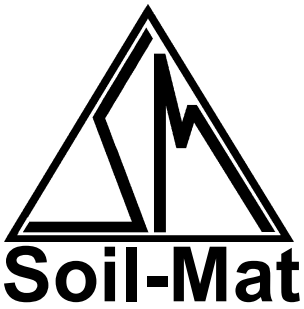
PROJECT NO.: SM 200232-E

JUNE 30, 2020

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
KILLALY SITE
PORT COLBORNE, ONTARIO

PREPARED FOR:

AMZ HOLDINGS



BY

SOIL-MAT ENGINEERS & CONSULTANTS LTD.
130 LANCING DRIVE
HAMILTON, ONTARIO
L8W 3A1

PROJECT NO.: SM 200232-E

JUNE 30, 2020

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
KILLALY SITE
PORT COLBORNE, ONTARIO

PREPARED FOR:

AMZ HOLDINGS

BY

SOIL-MAT ENGINEERS & CONSULTANTS LTD.
130 LANCING DRIVE
HAMILTON, ONTARIO
L8W 3A1

1.0 EXECUTIVE SUMMARY

The Phase One Environmental Site Assessment [ESA] conducted for this property consisted of a historical records review, interviews and a site reconnaissance.

At the time of this Report, the Site was comprised of a roughly rectangular shaped parcel of undeveloped land consisting primarily of overgrown grass and low lying weeds with a small forested area toward the northeast portion of the site. A gravel covered parking lot area, which was utilized as storage for an excavating company, was observed on the northern portion of the property. In addition, a small area on the southern portion of the site, appears to have recently been utilized as agricultural land.

The Phase One ESA research revealed four [4] potentially contaminating activities [PCAs] on the Phase One ESA property, including the following:

- An aerial photograph from 1975 suggests that gravel cover has been placed on the northeast portion of the Site. The subsequent 1978 aerial photograph illustrates stockpiles of an unknown material in this area. In addition, a 1994 aerial photograph suggests that vegetation growth is now present in this area.
  - Of note, several stockpiles of soil of unknown quality were observed on the northeastern portion of the property, during SOIL-MAT ENGINEERS' reconnaissance of the property;
- Aerial photographs from 2002, 2006, 2010 and 2018 revealed a fenced off 'agricultural area' on the southern portion of the Site. Review of Vale's (formerly known as INCO Limited) Community Based Risk Assessment [CBRA] report revealed the company had used this area for an agricultural study to determine plant growth with varying levels of metals in the supporting soil;
- In addition, aerial photographs indicate that the majority of the property was formerly utilised for agricultural purposes; and
- The reconnaissance of the Phase One property revealed several aboveground fuel storage tanks [ASTs] located on the northeast portion of the property.

The lands in the general vicinity of the Site are comprised primarily of a mixture of residential, community, commercial, agricultural and industrial use lands. The Phase One ESA research revealed three [3] potentially contaminating activities [PCAs] on lands in the Phase One Study Area that are considered a potential environmental liability to the property of medium concern, including the following items:

- The Phase One ESA research revealed 'H&S Automobilia', located approximately 20 metres north of the Phase One property, which is an automotive dealer and potential retail fuel outlet [RFO];
- The reconnaissance of the Phase One property revealed 'bulk' storage of road salt on the property located immediately adjacent to the northeast portion of the Phase One property, and;
- Review of Vale's (formerly INCO Limited) CBRA report revealed that 'refinery operations of Vale' (located to the southwest of the Phase One Property) has resulted in adverse impacts the Phase One property soil medium as a result of "decades of emissions and atmospheric depositions".

As a Record of Site Condition [RSC] is required to support the proposed redevelopment of the Phase One property, intrusive sampling is mandated to assess the noted PCAs.

The specific PCAs associated with the listed items are as follows:

PCA Number	PCA Description	Location of the PCA
30	Importation of Fill Material of Unknown Quality	On-Site
30	Importation of Fill Material of Unknown Quality	On-Site
40	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-Site
28	Gasoline and Associated Products Storage in Fixed Tanks	On-Site
28	Gasoline and Associated Products Storage in Fixed Tanks	Off-Site
48	Salt Manufacturing, Processing and Bulk Storage	Off-Site
35	Mining, Smelting and Refining; Ore Processing; Tailings Storage	Off-Site

Based on the findings of the Phase One Environmental Site Assessment, SOIL-MAT ENGINEERS & CONSULTANTS LTD. find the potential of Site contamination to be of **MEDIUM** concern and therefore recommend that additional investigations **ARE** required at this time, pending the results of the Ministry of the Environment database search which will be forwarded to AMZ HOLDINGS under a separate cover once they are received in our Office.

To reduce SOIL-MAT ENGINEERS' degree of uncertainty associated with the environmental liabilities listed above, further assessment activities are recommended.

Each environmental liability, and our rationale for further assessment activities, is provided below:

Environmental Liability	Recommendation	Rationale
1. PCA No.: 30: Importation of Fill Material of Unknown Quality	Advance five [5] to six [6] boreholes and hand dug test pits on the northeast portion of the Site where the excavating company storage yard has encroached on the Site. In addition, six [6] hand dug test pits should be advanced into the stockpiled material. The contaminants of potential concern [COPCs] should include Metals and Petroleum Hydrocarbons [PHCs]	Assess the potential adverse impacts to the soil medium as a result of imported fill material that has been backfilled and stockpiled on the property.

2. PCA No.: 30: Importation of Fill Material of Unknown Quality	Advance four [4] shallow boreholes within the fenced-in area located on the south portion of the Site. The COPCs should include Organochlorine Pesticides [OCs] and Metals.	Assess the potential adverse impacts to the soil medium as a result of the agricultural study.
3. PCA No.: 40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Advance ten [10] shallow boreholes across the Site. The COPCs should include Organochlorine Pesticides [OCs] and Metals.	Assess the potential adverse impacts to the soil medium as a result of the former agricultural practices.
4. PCA No.: 28: Gasoline and Associated Products Storage in Fixed Tanks	Advance five [5] to six [6] shallow hand dug test pits in the vicinity of the aboveground storage tanks across the northeast portion of the Site. The COPCs should include PHCs, Benzene, Toluene, Ethylbenzene and Xylenes [BTEX] and Metals.	Assess the potential adverse impacts to the soil medium as a result of the aboveground storage tank.
5. PCA No.: 28: Gasoline and Associated Products Storage in Fixed Tanks	Advance a borehole and install a monitoring well south of the former auto repair facility at 549 Killaly Street. The COPCs should include PHCs, BTEX and Metals.	Assess the potential adverse impacts to the soil and groundwater medium as a result of the former auto repair facility.
6. PCA No.: 48: Salt Manufacturing, Processing and Bulk Storage	Advance a borehole and install a monitoring well at the north property line just south of the covered salt pile The COPCs should include Metals and Inorganics.	Assess the potential adverse impacts to the soil and groundwater medium as a result of the off-site bulk salt storage.
7. PCA No.: 35: Mining, Smelting and Refining; Ore Processing; Tailings Storage	Advance ten [10] boreholes across the Site, including the installation of groundwater monitoring wells. The COPCs should include Metals and Polycyclic Aromatic Hydrocarbons [PAHs]	Assess the potential adverse impacts to the soil and groundwater medium as a result of the emissions and atmospheric depositions from Vale's refinery operations.

Although not considered an environmental liability to the Site, this Office should be contacted if a suspected groundwater well is encountered during any future construction activities to make arrangements for the water well to be abandoned as per *Ontario Regulation 903 – Water Wells*.

2.0 INTRODUCTION

AMZ HOLDINGS retained SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] to conduct a Phase One ESA for the property located south of Killaly Street East in the City of Port Colborne, Ontario, hereinafter referred to as the Phase One property or the 'Site'.

2(A) PHASE ONE PROPERTY INFORMATION

The Phase One property is comprised of the following parcel of land:

1. Part Lots 23, Concession 1, Humberstone Township in the City of Port Colborne, Ontario [the property identification number (PIN) is '64164-0454'. The registered property owner is INCO Limited.

At the time of this Report, the Site was comprised of a roughly rectangular shaped parcel of undeveloped land consisting primarily of overgrown grass and low lying weeds with a small forested area toward the northeast portion of the site. A gravel covered parking lot area, which was utilized as storage for an excavating company [Emburgh Backhoe Service], was observed on the northern portion of the property. In addition, a small area on the southern portion of the site, appears to have recently been utilized as agricultural land. Of note, a man-made drainage ditch surrounds the small agricultural lands. The drainage ditch appears to flow southeast away from the Site.

It is SOIL-MAT ENGINEERS' understanding that Emburgh Backhoe Service actually operates on the adjoining lands to the north [563 Killaly Street East], however, have their operations have encroached onto the northeast portion of the Phase One property.

The Site was bounded to the north by a vacant parcel of undeveloped land, as well as residential and commercial lands, to the east by agricultural lands, to the south by a community walking trail and vacant undeveloped lands and to the west by residential lands.

The legal description of the Site is "Part lot 23, Concession 1, Humberstone Surface Only As in HU18858 (Firstly) T/W HU18858; Port Colborne"

The geographic coordinates of the Site using a hand held global positioning unit are [NAD 83] 17T 644639E/ 4750059N.

A general site location drawing and overview of the Phase One ESA study area are included in Appendix 'A' for reference.

3.0 SCOPE OF INVESTIGATION

The Phase One ESA follows the protocol outlined in *Ontario Regulation 153/04 [as amended]*, which suggests a four-step approach to Phase One Environmental Site Assessments, including the following;

1. RECORDS REVIEW: including aerial photographs, property use records, title search, previous Phase One ESA reports, regulatory agency documentation, company records, Site specific geotechnical reports and any other relevant material;

2. SITE VISITATION: including a visual reconnaissance of the Site, suspect adjacent properties, and the different land uses within the vicinity of the Site;

3. INTERVIEWS: including persons that may have pertinent information with regard to the Site, including contacts from the City of Port Colborne, Ministry of Environment, Conservation and Parks [MOE], and current / previous land owners, etc.;

4. EVALUATIONS: Based on the information gathered, a professional evaluation of the property is presented in a final Phase One ESA Report.

Ontario Regulation 153/04 [as amended] lists fifty-nine [59] potentially contaminating activities [PCAs] that require intrusive assessment activities, i.e. a Phase Two ESA, to determine if an adverse environmental impact is present on the Site if a PCA is found to have occurred on the Phase One ESA Site. In some circumstances a Phase Two ESA may be required if a PCA has occurred on a neighbouring or nearby property within the Phase One ESA study area if deemed necessary by the Qualified Person [QP] overseeing the Phase One ESA. However, it is noted that under *Ontario Regulation 153/04* [as amended] the mandatory Phase Two ESA activities apply only to properties that are subject to a Record of Site Condition. It is our understanding that this Phase One ESA report is required as a supporting document for the submission of a Record of Site Condition [RSC] for the Site.

4.0 RECORDS REVIEW

4(a)i PHASE ONE ESA STUDY AREA DETERMINATION

The Phase One Study Area consists of the lands generally in a 250-metre radius from the limits of the Phase One ESA property. These lands are comprised of a mixture of residential, commercial, agricultural, industrial and community use lands.

The research undertaken during this Phase One ESA revealed information that suggests there are PCAs on the Site as well as on nearby properties that may contribute to an area of potential environmental concern [APEC] on the Site.

Additional information, specific to the nature of any PCAs and/or associated APECs is presented in Section 4(a)VI, 4(C), and 6.0(B) of this Report.

4(a)ii FIRST DEVELOPED USE DETERMINATION

Based on the available information compiled during the completion of this Report, the Site has remained undeveloped. However, it is noted that Emburgh Backhoe Service [operating immediate north of the Site at 563 Killaly Street East] has encroached on the Phase One property.

4(a)iii FIRE INSURANCE PLANS

The Underwriter's Survey Bureau Limited Fire Insurance Plans were reviewed for the purpose of identifying structures, building materials and/ or underground storage tanks that may have been present on/ or near the Site. However, the Plans [to date] only include lands to the west of the Site.

A summary of SOIL-MAT ENGINEERS' findings is present below:

Date of Plan	Findings
August 1953	No significant potential environmental liabilities were identified on this Plan.

4(a)iv CHAIN OF TITLE

A representative of SOIL-MAT ENGINEERS undertook a title search of the Site on the Ontario Land Registry Website [https://www.onland.ca/ui/].

The title search of the Site revealed INCO Limited (now Vale), Canadian Railroad Company, and Buffalo Brantford and Goderich Railway Company as past owners of the Site. However, as the land has remained undeveloped [with the exception of Emburgh Backhoe Service at the northeast corner of the Site], it is unlikely that potentially contaminating activities took place on the Site during their ownership.

The Site was owned by INCO Limited (now Vale) at the time of the title search.

The chain of previous ownership is presented in table format on the following page:

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
1998 to present	INCO Limited (Now Vale)	The Site was comprised of fallow agricultural land and outdoor commercial storage at the northeast corner.	Agriculture or Other and Commercial	• Aerial photographs from 2000, 2002, 2006, 2010, and 2018 revealed the Site to consist of agricultural lands. In addition, the northeast corner of the Site was being utilised by a neighbouring commercial company.
1917 to 1998	Canadian Railway Company	The Site was comprised of fallow agricultural land. The northeast corner of the Site started to be utilised as outdoor commercial storage sometime between 1971 and 1975.	Agriculture or Other and Commercial	• Aerial photographs from 1934, 1954, 1965, 1968 and 1971 revealed the Site to consist of agricultural lands • Aerial photographs from 1975, 1978, 1981, and 1994 revealed the Site to consist of agricultural lands. In addition, the northeast corner of the Site was being utilised by a neighbouring commercial company. • Topographic maps from 1938 and 1964 illustrate the Site as undeveloped lands. • A topographic map from 1996 illustrates the Site as undeveloped lands with the northeast corner of the Site being labelled as a Lumber Yard.
1913 to 1917	Louis Kinnear and John Mathews and Wife	The Site was comprised of fallow agricultural land.	Agriculture or Other	• There were no readily available visual aids for the Site for this time period.
1912 to 1913	Etherious Wignell and Ada Wignell	The Site was comprised of fallow agricultural land.	Agriculture or Other	• There were no readily available visual aids for the Site for this time period.
1895 to 1912	William Wignell	The Site was comprised of fallow agricultural land.	Agriculture or Other	• A topographic map from 1906 illustrates the Site as undeveloped lands.
1854 to 1895	James Kerby	The Site was comprised of fallow agricultural land.	Agriculture or Other	• There were no readily available visual aids for the Site for this time period.
1853 to 1854	Buffalo Brantford and Goderich Railway Company	The Site was comprised of fallow agricultural land.	Agriculture or Other	• There were no readily available visual aids for the Site for this time period.
Unknown to 1853	Henry Snider	The Site was comprised of fallow agricultural land.	Agriculture or Other	• There were no readily available visual aids for the Site for this time period.

4(a)v ENVIRONMENTAL REPORTS

The following reports, completed by Others, were available to SOIL-MAT ENGINEERS and were utilized as sources of historical information during the preparation of the Phase One ESA report.

- Port Colborne Community-Based Risk Assessment Reports [CBRA] found on their website: *http://www.vale.com/canada/EN/aboutvale/communities/port-colborne/CBRA/CBRA-documentation/Pages/default.aspx*

In addition, a search of the MOE's *Brownfields Environmental Site Registry* did not reveal a previous Phase One ESA that may have been undertaken on the Site.

4(a)vi HISTORICAL SITE USE AND CONDITIONS/PAST LAND USES

Due to libraries and government institutions being closed at this time, The Vernon's City Directory Series were not reviewed. Once these institutions re-open, this avenue of historical information will need to be revisited to update the Phase One ESA report prior to the submission of an RSC.

4(b) ENVIRONMENTAL SOURCE INFORMATION

1. National Pollutant Release Inventory: twenty-one [21] records were found on one property approximately 265 metres from the Site. Given the location of the property to the Site with respect to the inferred ground water flow direction [down-gradient] and the distance between this property and the Site an adverse environmental impact to the Site is considered remote.

2. A review of the Ministry of Environment and Energy's "Ontario Inventory of PCB Storage Sites", October, 1991, indicated the following Sites:

Company	Site Number	Address	Major/Minor Site	Distance to Site
P.C. Drop Forgings Ltd. Mem. Of IVACO	20388A303	837 Reuter Road	Minor	0.20km S

   With respect to the PCB Storage Site listed above, given the location of this property to the Site with respect to the inferred ground water flow direction [down-gradient] and the distance between this property and the Site an adverse environmental impact to the Site from this property is considered remote.

   It is noted that although the inventory is considered a comprehensive document not all of the storage sites are listed in the inventory.

3. Environmental Compliance Approvals, Permit to Take Water, Certificate of Property Use: six [6] records were found ranging between 157 to 265 metres from the Phase One ESA property. Given the location of the property to the Site with respect to the inferred ground water flow direction [down-gradient] and the distance between the properties and the Site an adverse environmental impact to the Site is considered remote.

4. Coal Gasification Plants: No records were found for the Site or properties within the Phase One ESA Study.

5. Records Concerning Environmental Incidents, Orders, Offences, Spills, Discharges of Contaminants or Inspections Maintained by the MOE: Due to government institutions being closed at this time, SOIL-MAT ENGINEERS was unable contact the MOE to gather information with regard to the Site. As soon as these government institutions re-open, SOIL-MAT ENGINEERS will place a request for this information.

6. Waste Management Records: No records were found for the Site or adjacent properties.

7. Reports Submitted to the MOE: four [4] records of spills were found ranging between 127 to 265 metres from the Phase One ESA property. Given the location of these properties to the Site with respect to the inferred ground water flow direction [down-gradient and trans-gradient] and the distance between these properties and the Site, an adverse environmental impact to the Site is considered remote.

8. Retail Fuel Storage Tanks: SOIL-MAT ENGINEERS contacted the T.S.S.A. to undertake a search of the Site and neighbouring properties for the registered presence of any underground storage tanks. The T.S.S.A does not have records on file of any underground storage tanks located on the Site.

   The T.S.S.A. has a record of the following:

   - **837 Reuter Road**. There is a record of an expired FS propane refill centre – cylinder fill and a FS propane tank approximately 265 metres south [down-gradient] from the Site. Given the location of this property to the Site with respect to the inferred ground water flow direction and the distance between this property and the Site, an adverse environmental impact to the Site from this property is considered remote.

   It is however noted that the T.S.S.A. does not have records of USTs installed prior 1987. In addition, "private use" USTs were not registered with the agency until 1990, and even then many owners of "private use" USTs do not register the tanks with T.S.S.A.

9. Notices and Instruments Posted to the MOE Registry: four [4] records were found ranging between 157 to 265 metres from the Phase One ESA property. Given the location of these properties to the Site with respect to the inferred ground water flow direction [down-gradient] and the distance between these properties and the Site, an adverse environmental impact to the Site is considered remote.

10. Identification of Areas of Natural Significance [Ministry of Natural Resources]: No records were found for area(s) of natural significance on the Site or adjacent properties.

11. Landfill Information Maintained by the MOE: A review of the Ministry of Environment and Energy's "Waste Disposal Site Inventory", June 1991, indicates one active and two [2] inactive landfill sites within a 2km radius of the Site.

    A list of the landfill properties is provided on the following page for reference.

MOE Site No.	Municipality	Location	Date Closed	Class	Distance to Site
A 120310	Port Colborne	187 Davis Street; Lt. 24-25, Con. 1	Open	A1	1.08 km SW
X 0066	Port Colborne	Inco Davis St. E.	Unknown	B7	1.07 km SW
A 120307	Port Colborne	Lt. 22-23 Con. 2	1979	A4	1.14 km NE

    With respect to the active waste disposal site, class 'A1' sites are registered to receive industrial liquid/hazardous wastes and are located in an urban setting. In the case of the class 'A1' waste disposal site listed above, given the location of the property to the Site with respect to the inferred ground water flow direction [down-gradient] and the distance between the property and the Site an adverse environmental impact to the Site from the property are considered remote.

    With respect to the inactive waste disposal site, class 'B7' sites are registered to receive municipal and domestic wastes and are located in an urban setting. In the case of the class 'B7' waste disposal site listed above, given the location of the property to the Site with respect to the inferred ground water flow direction [down-gradient] and the distance between the property and the Site an adverse environmental impact to the Site from the property are considered remote.

    With respect to the inactive waste disposal site, class 'A4' sites are registered to receive municipal and domestic wastes and are located in a rural setting. In the case of the class 'A4' waste disposal site listed above, given the location of this property to the Site with respect to the inferred ground water flow direction [trans-gradient] and the distance between this property and the Site an adverse environmental impact to the Site from this property is considered remote.

    It is noted that although the waste disposal site inventory is considered a comprehensive document not all of the inactive landfill sites are listed in the inventory.

    In addition, no Municipal Coal Gasification Plants or Coal Tar Distillation Plants were in operation in the area.

12. EcoLog ERIS Database Search: A review of historical records and regulatory agency databases was completed for the Site and lands located within 250 metres from the boundaries of the Phase One ESA Site. The report includes information from the following sources:

    - Abandoned Aggregate Inventory
    - Aggregate Inventory
    - Borehole
    - Certificates of Approval
    - Environmental Registry
    - ERIS Historical Searches
    - Fuel Storage Tanks

- Ontario Regulation 347 Waste Generators Summary
- Private and Retail Fuel Storage Tanks
- Record of Site Conditions
- Ontario Spills
- Water Well Information Systems

The EcoLog ERIS database search report revealed limited PCAs on nearby properties. However, given the location of these properties to the Site with respect to the inferred groundwater flow direction and distance between these properties and the Site an adverse environmental impact to the Site is considered remote.

A copy of the EcoLog ERIS Report is included in Appendix 'E' for reference.

4(C) PHYSICAL SETTING SOURCES

1. Aerial Photographs: Aerial photographs from 1934, 1954, 1968, 1971, 1975, 1978, 1981, 1994, 2000, 2002, 2006, 2010 and 2018 were available for the Site and surrounding lands and were reviewed by SOIL-MAT ENGINEERS.

A summary of information obtained from the photographs is presented below:

Aerial Photo [Scale]	Site Description	Description of Adjacent Lands
1934 [1:5,750]	The Site is comprised primarily of fallow agricultural land.	The surrounding lands are comprised of primarily fallow agricultural lands, with a railroad and a forested area to the south, and some residential to the distant west.
1954 [1:5,250]	There are no significant changes to the Site.	With the exception of some residential development to the west of the Site, there are no significant changes to the surrounding lands.
1965 [1:6,850]	There are no significant changes to the Site.	There is some further residential development to the west of the Site, as well as some commercial, institutional, and residential development to the north along Killaly Street East.
1968 [1:3,200]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.
1971 [1:2,850]	There are no significant changes to the Site.	With the exception of some industrial development to the south of the Site, there are no significant changes to the surrounding lands.
1975 [1:7,450]	Gravel has been placed on the northeast portion of the Site from the neighbouring commercial business to the north encroaching on to the Site.	There are no significant changes to the surrounding lands.
1978 [1:4,150]	Stockpiled material is present at the northeast corner of the Site on the gravel area	There are no significant changes to the surrounding lands.
1981 [1:3,950]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.

Aerial Photo [Scale]	Site Description	Description of Adjacent Lands
1994 [1:2,800]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.
2000 [1:3,350]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.
2002 [1:3,350]	A fenced off agricultural area is present on the south portion of the Site. A path has been placed from the south to access the agricultural area. In addition, a drainage cannel now runs from the new agricultural plot to the south. In addition to the above, a portion of the northeast corner of the Site previously encroached and utilised by the neighbouring commercial business is becoming overgrown and 'reclaimed' with trees.	A gravel path is now present on the south that comes onto the Site to access the fenced in portion of the Site. In addition, the rail line to the south of the Site is no longer present.
2006 [1:3,300]	There are no significant changes to the Site.	With the exception of the railway tracks having been converted to a walking trail, there are no significant changes to the surrounding lands.
2010 [1:3,300]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.
2018 [1:1,650]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.

The review of the above noted aerial photographs revealed potential environmental liabilities could be present on the Site due to the storage of unknown construction materials on the northeast portion of the property.

The aerial photographs are included in Appendix 'F' for reference.

2. Topography, Hydrology, Geology: Readily available topographic maps for the Site and Phase One ESA study area were reviewed as part of this Phase One ESA and revealed the following information:

Map Year [Scale]	Site Description	Description of Surrounding Lands
1906 [1:63,360]	There are no buildings illustrated on the Site.	The Phase One Study Area is comprised of primarily undeveloped lands, with sparse residential and a rail line to the south.
1938 [1:63,360]	There are no buildings illustrated on the Site.	The Phase One Study Area is comprised of primarily undeveloped lands, with sparse residential and a rail line to the south.
1964 [1:25,000]	There are no buildings illustrated on the Site.	The Phase One Study Area is comprised of a mixture of developed and undeveloped lands, with a rail line to the south.
1996 [1:50,000]	There are no buildings illustrated on the Site. In addition, the northeast corner of the Site is illustrated as a Lumber Yard.	The Phase One Study Area is comprised of a mixture of developed and undeveloped lands with a rail line to the south.

The review of the topographic maps did not reveal any PCAs that may cause an APEC on the Site.

A copy of the topographic maps is included in Appendix 'G' for reference.

In addition, a review of the Ministry of Northern Development and Mine's "Quaternary Geology of Niagara-Welland, Southern Ontario Sheet Map 2496" and the "Paleozoic Geology of Welland-Fort Erie, Southern Ontario Sheet Map P0989", revealed the Site to be underlain by glaciolacustrine deposits of deeper water clay and silt, in turn, underlain by Middle Devonian Onondaga Formation limestone bedrock.

The project area is relatively flat and level with surface water being directed primarily to the southeast towards a drainage channel that goes southeast from the Site.

Regional groundwater flow is expected to the south towards Lake Erie.

3. Fill Materials: The reconnaissance of the Site as well as aerial photographs revealed visual evidence of fill material present on the northeast portion of the Site.

4. Water Bodies and Areas of Natural Significance: With the exception of a drainage channel on the south portion of the Site that drains off the Site to the southeast, surface water was not encountered on the Phase One ESA property or within the Phase One ESA Study Area. In addition, no areas of natural significance were identified on the Phase One ESA property or within the Phase One ESA Study Area.

5. Well Records: The reconnaissance of the Site did not reveal any obvious visual evidence of a suspected groundwater well or cistern on the Site. In addition, a review of the MOE's water well records revealed there are no registered groundwater wells on the Phase One ESA Site.

   In addition to the above, a review of the MOE's water well records revealed five [5] potable groundwater wells and one groundwater monitoring well within the Phase One Study Area. The potable ground water wells are located between 95 and 250 metres from the Site and range from 5.8 to 9.1 metres in depth. The groundwater monitoring well is located approximately 115 metres from the Site.

4(d) SITE OPERATING RECORDS

1. Title of the Information Sheet or Document: Not Applicable

2. Description of Data, Analysis or Findings as the Information Sheet or Document relates to the Phase One ESA Property: Not Applicable

5.0 INTERVIEWS

No Site personnel were available to be interviewed during the completion of this Report. Primarily as the Site was comprised of a vacant undeveloped parcel of land that was covered with overgrown grass and low lying weeds.

In addition, with the exception of the portion of the northeast corner encroached on by the neighbouring commercial business, historical records suggest that the Site has not been developed.

6.0 SITE RECONNAISSANCE

6.0 (A) GENERAL REQUIREMENTS:

Reporting Requirements	SOIL-MAT ENGINEERS' Details
Date and Time of the Reconnaissance	June 10, 2020 [10:30am to 12:00pm]
Weather Conditions	The weather conditions did not limit the visual observations of the Site
Duration of Site Visit	~1.5 hours
Enhanced Investigation Property	The Site is not considered an Enhanced Investigation property
Field Representative	Mr. Peter Markesic [qualifications included in the appendix]

6.0(B) SPECIFIC OBSERVATIONS AT PHASE ONE ESA PROPERTY

Reporting Requirements	SOIL-MAT ENGINEERS' Details
Description of Structures and Other Improvements	None observed
Description of the Number, Age and Depth of Below-Ground Structures	None observed
Details of all tanks (aboveground and underground)	The Site reconnaissance revealed some empty tanks lying around as well as some ASTs present under a tarp on the northeast portion of the Site.
Details of any potable and non-potable water sources	None observed. In addition, the surrounding area is serviced with a municipal water supply.
Buried Utilities	None observed
Existing Buildings: Exit/Entry Points	N/A
Existing Buildings: Cooling / Heating System	N/A
Existing Buildings: Drains, Pits, Sumps, etc.	N/A
Existing Buildings: Details of any unidentified substances	N/A
Existing Buildings: Details of Stains, Corrosion on Floors other than from Water	N/A
Details of Former and Current Wells	None observed
Details of Sewage Works	None observed
Details of Ground Surface Cover	The Site was primarily covered with overgrown grass and low-lying weeds with some gravel in the northeast corner of the Site
Details of Former or Current Railway Lines	A former railway line was observed approximately 70 metres south of the Site. Given the distance of the former railway line to the Site with respect to the inferred ground water flow direction [down-gradient] and the distance between this property and the Site, an adverse environmental impact to the Site from this property is considered remote.
Details of Stained Soil, Damaged Vegetation or Pavement	None observed
Details of Stressed Vegetation	None observed

Reporting Requirements	SOIL-MAT ENGINEERS' Details
Areas Where Fill and Debris Materials Appear to be Present	The Site reconnaissance as well as aerial photographs revealed fill material on the northeast portion of the site, under what is now a forested area. In addition, stockpiled soil material was observed during the Site reconnaissance just north of the forested area on the northeast portion of the Site.
PCAs	PCA No. 30: Importation of Fill Material of Unknown Quality [located on the northeast corner of the property]. PCA No. 40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications [associated with the agricultural use of the Site, with specific interest in the fenced off agricultural area on the south portion of the Site]. PCA No. 28: Gasoline and Associated Products Storage in Fixed Tanks (Northeast corner of the Site). PCA No. 28: Gasoline and Associated Products Storage in Fixed Tanks (Associated with an automotive dealer, north of the Site. With respect to the inferred ground water flow direction [up-gradient] and the distance between this property and the Site, an adverse environmental impact to the Site from this property is considered low). PCA No. 48: Salt Manufacturing, Processing and Bulk Storage (associated with a covered stockpile of road salt adjacent to the north of the Site).

1. Enhanced Investigation Property

Reporting Requirements	SOIL-MAT ENGINEERS' Details
Details of the Operations at the Site	Not Applicable
Hazardous Materials Used/Stored on the Site	Not Applicable
Products Manufactured on the Site	Not Applicable
By-Products and Wastes at the Site	Not Applicable
Raw Materials, including the Handling and Storage	Not Applicable
Details of Drums, Totes, Bins	Not Applicable
Details of Oil/Water Separators	Not Applicable
Details of Vehicle and Equipment Maintenance Areas	Not Applicable
Details of Known Spills	Not Applicable
Details of Liquid Discharge Points	Not Applicable
Details of Operations at the Site [processing or manufacturing and equipment used]	Not Applicable
Details of Hydraulic Lift Equipment	Not Applicable

6.0 (C) WRITTEN DESCRIPTION OF INVESTIGATION

The information gathered during the completion of this Phase One ESA report suggests that the Site has not been developed, dating back to the first readily available source of historical information.

The first readily available visual aid for the Site is a topographic map from 1906 which illustrates the Site as undeveloped land. Other visual aids, including aerial photographs from 1934, 1954, 1968, 1971, 1975, 1978, 1981, 1994, 2000, 2002, 2006, 2010 and 2018, and topographic maps from 1938, 1964, and 1996 confirms the site has not been developed in the past.

