standards
	BH-3 July 4, 2019	BH-4 July 4, 2019	
Acetone	< 30	< 30	2700
Benzene	< 0.5	< 0.5	0.5
Bromodichloromethane	< 2	< 2	2
Bromoform	< 5	< 5	5
Bromomethane	< 0.5	< 0.5	0.89
Carbon Tetrachloride	< 0.2	< 0.2	0.2
Monochlorobenzene (Chlorobenzene)	< 0.5	< 0.5	0.5
Chloroform	< 1	< 1	2
Dibromochloromethane	< 2	< 2	2
Dichlorobenzene,1,2-	< 0.5	< 0.5	0.5
Dichlorobenzene,1,3-	< 0.5	< 0.5	0.5
Dichlorobenzene,1,4-	< 0.5	< 0.5	0.5
Dichlorodifluoromethane	< 2	< 2	590
Dichloroethane,1,1-	< 0.5	< 0.5	0.5
Dichloroethane,1,2-	< 0.5	< 0.5	0.5
Dichloroethylene,1,1-	< 0.5	< 0.5	0.5
Dichloroethene, cis-1,2-	< 0.5	< 0.5	1.6
Dichloroethene, trans-1,2-	< 0.5	< 0.5	1.6
Dichloropropane,1,2-	< 0.5	< 0.5	0.5
Dichloropropene, cis-1,3-	< 0.5	< 0.5	NS
Dichloropropene, trans-1,3-	< 0.5	< 0.5	NS
Dichloropropene 1,3-cis+trans	< 0.5	< 0.5	0.5
Ethylbenzene	< 0.5	< 0.5	0.5
Dibromoethane,1,2- (Ethylene Dibromide)	< 0.2	< 0.2	0.2
Hexane	< 5	< 5	5
Methyl Ethyl Ketone	< 20	< 20	400
Methyl Isobutyl Ketone	< 20	< 20	640
Methyl-t-butyl Ether	< 2	< 2	15
Dichloromethane (Methylene Chloride)	< 5	< 5	5
Styrene	< 0.5	< 0.5	0.5
Tetrachloroethane,1,1,1,2-	< 0.5	< 0.5	1.1
Tetrachloroethane,1,1,2,2-	< 0.5	< 0.5	0.5
Tetrachloroethylene	< 0.5	< 0.5	0.5
Toluene	< 0.5	< 0.5	0.8
Trichloroethane,1,1,1-	< 0.5	< 0.5	0.5
Trichloroethane,1,1,2-	< 0.5	< 0.5	0.5
Trichloroethylene	< 0.5	< 0.5	0.5
Trichlorofluoromethane	< 5	< 5	150
Vinyl Chloride	< 0.2	< 0.2	0.5

Parameter	Sample Identification		MECP Table 1 Standards
	BH-3 July 4, 2019	BH-4 July 4, 2019	
Xylene, m,p-	< 1.0	< 1.0	NS
Xylene, o-	< 0.5	< 0.5	NS
Xylene, m,p,o-	< 1.1	< 1.1	72
PHC F1 (C6-C10)	< 50	< 50	420
PHC F2 (>C10-C16)	< 50	< 50	150
PHC F3 (>C16-C34)	< 400	< 400	500
PHC F4 (>C34-C50)	< 400	< 400	500

Notes: Analytical results presented as µg/L (parts per billion) unless otherwise noted. NS = no standard.
"<" indicates parameter is below the laboratory reporting limit (i.e. non-detect) MECP "Table 1 Full Depth Background Site Condition Standards for All Type of Property Uses." NS indicates "no standard"

5.8 Sediment Quality

Sediment quality testing is not applicable.

5.9 Quality Assurance and Quality Control Results

The sampling holding times were met and the samples were properly preserved after collection for the Phase Two ESA. The QAQC measures implemented by the laboratory were maintained throughout the investigation. There were no QAQC issues.

5.10 Phase Two Conceptual Site Model

Based on the investigative work completed, a Phase Two conceptual site model has been prepared, and is summarized on Figure 6 showing test hole locations and summary of analytical results.

The Phase Two ESA consisted of advancing six (6) boreholes, including the installation of three (3) monitoring wells. The soil contaminants of concern included pH, metals, PAHs, PCBs, OCPs, PHCs and VOCs. The groundwater contaminants of concern included metals, PAHs, PCBs, OCPs, PHCs and VOCs.

All soil and groundwater meets the MECP Table 1 Standards for agricultural property use for the parameters tested. It is the opinion of GHD that there is a low level of environmental concern at the Property from an environmental perspective. No further environmental evaluation is required at this time.

6. Conclusions

The supporting data upon which our conclusions are based have been presented in the previous sections of this report. The environmental assessment represents a "snapshot" in time. Consideration has been given to the known Property history, the physical setting, adjacent land use and current regulatory requirements in developing the terms of reference for this study. GHD cannot guarantee the reliability of information provided by others. However, whenever possible, verification of authenticity was attempted.

Based on our observations, the field investigation program and laboratory results, the following conclusions are presented:

- All soil tested from the Property meets the MECP Table 1 Standards for the parameters tested including pH, metals, PAHs, PCBs, OCPs, PHCs and VOCs.
- Groundwater tested from the Property meets the MECP Table 1 Standards for the parameters tested including metals, PAHs, PCBs, OCPs, PHCs and VOCs.

Based on our observations, the information collected and the present land use, it is our professional opinion that there is a low level of concern at the Property from an environmental perspective. The Property is suitable for its current use. No further environmental evaluation is required at this time.

6.1 Signatures

The following signatures are provided of GHD staff that prepared and conducted the Phase Two ESA. Mr. Nyle McIlveen, a Qualified Person within the meaning of the Environmental Protection Act and associated Regulation 153/04, has provided his opinion based on the information provided in this report.

Following the References section of this report is the Statement of Limitations. These limitations are an integral part of this report. Should questions arise regarding any aspect of our report, please contact our office.

Sincerely,

GHD

David Workman, P.Geo.

Nyle McIlveen, P.Eng.

/ew/dw/nm

7. References

Canadian Standards Association (CSA) Z768-01, "Phase I Environmental Site Assessment", reaffirmed 2012.

Chapman and Putnam, 1966. The Physiography of Southern Ontario, 2nd Edition. University of Toronto Press.

Chapman and Putnam, 1984. The Physiography of Southern Ontario, 3rd Edition. Ministry of Natural Resources.

Environmental Protection Act, R.S.O. 1990, and associated regulations.

GHD Limited, June 20, 2019. Phase One Environmental Site Assessment Report, Existing Agricultural Property, 3469 Concession Road 1, Township of Uxbridge, Ontario.

Occupational Health and Safety Act, R.S.O. 1990, and associated regulations.

Ontario Ministry of the Environment, 2011. Ontario Regulation 153/04: Records of Site Condition – Part XV.1 of the Act (Environmental Protection Act 153/04, as amended).

8. Statement of Limitations

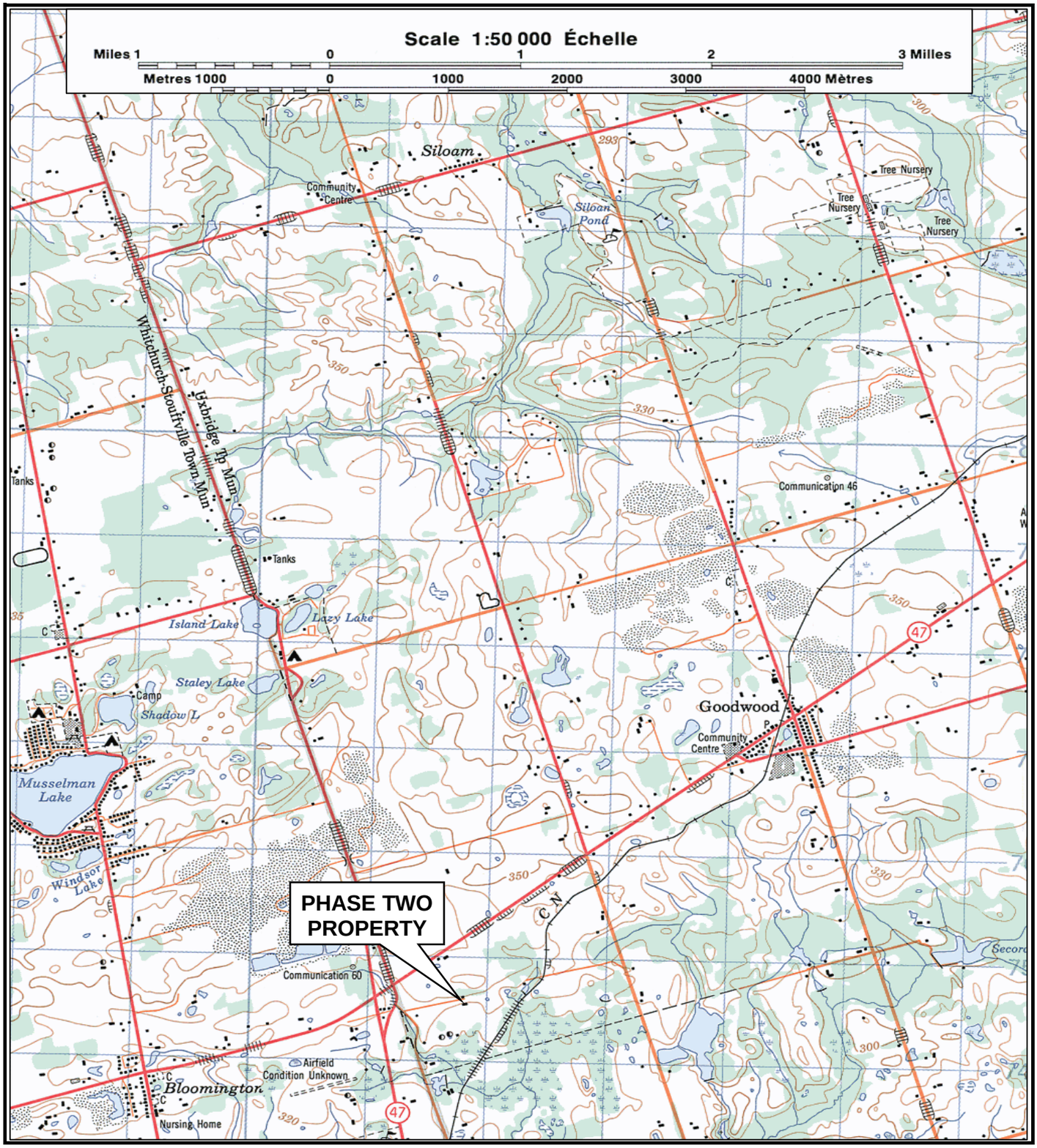
This report is intended solely for Grainboys Holdings Inc. in assessing the environmental concerns of the property identified at the municipal address of 3469 Concession Road 1 in the Township of Uxbridge, Ontario and is prohibited for use by others without GHD's prior written consent. This report is considered GHD's professional work product and shall remain the sole property of GHD. Any unauthorized reuse, redistribution of or reliance on the report shall be at the Client and recipient's sole risk, without liability to GHD. Client shall defend, indemnify and hold GHD harmless from any liability arising from or related to Client's unauthorized distribution of the report. No portion of this report may be used as a separate entity; it is to be read in its entirety and shall include all supporting drawings and appendices.

The conclusions and recommendations made in this report are in accordance with our present understanding of the project, the current site use, surface and subsurface conditions, and are based on available information, a site reconnaissance on the date set out in the report, records review and interviews with appropriate people and the work scope approved by the Client and described in the report and should not be construed as a legal opinion. Therefore, our liability is limited to interpreting accurately the information made available to us and assessing the property information investigated during this Phase Two environmental assessment. The services were performed in a manner consistent with that level of care and skill ordinarily exercised by members of environmental engineering professions currently practicing under similar conditions in the same locality. No other representations, and no warranties or representations of any kind, either expressed or implied, are made. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties.

Soil conditions between and beyond the test hole locations may differ both horizontally and vertically from those encountered at the test hole locations and conditions may become apparent during future projects which could not be detected or anticipated at the time of our investigation. Should any conditions at the site be encountered which differ from those found at the test hole locations, we request that we be notified immediately in order to permit a reassessment of our recommendations. If changed conditions are identified, no matter how minor, the recommendations in this report shall be considered invalid until sufficient review and written assessment of said conditions by GHD is completed.

The conclusions in this report are based on available information, documentation and discussions with appropriate people associated with the property. Therefore, our liability is limited to interpreting accurately the information made available to us and assessing the property information at the test hole locations investigated during the Phase Two ESA.

Enclosures



Base map compiled from Energy, Mines and Resources Canada Map 31 D/3 published 1988 from photographs taken in 1981

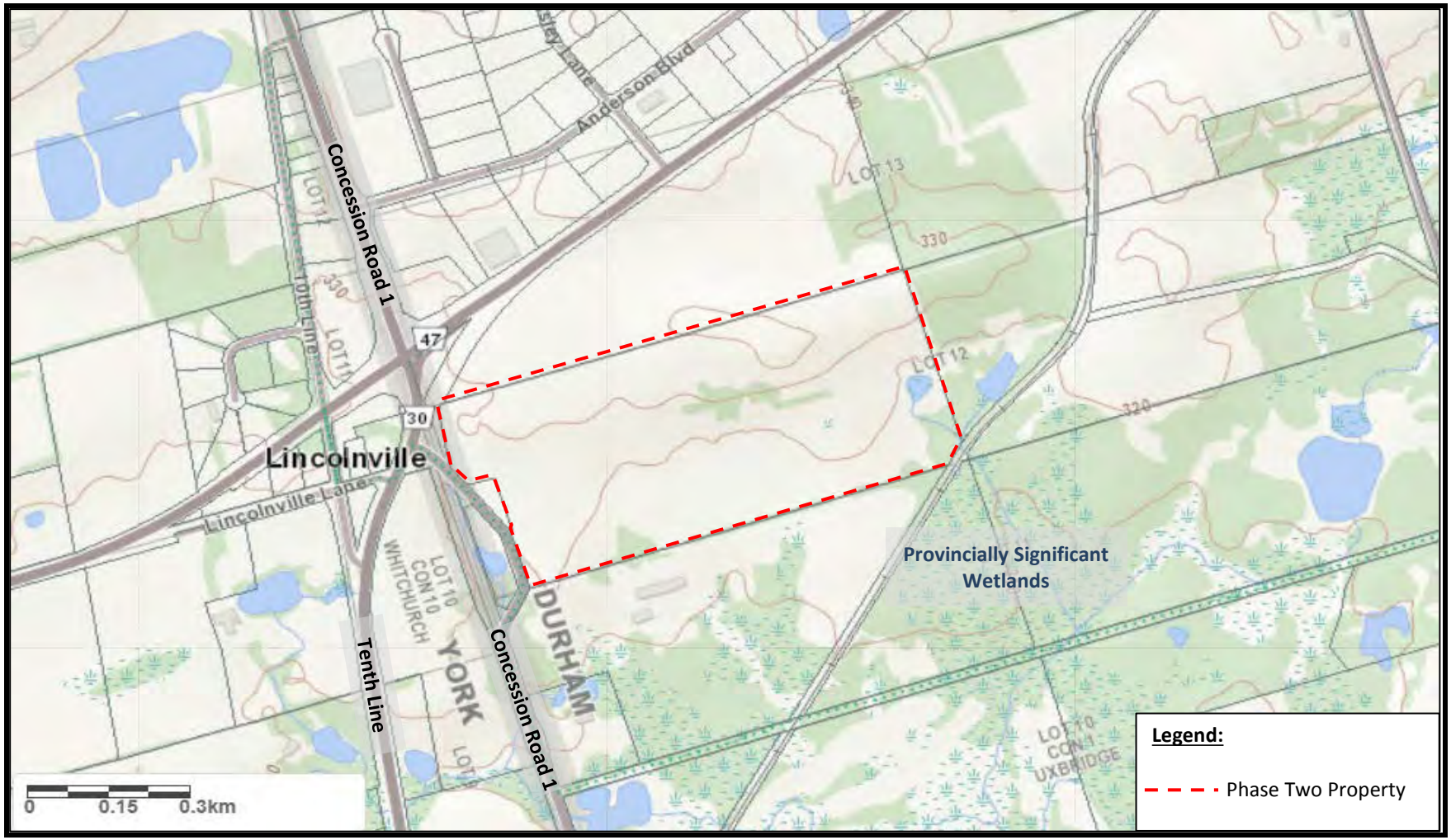
Scale:
1:50000
Coordinate System
NAD 1983 UTM

Grainboys Holdings Inc.
3469 Con Rd 1, Township of Uxbridge
Phase Two ESA

11197394-01
July 2019

Vicinity Plan

FIGURE 1



Source: Ministry of Natural Resources and Forestry. © Queen's Printer for Ontario, 2019.

Scale:
Refer to Scale Bar
Coordinate System:
NAD 1983 UTM Zone 17

Grainboys Holdings Inc.
3469 Con Rd 1, Township of Uxbridge
Phase Two ESA

11197394-01
July 2019

Property Plan

FIGURE 2

Source: Ministry of Natural Resources and Forestry. © Queen's Printer for Ontario, 2019.

Scale:
Refer to Scale Bar
Coordinate System:
NAD 1983 UTM Zone 17

Grainboys Holdings Inc.
3469 Con Rd 1, Township of Uxbridge
Phase Two ESA

11197394-01
July 2019

Plot Plan

FIGURE 3

Source: Ministry of Natural Resources and Forestry. © Queen's Printer for Ontario, 2019.

Scale:
Refer to Scale Bar
Coordinate System:
NAD 1983 UTM Zone 17

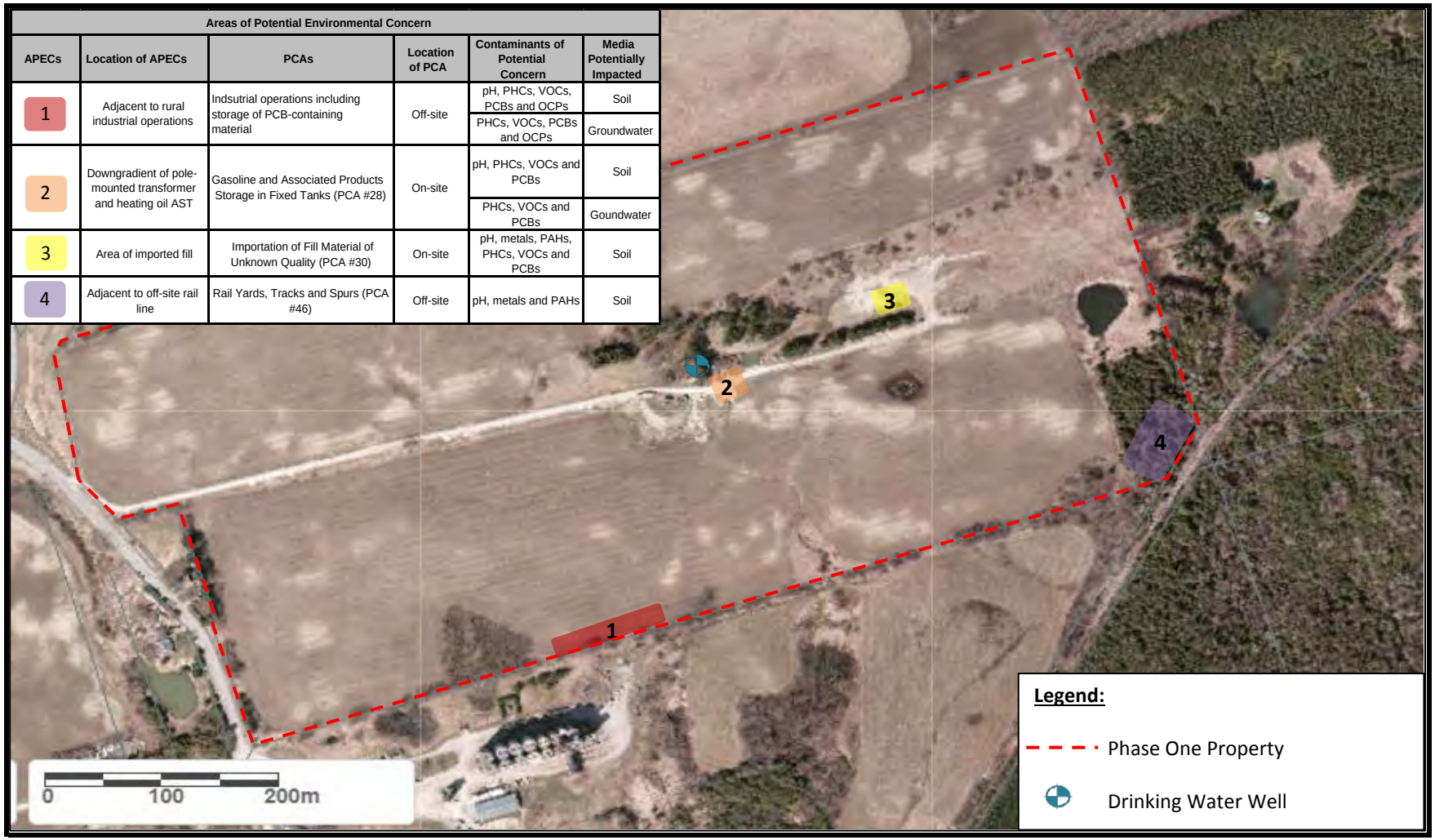
Grainboys Holdings Inc.
3469 Con Rd 1, Township of Uxbridge
Phase Two ESA