The Phase One ESA research revealed four [4] potentially contaminating activities [PCAs] on the Phase One ESA property, including the following:

- An aerial photograph from 1975 suggests that gravel cover has been placed on the northeast portion of the Site. The subsequent 1978 aerial photograph illustrates stockpiles of an unknown material in this area. In addition, a 1994 aerial photograph suggests that vegetation growth is now present in this area.
  - Of note, several stockpiles of soil of unknown quality were observed on the northeastern portion of the property, during SOIL-MAT ENGINEERS' reconnaissance of the property;
- Aerial photographs from 2002, 2006, 2010 and 2018 revealed a fenced off 'agricultural area' on the southern portion of the Site. Review of Vale's (formerly known as INCO Limited) Community Based Risk Assessment [CBRA] report revealed the company had used this area for an agricultural study to determine plant growth with varying levels of metals in the supporting soil;
  - In addition, aerial photographs indicate that the majority of the property was formerly utilised for agricultural purposes; and
- The reconnaissance of the Phase One property revealed several aboveground fuel storage tanks [ASTs] located on the northeast portion of the property.

The lands in the general vicinity of the Site are comprised primarily of a mixture of residential, community, commercial, agricultural and industrial use lands. The Phase One ESA research revealed three [3] potentially contaminating activities [PCAs] on lands in the Phase One Study Area that are considered a potential environmental liability to the property of medium concern, including the following items:

- The Phase One ESA research revealed 'H&S Automobilia', located approximately 20 metres north of the Phase One property, which is an automotive dealer and potential retail fuel outlet [RFO];
- The reconnaissance of the Phase One property revealed 'bulk' storage of road salt on the property located immediately adjacent to the northeast portion of the Phase One property, and;
- Review of Vale's (formerly INCO Limited) CBRA report revealed that 'refinery operations of Vale' (located to the southwest of the Phase One Property) has resulted in adverse impacts the Phase One property soil medium as a result of "decades of emissions and atmospheric depositions".

7.0 REVIEW AND EVALUATION OF INFORMATION

(i) Current and Past Uses: SOIL-MAT ENGINEERS' Table of Current and Past Uses is included in Appendix 'H' of this Report.

(ii) Potential Contaminating Activity: four [4] PCAs were identified on the Site and three [3] PCAs were identified in the Phase One ESA Study Area that may result in an APEC, including:

PCA No.: 30 – Importation of Fill Material of Unknown Quality [located on the northeast portion of the property].

PCA No.: 30 – Importation of Fill Material of Unknown Quality [located in the fenced off section on the south portion of the property].

PCA No.: 40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications. [Associated with the agricultural use of the Site, with specific interest in the fenced off agricultural area on the south portion of the Site]

PCA No.: 28 – Gasoline and Associated Products Storage in Fixed Tanks. [Associated with the above ground storage tanks found under tarps on the northeast portion of the property].

PCA No.: 28 – Gasoline and Associated Products Storage in Fixed Tanks. [Associated with an automotive dealer, north of the Site].

PCA No.: 48 - Salt Manufacturing, Processing and Bulk Storage. [Associated with a stockpile of road salt adjacent to the north of the Site].

PCA No.: 35 - Mining, Smelting and Refining; Ore Processing; Tailings Storage. [Associated with a refinery located to the southeast of the Site].

(iii) Areas of Potential Environmental Concern: SOIL-MAT ENGINEERS' APEC table is presented below:

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #1	The northeast portion of the property	30. Importation of Fill Material of Unknown Quality	On-Site	PHCs, BTEX, Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #2	In the fenced off section on the south portion of the property	30. Importation of Fill Material of Unknown Quality	On-Site	Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #3	Occupying the majority of the Site	40. Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-Site	OCs, Metals	Soil
APEC #4	The northeast portion of the property	28. Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs, VOCs, BTEX	Soil
APEC #5	Adjacent to the north of the Site. (Specifically south of 549 Killaly Street).	28. Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	PHCs, VOCs, BTEX	Soil and Groundwater
APEC #6	Adjacent to the northeast of the Site.	48. Salt Manufacturing, Processing and Bulk Storage	Off-Site	Metals	Soil and Groundwater
APEC #7	Occupying the majority of the Site	35. Mining, Smelting and Refining; Ore Processing; Tailings Storage	Off-Site	Metals, PAHs	Soil

(i) Phase One Conceptual Site Model: SOIL-MAT ENGINEERS' Phase One CSM is not included as part of this report.

8.0 CONCLUSIONS

The Phase One Environmental Site Assessment conducted for this Site consisted of a historical records review and a site reconnaissance.

At the time of this Report, the Site was comprised of a roughly rectangular shaped parcel of undeveloped land consisting primarily of overgrown grass and low lying weeds with a small forested area toward the northeast portion, further northeast is a gravel parking lot which is being used as storage for an excavating company. On the south portion of the site there is a portion of land that was what appears to have been a fenced in agricultural area and some trees.

The Phase One ESA research revealed four [4] potentially contaminating activities [PCAs] on the Phase One ESA property, including the following:

- An aerial photograph from 1975 suggests that gravel cover has been placed on the northeast portion of the Site. The subsequent 1978 aerial photograph illustrates stockpiles of an unknown material in this area. In addition, a 1994 aerial photograph suggests that vegetation growth is now present in this area.
  - Of note, several stockpiles of soil of unknown quality were observed on the northeastern portion of the property, during SOIL-MAT ENGINEERS' reconnaissance of the property;
- Aerial photographs from 2002, 2006, 2010 and 2018 revealed a fenced off 'agricultural area' on the southern portion of the Site. Review of Vale's (formerly known as INCO Limited) Community Based Risk Assessment [CBRA] report revealed the company had used this area for an agricultural study to determine plant growth with varying levels of metals in the supporting soil;
  - In addition, aerial photographs indicate that the majority of the property was formerly utilised for agricultural purposes; and
- The reconnaissance of the Phase One property revealed several aboveground fuel storage tanks [ASTs] located on the northeast portion of the property.

The lands in the general vicinity of the Site are comprised primarily of a mixture of residential, community, commercial, agricultural and industrial use lands. The Phase One ESA research revealed three [3] potentially contaminating activities [PCAs] on lands in the Phase One Study Area that are considered a potential environmental liability to the property of medium concern, including the following items:

- The Phase One ESA research revealed 'H&S Automobilia', located approximately 20 metres north of the Phase One property, which is an automotive dealer and potential retail fuel outlet [RFO];
- The reconnaissance of the Phase One property revealed 'bulk' storage of road salt on the property located immediately adjacent to the northeast portion of the Phase One property, and;
- Review of Vale's (formerly INCO Limited) CBRA report revealed that 'refinery operations of Vale' (located to the southwest of the Phase One Property) has resulted in adverse impacts the Phase One property soil medium as a result of "decades of emissions and atmospheric depositions".

The specific PCAs associated with the listed items are as follows:

PCA Number	PCA Description	Location of the PCA
30	Importation of Fill Material of Unknown Quality	On-Site
40	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-Site
28	Gasoline and Associated Products Storage in Fixed Tanks	On-Site
28	Gasoline and Associated Products Storage in Fixed Tanks	Off-Site
48	Salt Manufacturing, Processing and Bulk Storage	Off-Site

Based on the findings of the Phase One Environmental Site Assessment, SOIL-MAT ENGINEERS & CONSULTANTS LTD. find the potential of Site contamination to be of low concern, however, for the purposes of the filing of a Record of Site Condition [RSC], the potential is considered **MEDIUM** and therefore recommend that additional investigations **ARE** required at this time, pending the results of the Ministry of the Environment database search which will be forwarded to AMZ HOLDINGS under a separate cover once they are received in our Office.

To reduce SOIL-MAT ENGINEERS' degree of uncertainty associated with the environmental liabilities listed above, further assessment activities are recommended.

Each environmental liability, and our rationale for further assessment activities, is provided below:

Environmental Liability	Recommendation	Rationale
1. PCA No.: 30: Importation of Fill Material of Unknown Quality	Advance five [5] to six [6] boreholes and hand dug test pits on the northeast portion of the Site where the excavating company storage yard has encroached on the Site. In addition, six [6] hand dug test pits should be advanced into the stockpiled material. The contaminants of potential concern [COPCs] should include Metals and Petroleum Hydrocarbons [PHCs]	Assess the potential adverse impacts to the soil medium as a result of imported fill material that has been backfilled and stockpiled on the property.

2. PCA No.: 30: Importation of Fill Material of Unknown Quality	Advance four [4] shallow boreholes within the fenced-in area located on the south portion of the Site. The COPCs should include Organochlorine Pesticides [OCs] and Metals.	Assess the potential adverse impacts to the soil medium as a result of the agricultural study.
3. PCA No.: 40: Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Advance ten [10] shallow boreholes across the Site. The COPCs should include Organochlorine Pesticides [OCs] and Metals.	Assess the potential adverse impacts to the soil medium as a result of the former agricultural practices.
4. PCA No.: 28: Gasoline and Associated Products Storage in Fixed Tanks	Advance five [5] to six [6] shallow hand dug test pits in the vicinity of the aboveground storage tanks across the northeast portion of the Site. The COPCs should include PHCs, Benzene, Toluene, Ethylbenzene and Xylenes [BTEX] and Metals.	Assess the potential adverse impacts to the soil medium as a result of the aboveground storage tank.
5. PCA No.: 28: Gasoline and Associated Products Storage in Fixed Tanks	Advance a borehole and install a monitoring well south of the former auto repair facility at 549 Killaly Street. The COPCs should include PHCs, BTEX and Metals.	Assess the potential adverse impacts to the soil and groundwater medium as a result of the former auto repair facility.
6. PCA No.: 48: Salt Manufacturing, Processing and Bulk Storage	Advance a borehole and install a monitoring well at the north property line just south of the covered salt pile The COPCs should include Metals and Inorganics.	Assess the potential adverse impacts to the soil and groundwater medium as a result of the off-site bulk salt storage.
7. PCA No.: 35: Mining, Smelting and Refining; Ore Processing; Tailings Storage	Advance ten [10] boreholes across the Site, including the installation of groundwater monitoring wells. The COPCs should include Metals and Polycyclic Aromatic Hydrocarbons [PAHs]	Assess the potential adverse impacts to the soil and groundwater medium as a result of the emissions and atmospheric depositions from Vale's refinery operations.

Although not considered an environmental liability to the Site, this Office should be contacted if a suspected groundwater well is encountered during any future construction activities to make arrangements for the water well to be abandoned as per *Ontario Regulation 903 – Water Wells*.

9.0 REPORT LIMITATIONS

Achieving the objectives that are stated in this report has required SOIL-MAT ENGINEERS to derive conclusions based upon the best and most recent information currently available to SOIL-MAT ENGINEERS. No investigative method can completely eliminate the possibility of obtaining partially imprecise information. SOIL-MAT ENGINEERS has expressed professional judgement in gathering and analysing the information obtained and in the formulation of its conclusions.

Information in this report was obtained from sources deemed to be reliable, however, no representation or warranty is made as to the accuracy of this information. To the best of SOIL-MAT ENGINEERS' knowledge, the information gathered from outside sources contained in this report on which SOIL-MAT ENGINEERS has formulated its opinions and conclusions, are both true and correct. SOIL-MAT ENGINEERS assumes no responsibility for any misrepresentation of facts gathered from outside sources.

This report was prepared to assess and document evidence of potential environmental contamination, and not to judge the acceptability of the risks associated with such environmental contamination. Much of the information gathered for this report is only accurate at the time of collection and a change in the Site conditions may alter the interpretation of SOIL-MAT ENGINEERS' findings. Furthermore, the reader should note

that the Site reconnaissance described in this report was an environmental assessment of the Site, not a regulatory compliance or an environmental audit of the Site.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of AMZ HOLDINGS The material in it reflects SOIL-MAT ENGINEERS' best judgement in light of the information available to it at the time of preparation. 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-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.

We trust that this Phase One Environmental Site Assessment is satisfactory for your purposes. Please feel free to contact the undersigned if you have any questions.

Sincerely,
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

Lianne Crawford
Environmental Technician

Peter Markesic, B.Sc.
Project Manager

Keith Gleadall, B.A., EA Dipl.
Environmental Manager

Ian Shaw, P. Eng., QP_{ESA}
Review Engineer

LICENSED PROFESSIONAL ENGINEER
June 30/23
I. D. SHAW
100042315
PROVINCE OF ONTARIO

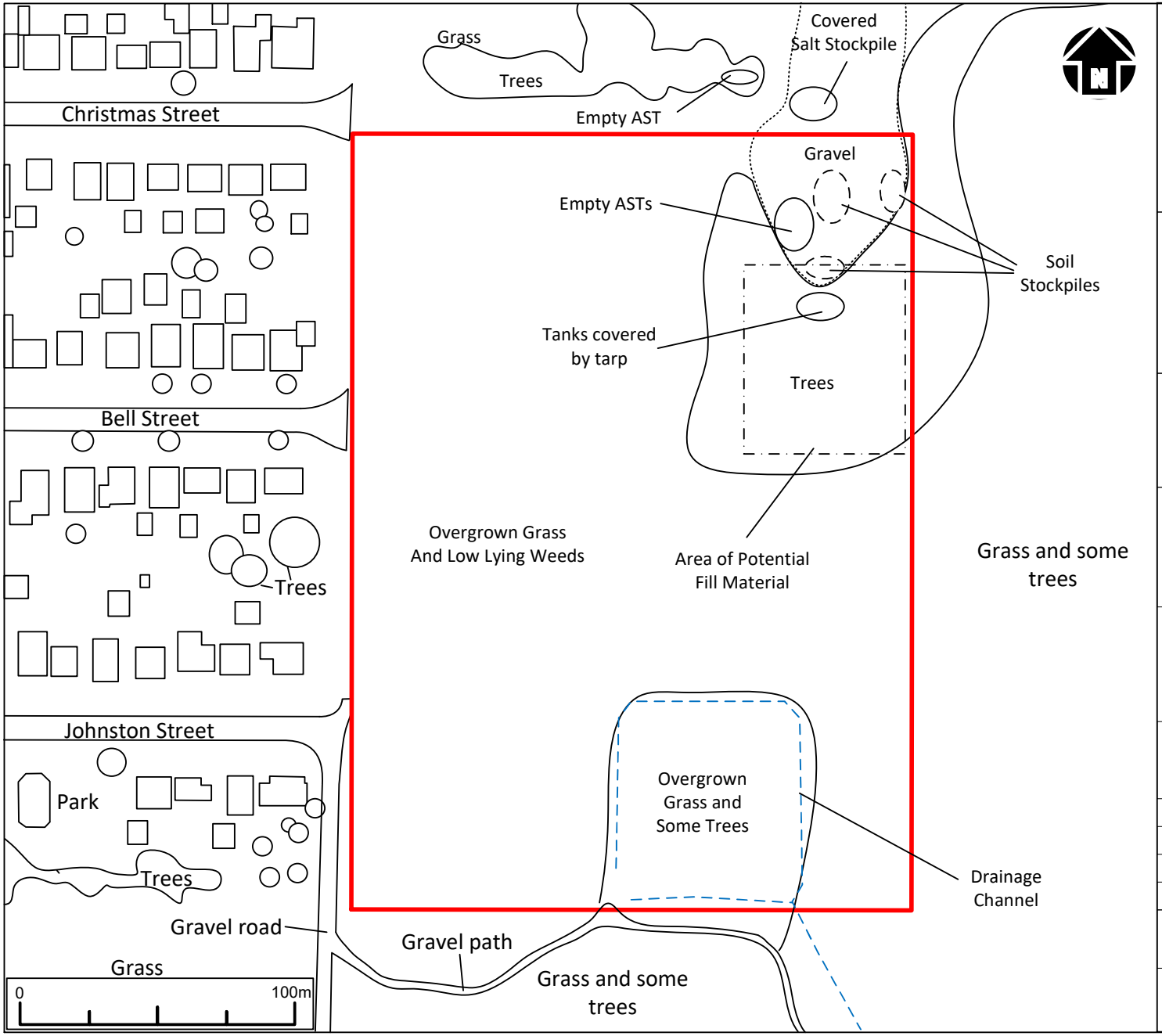
Distribution: AMZ HOLDINGS [2]

Enclosures:

Appendix 'A'	Site Plan Drawings
Appendix 'B'	Chain of Title
Appendix 'C'	Port Colborne Correspondence
Appendix 'D'	T.S.S.A. Correspondence
Appendix 'E'	Ecolog ERIS Report
Appendix 'F'	Aerial Photographs
Appendix 'G'	Topographic Maps
Appendix 'H'	Current and Past Uses
Appendix 'I'	Qualifications of Assessors

Appendix ‘A’

1. Drawing No.: 1.: Site Plan;
2. Drawing No.: 2: Study Area View;
3. Drawing No.: 3: Site Location;



LEGEND

= Site Boundary

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200232-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Phase One Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE

Site Plan Drawing

PROJECT No.	SM 200232-E
DATE	June 2020
CHECKED	PM
DRAWN	LC

FILE NAME

200232 Site Plan.vsd

DRAWING No. 1

LEGEND

= Site Boundary

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200232-E

2. Base map provided by: © 2018 Google

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Phase One Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE

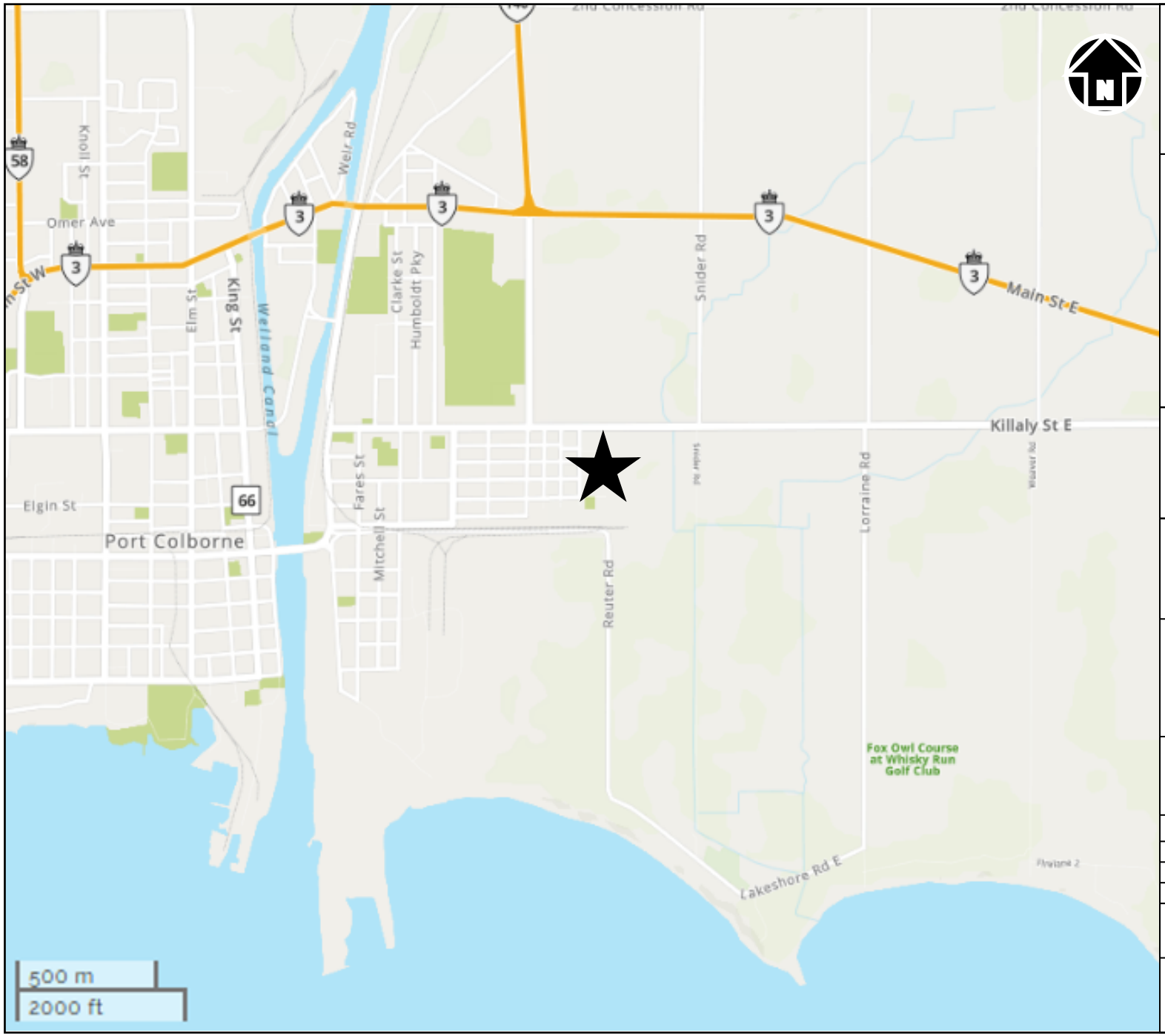
Study Area View

PROJECT No.	SM 200232-E
DATE	June 2020
CHECKED	PM
DRAWN	LC

FILE NAME

200232 Site Plan 2.vsd

DRAWING No. 2



LEGEND

★ = Site Location

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200232-E

2. Base map provided by:
© 2020 Mapquest

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Phase One Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE

Site Location Plan

PROJECT No.	SM 200232-E
DATE	June 2020
CHECKED	PM
DRAWN	LC

FILE NAME

200232 Site Location.vsd

DRAWING No. 3

Appendix ‘B’

1. Title Search Documents

PROPERTY DESCRIPTION: PT LT 23 CON 1 HUMBERSTONE SURFACE ONLY AS IN HU18858 (FIRSTLY) T/W HU18858 ; PORT COLBORNE

PROPERTY REMARKS:

ESTATE/QUALIFIER:
FEE SIMPLE
LT CONVERSION QUALIFIED

RECENTLY:
DIVISION FROM 64164-0424

PIN CREATION DATE:
1999/11/02

OWNERS' NAMES
INCO LIMITED

CAPACITY SHARE
BENO

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
EFFECTIVE 2000/07/29 THE NOTATION OF THE "BLOCK IMPLEMENTATION DATE" OF 1999/04/19 ON THIS PIN						
WAS REPLACED WITH THE "PIN CREATION DATE" OF 1999/11/02						
*** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 1999/11/02 ***						
***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: 1999/04/19 ***						
HU18858	1952/12/08	TRANSFER	$15,000		THE INTERNATIONAL NICKEL COMPANY OF CANADA, LIMITED	C
	REMARKS: PC17742					
AA73912	1962/06/11	BYLAW				C
RO747735	1998/06/16	TRANSFER	$28,600		INCO LIMITED	C

Appendix ‘C’

1. Port Colborne Correspondence

From: davidschulz@portcolborne.ca
Sent: Friday, June 26, 2020 1:02 PM
To: Lianne Crawford
Subject: Re: Fw: Information on a Property in Port Colborne

Hi Lianne,

Unfortunately, I don't believe the City has any existing records on this property. It may be worthwhile to have a look at the Vale CBRA that was
completed. Vale was the previous owner and they have done studies on the lands in the area for Nickel contamination. I believe this study can be found
on their website.

Hope this helps.

Regards,

David Schulz, BURPl
Planner
Planning and Development Department

City of Port Colborne
66 Charlotte Street
Port Colborne ON L3K 3C8
(905) 835-2901 x. 202
Serving you to create an even better community

From: Amy Dayboll/Port_Notes
To: Planner
Date: 2020-06-26 12:45 PM
Subject: Fw: Information on a Property in Port Colborne

Are you able to answer this please?

Thank you,
Amy.

(Embedded image moved to file: pic09161.jpg)

AMY DAYBOLL
PLANNING & DEVELOPMENT
CITY OF PORT COLBORNE
66 CHARLOTTE STREET
PORT COLBORNE, ON L3K 3C8
905-835-2901 X 229

amydayboll@portcolborne.ca

THE CITY OF PORT COLBORNE FACILITIES ARE CLOSED UNTIL FURTHER NOTICE TO HELP LIMIT THE SPREAD OF COVID-19. WE APPRECIATED YOUR UNDERSTANDING OF THESE
UNUSUAL TIMES.
FOR UP-TO-DATE INFORMATION ABOUT HOW THE CITY IS RESPONDING TO COVID-19, INCLUDING FACILITY CLOSURES AND SERVICES DISRUPTIONS, VISIT
http://portcolborne.ca/page/covid-19 .

----- Forwarded by Amy Dayboll/Port_Notes on 2020-06-26 12:44 PM -----

From: "Lianne Crawford" <lcrawford@soilmat.ca>
To: "amydayboll@portcolborne.ca" <amydayboll@portcolborne.ca>
Cc: "Peter Markesic" <pmarkesic@soil-mat.ca>
Date: 2020-06-19 09:24 AM
Subject: Information on a Property in Port Colborne

Hi,

I am looking for some information on a property in Port Colborne.

I am looking to see if the Planning Department has any previous Phase One Environmental Site Assessments on
file with the County in regards to this property.

I don't have an exact address but the property is identified as: 'PT LT 23, CON 1'.

Regards,

Lianne Crawford
Environmental Technician
Soil-Mat Engineers & Consultants Ltd.
M: 905.906.8768 TF: 800.243.1922 www.soil-mat.ca

HAMILTON: 130 Lancing Drive L8W 3A1 T: 905.318.7440 F: 905.318.7455
MILTON: PO Box 40012 Derry Heights PO L9T 7W4 T: 800.243.1922

Appendix ‘D’

1. T.S.S.A Correspondence

From: Public Information Services
Sent: Wednesday, June 24, 2020 9:00 AM
To: Lianne Crawford
Subject: RE: Underground Fuel Tanks

Records Found

Hello,

Thank you for your request for confirmation of public information.

- We confirm the following **fuel storage tanks records** in our database at the subject address(es).

Inst Number	Context	Address	City	Province
10266347	FS PROPANE REFILL CNTR - CYLR FILL	837 REUTER RD	PORT COLBORNE	ON
11585702	FS Propane Tank	837 REUTER RD	PORT COLBORNE	ON

For a further search in our archives please complete our release of public information form found at https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?_mid_=392 and email the completed form to publicinformationservices@tssa.org or through mail along with a fee of $56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Kind regards,

Gaya

From: Lianne Crawford <lcrawford@soilmat.ca>
Sent: June 23, 2020 4:16 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: Underground Fuel Tanks

Hi,

I'm looking for any records of underground fuel storage tanks located at the following addresses in the City of Port Colborne, Ontario:

549 Killaly Street
563 Killaly Street
571 Killaly Street
530 Killaly Street
857 Reuter Road
837 Reuter Road

Regards,

LIANNE CRAWFORD
ENVIRONMENTAL TECHNICIAN
SOIL-MAT ENGINEERS & CONSULTANTS LTD.
M: 905.906.8768 TF: 800.243.1922 www.soil-mat.ca

HAMILTON: 130 Lancing Drive L8W 3A1 T: 905.318.7440 F: 905.318.7455
MILTON: PO Box 40012 Derry Heights PO L9T 7W4 T: 800.243.1922

Appendix ‘E’

1. Ecolog ERIS Report;

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*Killaly Site* *Killaly Site* *Port Colborne ON*
Project No:	*200232*
Report Type:	*RSC Report - Quote*
Order No:	*20200619031*
Requested by:	*Soil-Mat Engineers & Consultants Ltd.*
Date Completed:	*June 24, 2020*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property:	*Killaly Site* *Killaly Site Port Colborne ON*
Project No:	*200232*

Order Information:

Order No:	*20200619031*
Date Requested:	*June 19, 2020*
Requested by:	*Soil-Mat Engineers & Consultants Ltd.*
Report Type:	*RSC Report - Quote*

Historical/Products:

Topographic Map	*RSC Maps*

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Boundary to 0.30km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0
AGR	Aggregate Inventory	Y	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0
AST	Aboveground Storage Tanks	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BORE	Borehole	Y	0	0	0
CA	Certificates of Approval	Y	0	12	12
CDRY	Dry Cleaning Facilities	Y	0	0	0
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	0	0
DRL	Drill Hole Database	Y	0	0	0
EASR	Environmental Activity and Sector Registry	Y	0	0	0
EBR	Environmental Registry	Y	0	4	4
ECA	Environmental Compliance Approval	Y	0	6	6
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	0	6	6
EIIS	Environmental Issues Inventory System	Y	0	0	0
EMHE	Emergency Management Historical Event	Y	0	0	0
EPAR	Environmental Penalty Annual Report	Y	0	0	0
EXP	List of Expired Fuels Safety Facilities	Y	0	2	2
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FRST	Federal Identification Registry for Storage Tank Systems (FIRSTS)	Y	0	0	0
FST	Fuel Storage Tank	Y	0	0	0
FSTH	Fuel Storage Tank - Historic	Y	0	0	0
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	44	44
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	0	0	0
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
INC	Fuel Oil Spills and Leaks	Y	0	1	1

Database	Name	Searched	Project Property	Boundary to 0.30km	Total
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	4	4
NPRI	National Pollutant Release Inventory	Y	0	21	21
OGWE	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	1	1
OPCB	Inventory of PCB Storage Sites	Y	0	3	3
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	4	4
PINC	Pipeline Incidents	Y	0	2	2
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	2	2
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	6	6
SPL	Ontario Spills	Y	0	3	3
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	8	8
	Total:		0	129	129

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
1	CA	FABHAVEN INDUSTRIES INC.	553 KILLALY STREET EAST PORT COLBORNE CITY ON L3K 2J8	NNE/68.0	0.00	35
1	SCT	FABHAVEN INDUSTRIES INC.	553 KILLALY ST E PORT COLBORNE ON L3K 2J8	NNE/68.0	0.00	35
2	CA	R.M. OF NIAGARA 8-2027-88	JOHNSTON ST. MERCURY & JAMES A PORT COLBORNE CITY ON	W/145.5	0.00	35
2	CA	PORT COLBORNE CITY	JAMES AVE./JOHNSTON ST. PORT COLBORNE CITY ON	W/145.5	0.00	36
3	PINC		111 JAMES ST, PORT COLBORNE ON	WNW/127.2	1.00	36
3	SPL	Enbridge Gas Distribution Inc.	111 James St. Port Colborne ON	WNW/127.2	1.00	36
4	WWIS		lot 23 con 1 ON ***Well ID:*** 6600902	NE/95.2	-0.88	37
5	WWIS		PORT COLBOURNE ON ***Well ID:*** 7185577	NNW/114.6	1.00	39
6	SCT	J.T.L. Machine Ltd.	857 Reuter Rd Port Colborne ON L3K 5W1	S/156.7	-1.00	41
6	GEN	J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	S/156.7	-1.00	42
6	EHS		857 Reuter Road Port Colborne ON L3K 5W1	S/156.7	-1.00	42
6	EBR	J. T. L. Machine Limited	857 Reuter Road Port Colborne Ontario L3K 5W1 Port Colborne ON	S/156.7	-1.00	42

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
6	GEN	J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON	S/156.7	-1.00	43
6	EBR	J. T. L. Machine Limited	857 Reuter Road Port Colborne Regional Municipality of Niagara L3K 5W1 CITY OF PORT COLBORNE ON	S/156.7	-1.00	43
6	GEN	J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON	S/156.7	-1.00	44
6	GEN	J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON	S/156.7	-1.00	44
6	GEN	J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	S/156.7	-1.00	45
6	GEN	J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON	S/156.7	-1.00	45
6	ECA	J. T. L. Machine Limited	857 Reuter Rd Port Colborne ON L3K 5W1	S/156.7	-1.00	45
6	ECA	J. T. L. Machine Limited	857 Reuter Road Port Colborne ON L3K 5W1	S/156.7	-1.00	46
6	GEN	J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	S/156.7	-1.00	46
6	GEN	JTL INTEGRATED MACHINE LTD.	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	S/156.7	-1.00	46
6	GEN	J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	S/156.7	-1.00	47
6	GEN	JTL INTEGRATED MACHINE LTD.	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	S/156.7	-1.00	47