11197394-01
July 2019

CSM - Study Area

FIGURE 4

Areas of Potential Environmental Concern					
APECs	Location of APECs	PCAs	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
1	Adjacent to rural industrial operations	Indsutrial operations including storage of PCB-containing material	Off-site	pH, PHCs, VOCs, PCBs and OCPs	Soil
				PHCs, VOCs, PCBs and OCPs	Groundwater
2	Downgradient of pole-mounted transformer and heating oil AST	Gasoline and Associated Products Storage in Fixed Tanks (PCA #28)	On-site	pH, PHCs, VOCs and PCBs	Soil
				PHCs, VOCs and PCBs	Goundwater
3	Area of imported fill	Importation of Fill Material of Unknown Quality (PCA #30)	On-site	pH, metals, PAHs, PHCs, VOCs and PCBs	Soil
4	Adjacent to off-site rail line	Rail Yards, Tracks and Spurs (PCA #46)	Off-site	pH, metals and PAHs	Soil



Source: Ministry of Natural Resources and Forestry. © Queen's Printer for Ontario, 2019. Note: Boundaries are not a legal survey.

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Coordinate System:
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3469 Con Rd 1, Township of Uxbridge
Phase Two ESA

11197394-01
July 2019

CSM - Property

FIGURE 5

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3469 Con Rd 1, Township of Uxbridge
Phase Two ESA

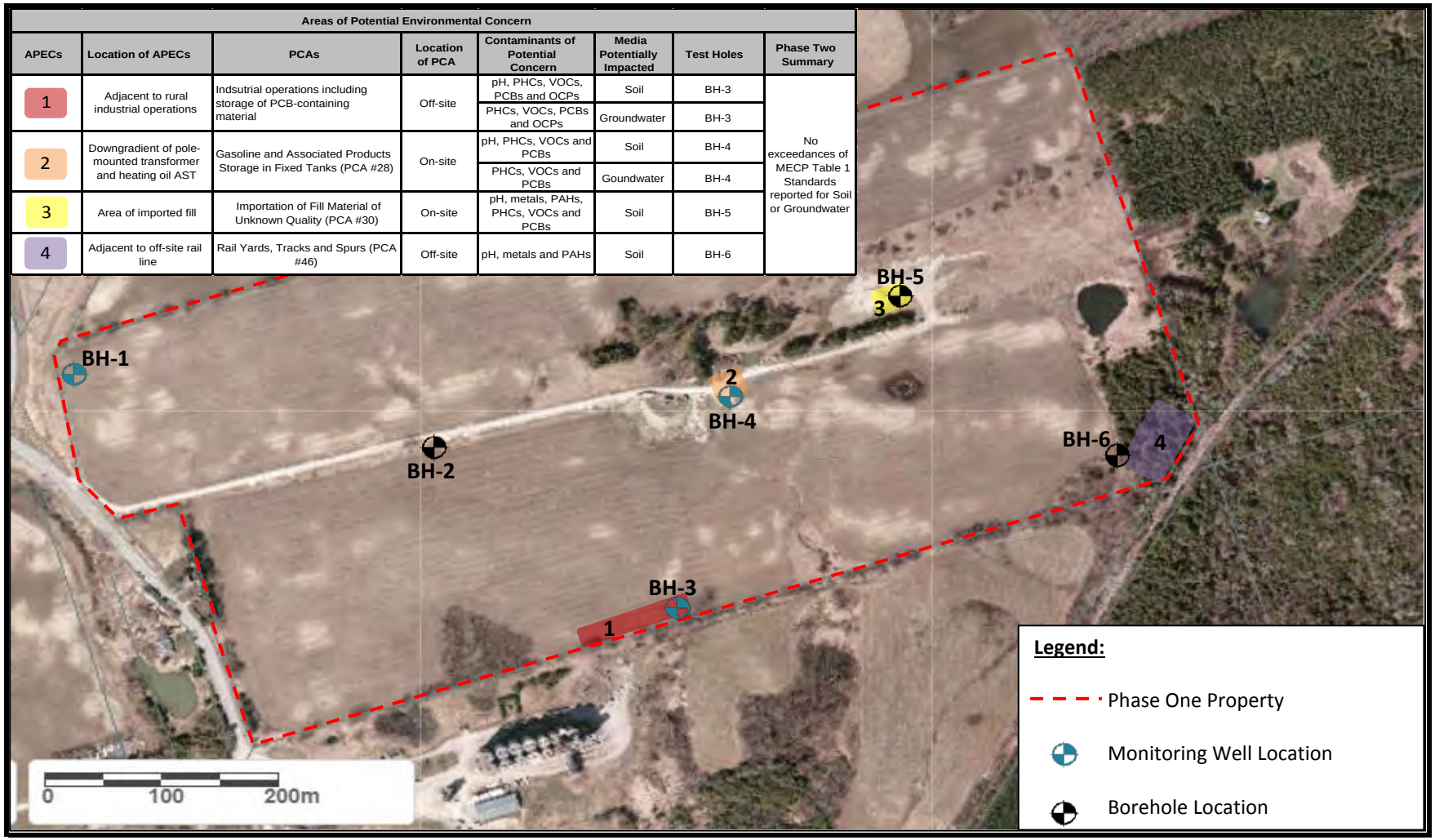
11197394-01
July 2019

Test Hole Plan

FIGURE 6

Areas of Potential Environmental Concern

APECs	Location of APECs	PCAs	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted	Test Holes	Phase Two Summary
1	Adjacent to rural industrial operations	Indsutrial operations including storage of PCB-containing material	Off-site	pH, PHCs, VOCs, PCBs and OCPs	Soil	BH-3	No exceedances of MECP Table 1 Standards reported for Soil or Groundwater
				PHCs, VOCs, PCBs and OCPs	Groundwater	BH-3	
2	Downgradient of pole-mounted transformer and heating oil AST	Gasoline and Associated Products Storage in Fixed Tanks (PCA #28)	On-site	pH, PHCs, VOCs and PCBs	Soil	BH-4	
				PHCs, VOCs and PCBs	Goundwater	BH-4	
3	Area of imported fill	Importation of Fill Material of Unknown Quality (PCA #30)	On-site	pH, metals, PAHs, PHCs, VOCs and PCBs	Soil	BH-5	
4	Adjacent to off-site rail line	Rail Yards, Tracks and Spurs (PCA #46)	Off-site	pH, metals and PAHs	Soil	BH-6	



Source: Ministry of Natural Resources and Forestry. © Queen's Printer for Ontario, 2019. Note: Boundaries are not a legal survey.

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Grainboys Holdings Inc.
3469 Con Rd 1, Township of Uxbridge
Phase Two ESA

11197394-01
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Phase Two CSM

FIGURE 7

Appendix E
Sampling and Analysis Plan

APPENDIX E: SAMPLING AND ANALYSIS PLAN

PROJECT NO.: 11197394-01
CLIENT: Grainboys Holdings Inc.
PROPERTY: 3469 Concession Road 1, Peterborough, ON

APEC	RATIONALE	INVESTIGATION TYPE	SAMPLE IDENTIFICATION	ESTIMATED INVESTIGATION DEPTH	SAMPLE MEDIA	LABORATORY ANALYSIS	PHYSICAL IMPEDIMENTS	SAMPLING GUIDELINES
APEC 1 – Rural Industrial Operations on Adjacent Lot	Off-Site PCA: confirm soil and groundwater quality in area adjacent to rural industrial operations.	Borehole	BH-3	Boreholes to be advanced to approximately 3.0 m. Monitoring well installed.	Soil	pH, PHCs, VOCs PCBs and OCPs	No drilling / excavation within building footprints or buried utility corridors.	Sample from below surface soil
		Monitoring Well	BH-3		Groundwater	PHCs, VOCs, PCBs and OCPs		Purge three well volumes prior to sampling with low-flow sampling equipment.
APEC 2 – Gasoline and Associated Products Storage in Fixed Tanks (PCA #28)	On-Site PCA: confirm soil and groundwater quality down gradient of heating oil AST and pole-mounted transformer.	Borehole	BH-4		Soil	pH, PHCs, VOCs and PCBs		Sample from highest organic vapour reading or at the water table
		Monitoring Well	BH-4		Groundwater	PHCs, VOCs and PCBs		Purge three well volumes prior to sampling with low-flow sampling equipment.
APEC 3 – Importation of Fill Material of Unknown Quality (PCA #30)	On-Site PCA: confirm soil quality in area of deposited vacuum truck waste.	Borehole	BH-5	Boreholes to be advanced to approximately 3.0 m.	Soil	pH, metals, PAHs, PHCs, VOCs and PCBs		Shallow soil or from areas of fill, discoloured soil etc.
APEC 4 – Rail Yards, Tracks and Spurs (PCA #28)	On-Site PCA: confirm soil quality in area of off-site rail line.	Borehole	BH-6		Soil	pH, metals and PAHs		Shallow soil or from areas of fill, discoloured soil etc.

Notes:
Refer to Test Hole Plan for locations. Refer to Proposal for details.
Samples to be submitted to Caduceon Environmental Laboratories. Standard turnaround time to meet project requirements.
If installed, groundwater monitoring wells or piezometers to be developed and purged minimum of 3 times prior to sampling. Sample MDLs to meet MECP Table 1 Standards.
If Fill is encountered, confirm quality of fill (metals and pH testing)

1) PHCs and BTEX/VOCs – select soil sample with highest PID reading and/or suspected contamination
2) All soil samples should be collected from at or above water table unless DNAPLs are suspected
3) If impact is encountered, one soil sample should be collected below any "impacted" sample for vertical delineation

Follow GHD collection procedures for soil and groundwater samples including methanol preservative method for soil BTEX/VOCs and PHC F1 analysis

Appendix F
Subsurface Exploration Data

REFERENCE No.: 11197394-01 ENCLOSURE No.: F-1

BOREHOLE No.: BH-1
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Grainboys Holdings Inc.

PROJECT: 3469 Concession Road 1, Township of Uxbridge

LOGGED BY: E. Wierdsma DATE: 26 June 2019

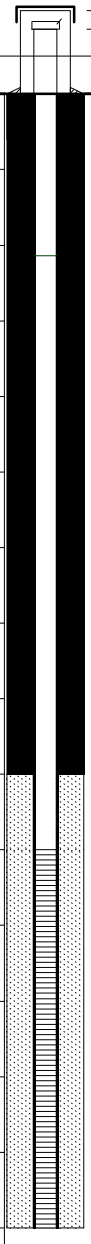
DRILLING COMPANY: Strong Soil Search METHOD: Solid Stem Augers and Split Spoons

NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth ft	Depth m	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Vapours ppm	Penetration Index N	Shear test (Cu) △ Field □ Lab; Sensitivity (S); ○ Water content (%); W_p W_l Atterberg limits (%); × "N" Value (blows / 12 in.-30 cm) ◆ RQD ◎ CONE	COMMENTS
		0.0		GROUND SURFACE						10 20 30 40 50 60 70 80 90	
1	0.5			**SILTY SAND** - Dark Brown Silty Sand, Moist, Compact	SS-1	60	18	0	5	× ○	Well was dry on 07/04/2019
		0.61		**TILL** - Light Brown Sandy Silt with Gravel and Clay, Moist, Compact							
3	1.0				SS-2	90	11	0	9	× ○	
5	1.5										
6	2.0				SS-3	90	14	0	14	⊠	
8	2.5				SS-4	100	11	0	22	○ ×	
10	3.0										
11	3.5				SS-5	70	12	0	18	○ ×	
12		3.66		Occasional Cobbles							
13	4.0										
14											
15	4.5										
16					SS-6	100	7	0	38	○ ×	
	5.0	5.03		END OF BOREHOLE							End of Borehole open and dry after drilling
17											



BOREHOLE LOG ENVIRO 11197394-01-FLD-BH LOGS EW JK.GPJ GEOLOGIC.GDT 11/7/19

REFERENCE No.: 11197394-01 ENCLOSURE No.: F-2

BOREHOLE No.: BH-2
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Grainboys Holdings Inc.

PROJECT: 3469 Concession Road 1, Township of Uxbridge

LOGGED BY: E. Wierdsma DATE: 26 June 2019

DRILLING COMPANY: Strong Soil Search METHOD: Solid Stem Augers and Split Spoons

NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth ft	Depth m	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Vapours ppm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 12 in.-30 cm) / △ Field / □ Lab / RQD / CONE	COMMENTS
		0.0		GROUND SURFACE						10 20 30 40 50 60 70 80 90	
		0.15		**TOPSOIL** - Topsoil with Rootlets							
1				**SILTY SAND** - Dark Brown Silty Sand, Moist, Compact	SS-1	60	9	0	23		
	0.5										
2		0.76									
				TILL - Light Brown Sandy Silt with Gravel and Clay, Moist, Loose							
3	1.0				SS-2	60	22	0	7		
4											
5	1.5										
6					SS-3	75	23	0	7		
	2.0										
7											
8	2.5				SS-4	60	25	0	7		
9											
10	3.0	3.05		Mottling							
					SS-5	75	10	0	14		
11	3.5										
12											
13	4.0										
14											
15	4.5	4.57		Wet							
16					SS-6	100	11	0	15		Borehole open to 4.6 m after drilling. Water up to 4.3 m after drilling.
	5.0										
17		5.18		END OF BOREHOLE							

BOREHOLE LOG ENVIRO 11197394-01-FLD-BH LOGS EW JK.GPJ GEOLOGIC.GDT 11/7/19

REFERENCE No.: 11197394-01 ENCLOSURE No.: F-3

BOREHOLE No.: BH-3
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Grainboys Holdings Inc.

PROJECT: 3469 Concession Road 1, Township of Uxbridge

LOGGED BY: E. Wierdsma DATE: 26 June 2019

DRILLING COMPANY: Strong Soil Search METHOD: Solid Stem Augers and Split Spoons

NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth ft	Depth m	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Vapours ppm	Penetration Index N
	0.0			GROUND SURFACE					
				SILTY SAND - Dark Brown Silty Sand, Moist, Loose	SS-1	60	29	0	4
	0.5	0.61		**TILL** - Light Brown Sandy Silt with Gravel and Clay, Moist, Compact					
	1.0				SS-2	100	15	0	8
	1.5				SS-3	100	13	0	20
	2.0								
	2.5	2.44		Grey	SS-4	100	15	0	20
	3.0				AS-5		14	0	
	3.5								
	4.0	3.96		**SAND** - Grey Fine Sand, Wet, Compact					
	4.5				SS-6	100	18	0	11
	5.0	5.03		END OF BOREHOLE					

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)
× "N" Value (blows / 12 in.-30 cm) ◎ RQD ◆ CONE

10 20 30 40 50 60 70 80 90

COMMENTS

— m
— 1.00 m

Water level within stick-up on 07/04/2019

Borehole open after drilling

BOREHOLE LOG ENVIRO 11197394-01-FLD-BH LOGS EW JK.GPJ GEOLOGIC.GDT 11/7/19

REFERENCE No.: 11197394-01 ENCLOSURE No.: F-4

BOREHOLE No.: BH-4
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Grainboys Holdings Inc.

PROJECT: 3469 Concession Road 1, Township of Uxbridge

LOGGED BY: E. Wierdsma DATE: 26 June 2019

DRILLING COMPANY: Strong Soil Search METHOD: Solid Stem Augers and Split Spoons

NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth (ft)	Depth (m)	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Vapours ppm	Penetration Index N
		0.0		GROUND SURFACE					
1		0.30		**FILL** - Brown Sand and Gravel, Moist, Compact	SS-1	50	14	0	9
	0.5	0.61		**SILTY SAND** - Grey Silty Sand with Gravel, Moist, Compact					
2				**TILL** - Light Brown Sandy with Gravel and Clay, Moist, Compact					
3	1.0				SS-2	40	14	0	8
4									
5	1.5				SS-3	60	13	0	15
6									
7	2.0	2.29		Mottling					
8	2.5				SS-4	40	12	0	34
9									
10	3.0								
11		3.35		Grading Grey	SS-5	100	8	0	39
12	3.5	3.66		Occasional Cobbles					
		3.81		Wet					
13	4.0				SS-6	70	10	0	77
14									
15	4.5				SS-7	100	10	0	100+
16									
	5.0	5.03		END OF BOREHOLE					
17									

Shear test (Cu) △ Field
Sensitivity (S) □ Lab
○ Water content (%)
W_p W_l Atterberg limits (%)
× "N" Value (blows / 12 in.-30 cm) ◆ RQD ◎ CONE

10 20 30 40 50 60 70 80 90

COMMENTS

— m
— 0.90 m

Water Level - 2.09m on 7/04/2019

Borehole open after drilling.

BOREHOLE LOG ENVIRO 11197394-01-FLD-BH LOGS EW JK.GPJ GEOLOGIC.GDT 11/7/19

REFERENCE No.: 11197394-01 ENCLOSURE No.: F-5

BOREHOLE No.: BH-5
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Grainboys Holdings Inc.

PROJECT: 3469 Concession Road 1, Township of Uxbridge

LOGGED BY: E. Wierdsma DATE: 26 June 2019

DRILLING COMPANY: Strong Soil Search METHOD: Solid Stem Augers and Split Spoons

NOTES:

LEGEND

- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth ft	Depth m	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Vapours ppm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (%) / "N" Value (blows / 12 in.-30 cm) / △ Field / □ Lab / ◆ RQD / ◎ CONE	COMMENTS
		0.0		GROUND SURFACE						10 20 30 40 50 60 70 80 90	
1	0.5			**FILL** - Brown Silty Sand with Gravel, Moist, Compact	SS-1	60	11	0	12		
3	1.0				SS-2	60	17	0	5		
4		1.22		Dark Brown Sandy Silt							
5	1.5	1.52		with Clay, trace Gravel	SS-3	90	12	0	6		**BH-5, SS-3** 3% Gravel 40% Sand 57% Silt and Clay
7	2.0	2.29		**TILL** - Light Brown Sandy Silt with Gravel and Clay, Mottling, Moist, Compact	SS-4	100	12	0	23		
10	3.0				SS-5	100	11	0	29		
12	3.5	3.66		END OF BOREHOLE							Borehole open after drilling.
13	4.0										
15	4.5										
16	5.0										
17											

BOREHOLE LOG ENVIRO 11197394-01-FLD-BH LOGS EW JK.GPJ GEOLOGIC.GDT 11/7/19

REFERENCE No.: 11197394-01 ENCLOSURE No.: F-6

BOREHOLE No.: BH-6
ELEVATION: Existing Grade

BOREHOLE REPORT

Page: 1 of 1

CLIENT: Grainboys Holdings Inc.