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
6	GEN	JTL INTEGRATED MACHINE LTD.	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	S/156.7	-1.00	48
7	WWIS		lot 23 con 1 ON ***Well ID:*** 6600903	ENE/187.8	-1.06	48
8	ECA	The Regional Municipality of Niagara	185 Johnston St Port Colborne ON L2V 4T7	WSW/196.6	0.00	50
9	EHS		487 Killaly Street East Port Colborne ON L3K 1P9	NW/147.2	1.00	50
10	OOGW	Consumers 128	Humberstone ON ***Licence No:*** F014856	NW/167.7	1.00	51
11	GEN	SR Environmental	673 Killaly Street East Port Colborne ON L3K 5V3	ENE/182.6	-1.00	52
12	WWIS		ON ***Well ID:*** 6601618	NNW/226.8	1.00	52
13	WWIS		lot 23 con 2 ON ***Well ID:*** 6601004	NE/208.1	-1.00	54
14	EHS		Provincial Highway 140 Port Colborne ON	NNE/221.0	-2.00	57
15	EHS		442 Killaly St East Port Colborne ON L3K 1P5	NW/232.0	1.00	57
16	CA	P.C. DROP FORGINGS LIMITED	837 REUTER ROAD PORT COLBORNE CITY ON	S/265.5	-1.00	57
16	CA	P.C. DROP FORGINGS, LTD.	837 REUTER ROAD PORT COLBORNE CITY ON	S/265.5	-1.00	57
16	CA	INGERSOLL DIVISION, P.C. DROP FORGINGS	837 REUTER ROAD PORT COLBORNE CITY ON	S/265.5	-1.00	58

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
16	CA	I.M.T. - DIVISION OF CANRON INC.	837 REUTER ROAD PORT COLBORNE CITY ON	S/265.5	-1.00	58
16	CA	INGERSOLL DIVISION, P.C. DROP FORGINGS	837 REUTER ROAD PORT COLBORNE CITY ON	S/265.5	-1.00	58
16	CA	IVACAN INC. O/A P.O. CROP FORGING, IMT -	837 REUTER ROAD PORT COLBORNE ON	S/265.5	-1.00	59
16	SCT	IMT CORPORATION	837 REUTER RD PORT COLBORNE ON L3K	S/265.5	-1.00	59
16	NPCB	P. C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD.; P O BOX 100 PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	59
16	SCT	I.M.T. (A DIV. OF CANRON INC.)	837 REUTER RD PORT COLBORNE ON L3K	S/265.5	-1.00	59
16	CA	IVACAN INC., O/A P.C. DROP FORGING, IMT-	837 REUTER RD., PT.LOT 23 PORT COLBORNE CITY ON	S/265.5	-1.00	60
16	NPCB	P. C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. REUTER RD. PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	60
16	NPRI	IMT-DIV.OF CANRON INC.	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K5V7	S/265.5	-1.00	60
16	NPRI	IMT-A DIV. OF CANRON	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K5V7	S/265.5	-1.00	61
16	NPRI	IMT-A DIVISION OF CANRON INC.	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K5V7	S/265.5	-1.00	62
16	NPRI	IMT CORPORATION	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	63
16	NPRI	IMT CORPORATION	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	64

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
16	NPRI	IMT CORPORATION	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	65
16	SPL	IMT FORGE DIVISION	IMT FORGE DIV. 837 REUTER RD. PORT COLBORNE PORT COLBORNE CITY ON	S/265.5	-1.00	66
16	REC	P.C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. PORT COLBORNE ON	S/265.5	-1.00	66
16	EBR	IMT Corporation	837 Reuter Road, Port Colborne CITY OF PORT COLBORNE ON	S/265.5	-1.00	67
16	NPRI	IMT CORPORATION	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	67
16	REC	P.C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. P.O. BOX 100 PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	68
16	OPCB	P. C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. P O BOX 100 PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	68
16	OPCB	P. C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. P O BOX 100 PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	69
16	OPCB	P. C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. P O BOX 100 PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	70
16	GEN	IMT - A DIVISION OF CANRON INC.	837 REUTER ROAD PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	70
16	GEN	IMT CORPORATION	837 REUTER ROAD PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	71
16	GEN	P.C. DROP FORGINGS LTD	837 REUTER RD. P.O. BOX 100 PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	71
16	GEN	P.C. (SEE & USE ON0049412) 30-057	837 REUTER RD. P.O. BOX 100 PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	71

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
16	GEN	P.C. (SEE & USE ON0049412)	837 REUTER ROAD PORT COLBORNE ON	S/265.5	-1.00	72
16	NPRI	IMT CORPORATION	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	72
16	NPRI	IMT CORPORATION - FORGE GROUP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K5V7	S/265.5	-1.00	73
16	GEN	IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	75
16	SCT	IMT Partnership	837 Reuter Rd Port Colborne ON L3K 5V7	S/265.5	-1.00	75
16	NPRI	IMT	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	75
16	GEN	IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	77
16	NPRI	IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	78
16	SCT	P C Forge	837 Reuter Rd Port Colborne ON L3K 5V7	S/265.5	-1.00	79
16	NPRI	IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	79
16	NPRI	IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	80
16	EBR	IMT Partnership	PC Forge, 837 Reuter Rd., Port Colborne City, Regional Municipality of Niagara CITY OF PORT COLBORNE ON	S/265.5	-1.00	82

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
16	NPCB	IMT CORPORATION-FORGE DIVISION(DROP FORGIN	PO BOX 10 837 REUTER ROAD. PO BOX 100 PORT COL BORNE ON L3K 5V7	S/265.5	-1.00	82
16	NPRI	IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	82
16	CA	IMT Partnership	837 Reuter Rd Port Colborne ON	S/265.5	-1.00	84
16	CA	IMT Partnership	837 Reuter Rd Port Colborne ON	S/265.5	-1.00	84
16	NPRI	IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	84
16	EHS		837 Reuter Rd Port Colborne ON	S/265.5	-1.00	86
16	EXP	IMT CORPORAITON	837 REUTER RD PORT COLBORNE ON	S/265.5	-1.00	86
16	EXP	IMT CORPORAITON	837 REUTER RD PORT COLBORNE ON	S/265.5	-1.00	86
16	NPRI	IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	86
16	GEN	IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON	S/265.5	-1.00	88
16	INC		837 REUTER ROAD, PORT COLBORNE ON	S/265.5	-1.00	88
16	NPRI	IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	89
16	GEN	IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON	S/265.5	-1.00	90

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
16	GEN	IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON	S/265.5	-1.00	91
16	GEN	IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K 5V7	S/265.5	-1.00	91
16	NPRI	IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	92
16	GEN	IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON	S/265.5	-1.00	93
16	NPRI	PC FORGE - IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	94
16	ECA	IMT Partnership	837 Reuter Rd Port Colborne ON N5C 3K6	S/265.5	-1.00	95
16	ECA	IMT Partnership	837 Reuter Rd Port Colborne ON N5C 3K6	S/265.5	-1.00	95
16	GEN	IMT PARTNERSHIP	837 Reuter Road Port Colborne ON L3K 5V7	S/265.5	-1.00	95
16	GEN	IMT PARTNERSHIP	837 Reuter Road Port Colborne ON L3K 5V7	S/265.5	-1.00	96
16	GEN	IMT PARTNERSHIP	837 Reuter Road Port Colborne ON L3K 5V7	S/265.5	-1.00	96
16	GEN	IMT PARTNERSHIP	837 Reuter Road Port Colborne ON L3K 5V7	S/265.5	-1.00	97
16	NPRI	PC Forge - IMT Partnership	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	S/265.5	-1.00	97
16	ECA	R & G Holdings Corp.	837 Reuter Rd Port Colborne ON N5C 3K6	S/265.5	-1.00	98

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
16	EHS		837 Reuter Road Port Colborne ON	S/265.5	-1.00	98
16	GEN	IMT PARTNERSHIP	837 Reuter Road Port Colborne ON L3K 5V7	S/265.5	-1.00	99
17	PINC		140 MERCURY AVE, PORT COLBORNE ON	WNW/269.6	1.00	99
17	SPL		140 Mercury Ave Port Colborne ON	WNW/269.6	1.00	99
18	NPCB	P.C. DROP FORGINGS LIMITED	P.O. BOX 10 PORT COLBORNE ON L3K 5V7	SSW/272.4	-1.00	100
19	WWIS		lot 22 con 1 ON ***Well ID:*** 6600900	ENE/272.7	-1.00	100
20	WWIS		ON ***Well ID:*** 7188654	SSW/280.8	-1.00	102
21	NPRI	PC FORGE - IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	SSW/280.8	-1.00	103
22	PES	BERTULI, E. & SONS LTD	437 KILLALY STREET EAST PORT COLBORNE ON L3K 1P7	WNW/280.1	1.00	104
22	PES	BERTULI, E. & SONS LTD	437 KILLALY STREET EAST PORT COLBORNE ON L3K1P7	WNW/280.1	1.00	105
22	PES	PORT PRO HARDWARE	437 KILLALY ST E PORT COLBORNE ON L3K1P7	WNW/280.1	1.00	105
22	PES	BERTULI, E. & SONS LTD	437 KILLALY STREET EAST PORT COLBORNE ON L3K1P7	WNW/280.1	1.00	105
23	GEN	WELLAND COUNTY R.C.S.S. BOARD	OUR LADY OF GOOD COUNSEL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	106

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
23	GEN	WELLAND COUNTY R.C.S.S. BOARD 42-636	OUR LADY OF GOOD COUNSEL, 530 KILLALY STREET E., PORT COLBORNE, C/O427 RICERD WELLAND ON L3C 7C1	N/295.9	0.84	106
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	OUR LADY OF GOOD COUNSEL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	106
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	107
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	107
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	108
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	108
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	109
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON	N/295.9	0.84	109
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	109
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	110
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	110
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	111

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
23	GEN	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	N/295.9	0.84	111
24	GEN	CAISSE-POPULAIRE	425 KILLALY STREET EAST PORT COLBORNE ON L3K 1P7	WNW/299.6	1.00	112
25	WWIS		lot 24 con 2 ON ***Well ID:*** 6601010	NW/284.0	1.00	112

Executive Summary: Summary By Data Source

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 12 CA site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
FABHAVEN INDUSTRIES INC.	553 KILLALY STREET EAST PORT COLBORNE CITY ON L3K 2J8	68.0	1
PORT COLBORNE CITY	JAMES AVE./JOHNSTON ST. PORT COLBORNE CITY ON	145.5	2
R.M. OF NIAGARA 8-2027-88	JOHNSTON ST. MERCURY & JAMES A PORT COLBORNE CITY ON	145.5	2
P.C. DROP FORGINGS, LTD.	837 REUTER ROAD PORT COLBORNE CITY ON	265.5	16
P.C. DROP FORGINGS LIMITED	837 REUTER ROAD PORT COLBORNE CITY ON	265.5	16
IMT Partnership	837 Reuter Rd Port Colborne ON	265.5	16
INGERSOLL DIVISION, P.C. DROP FORGINGS	837 REUTER ROAD PORT COLBORNE CITY ON	265.5	16
IMT Partnership	837 Reuter Rd Port Colborne ON	265.5	16
INGERSOLL DIVISION, P.C. DROP FORGINGS	837 REUTER ROAD PORT COLBORNE CITY ON	265.5	16

Site	Address	Distance (m)	Map Key
IVACAN INC. O/A P.O. CROP FORGING, IMT -	837 REUTER ROAD PORT COLBORNE ON	265.5	16
IVACAN INC., O/A P.C. DROP FORGING, IMT-	837 REUTER RD., PT.LOT 23 PORT COLBORNE CITY ON	265.5	16
I.M.T. - DIVISION OF CANRON INC.	837 REUTER ROAD PORT COLBORNE CITY ON	265.5	16

EBR - Environmental Registry

A search of the EBR database, dated 1994-Apr 30, 2020 has found that there are 4 EBR site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
J. T. L. Machine Limited	857 Reuter Road Port Colborne Ontario L3K 5W1 Port Colborne ON	156.7	6
J. T. L. Machine Limited	857 Reuter Road Port Colborne Regional Municipality of Niagara L3K 5W1 CITY OF PORT COLBORNE ON	156.7	6
IMT Partnership	PC Forge, 837 Reuter Rd., Port Colborne City, Regional Municipality of Niagara CITY OF PORT COLBORNE ON	265.5	16
IMT Corporation	837 Reuter Road, Port Colborne CITY OF PORT COLBORNE ON	265.5	16

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011-May 31, 2020 has found that there are 6 ECA site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
J. T. L. Machine Limited	857 Reuter Rd Port Colborne ON L3K 5W1	156.7	6

Site	Address	Distance (m)	Map Key
J. T. L. Machine Limited	857 Reuter Road Port Colborne ON L3K 5W1	156.7	6
The Regional Municipality of Niagara	185 Johnston St Port Colborne ON L2V 4T7	196.6	8
IMT Partnership	837 Reuter Rd Port Colborne ON N5C 3K6	265.5	16
IMT Partnership	837 Reuter Rd Port Colborne ON N5C 3K6	265.5	16
R & G Holdings Corp.	837 Reuter Rd Port Colborne ON N5C 3K6	265.5	16

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Jan 31, 2020 has found that there are 6 EHS site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	857 Reuter Road Port Colborne ON L3K 5W1	156.7	6
	487 Killaly Street East Port Colborne ON L3K 1P9	147.2	9
	Provincial Highway 140 Port Colborne ON	221.0	14
	442 Killaly St East Port Colborne ON L3K 1P5	232.0	15

Site	Address	Distance (m)	Map Key
	837 Reuter Road Port Colborne ON	265.5	16
	837 Reuter Rd Port Colborne ON	265.5	16

EXP - List of Expired Fuels Safety Facilities

A search of the EXP database, dated Feb 28, 2017 has found that there are 2 EXP site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
IMT CORPORAITON	837 REUTER RD PORT COLBORNE ON	265.5	16
IMT CORPORAITON	837 REUTER RD PORT COLBORNE ON	265.5	16

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Jan 31, 2020 has found that there are 44 GEN site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	156.7	6
J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON	156.7	6
J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON	156.7	6
J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON	156.7	6

Site	Address	Distance (m)	Map Key
J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	156.7	6
J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON	156.7	6
J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	156.7	6
JTL INTEGRATED MACHINE LTD.	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	156.7	6
J.T.L. MACHINE LIMITED	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	156.7	6
JTL INTEGRATED MACHINE LTD.	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	156.7	6
JTL INTEGRATED MACHINE LTD.	857 REUTER ROAD PORT COLBORNE ON L3K 5W1	156.7	6
SR Environmental	673 Killaly Street East Port Colborne ON L3K 5V3	182.6	11
IMT - A DIVISION OF CANRON INC.	837 REUTER ROAD PORT COLBORNE ON L3K 5V7	265.5	16
IMT CORPORATION	837 REUTER ROAD PORT COLBORNE ON L3K 5V7	265.5	16
P.C. DROP FORGINGS LTD	837 REUTER RD. P.O. BOX 100 PORT COLBORNE ON L3K 5V7	265.5	16
P.C. (SEE & USE ON0049412) 30-057	837 REUTER RD. P.O. BOX 100 PORT COLBORNE ON L3K 5V7	265.5	16

Site	Address	Distance (m)	Map Key
P.C. (SEE & USE ON0049412)	837 REUTER ROAD PORT COLBORNE ON	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K 5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K 5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K 5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON	265.5	16
IMT PARTNERSHIP	837 Reuter Road Port Colborne ON L3K 5V7	265.5	16
IMT PARTNERSHIP	837 Reuter Road Port Colborne ON L3K 5V7	265.5	16
IMT PARTNERSHIP	837 Reuter Road Port Colborne ON L3K 5V7	265.5	16

Site	Address	Distance (m)	Map Key
IMT PARTNERSHIP	837 Reuter Road Port Colborne ON L3K 5V7	265.5	16
IMT PARTNERSHIP	837 Reuter Road Port Colborne ON L3K 5V7	265.5	16
WELLAND COUNTY R.C.S.S. BOARD	OUR LADY OF GOOD COUNSEL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
WELLAND COUNTY R.C.S.S. BOARD 42-636	OUR LADY OF GOOD COUNSEL, 530 KILLALY STREET E., PORT COLBORNE, C/O427 RICERD WELLAND ON L3C 7C1	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	OUR LADY OF GOOD COUNSEL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23

Site	Address	Distance (m)	Map Key
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON	295.9	23
NIAGARA CATHOLIC DISTRICT SCHOOL BOARD	ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	295.9	23
CAISSE-POPULAIRE	425 KILLALY STREET EAST PORT COLBORNE ON L3K 1P7	299.6	24

INC - Fuel Oil Spills and Leaks

A search of the INC database, dated Feb 28, 2017 has found that there are 1 INC site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	837 REUTER ROAD, PORT COLBORNE ON	265.5	16

NPCB - National PCB Inventory

A search of the NPCB database, dated 1988-2008* has found that there are 4 NPCB site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
IMT CORPORATION-FORGE DIVISION(DROP FORGIN	PO BOX 10 837 REUTER ROAD. PO BOX 100 PORT COL BORNE ON L3K 5V7	265.5	16
P. C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD.; P O BOX 100 PORT COLBORNE ON L3K 5V7	265.5	16

Site	Address	Distance (m)	Map Key
P. C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. REUTER RD. PORT COLBORNE ON L3K 5V7	265.5	16
P.C. DROP FORGINGS LIMITED	P.O. BOX 10 PORT COLBORNE ON L3K 5V7	272.4	18

NPRI - National Pollutant Release Inventory

A search of the NPRI database, dated 1993-May 2017 has found that there are 21 NPRI site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
IMT CORPORATION	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT CORPORATION	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT CORPORATION	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT-A DIVISION OF CANRON INC.	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K5V7	265.5	16
IMT-A DIV. OF CANRON	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K5V7	265.5	16
IMT-DIV.OF CANRON INC.	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16

Site	Address	Distance (m)	Map Key
PC Forge - IMT Partnership	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
PC FORGE - IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
IMT CORPORATION - FORGE GROUP	837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K5V7	265.5	16
IMT CORPORATION	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16

Site	Address	Distance (m)	Map Key
IMT CORPORATION	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	265.5	16
PC FORGE - IMT PARTNERSHIP	837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	280.8	21

OOGW - Ontario Oil and Gas Wells

A search of the OOGW database, dated 1800-Jun 2019 has found that there are 1 OOGW site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
Consumers 128	Humberstone ON ***Licence No:*** F014856	167.7	10

OPCB - Inventory of PCB Storage Sites

A search of the OPCB database, dated 1987-Oct 2004; 2012-Dec 2013 has found that there are 3 OPCB site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
P. C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. P O BOX 100 PORT COLBORNE ON L3K 5V7	265.5	16
P. C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. P O BOX 100 PORT COLBORNE ON L3K 5V7	265.5	16
P. C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. P O BOX 100 PORT COLBORNE ON L3K 5V7	265.5	16

PES - Pesticide Register

A search of the PES database, dated 1988 - May 2020 has found that there are 4 PES site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
BERTULI, E. & SONS LTD	437 KILLALY STREET EAST PORT COLBORNE ON L3K 1P7	280.1	22
PORT PRO HARDWARE	437 KILLALY ST E PORT COLBORNE ON L3K1P7	280.1	22
BERTULI, E. & SONS LTD	437 KILLALY STREET EAST PORT COLBORNE ON L3K1P7	280.1	22
BERTULI, E. & SONS LTD	437 KILLALY STREET EAST PORT COLBORNE ON L3K1P7	280.1	22

PINC - Pipeline Incidents

A search of the PINC database, dated Feb 28, 2017 has found that there are 2 PINC site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	111 JAMES ST, PORT COLBORNE ON	127.2	3
	140 MERCURY AVE, PORT COLBORNE ON	269.6	17

REC - Ontario Regulation 347 Waste Receivers Summary

A search of the REC database, dated 1986-2016 has found that there are 2 REC site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
P.C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. PORT COLBORNE ON	265.5	16
P.C. DROP FORGINGS LTD. MEM. OF IVACO	837 REUTER RD. P.O. BOX 100 PORT COLBORNE ON L3K 5V7	265.5	16

SCT - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 6 SCT site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
FABHAVEN INDUSTRIES INC.	553 KILLALY ST E PORT COLBORNE ON L3K 2J8	68.0	1
J.T.L. Machine Ltd.	857 Reuter Rd Port Colborne ON L3K 5W1	156.7	6
IMT CORPORATION	837 REUTER RD PORT COLBORNE ON L3K	265.5	16
I.M.T. (A DIV. OF CANRON INC.)	837 REUTER RD PORT COLBORNE ON L3K	265.5	16
P C Forge	837 Reuter Rd Port Colborne ON L3K 5V7	265.5	16
IMT Partnership	837 Reuter Rd Port Colborne ON L3K 5V7	265.5	16

SPL - Ontario Spills

A search of the SPL database, dated 1988-Nov 2019 has found that there are 3 SPL site(s) within approximately 0.30 kilometers of the project property.

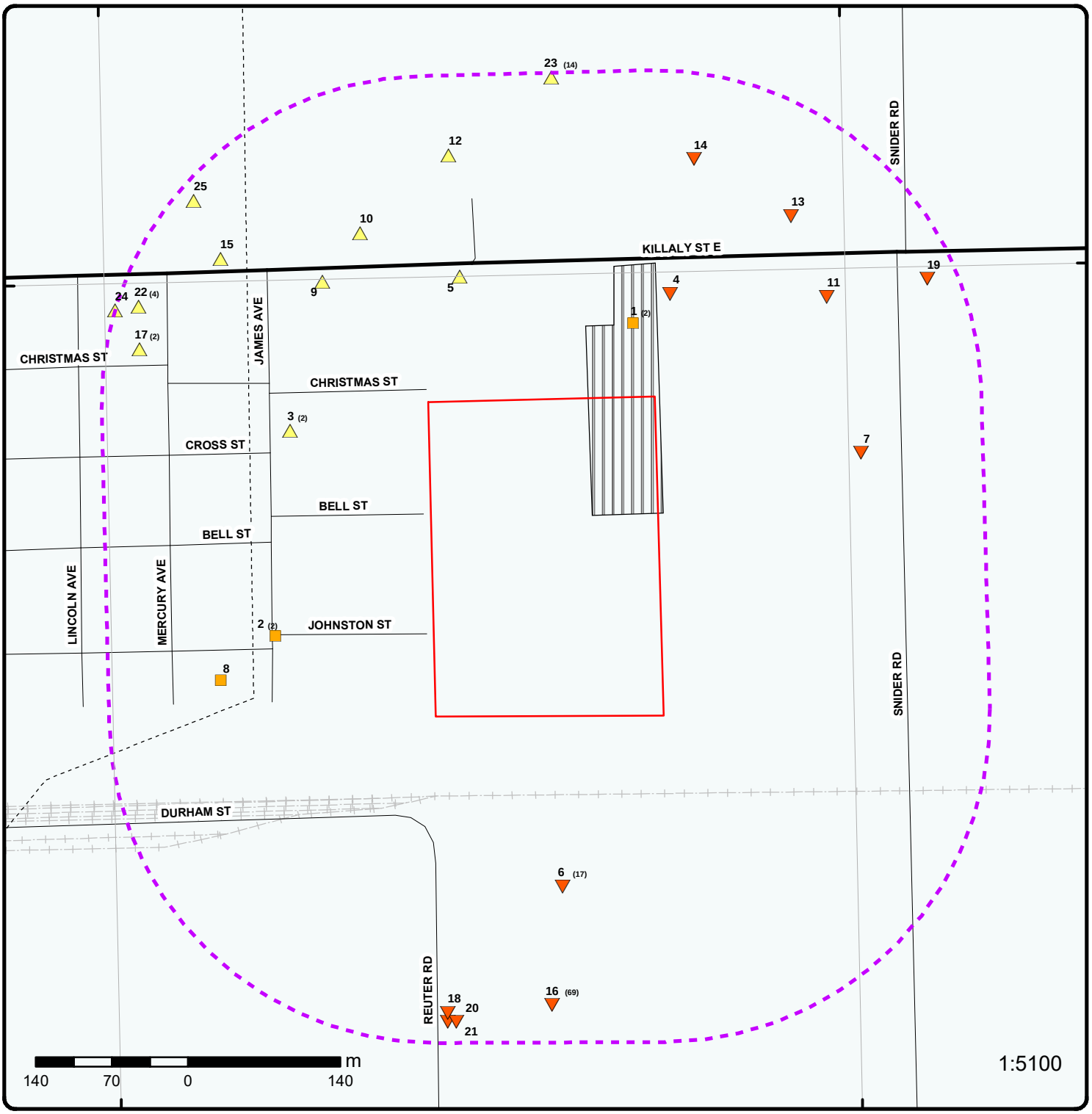
Site	Address	Distance (m)	Map Key
Enbridge Gas Distribution Inc.	111 James St. Port Colborne ON	127.2	3
IMT FORGE DIVISION	IMT FORGE DIV. 837 REUTER RD. PORT COLBORNE PORT COLBORNE CITY ON	265.5	16
	140 Mercury Ave Port Colborne ON	269.6	17

Site	Address	Distance (m)	Map Key

WWIS - Water Well Information System

A search of the WWIS database, dated Feb 28, 2019 has found that there are 8 WWIS site(s) within approximately 0.30 kilometers of the project property.

Site	Address	Distance (m)	Map Key
	lot 23 con 1 ON ***Well ID:*** 6600902	95.2	4
	PORT COLBOURNE ON ***Well ID:*** 7185577	114.6	5
	lot 23 con 1 ON ***Well ID:*** 6600903	187.8	7
	ON ***Well ID:*** 6601618	226.8	12
	lot 23 con 2 ON ***Well ID:*** 6601004	208.1	13
	lot 22 con 1 ON ***Well ID:*** 6600900	272.7	19
	ON ***Well ID:*** 7188654	280.8	20
	lot 24 con 2 ON ***Well ID:*** 6601010	284.0	25



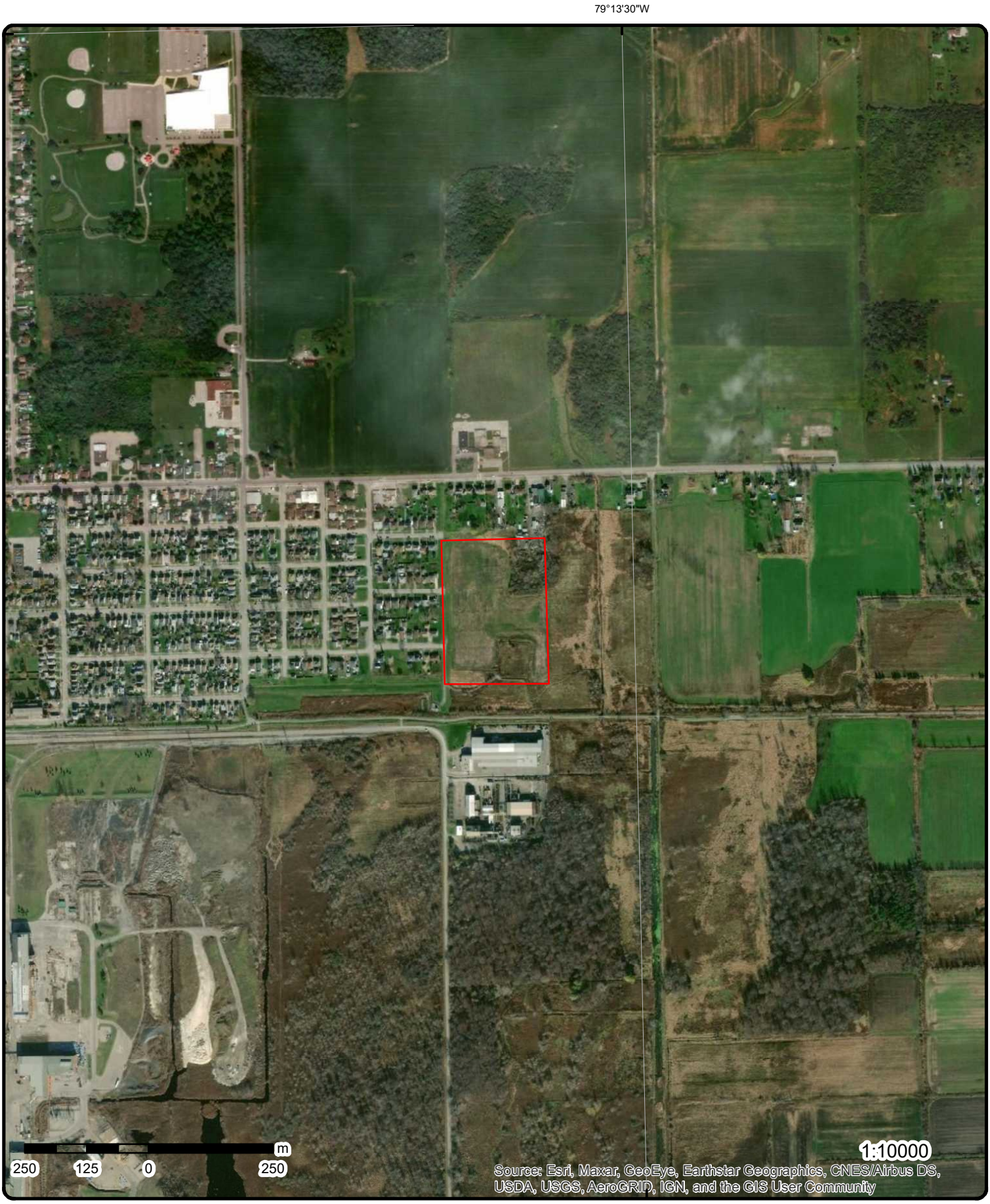
Map : 0.3 Kilometer Radius

Order Number: 20200619031

Address: Killaly Site, Port Colborne, ON

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Project Property	Expressway	Industrial and Resource - Regions	National Park
Buffer Outline	Principal Highway	Main Line	Provincial or Territorial Park
Eris Sites with Higher Elevation	Secondary Highway	Sidetrack	Other Park
Eris Sites with Same Elevation	Major Road	Transit Line	Golf Course or Driving Range
Eris Sites with Lower Elevation	Local road	Abandoned Line	Park or Sports Field
Eris Sites with Unknown Elevation	Trail		Other Recreation Area
	Proposed Road		
	Ferry Route/Ice Road		



Aerial

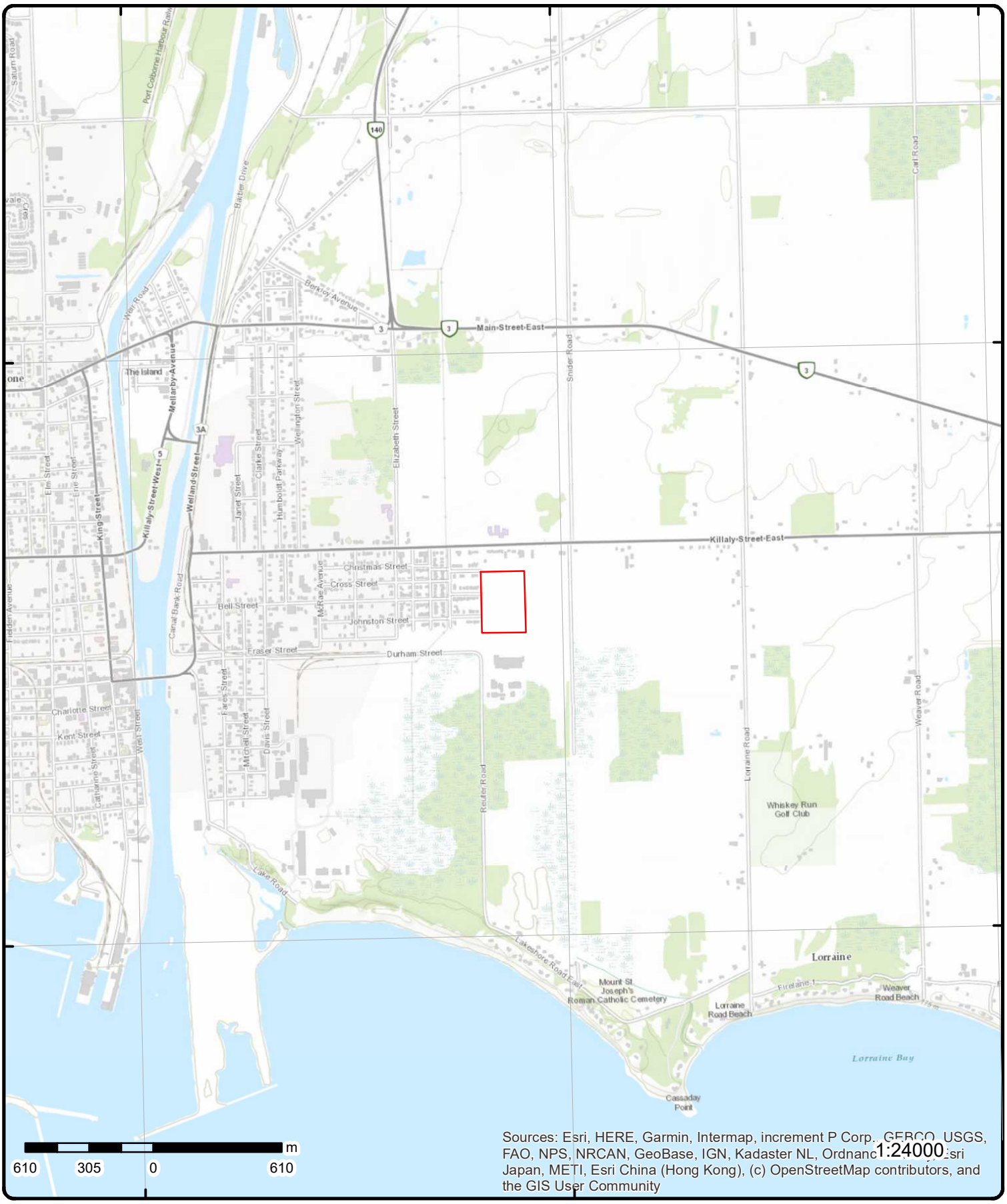
Year: 2015

Order Number: 20200619031

Address: Killaly Site, Port Colborne, ON

Source: ESRI World Imagery

ENVIRONMENTAL RISK INFORMATION SERVICES



Topographic Map

Address: Killaly Site, ON

Source: ESRI World Topographic Map

Order Number: 20200619031

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 2	NNE/68.0	178.8 / 0.00	FABHAVEN INDUSTRIES INC. 553 KILLALY STREET EAST PORT COLBORNE CITY ON L3K 2J8	CA

Certificate #: 8-2110-93-
Application Year: 93
Issue Date: 7/28/1993
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: EXHAUST FAN FOR PAINT SPRAY BOOTH
Contaminants: Methyl Ethyl Ketone Peroxide
Emission Control: Panel Filter

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	2 of 2	NNE/68.0	178.8 / 0.00	FABHAVEN INDUSTRIES INC. 553 KILLALY ST E PORT COLBORNE ON L3K 2J8	SCT

Established: 1989
Plant Size (ft²): 0
Employment: 4

--Details--
Description: PLASTICS PRODUCTS, NOT ELSEWHERE CLASSIFIED
SIC/NAICS Code: 3089

Description: MINERAL WOOL
SIC/NAICS Code: 3296

Description: All Other Non-Metallic Mineral Product Manufacturing
SIC/NAICS Code: 327990

Description: All Other Miscellaneous Manufacturing
SIC/NAICS Code: 339990

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 2	W/145.5	178.8 / 0.00	R.M. OF NIAGARA 8-2027-88 JOHNSTON ST. MERCURY & JAMES A PORT COLBORNE CITY ON	CA

Certificate #: 8-2016-88-
Application Year: 88
Issue Date: 2/29/1988
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Client Postal Code:
Project Description: STANDBY NAT. GAS GENERATOR
Contaminants: Nitrogen Oxides
Emission Control: No Controls

---

2 | **2 of 2** | **W/145.5** | **178.8 / 0.00** | **PORT COLBORNE CITY**
JAMES AVE./JOHNSTON ST.
PORT COLBORNE CITY ON | **CA**

Certificate #: 7-0443-93-
Application Year: 93
Issue Date: 6/3/1993
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

---

3 | **1 of 2** | **WNW/127.2** | **179.8 / 1.00** | **111 JAMES ST, PORT COLBORNE ON** | **PINC**

Incident ID:
Incident No: 1906062
Type: FS-Pipeline Incident
Status Code: Pipeline Damage Reason Est
Fuel Occurrence Tp:
Fuel Type:
Tank Status: RC Established
Task No: 6255360
Spills Action Centre:
Method Details: E-mail
Fuel Category: Natural Gas
Date of Occurrence:
Occurrence Start Date: 2016/07/25
Operation Type:
Pipeline Type:
Regulator Type:
Summary: 111 JAMES ST, PORT COLBORNE - PIPELINE HIT - 1/2"
Reported By: Rob Rush - ENBRIDGE
Affiliation:
Occurrence Desc:
Damage Reason: Facility was not located or marked
Notes:

Health Impact:
Environment Impact:
Property Damage: No
Service Interupt:
Enforce Policy: No
Public Relation:
Pipeline System:
Depth:
Pipe Material:
PSIG:
Attribute Category: FS-Perform P-line Inc Invest
Regulator Location:

---

3 | **2 of 2** | **WNW/127.2** | **179.8 / 1.00** | **Enbridge Gas Distribution Inc.**
111 James St.
Port Colborne ON | **SPL**

Ref No: 7151-ABZR7M
Site No: NA
Incident Dt: 2016/07/19
Year:
Incident Cause:
Incident Event: Leak/Break

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type: Miscellaneous Communal
Agency Involved:

Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	NATURAL GAS (METHANE)	**Site Address:**	111 James St.
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Port Colborne
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Air	**Northing:**	4750170
MOE Response:	No	**Easting:**	644416
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2016/07/19	**Site Map Datum:**	
Dt Document Closed:	2016/08/10	**SAC Action Class:**	TSSA - Fuel Safety Branch - Hydrocarbon Fuel Release/Spill
Incident Reason:	Operator/Human Error	**Source Type:**	
Site Name:	Half Inch Plastic Line Strike<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	TSSA/FSB: Enbridge - .5" Line strike - Made safe		
Contaminant Qty:	0 other - see incident description		

4 **1 of 1** **NE/95.2** **178.0 / -0.88** **lot 23 con 1 ON** **WWIS**

Well ID:	6600902	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	11/3/1954
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	4720
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	NIAGARA (WELLAND)
Elevation (m):		**Municipality:**	PORT COLBORNE CITY (HUMBERSTONE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	023
Well Depth:		**Concession:**	01
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10460636	**Elevation:**	176.852218
DP2BR:	9	**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	r	**East83:**	644767.9
Code OB Desc:	Bedrock	**North83:**	4750289
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	9
Date Completed:	10/14/1954	**UTMRC Desc:**	unknown UTM
Remarks:		**Location Method:**	p9
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932590177
Layer:	2
Color:	
General Color:	
Mat1:	17
Most Common Material:	SHALE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	9
Formation End Depth:	27
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932590176
Layer:	1
Color:	
General Color:	
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	9
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	11009206
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930748174
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	27
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930748173
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	9
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	996600902
Pump Set At:	
Static Level:	7
Final Level After Pumping:	7
Recommended Pump Depth:	
Pumping Rate:	4
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2
Water State After Test:	CLOUDY
Pumping Test Method:	1
Pumping Duration HR:	0
Pumping Duration MIN:	30
Flowing:	N

Water Details

Water ID:	933948174
Layer:	1
Kind Code:	3
Kind:	SULPHUR
Water Found Depth:	27
Water Found Depth UOM:	ft

---

5 ***1 of 1*** ***NNW/114.6*** ***179.8 / 1.00*** ***PORT COLBOURNE ON*** ***WWIS***

Well ID:	7185577	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:	Monitoring	***Date Received:***	8/16/2012
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Observation Wells	***Abandonment Rec:***	
Water Type:		***Contractor:***	7295
Casing Material:		***Form Version:***	7
Audit No:	Z141534	***Owner:***	
Tag:	A113835	***Street Name:***	487 KILLALY ST E
Construction Method:		***County:***	NIAGARA (WELLAND)
Elevation (m):		***Municipality:***	PORT COLBORNE CITY (HUMBERSTONE)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1004116561	***Elevation:***	177.999359
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	644574
Code OB Desc:		***North83:***	4750305
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	5
Date Completed:	5/12/2012	***UTMRC Desc:***	margin of error : 100 m - 300 m
Remarks:		***Location Method:***	gis
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1004412181
Layer:	1
Color:	2
General Color:	GREY
Mat1:	26
Most Common Material:	ROCK
Mat2:	12
Other Materials:	STONES
Mat3:	71
Other Materials:	FRACTURED
Formation Top Depth:	0
Formation End Depth:	3
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1004412182
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Other Materials:	
Mat3:	73
Other Materials:	HARD
Formation Top Depth:	3
Formation End Depth:	22
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1004412189
Layer:	1
Plug From:	1
Plug To:	4
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 6
Method Construction: Boring
Other Method Construction:

Pipe Information

Pipe ID: 1004412180
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004412185
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 5
Casing Diameter: 1.8
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1004412186
Layer: 1
Slot: 10
Screen Top Depth: 5
Screen End Depth: 22
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2

Hole Diameter

Hole ID: 1004412183
Diameter:
Depth From:
Depth To:
Hole Depth UOM: ft
Hole Diameter UOM: inch

6	***1 of 17***	***S/156.7***	***177.8 / -1.00***	***J.T.L. Machine Ltd.*** ***857 Reuter Rd*** ***Port Colborne ON L3K 5W1***	***SCT***

Established: 01-JUL-64
Plant Size (ft²): 55000
Employment:

--Details--
Description: Machine Shops
SIC/NAICS Code: 332710

Description: Paper Industry Machinery Manufacturing

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

SIC/NAICS Code: 333291

Description: All Other Miscellaneous Fabricated Metal Product Manufacturing
SIC/NAICS Code: 332999

Description: Mining and Oil and Gas Field Machinery Manufacturing
SIC/NAICS Code: 333130

Description: Other Metalworking Machinery Manufacturing
SIC/NAICS Code: 333519

Description: Machine Shops
SIC/NAICS Code: 332710

---

6 ***2 of 17*** ***S/156.7*** ***177.8 / -1.00*** ***J.T.L. MACHINE LIMITED*** ***GEN***
857 REUTER ROAD
PORT COLBORNE ON L3K 5W1

Generator No: ON0390400
Status:
Approval Years: 00,01,02,03,04,05,06,07,08
Contam. Facility:
MHSW Facility:
SIC Code: 3081
SIC Description: MACHINE SHOP IND.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 131
Waste Class Desc: NEUTRALIZED WASTES - HEAVY METALS

---

6 ***3 of 17*** ***S/156.7*** ***177.8 / -1.00*** ***857 Reuter Road*** ***EHS***
Port Colborne ON L3K 5W1

Order No: 20040615002
Status: C
Report Type: Site Report
Report Date: 6/16/04
Date Received: 6/15/04
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection: Charlotte St/Steele St
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -79.230355
Y: 42.886269

---

6 ***4 of 17*** ***S/156.7*** ***177.8 / -1.00*** ***J. T. L. Machine Limited*** ***EBR***
857 Reuter Road Port Colborne Ontario L3K 5W1
Port Colborne
ON

EBR Registry No: IA05E1967
Ministry Ref No: 1155-6JZS55
Notice Type: Instrument Decision
Notice Stage: 803005135

Decision Posted:
Exception Posted:
Section:
Act 1:

Notice Date: August 30, 2007
Proposal Date: December 22, 2005
Year: 2005
Act 2:
Site Location Map:
Instrument Type: (EPA s. 9) - Approval for discharge into the natural environment other than water (i.e. Air)
Off Instrument Name:
Posted By:
Company Name: J. T. L. Machine Limited
Site Address:
Location Other:
Proponent Name:
Proponent Address: 857 Reuter Road, Port Colborne Ontario, L3K 5W1
Comment Period:
URL:

Site Location Details:

857 Reuter Road Port Colborne Ontario L3K 5W1 Port Colborne

6	5 of 17	S/156.7	177.8 / -1.00	J.T.L. MACHINE LIMITED 857 REUTER ROAD PORT COLBORNE ON	GEN

Generator No: ON0390400
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 332710
SIC Description: Machine Shops
PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 131
Waste Class Desc: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

6	6 of 17	S/156.7	177.8 / -1.00	J. T. L. Machine Limited 857 Reuter Road Port Colborne Regional Municipality of Niagara L3K 5W1 CITY OF PORT COLBORNE ON	EBR

EBR Registry No: 011-7562
Ministry Ref No: 8084-8ZKRRF
Notice Type: Instrument Decision
Notice Stage: 804307634
Notice Date: March 09, 2015
Proposal Date: November 14, 2012
Year: 2012
Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:
Instrument Type: (EPA Part II.1-air) - Environmental Compliance Approval (project type: air)
Off Instrument Name:
Posted By:
Company Name: J. T. L. Machine Limited

Site Address:
Location Other:
Proponent Name:
Proponent Address: 857 Reuter Road, Port Colborne Ontario, Canada L3K 5W1
Comment Period:
URL:

Site Location Details:

857 Reuter Road Port Colborne Regional Municipality of Niagara L3K 5W1 CITY OF PORT COLBORNE

---

6 ***7 of 17*** ***S/156.7*** ***177.8 / -1.00*** ***J.T.L. MACHINE LIMITED 857 REUTER ROAD PORT COLBORNE ON*** ***GEN***

Generator No: ON0390400
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 332710
SIC Description: Machine Shops

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Waste Class: 131
Waste Class Desc: NEUTRALIZED WASTES - HEAVY METALS

---

6 ***8 of 17*** ***S/156.7*** ***177.8 / -1.00*** ***J.T.L. MACHINE LIMITED 857 REUTER ROAD PORT COLBORNE ON*** ***GEN***

Generator No: ON0390400
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 332710
SIC Description: Machine Shops

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Waste Class: 131
Waste Class Desc: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 145

Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

---

6 | ***9 of 17*** | ***S/156.7*** | ***177.8 / -1.00*** | ***J.T.L. MACHINE LIMITED*** ***857 REUTER ROAD*** ***PORT COLBORNE ON L3K 5W1*** | ***GEN***

Generator No:	ON0390400	***PO Box No:***	
Status:		***Country:***	
Approval Years:	2012	***Choice of Contact:***	
Contam. Facility:		***Co Admin:***	
MHSW Facility:		***Phone No Admin:***	
SIC Code:	332710		
SIC Description:	Machine Shops		

Detail(s)

Waste Class: 131
Waste Class Desc: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

---

6 | ***10 of 17*** | ***S/156.7*** | ***177.8 / -1.00*** | ***J.T.L. MACHINE LIMITED*** ***857 REUTER ROAD*** ***PORT COLBORNE ON*** | ***GEN***

Generator No:	ON0390400	***PO Box No:***	
Status:		***Country:***	
Approval Years:	2013	***Choice of Contact:***	
Contam. Facility:		***Co Admin:***	
MHSW Facility:		***Phone No Admin:***	
SIC Code:	332710		
SIC Description:	MACHINE SHOPS		

Detail(s)

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 131
Waste Class Desc: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

---

6 | ***11 of 17*** | ***S/156.7*** | ***177.8 / -1.00*** | ***J. T. L. Machine Limited*** ***857 Reuter Rd*** ***Port Colborne ON L3K 5W1*** | ***ECA***

Approval No:	0205-9P7R4M	***MOE District:***	Niagara
Approval Date:	2015-03-02	***City:***	
Status:	Approved	***Longitude:***	-79.25495
Record Type:	ECA	***Latitude:***	42.885543999999996

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Link Source: IDS
SWP Area Name: Niagara Peninsula
Approval Type: ECA-AIR
Project Type: AIR
Address: 857 Reuter Rd
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/8084-8ZKRRF-14.pdf
Geometry X:
Geometry Y:

---

6 | **12 of 17** | **S/156.7** | **177.8 / -1.00** | **J. T. L. Machine Limited**
857 Reuter Road
Port Colborne ON L3K 5W1 | **ECA**

Approval No: 1317-73GNDE
Approval Date: 2007-07-22
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name: Niagara Peninsula
Approval Type: ECA-AIR
Project Type: AIR
Address: 857 Reuter Road
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1155-6JZS55-14.pdf
MOE District: Niagara
City:
Longitude: -79.25495
Latitude: 42.885543999999996
Geometry X:
Geometry Y:

---

6 | **13 of 17** | **S/156.7** | **177.8 / -1.00** | **J.T.L. MACHINE LIMITED**
857 REUTER ROAD
PORT COLBORNE ON L3K 5W1 | **GEN**

Generator No: ON0390400
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 332710
SIC Description: MACHINE SHOPS
PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 131
Waste Class Desc: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

---

6 | **14 of 17** | **S/156.7** | **177.8 / -1.00** | **JTL INTEGRATED MACHINE LTD.**
857 REUTER ROAD
PORT COLBORNE ON L3K 5W1 | **GEN**

Generator No: ON0390400
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 332710
SIC Description: MACHINE SHOPS
PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 131
Waste Class Desc: NEUTRALIZED WASTES - HEAVY METALS

---

6 ***15 of 17*** ***S/156.7*** ***177.8 / -1.00*** ***J.T.L. MACHINE LIMITED*** ***GEN***
857 REUTER ROAD
PORT COLBORNE ON L3K 5W1

Generator No: ON0390400
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 332710
SIC Description: MACHINE SHOPS

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 121
Waste Class Desc: ALKALINE WASTES - HEAVY METALS

Waste Class: 131
Waste Class Desc: NEUTRALIZED WASTES - HEAVY METALS

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

---

6 ***16 of 17*** ***S/156.7*** ***177.8 / -1.00*** ***JTL INTEGRATED MACHINE LTD.*** ***GEN***
857 REUTER ROAD
PORT COLBORNE ON L3K 5W1

Generator No: ON0390400
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No: BOX 325
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 121 H
Waste Class Desc: Alkaline slutions - containing heavy metals

Waste Class: 145 H
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 253 L

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class Desc: Emulsified oils

---

6 | **17 of 17** | **S/156.7** | **177.8 / -1.00** | **JTL INTEGRATED MACHINE LTD.**
857 REUTER ROAD
PORT COLBORNE ON L3K 5W1 | **GEN**

Generator No: ON0390400
Status: Registered
Approval Years: As of Oct 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No: BOX 325
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 121 H
Waste Class Desc: Alkaline slutions - containing heavy metals

Waste Class: 145 H
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 253 L
Waste Class Desc: Emulsified oils

---

7 | **1 of 1** | **ENE/187.8** | **177.8 / -1.06** | **lot 23 con 1**
ON | **WWIS**

Well ID: 6600903
Construction Date:
Primary Water Use: Domestic
Sec. Water Use: 0
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 5/8/1963
Selected Flag: Yes
Abandonment Rec:
Contractor: 4720
Form Version: 1
Owner:
Street Name:
County: NIAGARA (WELLAND)
Municipality: PORT COLBORNE CITY (HUMBERSTONE)
Site Info:
Lot: 023
Concession: 01
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10460637
DP2BR: 9
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 4/18/1963
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:

Elevation: 177.141647
Elevrc:
Zone: 17
East83: 644942.9
North83: 4750143
Org CS:
UTMRC: 5
UTMRC Desc: margin of error : 100 m - 300 m
Location Method: p5

Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 932590179
Layer: 2
Color:
General Color:
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 9
Formation End Depth: 27
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932590178
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 9
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11009207
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930748175
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 9
Casing Diameter: 6

Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930748176
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 27
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996600903
Pump Set At:
Static Level: 14
Final Level After Pumping: 14
Recommended Pump Depth: 22
Pumping Rate: 12
Flowing Rate:
Recommended Pump Rate: 2
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 30
Flowing: N

Water Details

Water ID: 933948175
Layer: 1
Kind Code: 3
Kind: SULPHUR
Water Found Depth: 27
Water Found Depth UOM: ft

---

8 | ***1 of 1*** | ***WSW/196.6*** | ***178.8 / 0.00*** | ***The Regional Municipality of Niagara***
185 Johnston St
Port Colborne ON L2V 4T7 | ***ECA***

Approval No: 2732-98DJXP
Approval Date: 2013-06-25
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 185 Johnston St
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0958-965JES-14.pdf

---

9 | ***1 of 1*** | ***NW/147.2*** | ***179.8 / 1.00*** | ***487 Killaly Street East***
Port Colborne ON L3K 1P9 | ***EHS***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Order No:	20120110034	**Nearest Intersection:**	
Status:	C	**Municipality:**	Niagara
Report Type:	Standard Report	**Client Prov/State:**	ON
Report Date:	1/19/2012 4:54:57 PM	**Search Radius (km):**	0.25
Date Received:	1/10/2012 4:54:57 PM	**X:**	-79.230937
Previous Site Name:	"Fred's Collision Services Ltd." Automotive repair shop	**Y:**	42.891647
Lot/Building Size:	0.8 acres		
Additional Info Ordered:			

10	1 of 1	NW/167.7	179.8 / 1.00	Consumers 128 Humberstone ON	OOGW

Licence No:	F014856	**Well Compl:**	26499
Well ID:	26902	**County:**	Welland
Well Compl ID:	26499	**Block:**	NULL
W Class ID:	2362	**Lot:**	24
UWI Code:	F014856	**Conc:**	I
Permit Date:	NULL	**Surface Lat NAD83:**	42.89204278
Depth(m):	281.94	**Surface Long NAD83:**	-79.23050611
Well Pool:	Welland Pool	**Bottom Lat NAD83:**	42.89204278
Completion Date:	NULL	**Bottom Long NAD83:**	-79.23050611
Depth Reached:	1897-01-01 00:00:00	**Lot Sides (m):**	1810.74 S
Capped Date:	1973-01-23 00:00:00	**E/W (m):**	58.88 W
Class ID:		**Latitude Nad27:**	
DB Source:		**Longitude Nad27:**	
Status as of:	June 2019	**bottom lat27:**	
Start Date:	1897-01-01 00:00:00	**bottom long27:**	
SPUD Date:	1897-01-01 00:00:00	**Lateral:**	No
Class:	DEV	**Accuracy:**	200
Grnd Elev:	176.97	**Method:**	Well Records (pre 1921)
KB Elev:	177.27	**Parent:**	NULL
TVD:	281.94	**Prod Top:**	NULL
PBTD:	NULL	**Prod Bot:**	NULL
TD Form:	NULL	**PROPD Depth:**	262.13
Workover D:	NULL	**Location Method:**	Well Records (pre 1921)
Operator:	The Consumers' Gas Company	**Location Accuracy:**	Within 200 metres
Township:	Humberstone	**Dt Obtained:**	NULL

Well Name:	Consumers 128
Target:	CLI
Target Desc:	TARGETS WITHIN THE CLINTON AND CATARACT (OR MEDINA) GROUPS (WHIRLPOOL TO IRONDEQUOIT FORMATIONS INCLUSIVE)
Well Status Type:	Natural Gas Well
Status Type Desc:	A WELL PRESENTLY OR FORMERLY USED TO PRODUCE NATURAL GAS FROM A RESERVOIR
Well Status Mode:	Abandoned Well
Status Mode Desc:	A WELL WHICH IS OFFICIALLY PLUGGED AND ABANDONED
Classification:	DEVELOPMENT
Classification Desc:	"DEVELOPMENT WELL" MEANS A WELL THAT IS DRILLED FOR THE PURPOSE OF PRODUCING FROM OR EXTENDING A POOL OF OIL OR GAS INTO WHICH ANOTHER WELL HAS ALREADY BEEN DRILLED
Cement Rec:	NULL
Comments:	Accuracy is approximate and not verified.

Details

License No:	F014856	**Source:**	FORM 7
Top (m):	9.45	**Static Level (m):**	n/a
Elevation (m):	167.82	**Geology/Water:**	Geology
Geology Formation:	Top of Bedrock	**Elevation / Top (m):**	167.82 / 9.45
Type of Water:	n/a		

License No:	F014856	**Source:**	FORM 7

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Top (m):	0.30	**Static Level (m):**	n/a
Elevation (m):	176.96	**Geology/Water:**	Geology
Geology Formation:	Drift	**Elevation / Top (m):**	176.96 / 0.30
Type of Water:	n/a		
License No:	F014856	**Source:**	MNR
Top (m):	9.45	**Static Level (m):**	n/a
Elevation (m):	167.82	**Geology/Water:**	Geology
Geology Formation:	Top of Bedrock	**Elevation / Top (m):**	167.82 / 9.45
Type of Water:	n/a		

11 | ***1 of 1*** | ***ENE/182.6*** | ***177.8 / -1.00*** | ***SR Environmental*** ***673 Killaly Street East*** ***Port Colborne ON L3K 5V3*** | ***GEN***

Generator No:	ON9491218	**PO Box No:**	
Status:	Registered	**Country:**	Canada
Approval Years:	As of Oct 2019	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:			
SIC Description:			

Detail(s)

Waste Class:	232 I
Waste Class Desc:	Polymeric resins
Waste Class:	232 C
Waste Class Desc:	Polymeric resins

12 | ***1 of 1*** | ***NNW/226.8*** | ***179.8 / 1.00*** | ***ON*** | ***WWIS***

Well ID:	6601618	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	8/22/1966
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	3609
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	NIAGARA (WELLAND)
Elevation (m):		**Municipality:**	PORT COLBORNE CITY
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10461352	**Elevation:**	178.43489
DP2BR:	6	**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	r	**East83:**	644563.9
Code OB Desc:	Bedrock	**North83:**	4750417
Open Hole:		**Org CS:**	

Cluster Kind:
Date Completed: 8/13/1966
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
UTMRC: 5
UTMRC Desc: margin of error : 100 m - 300 m
Location Method: p5

Overburden and Bedrock Materials Interval

Formation ID: 932592540
Layer: 2
Color:
General Color:
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 6
Formation End Depth: 24
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932592539
Layer: 1
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 6
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11009922
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930749435

Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	7
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930749436
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	24
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	996601618
Pump Set At:	
Static Level:	11
Final Level After Pumping:	15
Recommended Pump Depth:	20
Pumping Rate:	50
Flowing Rate:	
Recommended Pump Rate:	37
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	30
Flowing:	N

Water Details

Water ID:	933948902
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	24
Water Found Depth UOM:	ft

13	1 of 1	NE/208.1	177.8 / -1.00	lot 23 con 2 ON	WWIS

Well ID:	6601004	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	12/10/1957
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	4720
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	NIAGARA (WELLAND)

Elevation (m):		***Municipality:***	PORT COLBORNE CITY (HUMBERSTONE)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	023
Well Depth:		***Concession:***	02
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10460738	***Elevation:***	177.360061
DP2BR:	4	***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	r	***East83:***	644878.9
Code OB Desc:	Bedrock	***North83:***	4750361
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	11/4/1957	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	p9
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932590391
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	4
Formation End Depth:	30
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932590390
Layer:	1
Color:	7
General Color:	RED
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	4
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11009308
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930748371
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 8
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930748372
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 30
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996601004
Pump Set At:
Static Level: 16
Final Level After Pumping: 16
Recommended Pump Depth:
Pumping Rate: 10
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 0
Pumping Duration MIN: 30
Flowing: N

Water Details

Water ID: 933948276

Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 30
Water Found Depth UOM: ft

---

14 | **1 of 1** | **NNE/221.0** | **176.8 / -2.00** | **Provincial Highway 140, Port Colborne ON** | **EHS**

Order No: 20090715014
Status: C
Report Type: Custom Report
Report Date: 7/23/2009
Date Received: 7/15/2009
Previous Site Name:
Lot/Building Size: 6.2 km of Highway ROW
Additional Info Ordered: Aerial Photos; Topographic Maps

Nearest Intersection: Main Street
Municipality: Port Colborne
Client Prov/State: ON
Search Radius (km): 0.25
X: -79.226728
Y: 42.892594

---

15 | **1 of 1** | **NW/232.0** | **179.8 / 1.00** | **442 Killaly St East, Port Colborne ON L3K 1P5** | **EHS**

Order No: 20010228008
Status: C
Report Type: Complete Report
Report Date: 3/9/01
Date Received: 2/28/01
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality: Niagara
Client Prov/State: ON
Search Radius (km): 1.00
X: -79.229395
Y: 42.89754

---

16 | **1 of 69** | **S/265.5** | **177.8 / -1.00** | **P.C. DROP FORGINGS LIMITED, 837 REUTER ROAD, PORT COLBORNE CITY ON** | **CA**

Certificate #: 8-2224-90-
Application Year: 90
Issue Date: 10/26/1990
Approval Type: Industrial air
Status: Cancelled
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: INSTALLATION OF COMBUSTION EQUIPT.
Contaminants:
Emission Control:

---

16 | **2 of 69** | **S/265.5** | **177.8 / -1.00** | **P.C. DROP FORGINGS, LTD., 837 REUTER ROAD, PORT COLBORNE CITY ON** | **CA**

Certificate #: 8-2223-90-
Application Year: 90
Issue Date: 6/9/1992
Approval Type: Industrial air
Status: Cancelled
Application Type:
Client Name:
Client Address:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Client City:
Client Postal Code:
Project Description: INSTALLATION OF A 3" UPSETTER
Contaminants:
Emission Control:

---

16 | *3 of 69* | *S/265.5* | *177.8 / -1.00* | ***INGERSOLL DIVISION, P.C. DROP FORGINGS***
837 REUTER ROAD
PORT COLBORNE CITY ON | *CA*

Certificate #: 8-2263-92-
Application Year: 92
Issue Date: 2/4/1993
Approval Type: Industrial air
Status: Approved in 1993
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: CHANGE TO NAT. GAS BURNERS FROM NO.2 OIL
Contaminants: Nitrogen Oxides
Emission Control: No Controls

---

16 | *4 of 69* | *S/265.5* | *177.8 / -1.00* | ***I.M.T. - DIVISION OF CANRON INC.***
837 REUTER ROAD
PORT COLBORNE CITY ON | *CA*

Certificate #: 8-2282-93-
Application Year: 93
Issue Date: 2/22/1994
Approval Type: Industrial air
Status: Approved in 1994
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: MOD.DROP HAMMER FOUNDATIONS TO RED.NOISE
Contaminants: Stoddard Solvent, Nitrobenzoic Acid
Emission Control: Vibration Isolator

---

16 | *5 of 69* | *S/265.5* | *177.8 / -1.00* | ***INGERSOLL DIVISION, P.C. DROP FORGINGS***
837 REUTER ROAD
PORT COLBORNE CITY ON | *CA*

Certificate #: 8-2106-93-
Application Year: 93
Issue Date: 6/11/1993
Approval Type: Industrial air
Status: Cancelled
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: (2) EXISTING BAGHOUSES
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	6 of 69	S/265.5	177.8 / -1.00	IVACAN INC. O/A P.O. CROP FORGING, IMT - 837 REUTER ROAD PORT COLBORNE ON	CA

Certificate #: 8-2211-81-
Application Year: 81
Issue Date: //
Approval Type: Industrial air
Status: RE1
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: LASCO HO-U-500 FORGING HAMMER-STEEL
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	7 of 69	S/265.5	177.8 / -1.00	IMT CORPORATION 837 REUTER RD PORT COLBORNE ON L3K	SCT

Established: 1970
Plant Size (ft²): 50000
Employment: 100

--Details--
Description: Forging
SIC/NAICS Code: 332113

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	8 of 69	S/265.5	177.8 / -1.00	P. C. DROP FORGINGS LTD. MEM. OF IVACO 837 REUTER RD.; P O BOX 100 PORT COLBORNE ON L3K 5V7	NPCB

Company Code: F0537
Industry:
Site Status:
Transaction Date: 1/29/1996
Inspection Date:

--Details--
Label:
Serial No.:
PCB Type/Code: Low 50 - 10,000 ppm
Location:
Item/State:
No. of Items:
Manufacturer:
Status: Stored for Disposal
Contents: 150.00 KG

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	9 of 69	S/265.5	177.8 / -1.00	I.M.T. (A DIV. OF CANRON INC.) 837 REUTER RD PORT COLBORNE ON L3K	SCT