PROJECT: 3469 Concession Road 1, Township of Uxbridge

LOGGED BY: E. Wierdsma DATE: 26 June 2019

DRILLING COMPANY: Strong Soil Search METHOD: Solid Stem Augers and Split Spoons

NOTES:

LEGEND

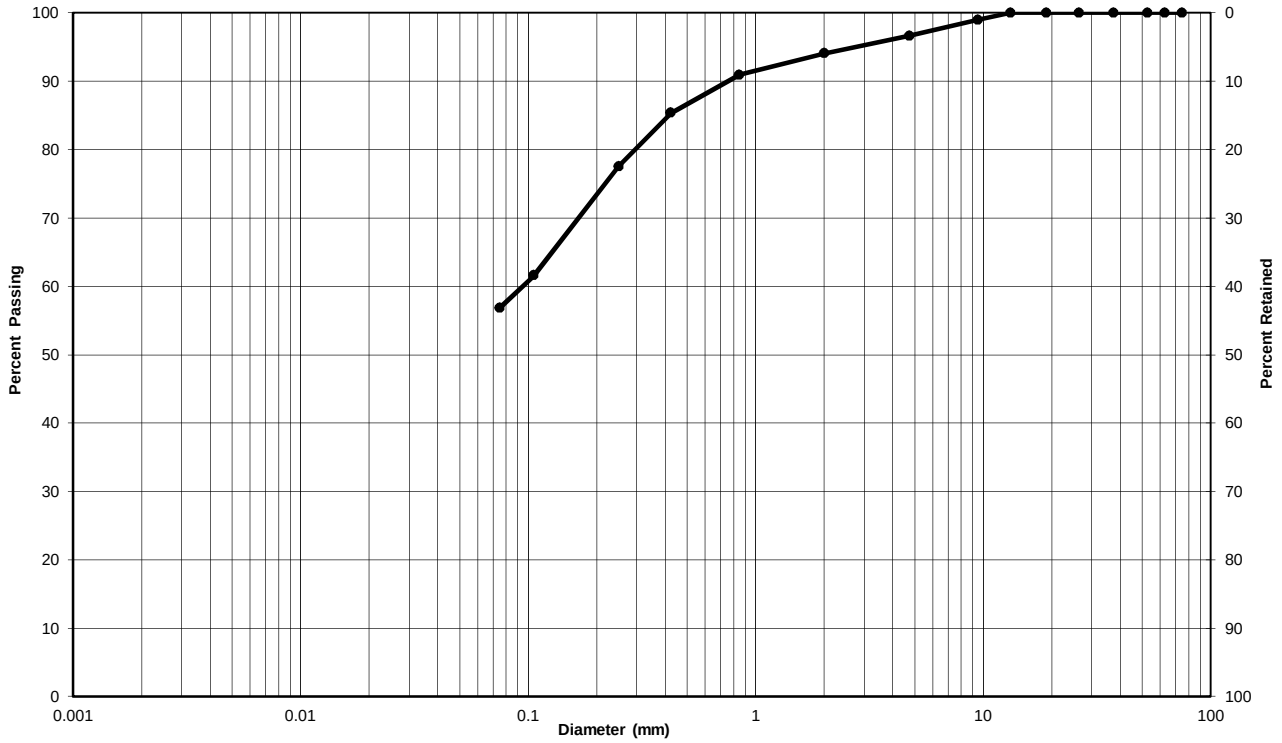
- SS - SPLIT SPOON
- AS - AUGER SAMPLE
- ST - SHELBY TUBE
- CS - CORE SAMPLE
- ▼ - WATER LEVEL

Depth ft	Depth m	m Below Existing Grade	Stratigraphy	DESCRIPTION OF SOIL AND BEDROCK	Type and Number	Recovery %	Moisture Content %	Vapours ppm	Penetration Index N	Shear test (Cu) / Sensitivity (S) / Water content (%) / Atterberg limits (W_P, W_l) / "N" Value (blows / 12 in.-30 cm) / RQD / CONE — △ Field □ Lab	COMMENTS
		0.0		GROUND SURFACE						10 20 30 40 50 60 70 80 90	
1	0.5			**SILTY SAND** - Dark Brown Silty Sand, Loose, Moist	SS-1	40	28	0	3		
2		0.61		**TILL** - Light Brown Sandy Silt with Gravel and Clay, Mottling, Moist, Compact							
3	1.0				SS-2	90	12	0	9		
4											
5	1.5				SS-3	90	13	0	19		**BH-6, SS-3** 8% Gravel 26% Sand 66% Silt and Clay
6											
7	2.0										
8		2.44		Grading Grey	SS-4	100	13	0	18		
9	2.5										
10											
11	3.0				SS-5	100	14	0	27		
12	3.5	3.51		END OF BOREHOLE							End of Borehole open and dry
13											
14	4.0										
15											
16	4.5										
17											
	5.0										

BOREHOLE LOG ENVIRO 11197394-01-FLD-BH LOGS EW JK.GPJ GEOLOGIC.GDT 11/7/19

Particle-Size Analysis of Soils (Geotechnical) (USCS) (ASTM D422)

Client:	Grainboys Holdings Inc.	**Lab no.:**	SS-19-52
Project/Site:	3469 Concession Rd. 1, Township of Uxbridge	**Project no.:**	11197394-01
Borehole no.:	BH-5	Sample no.:	SS-3
Depth:	1.5-2.1m	Enclosure:	F-7



Clay & Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse
Unified Soil Classification System					

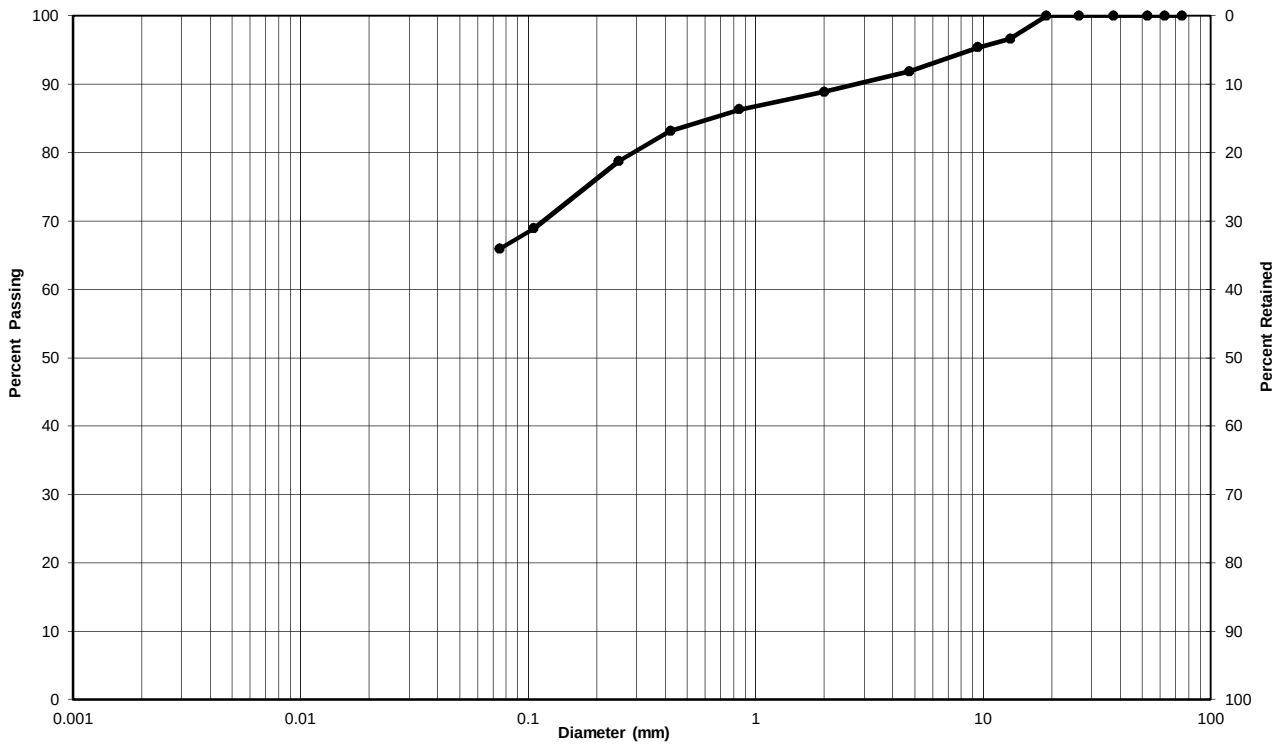
Soil Description	Gravel	Sand	Clay & Silt
	3	40	57

Remarks:

Performed by:	Josh Sullivan	**Date:**	July 10, 2019
Verified by:		**Date:**	July 10, 2019

Particle-Size Analysis of Soils (Geotechnical) (USCS) (ASTM D422)

Client:	Grainboys Holdings Inc.	**Lab no.:**	SS-19-52
Project/Site:	3469 Concession Rd 1, Township of Uxbridge	**Project no.:**	11197394-01
Borehole no.:	BH-6	Sample no.:	SS-3
Depth:	1.5-2.1m	Enclosure:	F-8



Clay & Silt	Sand			Gravel	
	Fine	Medium	Coarse	Fine	Coarse
Unified Soil Classification System					

Soil Description	Gravel	Sand	Clay & Silt
	8	26	66

Remarks:

Performed by:	Josh Sullivan	**Date:**	July 10, 2019
Verified by:		**Date:**	July 10, 2019

Appendix G
Certificates of Chemical Analysis

CADUCEON™
ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G82532 **REPORT No. B19-19304 (i)**

Report To:

GHD Limited
455 Phillip Street,
Waterloo Ontario N2L 3X2 Canada
Attention: Eric Wierdsma

Caduceon Environmental Laboratories
110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
pH	2	Richmond Hill	ABL	05-Jul-19	A-pH-02 (rh)	MOEE3530
Chromium (VI)	2	Holly Lane	LMG	03-Jul-19	D-CRVI-02 (o)	EPA7196A
Mercury	2	Holly Lane	PBK	04-Jul-19	D-HG-01 (o)	EPA 7471A
Boron - HWS	2	Holly Lane	AHM	04-Jul-19	D-HWE s	MOE3470
Metals - ICP-OES	2	Holly Lane	AHM	04-Jul-19	D-ICP-02 (o)	EPA 6010
Metals - ICP-MS	2	Holly Lane	TPR	04-Jul-19	D-ICPMS-01 (o)	EPA 6020

µg/g = micrograms per gram (parts per million) and is equal to mg/Kg
F1 C6-C10 hydrocarbons in µg/g, (F1-btex if requested)
F2 C10-C16 hydrocarbons in µg/g, (F2-napth if requested)
F3 C16-C34 hydrocarbons in µg/g, (F3-pah if requested)
F4 C34-C50 hydrocarbons in µg/g
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
Any deviations from the method are noted and reported for any particular sample.
nC6 and nC10 response factor is within 30% of response factor for toluene:
nC10,nC16 and nC34 response factors within 10% of each other:
C50 response factors within 70% of nC10+nC16+nC34 average:
Linearity is within 15%:
All results expressed on a dry weight basis.
Unless otherwise noted all chromatograms returned to baseline by the retention time of nC50.