Established: 1970
Plant Size (ft²): 50000
Employment: 100

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

--Details--
Description: IRON AND STEEL FORGINGS
SIC/NAICS Code: 3462

---

16 | ***10 of 69*** | ***S/265.5*** | ***177.8 / -1.00*** | ***IVACAN INC., O/A P.C. DROP FORGING, IMT-837 REUTER RD., PT.LOT 23 PORT COLBORNE CITY ON*** | ***CA***

Certificate #: 8-2028-99-
Application Year: 99
Issue Date: 2/26/1999
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: LASCO HO-U-500 FORGING HAMMER
Contaminants:
Emission Control:

---

16 | ***11 of 69*** | ***S/265.5*** | ***177.8 / -1.00*** | ***P. C. DROP FORGINGS LTD. MEM. OF IVACO 837 REUTER RD. REUTER RD. PORT COLBORNE ON L3K 5V7*** | ***NPCB***

Company Code: F0517
Industry:
Site Status:
Transaction Date:
Inspection Date:

--Details--
Label:
Serial No.:
PCB Type/Code:
Location:
Item/State:
No. of Items:
Manufacturer:
Status: In-Storage
Contents:

---

16 | ***12 of 69*** | ***S/265.5*** | ***177.8 / -1.00*** | ***IMT-DIV.OF CANRON INC. 837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K5V7*** | ***NPRI***

NPRI ID: 452
Other ID:
No Other ID:
Track ID: 1467
Report ID:
Report Type: NPRI
Rpt Type ID: 1
Report Year: 1993
Not-Current Rpt?: No
Yr of Last Filed Rpt: 2014
Fac ID: 106422

Org ID: 14079
Submit Date:
Last Modified: 5/29/2015 3:28:24 PM
Contact ID:
Cont Type:
Contact Title:
Cont First Name:
Cont Last Name:
Contact Position:
Contact Fax:
Contact Ph.:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Fac Name:	NOT AVAILABLE	**Cont Area Code:**	
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	
Fac Address2:	PO BOX 100	**Contact Ext.:**	
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	
Facility Lat:	42.8855	**Contact Fax:**	
Facility Long:	-79.2297	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:		**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

16	***13 of 69***	***S/265.5***	***177.8 / -1.00***	***IMT-A DIV. OF CANRON 837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K5V7***	***NPRI***

NPRI ID:	452	**Org ID:**	14077
Other ID:	FALSE	**Submit Date:**	
No Other ID:	0	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	1468	**Contact ID:**	84618
Report ID:		**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	DONALD
Report Year:	1994	**Cont Last Name:**	BUCKNELL
Not-Current Rpt?:	No	**Contact Position:**	NOT AVAILABLE
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9058347211
Fac ID:	106422	**Contact Ph.:**	5194852210
Fac Name:	NOT AVAILABLE	**Cont Area Code:**	519
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	94852210
Fac Address2:	PO BOX 100	**Contact Ext.:**	210
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	905
Facility Lat:	42.8855	**Contact Fax:**	58347211
Facility Long:	-79.2297	**Contact Email:**	NOT AVAILABLE
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	17
Facility Cmnts:	FALSE	**UTM Northing:**	4748827
URL:		**UTM Easting:**	644555
No of Empl.:	98	**Waste Streams:**	FALSE
Parent Co.:	TRUE	**No Streams:**	0
No Parent Co.:	1	**Waste Off Sites:**	FALSE
Pollut Prev Cmnts:		**No Off Sites:**	1
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		

NAICS 2 Description:	Manufacturing
NAICS Code (4 digit):	3321
NAICS 4 Description:	Forging and stamping
NAICS Code (6 digit):	332113
NAICS 6 Description:	Forging

16 | **14 of 69** | **S/265.5** | **177.8 / -1.00** | **IMT-A DIVISION OF CANRON INC.**
837 REUTER ROAD PO BOX 100
PORT COLBORNE ON L3K5V7 | **NPRI**

NPRI ID:	452	**Org ID:**	14078
Other ID:	Y	**Submit Date:**	9/26/2001
No Other ID:	1	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	1469	**Contact ID:**	84618
Report ID:		**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	DONALD
Report Year:	1995	**Cont Last Name:**	BUCKNELL
Not-Current Rpt?:	No	**Contact Position:**	NOT AVAILABLE
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9058347211
Fac ID:	106422	**Contact Ph.:**	5194852210
Fac Name:	NOT AVAILABLE	**Cont Area Code:**	519
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	94852210
Fac Address2:	PO BOX 100	**Contact Ext.:**	210
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	905
Facility Lat:	42.8855	**Contact Fax:**	58347211
Facility Long:	-79.2297	**Contact Email:**	NOT AVAILABLE
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	17
Facility Cmnts:	FALSE	**UTM Northing:**	4748827
URL:		**UTM Easting:**	644555
No of Empl.:	100	**Waste Streams:**	FALSE
Parent Co.:	Y	**No Streams:**	0
No Parent Co.:	1	**Waste Off Sites:**	TRUE
Pollut Prev Cmnts:	FALSE	**No Off Sites:**	1
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Chromium (and its compounds)
Chem (fr):	Chrome (et ses composés)
Quantity:	0
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13

Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Manganese (and its compounds)
Chem (fr):	Manganèse (et ses composés)
Quantity:	0
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Nickel (and its compounds)
Chem (fr):	Nickel (et ses composés)
Quantity:	0
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

---

16 | ***15 of 69*** | ***S/265.5*** | ***177.8 / -1.00*** | ***IMT CORPORATION***
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 | ***NPRI***

NPRI ID:	452	**Org ID:**	52331
Other ID:	Y	**Submit Date:**	6/25/1999
No Other ID:	1	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	1470	**Contact ID:**	
Report ID:		**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	1998	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	225152	**Contact Ph.:**	
Fac Name:	FORGE DIVISION	**Cont Area Code:**	
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	
Facility Lat:	42.8855	**Contact Fax:**	
Facility Long:	-79.2297	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	17
Facility Cmnts:	False	**UTM Northing:**	4748827
URL:		**UTM Easting:**	644555
No of Empl.:	105	**Waste Streams:**	False
Parent Co.:	Y	**No Streams:**	0
No Parent Co.:	1	**Waste Off Sites:**	Fals
Pollut Prev Cmnts:	False	**No Off Sites:**	2
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	Manganese (and its compounds)
Chem (fr):	Manganèse (et ses composés)
Quantity:	.1
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

---

16 ***16 of 69*** ***S/265.5*** ***177.8 / -1.00*** ***IMT CORPORATION***
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 ***NPRI***

NPRI ID:	452	***Org ID:***	52331
Other ID:	Y	***Submit Date:***	5/24/2000
No Other ID:	1	***Last Modified:***	5/29/2015 3:28:24 PM
Track ID:	1471	***Contact ID:***	
Report ID:		***Cont Type:***	
Report Type:	NPRI	***Contact Title:***	
Rpt Type ID:	1	***Cont First Name:***	
Report Year:	1999	***Cont Last Name:***	
Not-Current Rpt?:	No	***Contact Position:***	
Yr of Last Filed Rpt:	2014	***Contact Fax:***	
Fac ID:	225152	***Contact Ph.:***	
Fac Name:	FORGE DIVISION	***Cont Area Code:***	
Fac Address1:	837 REUTER ROAD	***Contact Tel.:***	
Fac Address2:	NOT AVAILABLE	***Contact Ext.:***	
Fac Postal Zip:	L3K5V7	***Cont Fax Area Cde:***	
Facility Lat:	42.8855	***Contact Fax:***	
Facility Long:	-79.2297	***Contact Email:***	
DLS (Last Filed Rpt):		***Latitude:***	42.8855
Facility DLS:		***Longitude:***	-79.2297
Datum:	1983	***UTM Zone:***	17
Facility Cmnts:	False	***UTM Northing:***	4748827
URL:		***UTM Easting:***	644555
No of Empl.:	133	***Waste Streams:***	Yes
Parent Co.:	Y	***No Streams:***	0
No Parent Co.:	1	***Waste Off Sites:***	Yes
Pollut Prev Cmnts:	False	***No Off Sites:***	0
Stacks:		***Shutdown:***	
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels

Grouping:	Total Air
Trans Code:	ASta
Chem:	Chromium (and its compounds)
Chem (fr):	Chrome (et ses composés)
Quantity:	.1
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	Manganese (and its compounds)
Chem (fr):	Manganèse (et ses composés)
Quantity:	.1
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

---

16 | ***17 of 69*** | ***S/265.5*** | ***177.8 / -1.00*** | ***IMT CORPORATION***
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 | ***NPRI***

NPRI ID:	452	**Org ID:**	52331
Other ID:	Y	**Submit Date:**	5/23/2001
No Other ID:	1.00	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	1472	**Contact ID:**	
Report ID:		**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2000	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	225152	**Contact Ph.:**	
Fac Name:	FORGE DIVISION	**Cont Area Code:**	
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	
Facility Lat:	42.8855	**Contact Fax:**	
Facility Long:	-79.2297	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	False	**UTM Northing:**	
URL:	www.imtpcdf	**UTM Easting:**	
No of Empl.:	104	**Waste Streams:**	No
Parent Co.:	Y	**No Streams:**	0
No Parent Co.:	1.00	**Waste Off Sites:**	Yes
Pollut Prev Cmnts:	False	**No Off Sites:**	1.00
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	Manganese (and its compounds)
Chem (fr):	Manganèse (et ses composés)
Quantity:	.1
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	Chromium (and its compounds)
Chem (fr):	Chrome (et ses composés)
Quantity:	.1
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

---

16 ***18 of 69*** ***S/265.5*** ***177.8 / -1.00*** ***IMT FORGE DIVISION*** ***SPL***
IMT FORGE DIV. 837 REUTER RD. PORT COLBORNE
PORT COLBORNE CITY ON

Ref No:	225113	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	5/9/2002	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	OTHER CONTAINER LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	WORKS
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	18102
Nature of Impact:	Water course or lake	***Site Lot:***	
Receiving Medium:	LAND / WATER	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	5/9/2002	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	ERROR	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	IMT FORGE: 9000 L WATER AND GLYCOL SOLUTION TO SANITARY SEWER, WORKS.		
Contaminant Qty:			

---

16 ***19 of 69*** ***S/265.5*** ***177.8 / -1.00*** ***P.C. DROP FORGINGS LTD. MEM. OF IVACO*** ***REC***
837 REUTER RD.
PORT COLBORNE ON

Rec Op Div:	
Co Admin:	

Phone No Admin:
Rec Div:
Rec Op Name:
Choice of Contact:
Site Bldg:
Site PO Box:
Receiver #: 203-83A090
Facility Type: PCB STORAGE SITE
Approval Yrs: 01,02,03,04,05,06,07,08

--Details--
Waste Code: 243
Waste Description: PCB'S

---

16 ***20 of 69*** ***S/265.5*** ***177.8 / -1.00*** ***IMT Corporation***
837 Reuter Road, Port Colborne CITY OF PORT COLBORNE
ON ***EBR***

EBR Registry No: IA8E1666
Ministry Ref No: 8221181RE1
Notice Type: Instrument Decision
Notice Stage: 800473689
Notice Date: February 23, 1999
Proposal Date: December 02, 1998
Year: 1998
Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:
Instrument Type: (EPA s. 9) - Approval for discharge into the natural environment other than water (i.e. Air)
Off Instrument Name:
Posted By:
Company Name: IMT Corporation
Site Address:
Location Other:
Proponent Name:
Proponent Address: o/a Ivacan Inc., P.C. Drop Forging, P.O. Box 100, 837 Reuter Road, Port Colborne Ontario, L3K 5V7
Comment Period:
URL:

Site Location Details:

837 Reuter Road, Port Colborne CITY OF PORT COLBORNE

---

16 ***21 of 69*** ***S/265.5*** ***177.8 / -1.00*** ***IMT CORPORATION***
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 ***NPRI***

NPRI ID: 452
Other ID: Y
No Other ID: 1.00
Track ID: 1466
Report ID:
Report Type: NPRI
Rpt Type ID: 1
Report Year: 2001
Not-Current Rpt?: No
Yr of Last Filed Rpt: 2014
Fac ID: 225152
Fac Name: FORGE DIVISION
Fac Address1: 837 REUTER ROAD
Fac Address2: NOT AVAILABLE
Fac Postal Zip: L3K5V7
Org ID: 52331
Submit Date: 5/31/2002
Last Modified: 5/29/2015 3:28:24 PM
Contact ID: 107124
Cont Type: MED
Contact Title:
Cont First Name: RON
Cont Last Name: VYSE
Contact Position: MANUFACTURING ENGINEER
Contact Fax: 5194852163
Contact Ph.: 5194852210
Cont Area Code: 519
Contact Tel.: 94852210
Contact Ext.:
Cont Fax Area Cde: 519

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Facility Lat:	42.8855	**Contact Fax:**	94852163
Facility Long:	-79.2297	**Contact Email:**	RVYSE@IMTPCDF.COM
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	No	**UTM Northing:**	
URL:	http://www.imtpcdf.com/	**UTM Easting:**	
No of Empl.:	104	**Waste Streams:**	No
Parent Co.:	Y	**No Streams:**	0.00
No Parent Co.:	1.00	**Waste Off Sites:**	Yes
Pollut Prev Cmnts:	No	**No Off Sites:**	2.00
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	Chromium (and its compounds)
Chem (fr):	Chrome (et ses composés)
Quantity:	.002
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

16	***22 of 69***	***S/265.5***	***177.8 / -1.00***	***P.C. DROP FORGINGS LTD. MEM. OF IVACO 837 REUTER RD. P.O. BOX 100 PORT COLBORNE ON L3K 5V7***	***REC***

Rec Op Div:	
Co Admin:	
Phone No Admin:	
Rec Div:	
Rec Op Name:	
Choice of Contact:	
Site Bldg:	
Site PO Box:	
Receiver #:	203-83A090
Facility Type:	TRANSFER STATION
Approval Yrs:	90,92,94,95,96,97,98,99,00

--Details--

Waste Code:	243
Waste Description:	PCB'S

16	***23 of 69***	***S/265.5***	***177.8 / -1.00***	***P. C. DROP FORGINGS LTD. MEM. OF IVACO 837 REUTER RD. P O BOX 100 PORT COLBORNE ON L3K 5V7***	***OPCB***

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Year: 1998
Site Number: 20383A090
Name Owner:
Additional Site Information:

--Details--
Quantity: 168.00
Address Site:
Description: Number of Capacitors with High Level PCBs (>1000 ppm)

Quantity: 1274.00
Address Site:
Description: Weight of Capacitors with High Level PCBs (>1000 ppm) kg

Quantity: 1.00
Address Site:
Description: Number of Drums of Soil with Low Level PCBs (< 1000 ppm) kg

Quantity: 400.00
Address Site:
Description: Calculated Weight (Kg) of Drums of Soil with Low Level PCBs (< 1000 ppm) kg

Quantity: 4.00
Address Site:
Description: Number of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg

Quantity: 600.00
Address Site:
Description: Calculated Weight of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg

---

16	*24 of 69*	*S/265.5*	*177.8 / -1.00*	***P. C. DROP FORGINGS LTD. MEM. OF IVACO 837 REUTER RD. P O BOX 100 PORT COLBORNE ON L3K 5V7***	***OPCB***

Year: 1999
Site Number: 20383A090
Name Owner:
Additional Site Information:

--Details--
Quantity: 168.00
Address Site:
Description: Number of Capacitors with High Level PCBs (>1000 ppm)

Quantity: 1274.00
Address Site:
Description: Weight of Capacitors with High Level PCBs (>1000 ppm) kg

Quantity: 1.00
Address Site:
Description: Number of Drums of Soil with Low Level PCBs (< 1000 ppm) kg

Quantity: 400.00
Address Site:
Description: Calculated Weight (Kg) of Drums of Soil with Low Level PCBs (< 1000 ppm) kg

Quantity: 4.00
Address Site:
Description: Number of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg

Quantity: 600.00
Address Site:

Description: Calculated Weight of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg

---

16 | **25 of 69** | **S/265.5** | **177.8 / -1.00** | **P. C. DROP FORGINGS LTD. MEM. OF IVACO**
837 REUTER RD. P O BOX 100
PORT COLBORNE ON L3K 5V7 | **OPCB**

Year: 1995
Site Number: 20383A090
Name Owner:
Additional Site Information:

--Details--
Quantity: 168.00
Address Site:
Description: Number of Capacitors with High Level PCBs (>1000 ppm)

Quantity: 1274.00
Address Site:
Description: Weight of Capacitors with High Level PCBs (>1000 ppm) kg

Quantity: 1.00
Address Site:
Description: Number of Drums of Soil with Low Level PCBs (< 1000 ppm) kg

Quantity: 400.00
Address Site:
Description: Weight of Drums of Soil with Low Level PCBs (< 1000 ppm) kg

Quantity: 4.00
Address Site:
Description: Number of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg

Quantity: 600.00
Address Site:
Description: Weight of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg

---

16 | **26 of 69** | **S/265.5** | **177.8 / -1.00** | **IMT - A DIVISION OF CANRON INC.**
837 REUTER ROAD
PORT COLBORNE ON L3K 5V7 | **GEN**

Generator No: ON0049412
Status:
Approval Years: 93,94,95,96,97
Contam. Facility:
MHSW Facility:
SIC Code: 2919
SIC Description: OTHER PRIM. STEEL

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 243
Waste Class Desc: PCB'S

---

16 **27 of 69** **S/265.5** **177.8 / -1.00** **IMT CORPORATION** **GEN**
837 REUTER ROAD
PORT COLBORNE ON L3K 5V7

Generator No: ON0049412
Status:
Approval Years: 98,99,00,01,02,03
Contam. Facility:
MHSW Facility:
SIC Code: 2919
SIC Description: OTHER PRIM. STEEL

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 243
Waste Class Desc: PCB'S

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

16 **28 of 69** **S/265.5** **177.8 / -1.00** **P.C. DROP FORGINGS LTD** **GEN**
837 REUTER RD. P.O. BOX 100
PORT COLBORNE ON L3K 5V7

Generator No: ON0136600
Status:
Approval Years: 86,87,88,89,90
Contam. Facility:
MHSW Facility:
SIC Code: 2919
SIC Description: OTHER PRIM. STEEL

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

---

16 **29 of 69** **S/265.5** **177.8 / -1.00** **P.C. (SEE & USE ON0049412) 30-057** **GEN**
837 REUTER RD. P.O. BOX 100
PORT COLBORNE ON L3K 5V7

Generator No: ON0136600
Status:
Approval Years: 92,93,94,95,96,97
Contam. Facility:
MHSW Facility:

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

SIC Code: 2919
SIC Description: OTHER PRIM. STEEL

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 243
Waste Class Desc: PCB'S

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

---

16 | **30 of 69** | **S/265.5** | **177.8 / -1.00** | **P.C. (SEE & USE ON0049412)**
837 REUTER ROAD
PORT COLBORNE ON | **GEN**

Generator No: ON0136600
Status:
Approval Years: 98
Contam. Facility:
MHSW Facility:
SIC Code: 2919
SIC Description: OTHER PRIM. STEEL

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 243
Waste Class Desc: PCB'S

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

---

16 | **31 of 69** | **S/265.5** | **177.8 / -1.00** | **IMT CORPORATION**
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 | **NPRI**

NPRI ID: 452
Other ID: *
No Other ID: 0
Track ID: 75800
Report ID: 160094
Report Type: NPRI
Rpt Type ID: 1
Report Year: 2002
Not-Current Rpt?: No
Yr of Last Filed Rpt: 2014
Fac ID: 225152
Fac Name: FORGE DIVISION
Fac Address1: 837 REUTER ROAD
Fac Address2: NOT AVAILABLE
Fac Postal Zip: L3K5V7
Facility Lat: 42.8855
Facility Long: -79.2297
DLS (Last Filed Rpt):
Facility DLS:
Datum: 1983
Facility Cmnts: False
URL: www.imtpcdf.com

Org ID: 52331
Submit Date: 7/14/2003
Last Modified: 5/29/2015 3:28:24 PM
Contact ID: 139141
Cont Type: MED
Contact Title:
Cont First Name: DAVID
Cont Last Name: MCCALLUM
Contact Position: ENVIRONMENTAL COORDINATOR
Contact Fax: 5194852163
Contact Ph.: 5194852210
Cont Area Code: 519
Contact Tel.: 94852210
Contact Ext.: 210
Cont Fax Area Cde: 519
Contact Fax: 94852163
Contact Email: DMCCALLUM@IMTPCDF.COM
Latitude: 42.8855
Longitude: -79.2297
UTM Zone:
UTM Northing:
UTM Easting:

No of Empl.:	104	**Waste Streams:**	False
Parent Co.:	*	**No Streams:**	0
No Parent Co.:	1	**Waste Off Sites:**	Fals
Pollut Prev Cmnts:	False	**No Off Sites:**	1
Stacks:	False	**Shutdown:**	False
No of Stacks:		**No of Shutdown:**	0
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

16 | ***32 of 69*** | ***S/265.5*** | ***177.8 / -1.00*** | ***IMT CORPORATION - FORGE GROUP***
837 REUTER ROAD PO BOX 100
PORT COLBORNE ON L3K5V7 | ***NPRI***

NPRI ID:	452	**Org ID:**	52332
Other ID:	N	**Submit Date:**	5/26/2004
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	72482	**Contact ID:**	136322
Report ID:	151643	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	DARREN
Report Year:	2003	**Cont Last Name:**	WOLEK
Not-Current Rpt?:	No	**Contact Position:**	HEALTH AND SAFETY COORDINATOR
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9058345094
Fac ID:	106422	**Contact Ph.:**	9058347211
Fac Name:	NOT AVAILABLE	**Cont Area Code:**	905
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	58347211
Fac Address2:	PO BOX 100	**Contact Ext.:**	224
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	905
Facility Lat:	42.8855	**Contact Fax:**	58345094
Facility Long:	-79.2297	**Contact Email:**	DARRENW@IMTCORPORATION.COM
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	False	**UTM Northing:**	
URL:	www.imtcorporation.com	**UTM Easting:**	
No of Empl.:	110	**Waste Streams:**	True¿
Parent Co.:	Y	**No Streams:**	
No Parent Co.:	1	**Waste Off Sites:**	Fals
Pollut Prev Cmnts:	False	**No Off Sites:**	1
Stacks:	True	**Shutdown:**	True
No of Stacks:		**No of Shutdown:**	1
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	6
Category Type Desc:	Road dust

Category Type Desc (fr): Poussières de routes
Grouping: Total Air
Trans Code:
Chem: PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr): PM2,5 - Matière particulaire <= 2,5 microns
Quantity: .2
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 1
Category Type Desc: Stack / Point
Category Type Desc (fr): Rejets de cheminée ou ponctuels
Grouping: Total Air
Trans Code: ASta
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .831
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 1
Category Type Desc: Stack / Point
Category Type Desc (fr): Rejets de cheminée ou ponctuels
Grouping: Total Air
Trans Code: ASta
Chem: PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr): PM2,5 - Matière particulaire <= 2,5 microns
Quantity: .75
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .258
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 6
Category Type Desc: Road dust
Category Type Desc (fr): Poussières de routes
Grouping: Total Air
Trans Code:
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .835
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr): PM2,5 - Matière particulaire <= 2,5 microns
Quantity: .265

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

---

16 **33 of 69** **S/265.5** **177.8 / -1.00**

IMT PARTNERSHIP
837 REUTER ROAD PO BOX 100
PORT COLBORNE ON L3K 5V7

GEN

Generator No: ON0049412
Status:
Approval Years: 04,07,08
Contam. Facility:
MHSW Facility:
SIC Code: 332113
SIC Description: Forging

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

---

16 **34 of 69** **S/265.5** **177.8 / -1.00**

IMT Partnership
837 Reuter Rd
Port Colborne ON L3K 5V7

SCT

Established: 1970
Plant Size (ft²): 50000
Employment: 100

--Details--
Description: Forging
SIC/NAICS Code: 332113

---

16 **35 of 69** **S/265.5** **177.8 / -1.00**

IMT
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7

NPRI

NPRI ID: 452
Other ID: N
No Other ID:
Track ID: 26440
Report ID: 83332
Report Type: NPRI
Rpt Type ID: 1
Report Year: 2004
Not-Current Rpt?: No
Yr of Last Filed Rpt: 2014
Fac ID: 225152
Fac Name: FORGE DIVISION

Org ID: 52329
Submit Date: 5/26/2005
Last Modified: 5/29/2015 3:28:24 PM
Contact ID: 233888
Cont Type: MED
Contact Title:
Cont First Name: PAUL
Cont Last Name: WADE
Contact Position: GENERAL MANAGER
Contact Fax: 5194852163
Contact Ph.: 5194852210
Cont Area Code: 519

Fac Address1:	837 REUTER ROAD	***Contact Tel.:***	94852210
Fac Address2:	NOT AVAILABLE	***Contact Ext.:***	
Fac Postal Zip:	L3K5V7	***Cont Fax Area Cde:***	519
Facility Lat:	42.8855	***Contact Fax:***	94852163
Facility Long:	-79.2297	***Contact Email:***	PWADE@IMTCORPORATION.COM
DLS (Last Filed Rpt):		***Latitude:***	42.8855
Facility DLS:		***Longitude:***	-79.2297
Datum:	1983	***UTM Zone:***	
Facility Cmnts:	True	***UTM Northing:***	
URL:	www.imtcorporation.com	***UTM Easting:***	
No of Empl.:	110	***Waste Streams:***	False
Parent Co.:	N	***No Streams:***	
No Parent Co.:		***Waste Off Sites:***	Fals
Pollut Prev Cmnts:	True	***No Off Sites:***	1
Stacks:	No	***Shutdown:***	
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns
Quantity:	.332
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	.831
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	Iron (and its compounds)
Chem (fr):	Fer (et ses composés)
Quantity:	1.008
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns
Quantity:	.75
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	.325
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Iron (and its compounds)
Chem (fr):	Fer (et ses composés)
Quantity:	.008
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

---

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	36 of 69	S/265.5	177.8 / -1.00	IMT PARTNERSHIP 837 REUTER ROAD PO BOX 100 PORT COLBORNE ON L3K 5V7	GEN

Generator No:	ON0049412	**PO Box No:**	
Status:		**Country:**	
Approval Years:	05,06,07,08	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:	332113		
SIC Description:	Forging		

Detail(s)

Waste Class:	146
Waste Class Desc:	OTHER SPECIFIED INORGANICS

Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS

Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES

Waste Class:	243
Waste Class Desc:	PCB'S

Waste Class:	251
Waste Class Desc:	OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

16 | **37 of 69** | **S/265.5** | **177.8 / -1.00** | **IMT PARTNERSHIP**
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 | **NPRI**

NPRI ID: 452
Other ID: N
No Other ID:
Track ID: 34192
Report ID: 95908
Report Type: NPRI
Rpt Type ID: 1
Report Year: 2005
Not-Current Rpt?: No
Yr of Last Filed Rpt: 2014
Fac ID: 225152
Fac Name: FORGE DIVISION
Fac Address1: 837 REUTER ROAD
Fac Address2: NOT AVAILABLE
Fac Postal Zip: L3K5V7
Facility Lat: 42.8855
Facility Long: -79.2297
DLS (Last Filed Rpt):
Facility DLS:
Datum: 1983
Facility Cmnts: False
URL: www.imtcorporation.com
No of Empl.: 110
Parent Co.: N
No Parent Co.:
Pollut Prev Cmnts: False
Stacks: False
No of Stacks:
Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:
NAICS Code (2 digit): 33
NAICS 2 Description: Manufacturing
NAICS Code (4 digit): 3321
NAICS 4 Description: Forging and stamping
NAICS Code (6 digit): 332113
NAICS 6 Description: Forging

Org ID: 52334
Submit Date: 5/12/2006
Last Modified: 5/29/2015 3:28:24 PM
Contact ID: 137544
Cont Type: MED
Contact Title:
Cont First Name: DAVE
Cont Last Name: MORIN
Contact Position: HEALTH & SAFETY CO-ORDINATOR
Contact Fax: 9058345094
Contact Ph.: 9058347211
Cont Area Code: 905
Contact Tel.: 58347211
Contact Ext.:
Cont Fax Area Cde: 905
Contact Fax: 58345094
Contact Email: DMORIN@IMTCORPORATION.COM
Latitude: 42.8855
Longitude: -79.2297
UTM Zone:
UTM Northing:
UTM Easting:
Waste Streams: False
No Streams:
Waste Off Sites: Fals
No Off Sites: 1.00
Shutdown:
No of Shutdown:

Substance Release Report

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Manganese (and its compounds)
Chem (fr): Manganèse (et ses composés)
Quantity: .001
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 1
Category Type Desc: Stack / Point
Category Type Desc (fr): Rejets de cheminée ou ponctuels

Grouping:	Total Air
Trans Code:	ASta
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns
Quantity:	2.021
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward
Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	2.021
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward

16 | **38 of 69** | **S/265.5** | **177.8 / -1.00** | **P C Forge**
837 Reuter Rd
Port Colborne ON L3K 5V7 | **SCT**

Established:	01-AUG-70
Plant Size (ft²):	50000
Employment:	

--Details--

Description:	Forging
SIC/NAICS Code:	332113
Description:	Forging
SIC/NAICS Code:	332113

16 | **39 of 69** | **S/265.5** | **177.8 / -1.00** | **IMT PARTNERSHIP**
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 | **NPRI**

NPRI ID:	452	**Org ID:**	52334
Other ID:	Y	**Submit Date:**	5/17/2007
No Other ID:	1	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	43344	**Contact ID:**	137544
Report ID:	103676	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	DAVE
Report Year:	2006	**Cont Last Name:**	MORIN
Not-Current Rpt?:	No	**Contact Position:**	HEALTH & SAFETY CO-ORDINATOR
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9058345094
Fac ID:	225152	**Contact Ph.:**	9058347211
Fac Name:	FORGE DIVISION	**Cont Area Code:**	905
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	58347211
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	905
Facility Lat:	42.8855	**Contact Fax:**	58345094
Facility Long:	-79.2297	**Contact Email:**	DMORIN@IMTCORPORATION.COM
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	Fals	**UTM Northing:**	
URL:	www.imtcorporation.com	**UTM Easting:**	

No of Empl.:	110	**Waste Streams:**	True¿
Parent Co.:	N	**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	Fals
Pollut Prev Cmnts:	False	**No Off Sites:**	1.00
Stacks:	True	**Shutdown:**	
No of Stacks:		**No of Shutdown:**	

Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:

NAICS Code (2 digit):	33
NAICS 2 Description:	Manufacturing
NAICS Code (4 digit):	3321
NAICS 4 Description:	Forging and stamping
NAICS Code (6 digit):	332113
NAICS 6 Description:	Forging

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Manganese (and its compounds)
Chem (fr):	Manganèse (et ses composés)
Quantity:	.001
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	1.987
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns
Quantity:	1.978
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward

16	***40 of 69***	***S/265.5***	***177.8 / -1.00***	***IMT PARTNERSHIP*** ***837 REUTER ROAD NOT AVAILABLE*** ***PORT COLBORNE ON L3K5V7***	***NPRI***

NPRI ID:	452	**Org ID:**	52334
Other ID:	Y	**Submit Date:**	4/28/2008
No Other ID:	1.00	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	52226	**Contact ID:**	137544
Report ID:	113651	**Cont Type:**	MED