Unless otherwise noted all extraction, analysis, QC requirements and limits for holding time were met.
If analyzed for F4 and F4G they are not to be summed but the greater of the two numbers are to be used in application to the CWS PHC
QC will be made available upon request.

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

Christine Burke
Lab Manager

R.L. = Reporting Limit
Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

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455 Phillip Street,
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Attention: Eric Wierdsma

Caduceon Environmental Laboratories
110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

	Client I.D.		BH-3, SS-2	BH-6, SS-4	BH-6, SS-2	BH-5, SS-2	O. Reg. 153	
	Sample I.D.		B19-19304-1	B19-19304-2	B19-19304-3	B19-19304-4	Tbl. 1 - Agricultural	Tbl. 1 - All
	Date Collected		26-Jun-19	26-Jun-19	26-Jun-19	26-Jun-19		
Parameter	**Units**	**R.L.**						
pH @25°C	pH Units		7.71	7.89				
Antimony	µg/g	0.5			< 0.5	< 0.5	1	1.3
Arsenic	µg/g	0.5			1.9	1.7	11	18
Barium	µg/g	1			46	51	210	220
Beryllium	µg/g	0.2			0.2	0.2	2.5	2.5
Boron	µg/g	0.5			12.3	10.3	36	36
Boron (HWS)	µg/g	0.02			0.19	0.31		
Cadmium	µg/g	0.5			< 0.5	< 0.5	1	1.2
Chromium	µg/g	1			14	15	67	70
Chromium (VI)	µg/g	0.2			< 0.2	< 0.2	0.66	0.66
Cobalt	µg/g	1			6	5	19	21
Copper	µg/g	1			11	8	62	92
Lead	µg/g	5			6	9	45	120
Mercury	µg/g	0.005			0.015	0.019	0.16	0.27
Molybdenum	µg/g	1			< 1	< 1	2	2
Nickel	µg/g	1			14	11	37	82
Selenium	µg/g	0.5			< 0.5	< 0.5	1.2	1.5
Silver	µg/g	0.2			< 0.2	< 0.2	0.5	0.5
Thallium	µg/g	0.1			0.1	< 0.1	1	1
Uranium	µg/g	0.1			0.4	0.4	1.9	2.5
Vanadium	µg/g	1			22	27	86	86
Zinc	µg/g	3			31	39	290	290

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

Christine Burke
Lab Manager

R.L. = Reporting Limit
Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

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455 Phillip Street,
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Attention: Eric Wierdsma

Caduceon Environmental Laboratories
110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

Summary of Exceedances

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

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Lab Manager

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G82532 **REPORT No. B19-19304 (ii)**

Report To:

GHD Limited
455 Phillip Street,
Waterloo Ontario N2L 3X2 Canada
Attention: Eric Wierdsma

Caduceon Environmental Laboratories
110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
% Moisture	3	Richmond Hill	FAL	28-Jun-19	A-% moisture RH	
PHC(F2-F4)	3	Kingston	KPR	02-Jul-19	C-PHC-S-001 (k)	CWS Tier 1
VOC's	3	Richmond Hill	FAL	28-Jun-19	C-VOC-02 (rh)	EPA 8260
PHC(F1)	3	Richmond Hill	FAL	28-Jun-19	C-VPHS-01 (rh)	CWS Tier 1

µg/g = micrograms per gram (parts per million) and is equal to mg/Kg
F1 C6-C10 hydrocarbons in µg/g, (F1-btex if requested)
F2 C10-C16 hydrocarbons in µg/g, (F2-napth if requested)
F3 C16-C34 hydrocarbons in µg/g, (F3-pah if requested)
F4 C34-C50 hydrocarbons in µg/g
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
Any deviations from the method are noted and reported for any particular sample.
nC6 and nC10 response factor is within 30% of response factor for toluene:
nC10,nC16 and nC34 response factors within 10% of each other:
C50 response factors within 70% of nC10+nC16+nC34 average:
Linearity is within 15%:
All results expressed on a dry weight basis.
Unless otherwise noted all chromatograms returned to baseline by the retention time of nC50.

Unless otherwise noted all extraction, analysis, QC requirements and limits for holding time were met.
If analyzed for F4 and F4G they are not to be summed but the greater of the two numbers are to be used in application to the CWS PHC
QC will be made available upon request.

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

Christine Burke
Lab Manager

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Test methods may be modified from specified reference method unless indicated by an *
Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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Caduceon Environmental Laboratories
110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

	Client I.D.		BH-3, SS-2	BH-5, SS-2	BH-4, SS-1		O. Reg. 153	
	Sample I.D.		B19-19304-1	B19-19304-4	B19-19304-5		Tbl. 1 - Agricultural	Tbl. 1 - All
	Date Collected		26-Jun-19	26-Jun-19	26-Jun-19			
Parameter	**Units**	**R.L.**						
Acetone	µg/g	0.5	< 0.5	< 0.5	< 0.5		0.5	0.5
Benzene	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.02	0.02
Bromodichloromethane	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Bromoform	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Bromomethane	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Carbon Tetrachloride	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Monochlorobenzene (Chlorobenzene)	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Chloroform	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Dibromochloromethane	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Dichlorobenzene,1,2-	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Dichlorobenzene,1,3-	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Dichlorobenzene,1,4-	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Dichlorodifluoromethane	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Dichloroethane,1,1-	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Dichloroethane,1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Dichloroethylene,1,1-	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Dichloroethene, cis-1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Dichloroethene, trans-1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Dichloropropane,1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Dichloropropene, cis-1,3-	µg/g	0.02	< 0.02	< 0.02	< 0.02			
Dichloropropene, trans-1,3-	µg/g	0.02	< 0.02	< 0.02	< 0.02			

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

Christine Burke
Lab Manager

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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G82532 **REPORT No. B19-19304 (ii)**

Report To:

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Attention: Eric Wierdsma

Caduceon Environmental Laboratories
110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

	Client I.D.		BH-3, SS-2	BH-5, SS-2	BH-4, SS-1		O. Reg. 153	
	Sample I.D.		B19-19304-1	B19-19304-4	B19-19304-5		Tbl. 1 - Agricultural	Tbl. 1 - All
	Date Collected		26-Jun-19	26-Jun-19	26-Jun-19			
Parameter	**Units**	**R.L.**						
Dichloropropene 1,3-cis+trans	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Ethylbenzene	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Dibromoethane,1,2-(Ethylene Dibromide)	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Hexane	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Methyl Ethyl Ketone	µg/g	0.5	< 0.5	< 0.5	< 0.5		0.5	0.5
Methyl Isobutyl Ketone	µg/g	0.5	< 0.5	< 0.5	< 0.5		0.5	0.5
Methyl-t-butyl Ether	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Dichloromethane (Methylene Chloride)	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Styrene	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Tetrachloroethane,1,1,1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Tetrachloroethane,1,1,2,2-	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Tetrachloroethylene	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Toluene	µg/g	0.2	< 0.2	< 0.2	< 0.2		0.2	0.2
Trichloroethane,1,1,1-	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Trichloroethane,1,1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.05
Trichloroethylene	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.05	0.05
Trichlorofluoromethane	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.05	0.25
Vinyl Chloride	µg/g	0.02	< 0.02	< 0.02	< 0.02		0.02	0.02
Xylene, m,p-	µg/g	0.03	< 0.03	< 0.03	< 0.03			
Xylene, o-	µg/g	0.03	< 0.03	< 0.03	< 0.03			

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

Christine Burke
Lab Manager

R.L. = Reporting Limit
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Site Analyzed=K-Kingston,W-Windsor,O-Ottawa,R-Richmond Hill,B-Barrie

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G82532 **REPORT No. B19-19304 (ii)**

Report To:

GHD Limited
455 Phillip Street,
Waterloo Ontario N2L 3X2 Canada
Attention: Eric Wierdsma

Caduceon Environmental Laboratories
110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

	Client I.D.		BH-3, SS-2	BH-5, SS-2	BH-4, SS-1		O. Reg. 153	
	Sample I.D.		B19-19304-1	B19-19304-4	B19-19304-5		Tbl. 1 - Agricultural	Tbl. 1 - All
	Date Collected		26-Jun-19	26-Jun-19	26-Jun-19			
Parameter	**Units**	**R.L.**						
Xylene, m,p,o-	µg/g	0.03	< 0.03	< 0.03	< 0.03		0.05	0.05
PHC F1 (C6-C10)	µg/g	10	< 10	< 10	< 10		17	25
PHC F2 (>C10-C16)	µg/g	5	< 5	< 5	< 5		10	10
PHC F3 (>C16-C34)	µg/g	10	88	15	54		240	240
PHC F4 (>C34-C50)	µg/g	10	22	< 10	14		120	120
% moisture	%		12.7	15.2	16.4			

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
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DATE RECEIVED: 28-Jun-19
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SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

Summary of Exceedances

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

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DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
SVOC	2	Kingston	sge	03-Jul-19	C-NAB-S-001 (k)	EPA 8270

µg/g = micrograms per gram (parts per million) and is equal to mg/Kg
F1 C6-C10 hydrocarbons in µg/g, (F1-btex if requested)
F2 C10-C16 hydrocarbons in µg/g, (F2-napth if requested)
F3 C16-C34 hydrocarbons in µg/g, (F3-pah if requested)
F4 C34-C50 hydrocarbons in µg/g
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
Any deviations from the method are noted and reported for any particular sample.
nC6 and nC10 response factor is within 30% of response factor for toluene:
nC10,nC16 and nC34 response factors within 10% of each other:
C50 response factors within 70% of nC10+nC16+nC34 average:
Linearity is within 15%:
All results expressed on a dry weight basis.
Unless otherwise noted all chromatograms returned to baseline by the retention time of nC50.