Report Type:	NPRI	***Contact Title:***	
Rpt Type ID:	1	***Cont First Name:***	DAVE
Report Year:	2007	***Cont Last Name:***	MORIN
Not-Current Rpt?:	No	***Contact Position:***	HEALTH & SAFETY CO-ORDINATOR
Yr of Last Filed Rpt:	2014	***Contact Fax:***	9058345094
Fac ID:	225152	***Contact Ph.:***	9058347211
Fac Name:	FORGE DIVISION	***Cont Area Code:***	905
Fac Address1:	837 REUTER ROAD	***Contact Tel.:***	58347211
Fac Address2:	NOT AVAILABLE	***Contact Ext.:***	
Fac Postal Zip:	L3K5V7	***Cont Fax Area Cde:***	905
Facility Lat:	42.8855	***Contact Fax:***	58345094
Facility Long:	-79.2297	***Contact Email:***	DMORIN@IMTCORPORATION.COM
DLS (Last Filed Rpt):		***Latitude:***	42.8855
Facility DLS:		***Longitude:***	-79.2297
Datum:	1983	***UTM Zone:***	
Facility Cmnts:	False	***UTM Northing:***	
URL:	www.imtcorporation.com	***UTM Easting:***	
No of Empl.:	110	***Waste Streams:***	True¿
Parent Co.:	N	***No Streams:***	
No Parent Co.:		***Waste Off Sites:***	True
Pollut Prev Cmnts:	False	***No Off Sites:***	1.00
Stacks:	True	***Shutdown:***	
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Manganese (and its compounds)
Chem (fr):	Manganèse (et ses composés)
Quantity:	.001
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns
Quantity:	1.978
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: 1.987
Unit: tonnes
Basis of Estimate Cd: E1
Basis of Estimate Desc: E1- Site Specific Emission Factors - In use from 2003 and onward

---

16 | **41 of 69** | **S/265.5** | **177.8 / -1.00** | **IMT Partnership**
PC Forge, 837 Reuter Rd., Port Colborne City, Regional Municipality of Niagara CITY OF PORT COLBORNE
ON | **EBR**

EBR Registry No: 010-5318
Ministry Ref No: 4006-6XZVPX
Notice Type: Instrument Decision
Notice Stage: 803257861
Notice Date: January 09, 2009
Proposal Date: December 01, 2008
Year: 2008
Instrument Type: (EPA s. 9) - Approval for discharge into the natural environment other than water (i.e. Air)
Off Instrument Name:
Posted By:
Company Name: IMT Partnership
Site Address:
Location Other:
Proponent Name:
Proponent Address: IMT Partnership, 837 Reuter Road, Port Colborne Ontario, Canada L3K 5V7
Comment Period:
URL:

Decision Posted:
Exception Posted:
Section:
Act 1:
Act 2:
Site Location Map:

Site Location Details:

PC Forge, 837 Reuter Rd., Port Colborne City, Regional Municipality of Niagara CITY OF PORT COLBORNE

---

16 | **42 of 69** | **S/265.5** | **177.8 / -1.00** | **IMT CORPORATION-FORGE DIVISION(DROP FORGIN**
PO BOX 10 837 REUTER ROAD. PO BOX 100
PORT COL BORNE ON L3K 5V7 | **NPCB**

Company Code: O0679
Industry: METAL REFINING
Site Status: ITEMS SENT TO SWAN HILLS
Transaction Date: 10/25/1990
Inspection Date:

---

16 | **43 of 69** | **S/265.5** | **177.8 / -1.00** | **IMT PARTNERSHIP**
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 | **NPRI**

NPRI ID: 452
Other ID: Y
No Other ID: 1
Track ID: 71040
Report ID: 130629
Report Type: NPRI
Rpt Type ID: 1
Report Year: 2008
Not-Current Rpt?: No
Yr of Last Filed Rpt: 2014

Org ID: 52334
Submit Date: 6/2/2009
Last Modified: 5/29/2015 3:28:24 PM
Contact ID: 137544
Cont Type: MED
Contact Title:
Cont First Name: DAVE
Cont Last Name: MORIN
Contact Position: HEALTH & SAFETY CO-ORDINATOR
Contact Fax: 9058345094

Fac ID:	225152	**Contact Ph.:**	9058347211
Fac Name:	FORGE DIVISION	**Cont Area Code:**	905
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	58347211
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	905
Facility Lat:	42.8855	**Contact Fax:**	58345094
Facility Long:	-79.2297	**Contact Email:**	DMORIN@IMTCORPORATION.COM
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	Yes	**UTM Northing:**	
URL:	www.imtcorporation.com	**UTM Easting:**	
No of Empl.:	110	**Waste Streams:**	No
Parent Co.:	N	**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	Yes
Pollut Prev Cmnts:	Yes	**No Off Sites:**	1
Stacks:	No	**Shutdown:**	Yes
No of Stacks:		**No of Shutdown:**	1
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Manganese (and its compounds)
Chem (fr):	Manganèse (et ses composés)
Quantity:	.001
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns
Quantity:	.44
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	.44
Unit:	tonnes
Basis of Estimate Cd:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Basis of Estimate Desc:

Category Type ID: 6
Category Type Desc: Road dust
Category Type Desc (fr): Poussières de routes
Grouping: Total Air
Trans Code:
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .44
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

---

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	44 of 69	S/265.5	177.8 / -1.00	IMT Partnership 837 Reuter Rd Port Colborne ON	CA

Certificate #: 2346-7NGMG8
Application Year: 2009
Issue Date: 2/27/2009
Approval Type: Air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	45 of 69	S/265.5	177.8 / -1.00	IMT Partnership 837 Reuter Rd Port Colborne ON	CA

Certificate #: 5089-7LYRK4
Application Year: 2009
Issue Date: 1/7/2009
Approval Type: Air
Status: Revoked and/or Replaced
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	46 of 69	S/265.5	177.8 / -1.00	IMT PARTNERSHIP 837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	NPRI

NPRI ID: 452
Other ID: Y
No Other ID: 1
Track ID: 88071
Report ID: 142112
Report Type: NPRI
Rpt Type ID: 1
Org ID: 52334
Submit Date: 5/28/2010
Last Modified: 5/29/2015 3:28:24 PM
Contact ID: 149528
Cont Type: MED
Contact Title:
Cont First Name: FRANK S.

Report Year:	2009	***Cont Last Name:***	LAL
Not-Current Rpt?:	No	***Contact Position:***	EHS CO-ORDINATOR
Yr of Last Filed Rpt:	2014	***Contact Fax:***	9058349987
Fac ID:	225152	***Contact Ph.:***	9058347211
Fac Name:	FORGE DIVISION	***Cont Area Code:***	905
Fac Address1:	837 REUTER ROAD	***Contact Tel.:***	58347211
Fac Address2:	NOT AVAILABLE	***Contact Ext.:***	241
Fac Postal Zip:	L3K5V7	***Cont Fax Area Cde:***	905
Facility Lat:	42.8855	***Contact Fax:***	58349987
Facility Long:	-79.2297	***Contact Email:***	FLAL@IMTCORPORATION.COM
DLS (Last Filed Rpt):		***Latitude:***	42.8855
Facility DLS:		***Longitude:***	-79.2297
Datum:	1983	***UTM Zone:***	
Facility Cmnts:	Yes	***UTM Northing:***	
URL:	www.imtcorporation.com	***UTM Easting:***	
No of Empl.:	80	***Waste Streams:***	No
Parent Co.:	N	***No Streams:***	
No Parent Co.:		***Waste Off Sites:***	Yes
Pollut Prev Cmnts:	Yes	***No Off Sites:***	1
Stacks:	No	***Shutdown:***	Yes
No of Stacks:		***No of Shutdown:***	1
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Manganese (and its compounds)
Chem (fr):	Manganèse (et ses composés)
Quantity:	.001
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	6
Category Type Desc:	Road dust
Category Type Desc (fr):	Poussières de routes
Grouping:	Total Air
Trans Code:	
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	.44
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns

Quantity: .44
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .44
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	47 of 69	S/265.5	177.8 / -1.00	837 Reuter Rd Port Colborne ON	EHS

Order No: 20110211021
Status: C
Report Type: Standard Report
Report Date: 4/19/2011
Date Received: 2/11/2011
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -79.229436
Y: 42.885574

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	48 of 69	S/265.5	177.8 / -1.00	IMT CORPORAITON 837 REUTER RD PORT COLBORNE ON	EXP

Instance No: 10266347
Instance ID: 14679
Instance Type: FS Facility
Description: FS Propane Refill Cntr - Cylr Fill
Status: EXPIRED
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	49 of 69	S/265.5	177.8 / -1.00	IMT CORPORAITON 837 REUTER RD PORT COLBORNE ON	EXP

Instance No: 11585702
Instance ID: 91916
Instance Type: FS Propane Tank
Description: FS Propane Tank
Status: EXPIRED
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	50 of 69	S/265.5	177.8 / -1.00	IMT PARTNERSHIP 837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	NPRI

NPRI ID:	452	***Org ID:***	52342
Other ID:	Y	***Submit Date:***	7/21/2011
No Other ID:	2	***Last Modified:***	5/29/2015 3:28:24 PM
Track ID:	93998	***Contact ID:***	149528
Report ID:	148050	***Cont Type:***	MED
Report Type:	NPRI	***Contact Title:***	
Rpt Type ID:	1	***Cont First Name:***	FRANK S.
Report Year:	2010	***Cont Last Name:***	LAL
Not-Current Rpt?:	No	***Contact Position:***	EHS CO-ORDINATOR
Yr of Last Filed Rpt:	2014	***Contact Fax:***	9058349987
Fac ID:	225152	***Contact Ph.:***	9058347211
Fac Name:	FORGE DIVISION	***Cont Area Code:***	905
Fac Address1:	837 REUTER ROAD	***Contact Tel.:***	58347211
Fac Address2:	NOT AVAILABLE	***Contact Ext.:***	241
Fac Postal Zip:	L3K5V7	***Cont Fax Area Cde:***	905
Facility Lat:	42.8855	***Contact Fax:***	58349987
Facility Long:	-79.2297	***Contact Email:***	FLAL@IMTCORPORATION.COM
DLS (Last Filed Rpt):		***Latitude:***	42.8855
Facility DLS:		***Longitude:***	-79.2297
Datum:	1983	***UTM Zone:***	
Facility Cmnts:	Yes	***UTM Northing:***	
URL:		***UTM Easting:***	
No of Empl.:	110	***Waste Streams:***	No
Parent Co.:	Y	***No Streams:***	
No Parent Co.:	1	***Waste Off Sites:***	Yes
Pollut Prev Cmnts:	Yes	***No Off Sites:***	1
Stacks:	No	***Shutdown:***	Yes
No of Stacks:		***No of Shutdown:***	1
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns
Quantity:	.44
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	6
Category Type Desc:	Road dust
Category Type Desc (fr):	Poussières de routes
Grouping:	Total Air
Trans Code:	
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	.44
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .44
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

---

16 | 51 of 69 | S/265.5 | 177.8 / -1.00 | **IMT PARTNERSHIP**
837 REUTER ROAD PO BOX 100
PORT COLBORNE ON | GEN

Generator No: ON0049412
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 332113
SIC Description: Forging

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 243
Waste Class Desc: PCBS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

---

16 | 52 of 69 | S/265.5 | 177.8 / -1.00 | **837 REUTER ROAD, PORT COLBORNE ON** | INC

Incident No: 1030592
Incident ID: 3188724
Attribute Category: FS-Perform L1 Incident Insp
Status Code: Causal Analysis Complete
Incident Location: 837 REUTER ROAD, PORT COLBORNE - FIRE
Drainage System:
Sub Surface Contam.:
Aff. Prop. Use Water:
Contam. Migrated:
Contact Natural Env.:
Near Body of Water:
Approx. Quant. Rel.:
Equipment Model: NA
Serial No: NA
Residential App. Type: Not applicable

Commercial App. Type:	Other (specify using comments)
Industrial App. Type:	Not applicable
Institutional App. Type:	Not applicable
Venting Type:	Un-vented
Vent Connector Mater:	None
Vent Chimney Mater:	Not applicable
Pipeline Type:	
Pipeline Involved:	
Pipe Material:	
Depth Ground Cover:	
Regulator Location:	
Regulator Type:	
Operation Pressure:	
Liquid Prop Make:	
Liquid Prop Model:	
Liquid Prop Serial No:	
Equipment Type:	
Cylinder Capacity:	
Cylinder Capac. Units:	
Cylinder Material Type:	
Tank Capacity:	
Fuels Occurence Type:	Fire
Fuel Type Involved:	Natural Gas
Date of Occurence:	2013/02/20 00:00:00
Time of Occurence:	12:00:00
Occur Insp Start Date:	2013/02/20 00:00:00
Any Health Impact:	No
Any Environmental Impact:	No
Was Service Interrupted:	Yes
Was Property Damaged:	Yes
Operation Type Involved:	Industrial/Manufacturing Facility (including OEM)
Enforcement Policy:	NULL
Prc Escalation Required:	NULL
Task No:	4355908
Notes:	
Occurence Narrative:	Pre heating torch left unattended and radiant heat spread to structure.
Tank Material Type:	
Tank Storage Type:	
Tank Location Type:	
Pump Flow Rate Capac:	
Liquid Prop Notes:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	53 of 69	S/265.5	177.8 / -1.00	IMT PARTNERSHIP 837 REUTER ROAD NOT AVAILABLE PORT COLBORNE ON L3K5V7	NPRI

NPRI ID:	452	**Org ID:**	52342
Other ID:		**Submit Date:**	5/16/2013
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	78624	**Contact ID:**	
Report ID:	16578	**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2011	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	225152	**Contact Ph.:**	
Fac Name:	FORGE DIVISION	**Cont Area Code:**	
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	
Facility Lat:	42.8855	**Contact Fax:**	
Facility Long:	-79.2297	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	42.8855

Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:	108	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns
Quantity:	.44
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Manganese (and its compounds)
Chem (fr):	Manganèse (et ses composés)
Quantity:	0
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	1
Category Type Desc:	Stack / Point
Category Type Desc (fr):	Rejets de cheminée ou ponctuels
Grouping:	Total Air
Trans Code:	ASta
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	.44
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	54 of 69	S/265.5	177.8 / -1.00	IMT PARTNERSHIP 837 REUTER ROAD PO BOX 100 PORT COLBORNE ON	GEN

Generator No:	ON0049412	**PO Box No:**	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status: ***Country:***
Approval Years: 2010 ***Choice of Contact:***
Contam. Facility: ***Co Admin:***
MHSW Facility: ***Phone No Admin:***
SIC Code: 332113
SIC Description: Forging

Detail(s)

Waste Class: 243
Waste Class Desc: PCBS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

16	***55 of 69***	***S/265.5***	***177.8 / -1.00***	***IMT PARTNERSHIP*** ***837 REUTER ROAD PO BOX 100*** ***PORT COLBORNE ON***	***GEN***

Generator No: ON0049412 ***PO Box No:***
Status: ***Country:***
Approval Years: 2011 ***Choice of Contact:***
Contam. Facility: ***Co Admin:***
MHSW Facility: ***Phone No Admin:***
SIC Code: 332113
SIC Description: Forging

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 243
Waste Class Desc: PCBS

16	***56 of 69***	***S/265.5***	***177.8 / -1.00***	***IMT PARTNERSHIP*** ***837 REUTER ROAD PO BOX 100*** ***PORT COLBORNE ON L3K 5V7***	***GEN***

Generator No:	ON0049412	**PO Box No:**	
Status:		**Country:**	
Approval Years:	2012	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:	332113		
SIC Description:	Forging		

Detail(s)

Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	243
Waste Class Desc:	PCBS
Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS
Waste Class:	146
Waste Class Desc:	OTHER SPECIFIED INORGANICS
Waste Class:	251
Waste Class Desc:	OIL SKIMMINGS & SLUDGES
Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS

16 | **57 of 69** | **S/265.5** | **177.8 / -1.00** | **IMT PARTNERSHIP**
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 | **NPRI**

NPRI ID:	452	**Org ID:**	52342
Other ID:		**Submit Date:**	12/16/2013
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	78236	**Contact ID:**	231814
Report ID:	26465	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	GRAHAM
Report Year:	2012	**Cont Last Name:**	BOND
Not-Current Rpt?:	No	**Contact Position:**	GENERAL MANAGER
Yr of Last Filed Rpt:	2014	**Contact Fax:**	9058340337
Fac ID:	225152	**Contact Ph.:**	9058347211
Fac Name:	FORGE DIVISION	**Cont Area Code:**	905
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	58347211
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	2210
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	905
Facility Lat:	42.8855	**Contact Fax:**	58340337
Facility Long:	-79.2297	**Contact Email:**	GBOND@IMTCORPORATION.COM
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:	92	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			

NAICS Code (2 digit):	33
NAICS 2 Description:	Manufacturing
NAICS Code (4 digit):	3321
NAICS 4 Description:	Forging and stamping
NAICS Code (6 digit):	332113
NAICS 6 Description:	Forging

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns
Quantity:	.44
Unit:	tonnes
Basis of Estimate Cd:	NA
Basis of Estimate Desc:	NA- Not Applicable

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	.44
Unit:	tonnes
Basis of Estimate Cd:	NA
Basis of Estimate Desc:	NA- Not Applicable

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	58 of 69	S/265.5	177.8 / -1.00	***IMT PARTNERSHIP*** ***837 REUTER ROAD PO BOX 100*** ***PORT COLBORNE ON***	***GEN***

Generator No:	ON0049412	***PO Box No:***	
Status:		***Country:***	
Approval Years:	2013	***Choice of Contact:***	
Contam. Facility:		***Co Admin:***	
MHSW Facility:		***Phone No Admin:***	
SIC Code:	332113		
SIC Description:	FORGING		

Detail(s)

Waste Class:	252
Waste Class Desc:	WASTE OILS & LUBRICANTS
Waste Class:	212
Waste Class Desc:	ALIPHATIC SOLVENTS
Waste Class:	243
Waste Class Desc:	PCBS
Waste Class:	213
Waste Class Desc:	PETROLEUM DISTILLATES
Waste Class:	146
Waste Class Desc:	OTHER SPECIFIED INORGANICS
Waste Class:	251

Waste Class Desc: OIL SKIMMINGS & SLUDGES

---

16 | **59 of 69** | **S/265.5** | **177.8 / -1.00** | **PC FORGE - IMT PARTNERSHIP**
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 | **NPRI**

NPRI ID:	452	**Org ID:**	102363
Other ID:		**Submit Date:**	6/2/2014
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	119836	**Contact ID:**	
Report ID:	39964	**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2013	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	225152	**Contact Ph.:**	
Fac Name:	FORGE DIVISION	**Cont Area Code:**	
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	
Facility Lat:	42.8855	**Contact Fax:**	
Facility Long:	-79.2297	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:	101	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	33		
NAICS 2 Description:	Manufacturing		
NAICS Code (4 digit):	3321		
NAICS 4 Description:	Forging and stamping		
NAICS Code (6 digit):	332113		
NAICS 6 Description:	Forging		

Substance Release Report

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	.018
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Chem: PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr): PM2,5 - Matière particulaire <= 2,5 microns
Quantity: .2
Unit: tonnes
Basis of Estimate Cd: C
Basis of Estimate Desc: C- Mass Balance

---

16 **60 of 69** **S/265.5** **177.8 / -1.00** **IMT Partnership** **ECA**
837 Reuter Rd
Port Colborne ON N5C 3K6

Approval No: 2346-7NGMG8
Approval Date: 2009-02-27
Status: Amended
Record Type: ECA
Link Source: IDS
SWP Area Name: Niagara Peninsula
Approval Type: ECA-AIR
Project Type: AIR
Address: 837 Reuter Rd
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1584-7NFNA2-14.pdf

MOE District: Niagara
City:
Longitude: -79.25495
Latitude: 42.885543999999996
Geometry X:
Geometry Y:

---

16 **61 of 69** **S/265.5** **177.8 / -1.00** **IMT Partnership** **ECA**
837 Reuter Rd
Port Colborne ON N5C 3K6

Approval No: 5089-7LYRK4
Approval Date: 2009-01-07
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name: Niagara Peninsula
Approval Type: ECA-AIR
Project Type: AIR
Address: 837 Reuter Rd
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4006-6XZVPX-14.pdf

MOE District: Niagara
City:
Longitude: -79.25495
Latitude: 42.885543999999996
Geometry X:
Geometry Y:

---

16 **62 of 69** **S/265.5** **177.8 / -1.00** **IMT PARTNERSHIP** **GEN**
837 Reuter Road
Port Colborne ON L3K 5V7

Generator No: ON0049412
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 332113
SIC Description: FORGING

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 243
Waste Class Desc: PCBS

---

16 **63 of 69** **S/265.5** **177.8 / -1.00**

IMT PARTNERSHIP
837 Reuter Road
Port Colborne ON L3K 5V7

GEN

Generator No: ON0049412
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 332113
SIC Description: FORGING

PO Box No:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: Hannah E MacDonald
Phone No Admin: 905-834-7211 Ext.2216

Detail(s)

Waste Class: 243
Waste Class Desc: PCBS

Waste Class: 252
Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

---

16 **64 of 69** **S/265.5** **177.8 / -1.00**

IMT PARTNERSHIP
837 Reuter Road
Port Colborne ON L3K 5V7

GEN

Generator No: ON0049412
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 332113
SIC Description: FORGING

PO Box No:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: Hannah E MacDonald
Phone No Admin: 905-834-7211 Ext.2216

Detail(s)

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 243
Waste Class Desc: PCBS

Waste Class: 252

Waste Class Desc: WASTE OILS & LUBRICANTS

Waste Class: 251
Waste Class Desc: OIL SKIMMINGS & SLUDGES

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

---

16 | **65 of 69** | **S/265.5** | **177.8 / -1.00** | **IMT PARTNERSHIP**
837 Reuter Road
Port Colborne ON L3K 5V7 | **GEN**

Generator No: ON0049412
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 213 I
Waste Class Desc: Petroleum distillates

Waste Class: 251 L
Waste Class Desc: Waste oils/sludges (petroleum based)

Waste Class: 252 L
Waste Class Desc: Waste crankcase oils and lubricants

---

16 | **66 of 69** | **S/265.5** | **177.8 / -1.00** | **PC Forge - IMT Partnership**
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 | **NPRI**

NPRI ID: 452
Other ID:
No Other ID:
Track ID: 141182
Report ID: 76440
Report Type: NPRI
Rpt Type ID: 1
Report Year: 2015
Not-Current Rpt?: No
Yr of Last Filed Rpt: 2014
Fac ID: 225152
Fac Name: FORGE DIVISION
Fac Address1: 837 REUTER ROAD
Fac Address2: NOT AVAILABLE
Fac Postal Zip: L3K5V7
Facility Lat: 42.8855
Facility Long: -79.2297
DLS (Last Filed Rpt):
Facility DLS:
Datum: 1983
Facility Cmnts:
URL:
No of Empl.: 60
Parent Co.:
No Parent Co.:

Org ID: 106163
Submit Date: 6/1/2016
Last Modified: 11/18/2016 8:28:05 AM
Contact ID: 239216
Cont Type: MEM
Contact Title:
Cont First Name: Hannah
Cont Last Name: MacDonald
Contact Position: Environmental/Health & Safety Coordinator
Contact Fax: 9058349987
Contact Ph.: 9058347211
Cont Area Code: 905
Contact Tel.: 58347211
Contact Ext.: 2216
Cont Fax Area Cde: 905
Contact Fax: 58349987
Contact Email: hmacdonald@imtcorporation.com
Latitude: 42.8855
Longitude: -79.2297
UTM Zone:
UTM Northing:
UTM Easting:
Waste Streams:
No Streams:
Waste Off Sites:

Pollut Prev Cmnts: **No Off Sites:**
Stacks: **Shutdown:**
No of Stacks: **No of Shutdown:**
Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:
NAICS Code (2 digit): 33
NAICS 2 Description: Manufacturing
NAICS Code (4 digit): 3321
NAICS 4 Description: Forging and stamping
NAICS Code (6 digit): 332113
NAICS 6 Description: Forging

Substance Release Report

Category Type ID: 1
Category Type Desc: Stack / Point
Category Type Desc (fr): Rejets de cheminée ou ponctuels
Grouping: Total Air
Trans Code: ASta
Chem:
Chem (fr):
Quantity: .44
Unit: tonnes
Basis of Estimate Cd: E1
Basis of Estimate Desc: E1- Site Specific Emission Factors - In use from 2003 and onward

Category Type ID: 1
Category Type Desc: Stack / Point
Category Type Desc (fr): Rejets de cheminée ou ponctuels
Grouping: Total Air
Trans Code: ASta
Chem:
Chem (fr):
Quantity: .44
Unit: tonnes
Basis of Estimate Cd: E1
Basis of Estimate Desc: E1- Site Specific Emission Factors - In use from 2003 and onward

---

16	67 of 69	S/265.5	177.8 / -1.00	***R & G Holdings Corp.*** ***837 Reuter Rd*** ***Port Colborne ON N5C 3K6***	***ECA***

Approval No: 2346-7NGMG8
Approval Date: 2017-06-29
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Niagara Peninsula
Approval Type: ECA-AIR
Project Type: AIR
Address: 837 Reuter Rd
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/9791-ALCQ55-14.pdf

MOE District: Niagara
City:
Longitude: -79.25495
Latitude: 42.885543999999996
Geometry X:
Geometry Y:

16	68 of 69	S/265.5	177.8 / -1.00	***837 Reuter Road*** ***Port Colborne ON***	***EHS***

Order No: 20180103128
Status: C
Report Type: Custom Report

Nearest Intersection:
Municipality: Port Colborne, Niaraga Region
Client Prov/State: ON

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Report Date:	10-JAN-18	**Search Radius (km):**	.25
Date Received:	03-JAN-18	**X:**	-79.228523
Previous Site Name:	as above	**Y:**	42.885623
Lot/Building Size:	7.5 acres (approximately)		
Additional Info Ordered:			

---

16 | ***69 of 69*** | ***S/265.5*** | ***177.8 / -1.00*** | ***IMT PARTNERSHIP***
837 Reuter Road
Port Colborne ON L3K 5V7 | ***GEN***

Generator No:	ON0049412	**PO Box No:**	
Status:	Registered	**Country:**	Canada
Approval Years:	As of Oct 2019	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:			
SIC Description:			

Detail(s)

Waste Class:	252 L
Waste Class Desc:	Waste crankcase oils and lubricants
Waste Class:	251 L
Waste Class Desc:	Waste oils/sludges (petroleum based)
Waste Class:	213 I
Waste Class Desc:	Petroleum distillates

---

17 | ***1 of 2*** | ***WNW/269.6*** | ***179.8 / 1.00*** | ***140 MERCURY AVE, PORT COLBORNE ON*** | ***PINC***

Incident ID:		**Health Impact:**	
Incident No:	1795242	**Environment Impact:**	
Type:	FS-Pipeline Incident	**Property Damage:**	No
Status Code:	Pipeline Damage Reason Est	**Service Interupt:**	
Fuel Occurrence Tp:		**Enforce Policy:**	No
Fuel Type:		**Public Relation:**	
Tank Status:	RC Established	**Pipeline System:**	
Task No:	6025792	**Depth:**	
Spills Action Centre:		**Pipe Material:**	
Method Details:	E-mail	**PSIG:**	
Fuel Category:	Natural Gas	**Attribute Category:**	FS-Perform P-line Inc Invest
Date of Occurrence:		**Regulator Location:**	
Occurrence Start Date:	2016/01/26		
Operation Type:			
Pipeline Type:			
Regulator Type:			
Summary:	140 MERCURY AVE, PORT COLBORNE - PIPELINE HIT - 1/2"		
Reported By:	Steve Miller - ENBRIDGE		
Affiliation:			
Occurrence Desc:			
Damage Reason:	Facility marking or location not sufficient		
Notes:			

---

17 | ***2 of 2*** | ***WNW/269.6*** | ***179.8 / 1.00*** | ***140 Mercury Ave***
Port Colborne ON | ***SPL***

Ref No:	1466-A6JMDJ	**Discharger Report:**	
Site No:	NA	**Material Group:**	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Incident Dt:	2016/01/26	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Miscellaneous Industrial
Incident Event:	Leak/Break	**Agency Involved:**	
Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	METHANE GAS, COMPRESSED (NATURAL GAS)	**Site Address:**	140 Mercury Ave
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Port Colborne
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Air	**Northing:**	
MOE Response:	No	**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2016/01/26	**Site Map Datum:**	
Dt Document Closed:	2016/02/11	**SAC Action Class:**	TSSA - Fuel Safety Branch - Hydrocarbon Fuel Release/Spill
Incident Reason:	Operator/Human Error	**Source Type:**	
Site Name:	Residential Line damage<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	TSSA-FSB: Line Damage- Made Safe		
Contaminant Qty:	0 other - see incident description		

18	1 of 1	SSW/272.4	177.8 / -1.00	**P.C. DROP FORGINGS LIMITED** **P.O. BOX 10** **PORT COLBORNE ON L3K 5V7**	NPCB

Company Code:	O0679
Industry:	Metal Refining
Site Status:	
Transaction Date:	10/25/1990
Inspection Date:	

19	1 of 1	ENE/272.7	177.8 / -1.00	**lot 22 con 1** **ON**	WWIS

Well ID:	6600900	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	2/7/1962
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	4720
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	NIAGARA (WELLAND)
Elevation (m):		**Municipality:**	PORT COLBORNE CITY (HUMBERSTONE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	022
Well Depth:		**Concession:**	01
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10460634	**Elevation:**	178.536651
DP2BR:	9	**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	r	**East83:**	645003.9
Code OB Desc:	Bedrock	**North83:**	4750303
Open Hole:		**Org CS:**	
Cluster Kind:		**UTMRC:**	5
Date Completed:	2/6/1962	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	p5
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932590172
Layer:	1
Color:	
General Color:	
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	9
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932590173
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	9
Formation End Depth:	29
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	11009204

Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930748169
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	9
Casing Diameter:	5
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930748170
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	29
Casing Diameter:	5
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	996600900
Pump Set At:	
Static Level:	8
Final Level After Pumping:	8
Recommended Pump Depth:	20
Pumping Rate:	10
Flowing Rate:	
Recommended Pump Rate:	10
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	N

Water Details

Water ID:	933948172
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	29
Water Found Depth UOM:	ft

20 ***1 of 1*** ***SSW/280.8*** ***177.8 / -1.00*** ***ON*** ***WWIS***

Well ID:	7188654	***Data Entry Status:***	Yes
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	6/11/2012

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:		**Abandonment Rec:**	
Water Type:		**Contractor:**	7320
Casing Material:		**Form Version:**	8
Audit No:	C16882	**Owner:**	
Tag:	A126898	**Street Name:**	
Construction Method:		**County:**	NIAGARA (WELLAND)
Elevation (m):		**Municipality:**	PORT COLBORNE CITY (HUMBERSTONE)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1004197434	**Elevation:**	176.027328
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	644571
Code OB Desc:		**North83:**	4749620
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	1/19/2012	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

---

21 | ***1 of 1*** | ***SSW/280.8*** | ***177.8 / -1.00*** | ***PC FORGE - IMT PARTNERSHIP***
837 REUTER ROAD NOT AVAILABLE
PORT COLBORNE ON L3K5V7 | ***NPRI***

NPRI ID:	452	**Org ID:**	102363
Other ID:		**Submit Date:**	6/1/2015
No Other ID:		**Last Modified:**	6/10/2015 10:59:04 AM
Track ID:	130342	**Contact ID:**	
Report ID:	56206	**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2014	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	225152	**Contact Ph.:**	
Fac Name:	FORGE DIVISION	**Cont Area Code:**	
Fac Address1:	837 REUTER ROAD	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L3K5V7	**Cont Fax Area Cde:**	
Facility Lat:	42.8855	**Contact Fax:**	
Facility Long:	-79.2297	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	42.8855
Facility DLS:		**Longitude:**	-79.2297
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:	97	**Waste Streams:**	
Parent Co.:		**No Streams:**	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

No Parent Co.:
Pollut Prev Cmnts:
Stacks:
No of Stacks:
Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:
NAICS Code (2 digit): 33
NAICS 2 Description: Manufacturing
NAICS Code (4 digit): 3321
NAICS 4 Description: Forging and stamping
NAICS Code (6 digit): 332113
NAICS 6 Description: Forging
Waste Off Sites:
No Off Sites:
Shutdown:
No of Shutdown:

Substance Release Report

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .018
Unit: tonnes
Basis of Estimate Cd: C
Basis of Estimate Desc: C- Mass Balance

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr): PM2,5 - Matière particulaire <= 2,5 microns
Quantity: .2
Unit: tonnes
Basis of Estimate Cd: C
Basis of Estimate Desc: C- Mass Balance