Unless otherwise noted all extraction, analysis, QC requirements and limits for holding time were met.
If analyzed for F4 and F4G they are not to be summed but the greater of the two numbers are to be used in application to the CWS PHC
QC will be made available upon request.

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

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DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

	Client I.D.		BH-6, SS-2	BH-5, SS-2			O. Reg. 153	
	Sample I.D.		B19-19304-3	B19-19304-4			Tbl. 1 - Agricultural	Tbl. 1 - All
	Date Collected		26-Jun-19	26-Jun-19				
Parameter	**Units**	**R.L.**						
Acenaphthene	µg/g	0.05	< 0.05	< 0.05			0.05	0.072
Acenaphthylene	µg/g	0.05	< 0.05	< 0.05			0.093	0.093
Anthracene	µg/g	0.05	< 0.05	< 0.05			0.05	0.16
Benzo(a)anthracene	µg/g	0.05	< 0.05	< 0.05			0.095	0.36
Benzo(a)pyrene	µg/g	0.05	< 0.05	< 0.05			0.05	0.3
Benzo(b)fluoranthene	µg/g	0.05	< 0.05	< 0.05			0.3	0.47
Benzo(b+k)fluoranthene	µg/g	0.05	< 0.05	< 0.05				
Benzo(g,h,i)perylene	µg/g	0.05	< 0.05	< 0.05			0.2	0.68
Benzo(k)fluoranthene	µg/g	0.05	< 0.05	< 0.05			0.05	0.48
Chrysene	µg/g	0.05	< 0.05	< 0.05			7.8	2.8
Dibenzo(a,h)anthracene	µg/g	0.05	< 0.05	< 0.05			0.1	0.1
Fluoranthene	µg/g	0.05	< 0.05	0.06			0.24	0.56
Fluorene	µg/g	0.05	< 0.05	< 0.05			0.05	0.12
Indeno(1,2,3,-cd)pyrene	µg/g	0.05	< 0.05	< 0.05			0.11	0.23
Methylnaphthalene,1-	µg/g	0.05	< 0.05	< 0.05			0.05	0.59
Methylnaphthalene,2-	µg/g	0.05	< 0.05	< 0.05			0.05	0.59
Methylnaphthalene 2-(1-)	µg/g	0.05	< 0.05	< 0.05			0.05	0.59
Naphthalene	µg/g	0.05	< 0.05	< 0.05			0.05	0.09
Phenanthrene	µg/g	0.05	< 0.05	< 0.05			0.19	0.69
Pyrene	µg/g	0.05	< 0.05	0.05			0.19	1

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
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Christine Burke
Lab Manager

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Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

Summary of Exceedances

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

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DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
Comment	3	Default Site	CS	03-Jul-19	C-Arochlor Comment	-
OC Pesticides	1	Kingston	CS	03-Jul-19	C-PESTCL-01 K	EPA 8080

µg/g = micrograms per gram (parts per million) and is equal to mg/Kg
F1 C6-C10 hydrocarbons in µg/g, (F1-btex if requested)
F2 C10-C16 hydrocarbons in µg/g, (F2-napth if requested)
F3 C16-C34 hydrocarbons in µg/g, (F3-pah if requested)
F4 C34-C50 hydrocarbons in µg/g
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
Any deviations from the method are noted and reported for any particular sample.
nC6 and nC10 response factor is within 30% of response factor for toluene:
nC10,nC16 and nC34 response factors within 10% of each other:
C50 response factors within 70% of nC10+nC16+nC34 average:
Linearity is within 15%:
All results expressed on a dry weight basis.
Unless otherwise noted all chromatograms returned to baseline by the retention time of nC50.

Unless otherwise noted all extraction, analysis, QC requirements and limits for holding time were met.
If analyzed for F4 and F4G they are not to be summed but the greater of the two numbers are to be used in application to the CWS PHC
QC will be made available upon request.

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Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
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DATE RECEIVED: 28-Jun-19
DATE REPORTED: 08-Jul-19
SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

	Client I.D.		BH-3, SS-2	BH-5, SS-2	BH-4, SS-1		O. Reg. 153	
	Sample I.D.		B19-19304-1	B19-19304-4	B19-19304-5		Tbl. 1 - Agricultural	Tbl. 1 - All
	Date Collected		26-Jun-19	26-Jun-19	26-Jun-19			
Parameter	**Units**	**R.L.**						
Aldrin	µg/g	0.05	< 0.05				0.05	0.05
Chlordane (alpha)	µg/g	0.05	< 0.05					
Chlordane (Gamma)	µg/g	0.05	< 0.05					
Chlordane Total (alpha+gamma)	µg/g	0.05	< 0.05				0.05	0.05
DDD, 2,4-	µg/g	0.05	< 0.05					
DDD, 4,4-	µg/g	0.05	< 0.05					
DDD Total	µg/g	0.05	< 0.05				0.05	0.05
DDE, 2,4-	µg/g	0.05	< 0.05					
DDE, 4,4-	µg/g	0.05	< 0.05					
DDE Total	µg/g	0.05	< 0.05				0.05	0.05
DDT, 2,4-	µg/g	0.05	< 0.05					
DDT, 4,4-	µg/g	0.05	< 0.05					
DDT Total	µg/g	0.05	< 0.05				0.078	1.4
Dieldrin	µg/g	0.05	< 0.05				0.05	0.05
Lindane (Hexachlorocyclohexane, Gamma)	µg/g	0.01	< 0.01				0.01	0.01
Endosulfan I	µg/g	0.04	< 0.04					
Endosulfan II	µg/g	0.04	< 0.04					
Endosulfan I/II	µg/g	0.04	< 0.04				0.04	0.04
Endrin	µg/g	0.04	< 0.04				0.04	0.04
Heptachlor	µg/g	0.05	< 0.05				0.05	0.05
Heptachlor Epoxide	µg/g	0.05	< 0.05				0.05	0.05

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
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SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

	Client I.D.		BH-3, SS-2	BH-5, SS-2	BH-4, SS-1		O. Reg. 153	
	Sample I.D.		B19-19304-1	B19-19304-4	B19-19304-5		Tbl. 1 - Agricultural	Tbl. 1 - All
	Date Collected		26-Jun-19	26-Jun-19	26-Jun-19			
Parameter	**Units**	**R.L.**						
Hexachlorobenzene	µg/g	0.01	< 0.01				0.01	0.01
Hexachlorobutadiene	µg/g	0.01	< 0.01				0.01	0.01
Hexachloroethane	µg/g	0.01	< 0.01				0.01	0.01
Methoxychlor	µg/g	0.05	< 0.05				0.05	0.05
Poly-Chlorinated Biphenyls (PCB's)	µg/g	0.3	< 0.3	< 0.3	< 0.3		0.3	0.3
Aroclor	-		-	-	-			

O. Reg. 153 - Soil, Ground Water and Sediment Standards
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SAMPLE MATRIX: Soil

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER: 73516217
WATERWORKS NO.

Summary of Exceedances

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - Agricultural - Table 1 - Agricultural/Other Soil Std
Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

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Final Report

C.O.C.: G82535 **REPORT No. B19-20124 (i)**

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Attention: Eric Wierdsma

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110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 05-Jul-19
DATE REPORTED: 12-Jul-19
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER:
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
Chromium (VI)	1	Holly Lane	LMG	11-Jul-19	D-CRVI-01 (o)	MOE E3056
Mercury	1	Holly Lane	PBK	09-Jul-19	D-HG-02 (o)	SM 3112 B
Metals - ICP-OES	1	Holly Lane	TPR	10-Jul-19	D-ICP-01 (o)	SM 3120
Metals - ICP-MS	1	Holly Lane	TPR	08-Jul-19	D-ICPMS-01 (o)	EPA 200.8

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

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Tel: 289-475-5442
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DATE RECEIVED: 05-Jul-19
DATE REPORTED: 12-Jul-19
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER:
WATERWORKS NO.

	Client I.D.		BH-4				O. Reg. 153	
	Sample I.D.		B19-20124-2				Tbl. 1 - GW	
	Date Collected		03-Jul-19					
Parameter	**Units**	**R.L.**						
Antimony	µg/L	0.1	< 0.1				1.5	
Arsenic	µg/L	0.1	0.7				13	
Barium	µg/L	1	254				610	
Beryllium	µg/L	0.1	< 0.1				0.5	
Boron	µg/L	5	56				1700	
Cadmium	µg/L	0.015	< 0.015				0.5	
Chromium	µg/L	2	< 2				11	
Chromium (VI)	µg/L	10	< 10 [1]				25	
Cobalt	µg/L	0.1	0.7				3.8	
Copper	µg/L	2	< 2				5	
Lead	µg/L	0.02	< 0.02				1.9	
Mercury	µg/L	0.02	< 0.02				0.1	
Molybdenum	µg/L	0.1	2.1				23	
Nickel	µg/L	0.2	2.5				14	
Selenium	µg/L	1	< 1				5	
Silver	µg/L	0.1	< 0.1				0.3	
Thallium	µg/L	0.05	< 0.05				0.5	
Uranium	µg/L	0.05	1.44				8.9	
Vanadium	µg/L	0.1	0.2				3.9	
Zinc	µg/L	5	< 5				160	

1 . Chromium (VI) result is based on total chromium

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

Christine Burke
Lab Manager

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: G82535 **REPORT No. B19-20124 (i)**

Report To:

GHD Limited
455 Phillip Street,
Waterloo Ontario N2L 3X2 Canada
Attention: Eric Wierdsma

Caduceon Environmental Laboratories
110 West Beaver Creek Rd Unit 14
Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 05-Jul-19
DATE REPORTED: 12-Jul-19
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER:
WATERWORKS NO.

Summary of Exceedances

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

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Lab Manager

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SAMPLE MATRIX: Groundwater

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Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
PHC(F2-F4)	2	Kingston	KPR	08-Jul-19	C-PHC-W-001 (k)	MOE E3421
VOC's	2	Richmond Hill	JE	11-Jul-19	C-VOC-02 (rh)	EPA 8260
PHC(F1)	2	Richmond Hill	JE	11-Jul-19	C-VPHW-01 (rh)	MOE E3421

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

Christine Burke
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SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER:
WATERWORKS NO.

	Client I.D.		BH-3	BH-4			O. Reg. 153	
	Sample I.D.		B19-20124-1	B19-20124-2			Tbl. 1 - GW	
	Date Collected		03-Jul-19	03-Jul-19				
Parameter	**Units**	**R.L.**						
Acetone	µg/L	30	< 30	< 30			2700	
Benzene	µg/L	0.5	< 0.5	< 0.5			0.5	
Bromodichloromethane	µg/L	2	< 2	< 2			2	
Bromoform	µg/L	5	< 5	< 5			5	
Bromomethane	µg/L	0.5	< 0.5	< 0.5			0.89	
Carbon Tetrachloride	µg/L	0.2	< 0.2	< 0.2			0.2	
Monochlorobenzene (Chlorobenzene)	µg/L	0.5	< 0.5	< 0.5			0.5	
Chloroform	µg/L	1	< 1	< 1			2	
Dibromochloromethane	µg/L	2	< 2	< 2			2	
Dichlorobenzene,1,2-	µg/L	0.5	< 0.5	< 0.5			0.5	
Dichlorobenzene,1,3-	µg/L	0.5	< 0.5	< 0.5			0.5	
Dichlorobenzene,1,4-	µg/L	0.5	< 0.5	< 0.5			0.5	
Dichlorodifluoromethane	µg/L	2	< 2	< 2			590	
Dichloroethane,1,1-	µg/L	0.5	< 0.5	< 0.5			0.5	
Dichloroethane,1,2-	µg/L	0.5	< 0.5	< 0.5			0.5	
Dichloroethylene,1,1-	µg/L	0.5	< 0.5	< 0.5			0.5	
Dichloroethene, cis-1,2-	µg/L	0.5	< 0.5	< 0.5			1.6	
Dichloroethene, trans-1,2-	µg/L	0.5	< 0.5	< 0.5			1.6	
Dichloropropane,1,2-	µg/L	0.5	< 0.5	< 0.5			0.5	
Dichloropropene, cis-1,3-	µg/L	0.5	< 0.5	< 0.5				
Dichloropropene, trans-1,3-	µg/L	0.5	< 0.5	< 0.5				

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

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Lab Manager

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SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Uxbridge/11197394-01
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WATERWORKS NO.

	Client I.D.		BH-3	BH-4			O. Reg. 153	
	Sample I.D.		B19-20124-1	B19-20124-2			Tbl. 1 - GW	
	Date Collected		03-Jul-19	03-Jul-19				
Parameter	**Units**	**R.L.**						
Dichloropropene 1,3-cis+trans	µg/L	0.5	< 0.5	< 0.5			0.5	
Ethylbenzene	µg/L	0.5	< 0.5	< 0.5			0.5	
Dibromoethane,1,2-(Ethylene Dibromide)	µg/L	0.2	< 0.2	< 0.2			0.2	
Hexane	µg/L	5	< 5	< 5			5	
Methyl Ethyl Ketone	µg/L	20	< 20	< 20			400	
Methyl Isobutyl Ketone	µg/L	20	< 20	< 20			640	
Methyl-t-butyl Ether	µg/L	2	< 2	< 2			15	
Dichloromethane (Methylene Chloride)	µg/L	5	< 5	< 5			5	
Styrene	µg/L	0.5	< 0.5	< 0.5			0.5	
Tetrachloroethane,1,1,1,2-	µg/L	0.5	< 0.5	< 0.5			1.1	
Tetrachloroethane,1,1,2,2-	µg/L	0.5	< 0.5	< 0.5			0.5	
Tetrachloroethylene	µg/L	0.5	< 0.5	< 0.5			0.5	
Toluene	µg/L	0.5	< 0.5	< 0.5			0.8	
Trichloroethane,1,1,1-	µg/L	0.5	< 0.5	< 0.5			0.5	
Trichloroethane,1,1,2-	µg/L	0.5	< 0.5	< 0.5			0.5	
Trichloroethylene	µg/L	0.5	< 0.5	< 0.5			0.5	
Trichlorofluoromethane	µg/L	5	< 5	< 5			150	
Vinyl Chloride	µg/L	0.2	< 0.2	< 0.2			0.5	
Xylene, m,p-	µg/L	1.0	< 1.0	< 1.0				
Xylene, o-	µg/L	0.5	< 0.5	< 0.5				

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

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Final Report

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Attention: Eric Wierdsma

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Richmond Hill ON L4B 1J9
Tel: 289-475-5442
Fax: 289-562-1963

DATE RECEIVED: 05-Jul-19
DATE REPORTED: 12-Jul-19
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER:
WATERWORKS NO.

	Client I.D.		BH-3	BH-4			O. Reg. 153	
	Sample I.D.		B19-20124-1	B19-20124-2			Tbl. 1 - GW	
	Date Collected		03-Jul-19	03-Jul-19				
Parameter	**Units**	**R.L.**						
Xylene, m,p,o-	µg/L	1.1	< 1.1	< 1.1			72	
PHC F1 (C6-C10)	µg/L	50	< 50	< 50			420	
PHC F2 (>C10-C16)	µg/L	50	< 50	< 50			150	
PHC F3 (>C16-C34)	µg/L	400	< 400	< 400			500	
PHC F4 (>C34-C50)	µg/L	400	< 400	< 400			500	

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

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JOB/PROJECT NO.: Uxbridge/11197394-01
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Summary of Exceedances

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

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SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER:
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
SVOC	1	Kingston	sge	10-Jul-19	C-NAB-W-001 (k)	EPA 8270

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

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DATE REPORTED: 12-Jul-19
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.: Uxbridge/11197394-01
P.O. NUMBER:
WATERWORKS NO.

	Client I.D.		BH-4				O. Reg. 153	
	Sample I.D.		B19-20124-2				Tbl. 1 - GW	
	Date Collected		03-Jul-19					
Parameter	**Units**	**R.L.**						
Acenaphthene	µg/L	0.05	< 0.06				4.1	
Acenaphthylene	µg/L	0.05	< 0.06				1	
Anthracene	µg/L	0.05	< 0.06				0.1	
Benzo(a)anthracene	µg/L	0.05	< 0.06				0.2	
Benzo(a)pyrene	µg/L	0.01	< 0.01				0.01	
Benzo(b)fluoranthene	µg/L	0.05	< 0.06				0.1	
Benzo(b+k)fluoranthene	µg/L	0.1	< 0.1					
Benzo(g,h,i)perylene	µg/L	0.05	< 0.06				0.2	
Benzo(k)fluoranthene	µg/L	0.05	< 0.06				0.1	
Chrysene	µg/L	0.05	< 0.06				0.1	
Dibenzo(a,h)anthracene	µg/L	0.05	< 0.06				0.2	
Fluoranthene	µg/L	0.05	< 0.06				0.4	
Fluorene	µg/L	0.05	< 0.06				120	
Indeno(1,2,3,-cd)pyrene	µg/L	0.05	< 0.06				0.2	
Methylnaphthalene,1-	µg/L	0.05	< 0.06				2	
Methylnaphthalene,2-	µg/L	0.08	< 0.09				2	
Methylnaphthalene 2-(1-)	µg/L	1	< 1				2	
Naphthalene	µg/L	0.05	< 0.06				7	
Phenanthrene	µg/L	0.05	< 0.06				0.1	
Pyrene	µg/L	0.05	< 0.06				0.2	

1 . Elevated RL due to low sample volume in bottle.

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

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Summary of Exceedances

O. Reg. 153 - Soil, Ground Water and Sediment Standards
Tbl. 1 - GW - Table 1 - Ground Water

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Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
Comment	2	Default Site	CS	09-Jul-19	C-Arochlor Comment	-
PCB's	2	Kingston	CS	09-Jul-19	C-PCB-03 K	EPA 8082
OC Pesticides	1	Kingston	CS	09-Jul-19	C-PESTCL-01 K	EPA 8080

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	Client I.D.		BH-3	BH-4			O. Reg. 153	
	Sample I.D.		B19-20124-1	B19-20124-2			Tbl. 1 - GW	
	Date Collected		03-Jul-19	03-Jul-19				
Parameter	**Units**	**R.L.**						
Aldrin	µg/L	0.01	< 0.01				0.01	
Chlordane (alpha)	µg/L	0.05	< 0.05					
Chlordane (Gamma)	µg/L	0.05	< 0.05					
Chlordane Total (alpha+gamma)	µg/L	0.05	< 0.05				0.06	
DDD, 2,4-	µg/L	0.05	< 0.05					
DDD, 4,4-	µg/L	0.05	< 0.05					
DDD Total Water	µg/L	0.05	< 0.05				1.8	
DDE, 2,4-	µg/L	0.01	< 0.01					
DDE, 4,4-	µg/L	0.01	< 0.01					
DDE Total water	µg/L	0.01	< 0.01				10	
DDT, 2,4-	µg/L	0.05	< 0.05					
DDT, 4,4-	µg/L	0.05	< 0.05					
DDT Total water	µg/L	0.05	< 0.05				0.05	
Dieldrin	µg/L	0.05	< 0.05				0.05	
Lindane (Hexachlorocyclohexane, Gamma)	µg/L	0.01	< 0.01				0.01	
Endosulfan I	µg/L	0.05	< 0.05					
Endosulfan II	µg/L	0.05	< 0.05					
Endosulfan I/II	µg/L	0.05	< 0.05					
Endrin	µg/L	0.05	< 0.05				0.05	
Heptachlor	µg/L	0.01	< 0.01				0.01	
Heptachlor Epoxide	µg/L	0.01	< 0.01				0.01	

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	Client I.D.		BH-3	BH-4			O. Reg. 153	
	Sample I.D.		B19-20124-1	B19-20124-2			Tbl. 1 - GW	
	Date Collected		03-Jul-19	03-Jul-19				
Parameter	**Units**	**R.L.**						
Hexachlorobenzene	µg/L	0.01	< 0.01				0.01	
Hexachlorobutadiene	µg/L	0.01	< 0.01				0.01	
Hexachloroethane	µg/L	0.01	< 0.01				0.01	
Methoxychlor	µg/L	0.05	< 0.05				0.05	
Poly-Chlorinated Biphenyls (PCB's)	µg/L	0.05	< 0.05	< 0.05			0.2	
Aroclor	-		-	-				

O. Reg. 153 - Soil, Ground Water and Sediment Standards
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Lab Manager

about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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