22	*1 of 4*	*WNW/280.1*	*179.8 / 1.00*	***BERTULI, E. & SONS LTD*** ***437 KILLALY STREET EAST*** ***PORT COLBORNE ON L3K 1P7***	***PES***

Detail Licence No:
Licence No:
Status:
Approval Date:
Report Source:
Licence Type: Vendor
Licence Type Code:
Licence Class:
Licence Control:
Latitude:
Longitude:
Lot:
Concession:
Region:
District:
County:
Trade Name:
PDF Link:
Operator Box:
Operator Class:
Operator No:
Operator Type:
Oper Area Code:
Oper Phone No:
Operator Ext:
Operator Lot:
Oper Concession:
Operator Region:
Operator District:
Operator County:
Op Municipality:
Post Office Box:
MOE District:
SWP Area Name:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
22	2 of 4	WNW/280.1	179.8 / 1.00	BERTULI, E. & SONS LTD 437 KILLALY STREET EAST PORT COLBORNE ON L3K1P7	PES

Detail Licence No:	23-01-06795-0	**Operator Box:**	
Licence No:	06795	**Operator Class:**	
Status:		**Operator No:**	
Approval Date:		**Operator Type:**	
Report Source:	Legacy Licenses (Excluding TS)	**Oper Area Code:**	416
Licence Type:	Limited Vendor	**Oper Phone No:**	8343121
Licence Type Code:	23	**Operator Ext:**	
Licence Class:	01	**Operator Lot:**	
Licence Control:	0	**Oper Concession:**	
Latitude:		**Operator Region:**	2
Longitude:		**Operator District:**	1
Lot:		**Operator County:**	38
Concession:		**Op Municipality:**	
Region:	2	**Post Office Box:**	
District:	1	**MOE District:**	
County:	38	**SWP Area Name:**	
Trade Name:			
PDF Link:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
22	3 of 4	WNW/280.1	179.8 / 1.00	PORT PRO HARDWARE 437 KILLALY ST E PORT COLBORNE ON L3K1P7	PES

Detail Licence No:	23-01-12287-0	**Operator Box:**	
Licence No:	12287	**Operator Class:**	
Status:		**Operator No:**	
Approval Date:		**Operator Type:**	
Report Source:	Legacy Licenses (Excluding TS)	**Oper Area Code:**	905
Licence Type:	Limited Vendor	**Oper Phone No:**	8343121
Licence Type Code:	23	**Operator Ext:**	
Licence Class:	01	**Operator Lot:**	
Licence Control:	0	**Oper Concession:**	
Latitude:		**Operator Region:**	2
Longitude:		**Operator District:**	
Lot:		**Operator County:**	38
Concession:		**Op Municipality:**	
Region:	2	**Post Office Box:**	
District:		**MOE District:**	
County:	38	**SWP Area Name:**	
Trade Name:			
PDF Link:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
22	4 of 4	WNW/280.1	179.8 / 1.00	BERTULI, E. & SONS LTD 437 KILLALY STREET EAST PORT COLBORNE ON L3K1P7	PES

Detail Licence No:		**Operator Box:**	
Licence No:	06795	**Operator Class:**	
Status:		**Operator No:**	
Approval Date:		**Operator Type:**	
Report Source:	Legacy Licenses (Excluding TS)	**Oper Area Code:**	416
Licence Type:	Retail Vendor Class 03	**Oper Phone No:**	8343121
Licence Type Code:	21	**Operator Ext:**	
Licence Class:	03	**Operator Lot:**	
Licence Control:		**Oper Concession:**	
Latitude:		**Operator Region:**	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Longitude:
Lot:
Concession:
Region:
District:
County:
Trade Name:
PDF Link:

Operator District:
Operator County:
Op Municipality:
Post Office Box:
MOE District:
SWP Area Name:

---

23 | **1 of 14** | **N/295.9** | **179.7 / 0.84** | **GEN**

WELLAND COUNTY R.C.S.S. BOARD
OUR LADY OF GOOD COUNSEL 530 KILLALY STREET EAST
PORT COLBORNE ON L3K 1P5

Generator No: ON1381718
Status:
Approval Years: 93,97
Contam. Facility:
MHSW Facility:
SIC Code: 8511
SIC Description: ELEMT./SECON. EDUC.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

---

23 | **2 of 14** | **N/295.9** | **179.7 / 0.84** | **GEN**

WELLAND COUNTY R.C.S.S. BOARD 42-636
OUR LADY OF GOOD COUNSEL, 530 KILLALY STREET E., PORT COLBORNE,C/O427 RICERD
WELLAND ON L3C 7C1

Generator No: ON1381718
Status:
Approval Years: 94,95,96
Contam. Facility:
MHSW Facility:
SIC Code: 8511
SIC Description: ELEMT./SECON. EDUC.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

---

23 | **3 of 14** | **N/295.9** | **179.7 / 0.84** | **GEN**

NIAGARA CATHOLIC DISTRICT SCHOOL BOARD
OUR LADY OF GOOD COUNSEL 530 KILLALY STREET EAST
PORT COLBORNE ON L3K 1P5

Generator No: ON1381718
Status:
Approval Years: 98,99,00,01
Contam. Facility:

PO Box No:
Country:
Choice of Contact:
Co Admin:

MHSW Facility: ***Phone No Admin:***
SIC Code: 8511
SIC Description: ELEMT./SECON. EDUC.

Detail(s)

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

---

23 ***4 of 14*** ***N/295.9*** ***179.7 / 0.84*** ***NIAGARA CATHOLIC DISTRICT SCHOOL BOARD***
ST. THERESE ELEMENTARY SCHOOL 530
KILLALY STREET EAST
PORT COLBORNE ON L3K 1P5 ***GEN***

Generator No: ON1381718 ***PO Box No:***
Status: ***Country:***
Approval Years: 02,03,04,05,06,07,08 ***Choice of Contact:***
Contam. Facility: ***Co Admin:***
MHSW Facility: ***Phone No Admin:***
SIC Code: 611110
SIC Description: Elementary & Secondary Schools

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

---

23 ***5 of 14*** ***N/295.9*** ***179.7 / 0.84*** ***NIAGARA CATHOLIC DISTRICT SCHOOL BOARD***
ST. THERESE ELEMENTARY SCHOOL 530
KILLALY STREET EAST
PORT COLBORNE ON L3K 1P5 ***GEN***

Generator No: ON1381718 ***PO Box No:***
Status: ***Country:***
Approval Years: 2009 ***Choice of Contact:***
Contam. Facility: ***Co Admin:***
MHSW Facility: ***Phone No Admin:***
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

Detail(s)

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

---

23 | **6 of 14** | **N/295.9** | **179.7 / 0.84** | **NIAGARA CATHOLIC DISTRICT SCHOOL BOARD**
ST. THERESE ELEMENTARY SCHOOL 530
KILLALY STREET EAST
PORT COLBORNE ON L3K 1P5 | **GEN**

Generator No: ON1381718
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

---

23 | **7 of 14** | **N/295.9** | **179.7 / 0.84** | **NIAGARA CATHOLIC DISTRICT SCHOOL BOARD**
ST. THERESE ELEMENTARY SCHOOL 530
KILLALY STREET EAST
PORT COLBORNE ON L3K 1P5 | **GEN**

Generator No: ON1381718
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
23	8 of 14	N/295.9	179.7 / 0.84	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	GEN

Generator No: ON1381718
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
23	9 of 14	N/295.9	179.7 / 0.84	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON	GEN

Generator No: ON1381718
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: ELEMENTARY AND SECONDARY SCHOOLS

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
23	10 of 14	N/295.9	179.7 / 0.84	NIAGARA CATHOLIC DISTRICT SCHOOL BOARD ST. THERESE ELEMENTARY SCHOOL 530 KILLALY STREET EAST PORT COLBORNE ON L3K 1P5	GEN

Generator No: ON1381718

PO Box No:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB

Status:		**Country:**	Canada
Approval Years:	2016	**Choice of Contact:**	CO_OFFICIAL
Contam. Facility:	No	**Co Admin:**	
MHSW Facility:	No	**Phone No Admin:**	
SIC Code:	611110		
SIC Description:	ELEMENTARY AND SECONDARY SCHOOLS		

Detail(s)

Waste Class:	331
Waste Class Desc:	WASTE COMPRESSED GASES
Waste Class:	148
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS
Waste Class:	145
Waste Class Desc:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	263
Waste Class Desc:	ORGANIC LABORATORY CHEMICALS

---

23 ***11 of 14*** ***N/295.9*** ***179.7 / 0.84*** ***GEN***

NIAGARA CATHOLIC DISTRICT SCHOOL BOARD
ST. THERESE ELEMENTARY SCHOOL 530
KILLALY STREET EAST
PORT COLBORNE ON L3K 1P5

Generator No:	ON1381718	**PO Box No:**	
Status:		**Country:**	Canada
Approval Years:	2015	**Choice of Contact:**	CO_OFFICIAL
Contam. Facility:	No	**Co Admin:**	
MHSW Facility:	No	**Phone No Admin:**	
SIC Code:	611110		
SIC Description:	ELEMENTARY AND SECONDARY SCHOOLS		

Detail(s)

Waste Class:	145
Waste Class Desc:	PAINT/PIGMENT/COATING RESIDUES
Waste Class:	263
Waste Class Desc:	ORGANIC LABORATORY CHEMICALS
Waste Class:	331
Waste Class Desc:	WASTE COMPRESSED GASES
Waste Class:	148
Waste Class Desc:	INORGANIC LABORATORY CHEMICALS

---

23 ***12 of 14*** ***N/295.9*** ***179.7 / 0.84*** ***GEN***

NIAGARA CATHOLIC DISTRICT SCHOOL BOARD
ST. THERESE ELEMENTARY SCHOOL 530
KILLALY STREET EAST
PORT COLBORNE ON L3K 1P5

Generator No:	ON1381718	**PO Box No:**	
Status:		**Country:**	Canada
Approval Years:	2014	**Choice of Contact:**	CO_OFFICIAL
Contam. Facility:	No	**Co Admin:**	
MHSW Facility:	No	**Phone No Admin:**	
SIC Code:	611110		
SIC Description:	ELEMENTARY AND SECONDARY SCHOOLS		

Detail(s)

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 145
Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

---

23 ***13 of 14*** ***N/295.9*** ***179.7 / 0.84*** ***NIAGARA CATHOLIC DISTRICT SCHOOL BOARD***
ST. THERESE ELEMENTARY SCHOOL 530
KILLALY STREET EAST
PORT COLBORNE ON L3K 1P5 ***GEN***

Generator No: ON1381718
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 145 I
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 146 T
Waste Class Desc: Other specified inorganic sludges, slurries or solids

Waste Class: 331 I
Waste Class Desc: Waste compressed gases including cylinders

---

23 ***14 of 14*** ***N/295.9*** ***179.7 / 0.84*** ***NIAGARA CATHOLIC DISTRICT SCHOOL BOARD***
ST. THERESE ELEMENTARY SCHOOL 530
KILLALY STREET EAST
PORT COLBORNE ON L3K 1P5 ***GEN***

Generator No: ON1381718
Status: Registered
Approval Years: As of Oct 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

PO Box No:
Country: Canada
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 331 I
Waste Class Desc: Waste compressed gases including cylinders

Waste Class: 145 I
Waste Class Desc: Wastes from the use of pigments, coatings and paints

Waste Class: 146 T

Waste Class Desc: Other specified inorganic sludges, slurries or solids

---

24 | **1 of 1** | **WNW/299.6** | **179.8 / 1.00** | **CAISSE-POPULAIRE**
425 KILLALY STREET EAST
PORT COLBORNE ON L3K 1P7 | **GEN**

Generator No: ON1733000
Status:
Approval Years: 93,94,95,96,97,98,99,00,01
Contam. Facility:
MHSW Facility:
SIC Code: 7031
SIC Description: TRUST COMPANIES

Detail(s)

Waste Class: 221
Waste Class Desc: LIGHT FUELS

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

---

25 | **1 of 1** | **NW/284.0** | **179.8 / 1.00** | **lot 24 con 2**
ON | **WWIS**

Well ID: 6601010
Construction Date:
Primary Water Use: Domestic
Sec. Water Use: 0
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 6/2/1959
Selected Flag: Yes
Abandonment Rec:
Contractor: 4720
Form Version: 1
Owner:
Street Name:
County: NIAGARA (WELLAND)
Municipality: PORT COLBORNE CITY (HUMBERSTONE)
Site Info:
Lot: 024
Concession: 02
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10460744
DP2BR: 3
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 5/14/1954
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 177.861862
Elevrc:
Zone: 17
East83: 644329.9
North83: 4750375
Org CS:
UTMRC: 5
UTMRC Desc: margin of error : 100 m - 300 m
Location Method: p5

Overburden and Bedrock

Materials Interval

Formation ID:	932590402
Layer:	2
Color:	
General Color:	
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	3
Formation End Depth:	19
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932590401
Layer:	1
Color:	
General Color:	
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	05
Other Materials:	CLAY
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	3
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	11009314
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930748383
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	8
Casing Diameter:	5
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930748384
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	19
Casing Diameter:	5
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	996601010
Pump Set At:	
Static Level:	8
Final Level After Pumping:	8
Recommended Pump Depth:	
Pumping Rate:	6
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	0
Pumping Duration MIN:	30
Flowing:	N

Water Details

Water ID:	933948283
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	19
Water Found Depth UOM:	ft

Unplottable Summary

Total: 27 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
AAGR		Lot 23/24 Con 2	Port Colborne ON	
AGR	1712028 ONTARIO INC.	Lot Pt 19,20,21,22, Con 2	HUMBERSTONE ON	
AGR	1712028 ONTARIO INC.	Lot Pt 19,20,21,22, Con 2 Lot Pt 19,20,21,22, Con 2	HUMBERSTONE ON	
CA	PORT COLBORNE CITY	LOT 4/C-1, JOHNSTON ST., SWM	PORT COLBORNE CITY ON	
CA	R.M. OF NIAGARA	JOHNSTON ST.	PORT COLBORNE CITY ON	
CA	PORT COLBORNE CITY	REUTER RD/JOHNSTON ST.	PORT COLBORNE ON	
CA	PORT COLBORNE CITY	REUTER RD./JOHNSTON ST.	PORT COLBORNE CITY ON	
CONV	FABHAVEN INDUSTRIES INC.		ON	
GEN	J.T.L. MACHINE LIMITED 22-092	REUTER ROAD P.O. BOX 325	PORT COLBORNE ON	L3K 5W1
GEN	J.T.L. MACHINE LIMITED	REUTER ROAD P.O. BOX 325	PORT COLBORNE ON	L3K 5W1
LIMO	Atlas Landfill Remediation Project Integrated Municipal Services Incorporated	City of Welland Part of Lots 21-22, Part Broken Front Lot 223, Concession 2 Niagara	ON	
LIMO	Port Colborne Quarries Ltd.	Lot 22-23, Conc 2	City of Port Colborne ON	
PTTW	Port Colborne Quarries Ltd.	North Lot 24, Concession 2 CITY OF PORT COLBORNE	ON	
SPL	INCO LTD.	DURHAM RD AND RUITER RD OUTSIDE PLANT GATE PORT COLBORNE NICKEL REFINERY 187 DAVIS STREET	PORT COLBORNE CITY ON	
SPL	HAROLD MARCUS LTD.	DURHAM ST. BETWEEN ROOTER ST. & FERRIS RD. TANK TRUCK (CARGO)	PORT COLBORNE CITY ON	
WWIS		lot 22 con 1	ON	

WWIS	con 1	ON
WWIS	con 1	ON
WWIS	con 2	Port Colborne ON
WWIS	lot 24 con 2	PORT COLBORNE ON
WWIS	lot 24 con 2	PORT COLBORNE ON
WWIS	con 1	ON
WWIS	con 1	ON
WWIS	con 1	ON
WWIS	con 1	ON
WWIS	con 1	ON
WWIS	con 1	ON

Unplottable Report

Site: **Database:** AAGR

Lot 23/24 Con 2 Port Colborne ON

Type:	Quarry
Region/County:	Niagara
Township:	Port Colborne
Concession:	2
Lot:	23/24
Size (ha):	30
Landuse:	licensed
Comments:	part of quarry still active (Port Colborne Quarries Ltd.)

Site: ***1712028 ONTARIO INC.*** **Database:** AGR

Lot Pt 19,20,21,22, Con 2 HUMBERSTONE ON

ID:	4444	***Water Status:***	Information Not Available
OGF ID:	67388623	***Licenced Area (ha):***	142.1
Current Status:	ACTIVE	***Extraction Area:***	
Status Date:		***Location Name:***	
Effective Date:		***Location Accuracy:***	Within 10 metres
Auth Type Desc:	CLASS A LICENCE > 20000 TONNES	***Lower Tier Munici:***	PORT COLBORNE
Authority Type:		***Upper Tier Munici:***	NIAGARA R
Operation Type:	Quarry	***District:***	
Max Annual Tonnage:		***District Name:***	Guelph
Max Tonnage:	1815000	***Section:***	
Unlimited Tonnage:	No	***Shape Area:***	0
Source Detail:	Source Observation	***Shape Len:***	0
Effective Datetime:	2009-01-07T07:17:35.0000000-05:00		
System Datetime:	2009-01-13T05:56:06.0000000-05:00		
Refreshed Datetime:	2019-10-02T23:55:06.0000000-04:00		
Geometry Update Datetime:			

Site: ***1712028 ONTARIO INC.*** **Database:** AGR

Lot Pt 19,20,21,22, Con 2 Lot Pt 19,20,21,22, Con 2 HUMBERSTONE ON

ID:	4444	***Water Status:***	
OGF ID:		***Licenced Area (ha):***	142.1
Current Status:		***Extraction Area:***	
Status Date:		***Location Name:***	
Effective Date:		***Location Accuracy:***	
Auth Type Desc:	CLASS A LICENCE > 20000 TONNES	***Lower Tier Munici:***	PORT COLBORNE
Authority Type:		***Upper Tier Munici:***	NIAGARA R
Operation Type:	QUARRY	***District:***	Guelph District
Max Annual Tonnage:	1815000	***District Name:***	
Max Tonnage:		***Section:***	
Unlimited Tonnage:	No	***Shape Area:***	
Source Detail:		***Shape Len:***	
Effective Datetime:			
System Datetime:			
Refreshed Datetime:			
Geometry Update Datetime:			

Site: ***PORT COLBORNE CITY*** **Database:** CA

LOT 4/C-1, JOHNSTON ST., SWM PORT COLBORNE CITY ON

Certificate #: 3-0517-99-
Application Year: 99
Issue Date: 6/24/1999
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***R.M. OF NIAGARA***
JOHNSTON ST. PORT COLBORNE CITY ON

Database: ***CA***

Certificate #: 8-2378-87-
Application Year: 87
Issue Date: 1/7/1988
Approval Type: Industrial air
Status: Cancelled
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: STANDBY GAS GENERATOR (JOHNSTON ST.)
Contaminants:
Emission Control:

Site: ***PORT COLBORNE CITY***
REUTER RD/JOHNSTON ST. PORT COLBORNE ON

Database: ***CA***

Certificate #: 7-0333-98-
Application Year: 98
Issue Date: 5/14/1998
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***PORT COLBORNE CITY***
REUTER RD./JOHNSTON ST. PORT COLBORNE CITY ON

Database: ***CA***

Certificate #: 3-0947-96-
Application Year: 96
Issue Date: 8/21/1996
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***FABHAVEN INDUSTRIES INC.***
ON

Database: ***CONV***

File No:
Crown Brief No: 00-0053-0148
Court Location:
Publication City:
Publication Title:
Act:
Act(s):
First Matter:
Second Matter:
Investigation 1:
Investigation 2:
Penalty Imposed:
Description: FAIL TO OPERATE AND MAINTAIN GRIND BOOTH EQUIPMENT BY OPERATING THE EQUIPMENT WITHOUT FILTERS AND DUST CONTROL DEVICES.
Background:
URL:

Location:
Region: WEST CENTRAL REGION
Ministry District: NIAGARA

Additional Details

Publication Date:
Count: 1
Act: EPA
Regulation:
Section: 186(3)
Act/Regulation/Section: EPA- -186(3)
Date of Offence:
Date of Conviction:
Date Charged: 5/9/00
Charge Disposition: SUSPENDED SENTENCE
Fine: $305.00
Synopsis:

Site: ***J.T.L. MACHINE LIMITED 22-092***
REUTER ROAD P.O. BOX 325 PORT COLBORNE ON L3K 5W1

Database: ***GEN***

Generator No: ON0390400
Status:
Approval Years: 94,95,96
Contam. Facility:
MHSW Facility:
SIC Code: 3081
SIC Description: MACHINE SHOP IND.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Site: ***J.T.L. MACHINE LIMITED***
REUTER ROAD P.O. BOX 325 PORT COLBORNE ON L3K 5W1

Database: ***GEN***

Generator No: ON0390400
Status:
Approval Years: 86,87,88,89,90
Contam. Facility:
MHSW Facility:
SIC Code: 3081
SIC Description: MACHINE SHOP IND.

PO Box No:
Country:
Choice of Contact:
Co Admin:
Phone No Admin:

Detail(s)

Waste Class: 253
Waste Class Desc: EMULSIFIED OILS

Site: ***Atlas Landfill Remediation Project Integrated Municipal Services Incorporated***
City of Welland Part of Lots 21-22, Part Broken Front Lot 223, Concession 2 Niagara ON

Database: ***LIMO***

ECA/Instrument No: A120409
Oper Status 2016: Open
C of A Issue Date:
C of A Issued to:
Lndfl Gas Mgmt (P):
Lndfl Gas Mgmt (F):
Lndfl Gas Mgmt (E):
Lndfl Gas Mgmt Sys:
Landfill Gas Mntr:
Leachate Coll Sys:
ERC Est Vol (m3):
ERC Volume Unit:
ERC Dt Last Det:
Landfill Type:
Source File Type:
Fill Rate:
Fill Rate Unit:
Tot Fill Area (ha):
Tot Site Area (ha):
Footprint:
Tot Apprv Cap (m3):
Contam Atten Zone:
Grndwtr Mntr:
Surf Wtr Mntr:
Air Emis Monitor:
Approved Waste Type:
Client Site Name:
ERC Methodology:
Site Name: Atlas Landfill Remediation Project
Integrated Municipal Services Incorporated
City of Welland
Site Location Details:
Service Area:
Page URL:

Natural Attenuation:
Liners:
Cover Material:
Leachate Off-Site:
Leachate On Site:
Req Coll Lndfll Gas:
Lndfll Gas Coll:
Total Waste Rec:
TWR Methodology:
TWR Unit:
Tot Aprv Cap Unit:
Financial Assurance:
Last Report Year:
MOE Region:
MOE District:
Site County:
Lot:
Concession:
Latitude:
Longitude:
Easting:
Northing:
UTM Zone:
Data Source:

Site: ***Port Colborne Quarries Ltd.***
Lot 22-23, Conc 2 City of Port Colborne ON

Database: ***LIMO***

ECA/Instrument No: A120307
Oper Status 2016: Open
C of A Issue Date:
C of A Issued to:
Lndfl Gas Mgmt (P):
Lndfl Gas Mgmt (F):
Lndfl Gas Mgmt (E):
Lndfl Gas Mgmt Sys:
Landfill Gas Mntr:
Leachate Coll Sys:
ERC Est Vol (m3):
ERC Volume Unit:
ERC Dt Last Det:
Landfill Type:
Source File Type:
Fill Rate:
Fill Rate Unit:
Tot Fill Area (ha):
Tot Site Area (ha):
Footprint:
Tot Apprv Cap (m3):
Contam Atten Zone:

Natural Attenuation:
Liners:
Cover Material:
Leachate Off-Site:
Leachate On Site:
Req Coll Lndfll Gas:
Lndfll Gas Coll:
Total Waste Rec:
TWR Methodology:
TWR Unit:
Tot Aprv Cap Unit:
Financial Assurance:
Last Report Year:
MOE Region:
MOE District:
Site County:
Lot:
Concession:
Latitude:
Longitude:
Easting:
Northing:

Grndwtr Mntr: ***UTM Zone:***
Surf Wtr Mntr: ***Data Source:***
Air Emis Monitor:
Approved Waste Type:
Client Site Name:
ERC Methodology:
Site Name: 9 Niagara Street Port Colborne ON
Site Location Details:
Service Area:
Page URL:

Site: ***Port Colborne Quarries Ltd.*** ***Database:***
North Lot 24, Concession 2 CITY OF PORT COLBORNE ON ***PTTW***

EBR Registry No: IA7E1426 ***Decision Posted:***
Ministry Ref No: W960683 ***Exception Posted:***
Notice Type: Instrument Decision ***Section:***
Notice Stage: ***Act 1:***
Notice Date: November 05, 1997 ***Act 2:***
Proposal Date: September 15, 1997 ***Site Location Map:***
Year: 1997
Instrument Type: (OWRA s. 34) - Permit to Take Water
Off Instrument Name:
Posted By:
Company Name: Port Colborne Quarries Ltd.
Site Address:
Location Other:
Proponent Name:
Proponent Address: P.O. Box 275, Port Colborne Ontario, L3K 5W1
Comment Period:
URL:

Site Location Details:

North Lot 24, Concession 2 CITY OF PORT COLBORNE

Site: ***INCO LTD.*** ***Database:***
DURHAM RD AND RUITER RD OUTSIDE PLANT GATE PORT COLBORNE NICKEL REFINERY 187 DAVIS STREET PORT COLBORNE CITY ON ***SPL***

Ref No: 89218 ***Discharger Report:***
Site No: ***Material Group:***
Incident Dt: 7/31/1993 ***Health/Env Conseq:***
Year: ***Client Type:***
Incident Cause: VALVE/FITTING LEAK OR FAILURE ***Sector Type:***
Incident Event: ***Agency Involved:***
Contaminant Code: ***Nearest Watercourse:***
Contaminant Name: ***Site Address:***
Contaminant Limit 1: ***Site District Office:***
Contam Limit Freq 1: ***Site Postal Code:***
Contaminant UN No 1: ***Site Region:***
Environment Impact: NOT ANTICIPATED ***Site Municipality:*** 18102
Nature of Impact: ***Site Lot:***
Receiving Medium: LAND ***Site Conc:***
Receiving Env: ***Northing:*** 4749000.00
MOE Response: ***Easting:*** 643600.00
Dt MOE Arvl on Scn: ***Site Geo Ref Accu:***
MOE Reported Dt: 7/31/1993 ***Site Map Datum:***
Dt Document Closed: ***SAC Action Class:***
Incident Reason: EQUIPMENT FAILURE ***Source Type:***
Site Name:
Site County/District:
Site Geo Ref Meth:
Incident Summary: INCO - 100 KG OF SODA ASHTO GROUND FROM RAILWAY TANK CAR
Contaminant Qty:

Site: ***HAROLD MARCUS LTD.***
DURHAM ST. BETWEEN ROOTER ST. & FERRIS RD. TANK TRUCK (CARGO) PORT COLBORNE CITY ON

Database: ***SPL***

Ref No:	104984	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	9/8/1994	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	VALVE/FITTING LEAK OR FAILURE	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	NOT ANTICIPATED	***Site Municipality:***	18102
Nature of Impact:		***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	FIRE DEPT, WORKS
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	9/8/1994	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	ERROR	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	HAROLD MARCUS: MINOR LEAK OF WASTE CHROMIC ACID TOROAD; CAP NOT TIGHTENED		
Contaminant Qty:			

Site:
lot 22 con 1 ON

Database: ***WWIS***

Well ID:	6810769	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	1/28/1985
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	1708
Casing Material:		***Form Version:***	1
Audit No:		***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	NIAGARA (WELLAND)
Elevation (m):		***Municipality:***	PORT COLBORNE CITY (HUMBERSTONE)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	022
Well Depth:		***Concession:***	01
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10488091	***Elevation:***	
DP2BR:	52	***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	r	***East83:***	
Code OB Desc:	Bedrock	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	6/18/1984	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na

Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 932695859
Layer: 2
Color: 8
General Color: BLACK
Mat1: 03
Most Common Material: MUCK
Mat2: 11
Other Materials: GRAVEL
Mat3:
Other Materials:
Formation Top Depth: 42
Formation End Depth: 44
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932695861
Layer: 4
Color: 2
General Color: GREY
Mat1: 11
Most Common Material: GRAVEL
Mat2: 28
Other Materials: SAND
Mat3:
Other Materials:
Formation Top Depth: 51
Formation End Depth: 52
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932695858
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 42
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932695862
Layer: 5
Color: 2
General Color: GREY

Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 52
Formation End Depth: 53
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932695860
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 11
Other Materials: GRAVEL
Mat3:
Other Materials:
Formation Top Depth: 44
Formation End Depth: 51
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11036661
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930797925
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 48
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933386043
Layer: 1
Slot: 016
Screen Top Depth: 48
Screen End Depth: 52
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 5

Results of Well Yield Testing

Pump Test ID:	996810769
Pump Set At:	
Static Level:	36
Final Level After Pumping:	50
Recommended Pump Depth:	50
Pumping Rate:	3
Flowing Rate:	
Recommended Pump Rate:	1
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	5
Pumping Duration MIN:	45
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934353675
Test Type:	Recovery
Test Duration:	15
Test Level:	41
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934868286
Test Type:	Recovery
Test Duration:	45
Test Level:	39
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934625691
Test Type:	Recovery
Test Duration:	30
Test Level:	40
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	935147480
Test Type:	Recovery
Test Duration:	60
Test Level:	39
Test Level UOM:	ft

Water Details

Water ID:	933980249
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	52
Water Found Depth UOM:	ft

Site:
con 1 ON

Database:
WWIS

Well ID:	6603770	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	10/3/1987
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	4795
Casing Material:		***Form Version:***	1
Audit No:	07803	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	NIAGARA (WELLAND)
Elevation (m):		***Municipality:***	PORT COLBORNE CITY
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	01
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10463368	***Elevation:***	
DP2BR:	10	***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	r	***East83:***	
Code OB Desc:	Bedrock	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	8/26/1987	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932599611
Layer:	2
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	40
Other Materials:	FLINT
Mat3:	74
Other Materials:	LAYERED
Formation Top Depth:	10
Formation End Depth:	41
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932599610
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	09
Most Common Material:	MEDIUM SAND

Mat2: 12
Other Materials: STONES
Mat3: 77
Other Materials: LOOSE
Formation Top Depth: 0
Formation End Depth: 10
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11011938
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930752814
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 41
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930752813
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 20
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996603770
Pump Set At:
Static Level: 14
Final Level After Pumping: 20
Recommended Pump Depth: 35
Pumping Rate: 19
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 2
Pumping Duration MIN: 30
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 935121554
Test Type: Recovery
Test Duration: 60
Test Level: 14
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934344007
Test Type: Recovery
Test Duration: 15
Test Level: 14
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934865554
Test Type: Recovery
Test Duration: 45
Test Level: 14
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934611364
Test Type: Recovery
Test Duration: 30
Test Level: 14
Test Level UOM: ft

Water Details

Water ID: 933951083
Layer: 1
Kind Code: 3
Kind: SULPHUR
Water Found Depth: 41
Water Found Depth UOM: ft

Site:
con 1 ON

Database:
WWIS

Well ID: 6603970
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 91351
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:

Data Entry Status:
Data Src: 1
Date Received: 12/27/1990
Selected Flag: Yes
Abandonment Rec:
Contractor: 4795
Form Version: 1
Owner:
Street Name:
County: NIAGARA (WELLAND)
Municipality: PORT COLBORNE CITY (HUMBERSTONE)
Site Info:
Lot:
Concession: 01
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Clear/Cloudy:

Bore Hole Information

Bore Hole ID: 10463567
DP2BR: 2
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 2/8/1990
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932600590
Layer: 2
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Other Materials: LAYERED
Mat3:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 33
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932600589
Layer: 1
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 12
Other Materials: STONES
Mat3: 77
Other Materials: LOOSE
Formation Top Depth: 0
Formation End Depth: 2
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11012137

Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930753104
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 33
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930753103
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 20
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996603970
Pump Set At:
Static Level: 20
Final Level After Pumping: 20
Recommended Pump Depth: 30
Pumping Rate: 18
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 2
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934611879
Test Type: Recovery
Test Duration: 30
Test Level: 20
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935121650
Test Type: Recovery
Test Duration: 60
Test Level: 20
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934866069
Test Type: Recovery
Test Duration: 45
Test Level: 20
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934344104
Test Type: Recovery
Test Duration: 15
Test Level: 20
Test Level UOM: ft

Water Details

Water ID: 933951299
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 33
Water Found Depth UOM: ft

Site:
con 2 Port Colborne ON

Database: ***WWIS***

Well ID: 7150826
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: Z105954
Tag: A079409
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 9/3/2010
Selected Flag: Yes
Abandonment Rec:
Contractor: 4795
Form Version: 7
Owner:
Street Name: 2ND CONCESSION
County: NIAGARA (WELLAND)
Municipality: PORT COLBORNE CITY
Site Info:
Lot:
Concession: 02
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1003331364
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 7/13/2010
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone:
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 1003358942
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Other Materials:
Mat3: 74
Other Materials: LAYERED
Formation Top Depth: 13
Formation End Depth: 55
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1003358940
Layer: 1
Color: 8
General Color: BLACK
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Other Materials:
Mat3: 79
Other Materials: PACKED
Formation Top Depth: 0
Formation End Depth: 1.5
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1003358941
Layer: 2
Color: 2
General Color: GREY
Mat1: 17
Most Common Material: SHALE
Mat2:
Other Materials:
Mat3: 74
Other Materials: LAYERED
Formation Top Depth: 1.5
Formation End Depth: 13
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1003358944
Layer: 1
Plug From: 0
Plug To: 20.5
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1

Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 1003358938
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003358946
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From: 0
Depth To: 20.5
Casing Diameter: 5.5625
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1003358947
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From: 20.5
Depth To: 55
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1003358948
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003358939
Pump Set At: 40
Static Level: 32
Final Level After Pumping: 32
Recommended Pump Depth: 45
Pumping Rate: 21
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 0
Pumping Duration HR: 2
Pumping Duration MIN:
Flowing: N

Draw Down & Recovery

Pump Test Detail ID:	1003358952
Test Type:	Draw Down
Test Duration:	60
Test Level:	32
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1003358949
Test Type:	Draw Down
Test Duration:	15
Test Level:	32
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1003358951
Test Type:	Draw Down
Test Duration:	50
Test Level:	32
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	1003358950
Test Type:	Draw Down
Test Duration:	30
Test Level:	32
Test Level UOM:	ft

Water Details

Water ID:	1003358945
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	53
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1003358943
Diameter:	8
Depth From:	0
Depth To:	20
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Site:
lot 24 con 2 PORT COLBORNE ON

Database:
WWIS

Well ID:	7043955	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	5/28/2007
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Abandoned-Other	***Abandonment Rec:***	Yes
Water Type:		***Contractor:***	2123
Casing Material:		***Form Version:***	3
Audit No:	Z49278	***Owner:***	
Tag:	A044113	***Street Name:***	442 KILLAY STREET EAST
Construction Method:		***County:***	NIAGARA (WELLAND)

Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Municipality: PORT COLBORNE CITY (HUMBERSTONE)
Site Info:
Lot: 024
Concession: 02
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 11766389
DP2BR:
Spatial Status:
Code OB: _
Code OB Desc: No formation data
Open Hole:
Cluster Kind:
Date Completed: 5/15/2007
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone:
East83:
North83:
Org CS:
UTMRC:
UTMRC Desc:
Location Method:

Annular Space/Abandonment Sealing Record

Plug ID: 933319394
Layer: 1
Plug From: 0
Plug To: 7
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 933319395
Layer: 2
Plug From:
Plug To:
Plug Depth UOM: m

Pipe Information

Pipe ID: 11774079
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930899644
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To:
Casing Diameter: 5
Casing Diameter UOM: cm
Casing Depth UOM: m

Results of Well Yield Testing

Pump Test ID:	11778700
Pump Set At:	
Static Level:	2.5
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	m
Rate UOM:	LPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	
Pumping Duration HR:	2
Pumping Duration MIN:	
Flowing:	

Site:
lot 24 con 2 PORT COLBORNE ON

Database:
WWIS

Well ID:	7043954	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	5/28/2007
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Abandoned-Other	***Abandonment Rec:***	Yes
Water Type:		***Contractor:***	2123
Casing Material:		***Form Version:***	3
Audit No:	Z49280	***Owner:***	
Tag:	A044114	***Street Name:***	442 KILLOLY STREET EAST
Construction Method:		***County:***	NIAGARA (WELLAND)
Elevation (m):		***Municipality:***	PORT COLBORNE CITY (HUMBERSTONE)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	024
Well Depth:		***Concession:***	02
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	11766388	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	
Code OB:	_	***East83:***	
Code OB Desc:	No formation data	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	
Date Completed:	5/15/2007	***UTMRC Desc:***	
Remarks:		***Location Method:***	
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	933319393

Layer: 2
Plug From:
Plug To:
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 933319392
Layer: 1
Plug From: 0
Plug To: 9
Plug Depth UOM: m

Pipe Information

Pipe ID: 11774078
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930899643
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To:
Casing Diameter: 6
Casing Diameter UOM: cm
Casing Depth UOM: m

Results of Well Yield Testing

Pump Test ID: 11778699
Pump Set At:
Static Level: 2.5
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM: LPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Water Details

Water ID: 934086352
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth:
Water Found Depth UOM: m

Site:
con 1 ON

Database:
WWIS

Well ID:	6604200	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	7/31/1995
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Recharge Well	***Abandonment Rec:***	
Water Type:		***Contractor:***	4795
Casing Material:		***Form Version:***	1
Audit No:	134501	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	NIAGARA (WELLAND)
Elevation (m):		***Municipality:***	PORT COLBORNE CITY (HUMBERSTONE)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	01
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10463797	***Elevation:***	
DP2BR:	10	***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	r	***East83:***	
Code OB Desc:	Bedrock	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	4/5/1995	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932601632
Layer:	3
Color:	2
General Color:	GREY
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	74
Other Materials:	LAYERED
Mat3:	
Other Materials:	
Formation Top Depth:	10
Formation End Depth:	38
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932601630
Layer:	1
Color:	8
General Color:	BLACK
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	79

Other Materials: PACKED
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 2
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932601631
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 79
Other Materials: PACKED
Mat3:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 10
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11012367
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930753416
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 38
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930753415
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 20
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996604200
Pump Set At:
Static Level: 7
Final Level After Pumping: 9
Recommended Pump Depth:
Pumping Rate: 21
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code:
Water State After Test:
Pumping Test Method: 1
Pumping Duration HR:
Pumping Duration MIN:
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934866154
Test Type: Recovery
Test Duration: 45
Test Level: 7
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934611966
Test Type: Recovery
Test Duration: 30
Test Level: 7
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935122153
Test Type: Recovery
Test Duration: 60
Test Level: 7
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934344610
Test Type: Recovery
Test Duration: 15
Test Level: 7
Test Level UOM: ft

Water Details

Water ID: 933951563
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 37
Water Found Depth UOM: ft

Site:
con 1 ON

Database: ***WWIS***

Well ID: 6604892
Construction Date:

Data Entry Status:
Data Src:

Primary Water Use:
Sec. Water Use:
Final Well Status: Abandoned-Other
Water Type:
Casing Material:
Audit No: Z25647
Tag: A025246
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Date Received: 9/29/2005
Selected Flag: Yes
Abandonment Rec: Yes
Contractor: 2123
Form Version: 3
Owner:
Street Name: RR #1 PORT COLBORNE
County: NIAGARA (WELLAND)
Municipality: PORT COLBORNE CITY (HUMBERSTONE)
Site Info:
Lot:
Concession: 01
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 11326975
DP2BR:
Spatial Status:
Code OB: u
Code OB Desc: all layers are unknown type
Open Hole:
Cluster Kind:
Date Completed: 8/26/2005
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone:
East83:
North83:
Org CS:
UTMRC:
UTMRC Desc:
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 933034532
Layer: 1
Color:
General Color:
Mat1:
Most Common Material:
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 93
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933277733
Layer: 1
Plug From: 0
Plug To: 90
Plug Depth UOM: ft

Pipe Information

Pipe ID: 11341830
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930871684
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To:
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 11352905
Pump Set At:
Static Level: 34
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Site:
con 1 ON

Database:
WWIS

Well ID: 6604378
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 206729
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 11/16/1999
Selected Flag: Yes
Abandonment Rec:
Contractor: 4795
Form Version: 1
Owner:
Street Name:
County: NIAGARA (WELLAND)
Municipality: PORT COLBORNE CITY (HUMBERSTONE)
Site Info:
Lot:
Concession: 01
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10463975
DP2BR: 10
Spatial Status:
Code OB: r

Elevation:
Elevrc:
Zone: 17
East83:

Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 9/24/1999
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932602446
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Other Materials: LAYERED
Mat3:
Other Materials:
Formation Top Depth: 11
Formation End Depth: 45
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602444
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 29
Other Materials: FINE GRAVEL
Mat3: 77
Other Materials: LOOSE
Formation Top Depth: 0
Formation End Depth: 10
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602445
Layer: 2
Color: 2
General Color: GREY
Mat1: 17
Most Common Material: SHALE
Mat2: 74
Other Materials: LAYERED
Mat3:
Other Materials:
Formation Top Depth: 10
Formation End Depth: 11
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11012545
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930753700
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 45
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930753699
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 20
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996604378
Pump Set At:
Static Level: 16
Final Level After Pumping: 18
Recommended Pump Depth: 25
Pumping Rate: 14
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 1
Pumping Duration MIN: 30
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 935122674
Test Type:
Test Duration: 60
Test Level: 16
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID:	934866674
Test Type:	
Test Duration:	45
Test Level:	16
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934345131
Test Type:	
Test Duration:	15
Test Level:	16
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934612486
Test Type:	
Test Duration:	30
Test Level:	16
Test Level UOM:	ft

Water Details

Water ID:	933951759
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	43
Water Found Depth UOM:	ft

Site:
con 1 ON

Database:
WWIS

Well ID:	6604374	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	10/27/1999
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	4795
Casing Material:		***Form Version:***	1
Audit No:	206728	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	NIAGARA (WELLAND)
Elevation (m):		***Municipality:***	PORT COLBORNE CITY (HUMBERSTONE)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	01
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10463971	***Elevation:***	
DP2BR:	16	***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	r	***East83:***	
Code OB Desc:	Bedrock	***North83:***	
Open Hole:		***Org CS:***	

Cluster Kind:
Date Completed: 8/31/1999
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932602430
Layer: 1
Color: 8
General Color: BLACK
Mat1: 02
Most Common Material: TOPSOIL
Mat2: 79
Other Materials: PACKED
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 1
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602431
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 29
Other Materials: FINE GRAVEL
Mat3: 79
Other Materials: PACKED
Formation Top Depth: 1
Formation End Depth: 16
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602432
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Other Materials: LAYERED
Mat3:
Other Materials:
Formation Top Depth: 16
Formation End Depth: 47
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:

Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11012541
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930753690
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 20
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930753691
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 47
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996604374
Pump Set At:
Static Level: 25
Final Level After Pumping: 39
Recommended Pump Depth: 45
Pumping Rate: 5
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 2
Pumping Duration HR: 2
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934345127
Test Type:
Test Duration: 15
Test Level: 25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934612482
Test Type:
Test Duration: 30
Test Level: 25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934866670
Test Type:
Test Duration: 45
Test Level: 25
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935122670
Test Type:
Test Duration: 60
Test Level: 25
Test Level UOM: ft

Water Details

Water ID: 933951755
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 47
Water Found Depth UOM: ft

Site:
con 1 ON

Database:
WWIS

Well ID: 6604373
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 206724
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 10/27/1999
Selected Flag: Yes
Abandonment Rec:
Contractor: 4795
Form Version: 1
Owner:
Street Name:
County: NIAGARA (WELLAND)
Municipality: PORT COLBORNE CITY (HUMBERSTONE)
Site Info:
Lot:
Concession: 01
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10463970
DP2BR: 2
Spatial Status:
Code OB: y
Code OB Desc: Unknown type (bedrock encountered)
Open Hole:
Cluster Kind:
Date Completed: 9/16/1999

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM

Remarks: ***Location Method:*** na
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 932602425
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2: 79
Other Materials: PACKED
Mat3:
Other Materials:
Formation Top Depth: 1
Formation End Depth: 2
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602427
Layer: 4
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Other Materials: LAYERED
Mat3:
Other Materials:
Formation Top Depth: 4
Formation End Depth: 6
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602428
Layer: 5
Color:
General Color:
Mat1: 00
Most Common Material: UNKNOWN TYPE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 6
Formation End Depth: 6
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602424
Layer: 1
Color: 8

General Color: BLACK
Mat1: 02
Most Common Material: TOPSOIL
Mat2: 79
Other Materials: PACKED
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 1
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602426
Layer: 3
Color: 2
General Color: GREY
Mat1: 17
Most Common Material: SHALE
Mat2: 74
Other Materials: LAYERED
Mat3:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 4
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602429
Layer: 6
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 6
Formation End Depth: 58
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11012540
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930753688
Layer: 1
Material: 1

Open Hole or Material: STEEL
Depth From:
Depth To: 20
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930753689
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 58
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996604373
Pump Set At:
Static Level: 32
Final Level After Pumping: 51
Recommended Pump Depth: 55
Pumping Rate: 12
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 1
Pumping Duration MIN: 30
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934345126
Test Type:
Test Duration: 15
Test Level: 34
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934866669
Test Type:
Test Duration: 45
Test Level: 32
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935122669
Test Type:
Test Duration: 60
Test Level: 32
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934612481
Test Type:
Test Duration: 30
Test Level: 32
Test Level UOM: ft

Water Details

Water ID: 933951754
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 56
Water Found Depth UOM: ft

Site:
con 1 ON

Database: ***WWIS***

Well ID: 6604325
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 192405
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 3/19/1999
Selected Flag: Yes
Abandonment Rec:
Contractor: 4795
Form Version: 1
Owner:
Street Name:
County: NIAGARA (WELLAND)
Municipality: PORT COLBORNE CITY (HUMBERSTONE)
Site Info:
Lot:
Concession: 01
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10463922
DP2BR: 2
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 2/18/1999
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932602234
Layer: 1
Color: 8
General Color: BLACK
Mat1: 02
Most Common Material: TOPSOIL

Mat2: 79
Other Materials: PACKED
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 2
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602236
Layer: 3
Color: 2
General Color: GREY
Mat1: 15
Most Common Material: LIMESTONE
Mat2: 74
Other Materials: LAYERED
Mat3:
Other Materials:
Formation Top Depth: 5
Formation End Depth: 60
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932602235
Layer: 2
Color: 2
General Color: GREY
Mat1: 17
Most Common Material: SHALE
Mat2: 74
Other Materials: LAYERED
Mat3:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 5
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 11012492
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930753608
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 20

Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930753609
Layer: 2
Material: 4
Open Hole or Material: OPEN HOLE
Depth From:
Depth To: 60
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 996604325
Pump Set At:
Static Level: 27
Final Level After Pumping: 52
Recommended Pump Depth: 50
Pumping Rate: 12
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 2
Water State After Test: CLOUDY
Pumping Test Method: 2
Pumping Duration HR: 2
Pumping Duration MIN: 30
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934866638
Test Type: Recovery
Test Duration: 45
Test Level: 27
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934612450
Test Type: Recovery
Test Duration: 30
Test Level: 27
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934344677
Test Type: Recovery
Test Duration: 15
Test Level: 30
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935122219
Test Type: Recovery
Test Duration: 60

Test Level: 27
Test Level UOM: ft

Water Details

Water ID: 933951700
Layer: 2
Kind Code: 1
Kind: FRESH
Water Found Depth: 57
Water Found Depth UOM: ft

Water Details

Water ID: 933951699
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 40
Water Found Depth UOM: ft

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ***Note:*** *Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.*

Abandoned Aggregate Inventory: Provincial AAGR

The MAAP Program maintains a database of abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.*

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to Sep 2019

Abandoned Mine Information System: Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Oct 2018

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Aboveground Storage Tanks: Provincial AST

Historical listing of aboveground storage tanks made available by the Department of Natural Resources and Forestry. Includes tanks used to hold water or petroleum. This dataset has been retired as of September 25, 2014 and will no longer be updated.

Government Publication Date: May 31, 2014

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Jan 31, 2020

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2018

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2017

Commercial Fuel Oil Tanks: Provincial CFOT

Locations of commercial underground fuel oil tanks. This is not a comprehensive or complete inventory of commercial fuel tanks in the province; this listing is a copy of records of registered commercial underground fuel oil tanks obtained under Access to Public Information.
Note that the following types of tanks do not require registration: waste oil tanks in apartments, office buildings, residences, etc.; aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Chemical Register: Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1999-Jan 31, 2020

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 - Feb 2020

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Dec 2019

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994-Apr 30, 2020

Drill Hole Database: Provincial DRL

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886 - Sep 2019

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011-May 31, 2020

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994-Apr 30, 2020

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011-May 31, 2020

Environmental Effects Monitoring: Federal EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Jan 31, 2020

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Dec 31, 2016

Environmental Penalty Annual Report: Provincial EPAR

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2019

List of Expired Fuels Safety Facilities: Provincial EXP

List of facilities and tanks for which there was once a fuel registration. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province; this listing is a copy of previously registered tanks and facilities obtained under Access to Public Information. Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc; includes tanks which have been removed from the ground.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Federal Convictions: Federal FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-Apr 2020

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2019

Federal Identification Registry for Storage Tank Systems (FIRSTS): Federal FRST

A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: May 31, 2018

Fuel Storage Tank: Provincial FST

List of registered private and retail fuel storage tanks. This is not a comprehensive or complete inventory of private and retail fuel storage tanks in the province; this listing is a copy of registered private and retail fuel storage tanks, obtained under Access to Public Information.
Notes: registration was not required for private fuel underground/aboveground storage tanks prior to January 1990, nor for furnace oil tanks prior to May 1, 2002; registration is not required for waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Fuel Storage Tank - Historic: Provincial FSTH

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-Jan 31, 2020

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2017

TSSA Historic Incidents: Provincial HINC

List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

Fuel Oil Spills and Leaks: Provincial INC

Listing of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC). This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province; this listing in a copy of incidents reported to the SAC, obtained under Access to Public Information. Includes incidents from fuel-related hazards such as spills, fires, and explosions. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills will include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Feb 28, 2019

Canadian Mine Locations: Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Jan 2020

National Analysis of Trends in Emergencies System (NATES): Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: Dec 31, 2018

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the Canada Energy Regulator (CER) - previously the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Mar 31, 2020

National Energy Board Wells: Federal NEBP

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGWE

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Feb 29, 2020

Ontario Oil and Gas Wells: Provincial OOGW

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-Jun 2019

Inventory of PCB Storage Sites: Provincial OPCB

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

Orders: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994-Apr 30, 2020

Canadian Pulp and Paper: Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: 1988 - May 2020

Pipeline Incidents: Provincial PINC

List of pipeline incidents (strikes, leaks, spills). This is not a comprehensive or complete inventory of pipeline incidents in the province; this listing in an historical copy of records previously obtained under Access to Public Information. Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Private and Retail Fuel Storage Tanks: Provincial PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994-Apr 30, 2020

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Government Publication Date: 1986-2016

Record of Site Condition: Provincial RSC

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Mar 2020

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Jan 31, 2020

Scott's Manufacturing Directory: Private SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X.

Government Publication Date: 1988-Nov 2019

Wastewater Discharger Registration Database: Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 2017

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970-Aug 2018

Variances for Abandonment of Underground Storage Tanks: Provincial VAR

Listing of variances granted for storage tank abandonment. This is not a comprehensive or complete inventory of tank abandonment variances in the province; this listing is a copy of tank abandonment variance records previously obtained under Access to Public Information. In Ontario, registered underground storage tanks must be removed within two years of disuse; if removal of a tank is not feasible, an application may be sought for a variance from this code requirement.
Records are not verified for accuracy or completeness.

Government Publication Date: Feb 28, 2017

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011-May 31, 2020

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Feb 28, 2019

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

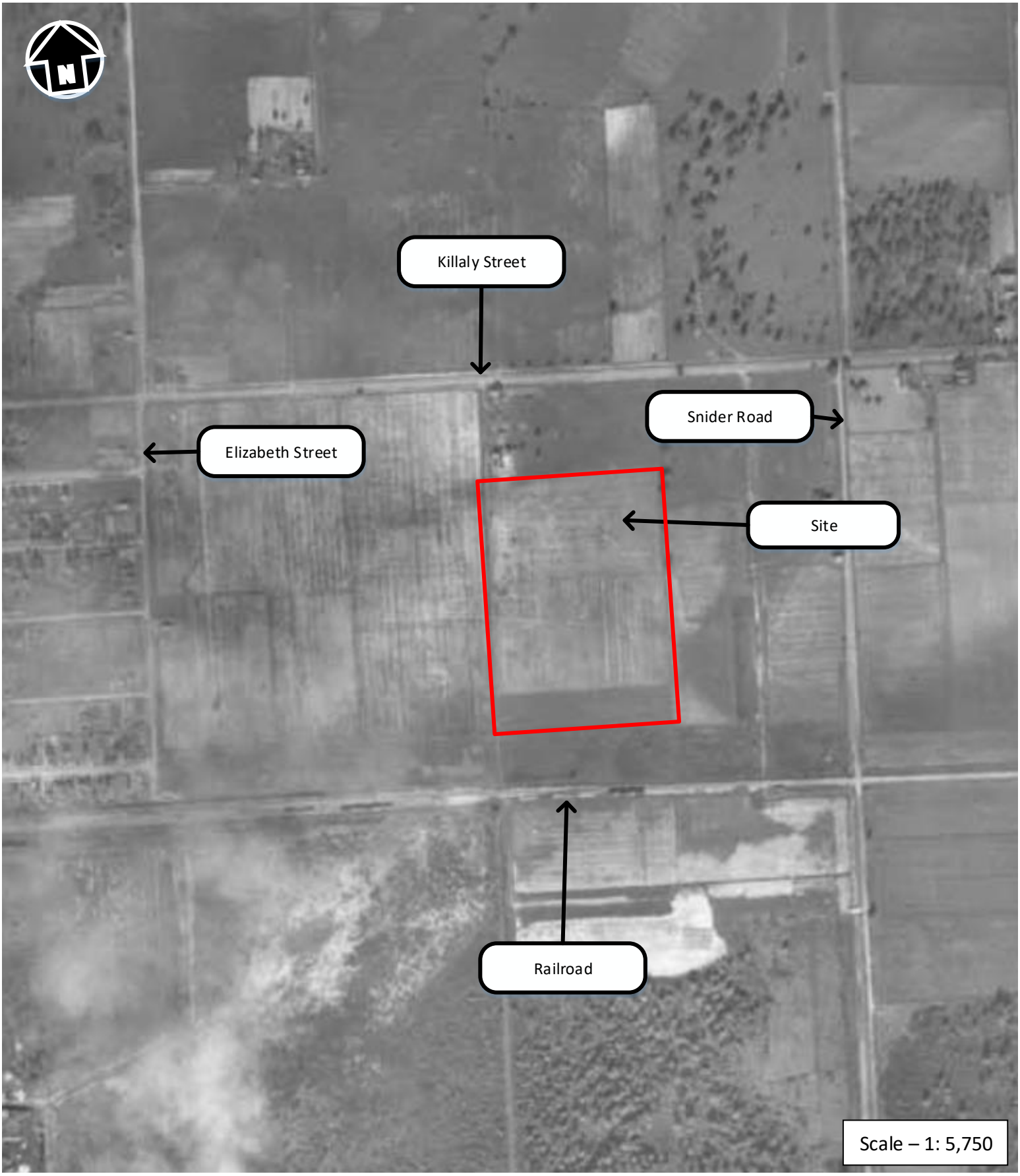
The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

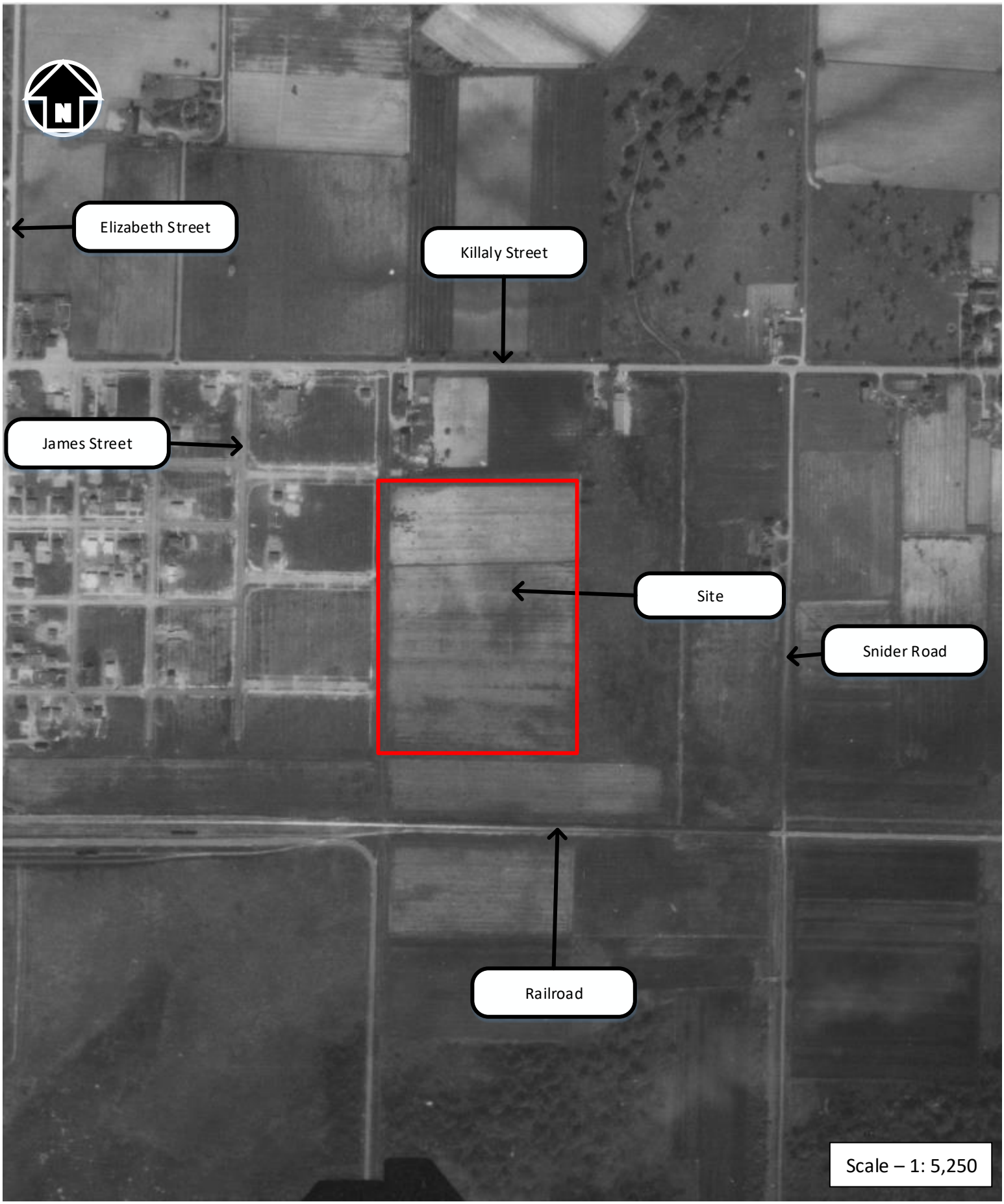
Appendix ‘F’

1. 1934 Aerial Photograph;
2. 1954 Aerial Photograph;
3. 1965 Aerial Photograph;
4. 1968 Aerial Photograph;
5. 1971 Aerial Photograph;
6. 1975 Aerial Photograph;
7. 1978 Aerial Photograph;
8. 1981 Aerial Photograph;
9. 1994 Aerial Photograph;
10. 2000 Aerial Photograph
11. 2002 Aerial Photograph;
12. 2006 Aerial Photograph;
13. 2010 Aerial Photograph, and;
14. 2008 Aerial Photograph.

Aerial Photo – 1934

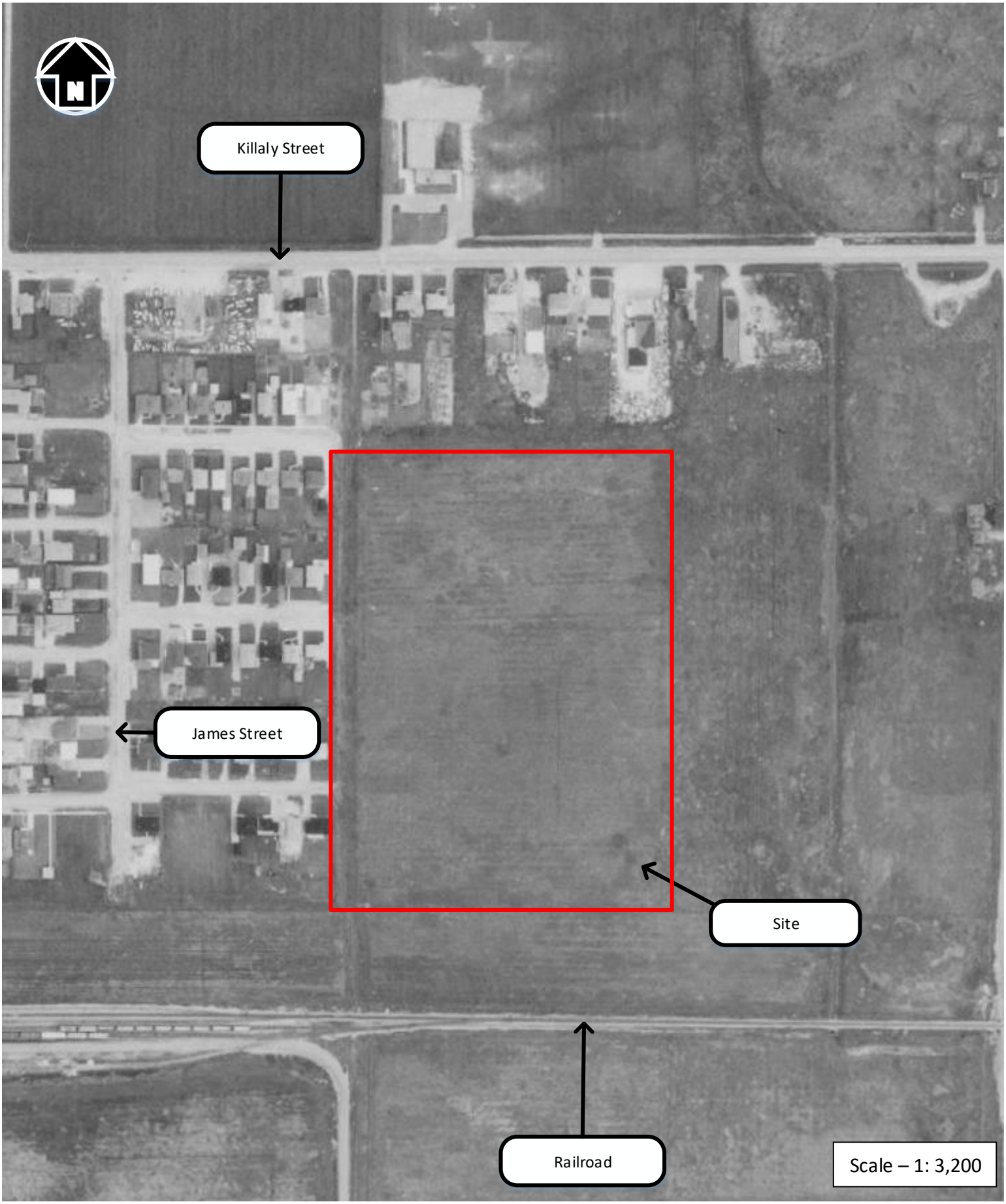


Aerial Photo – 1954



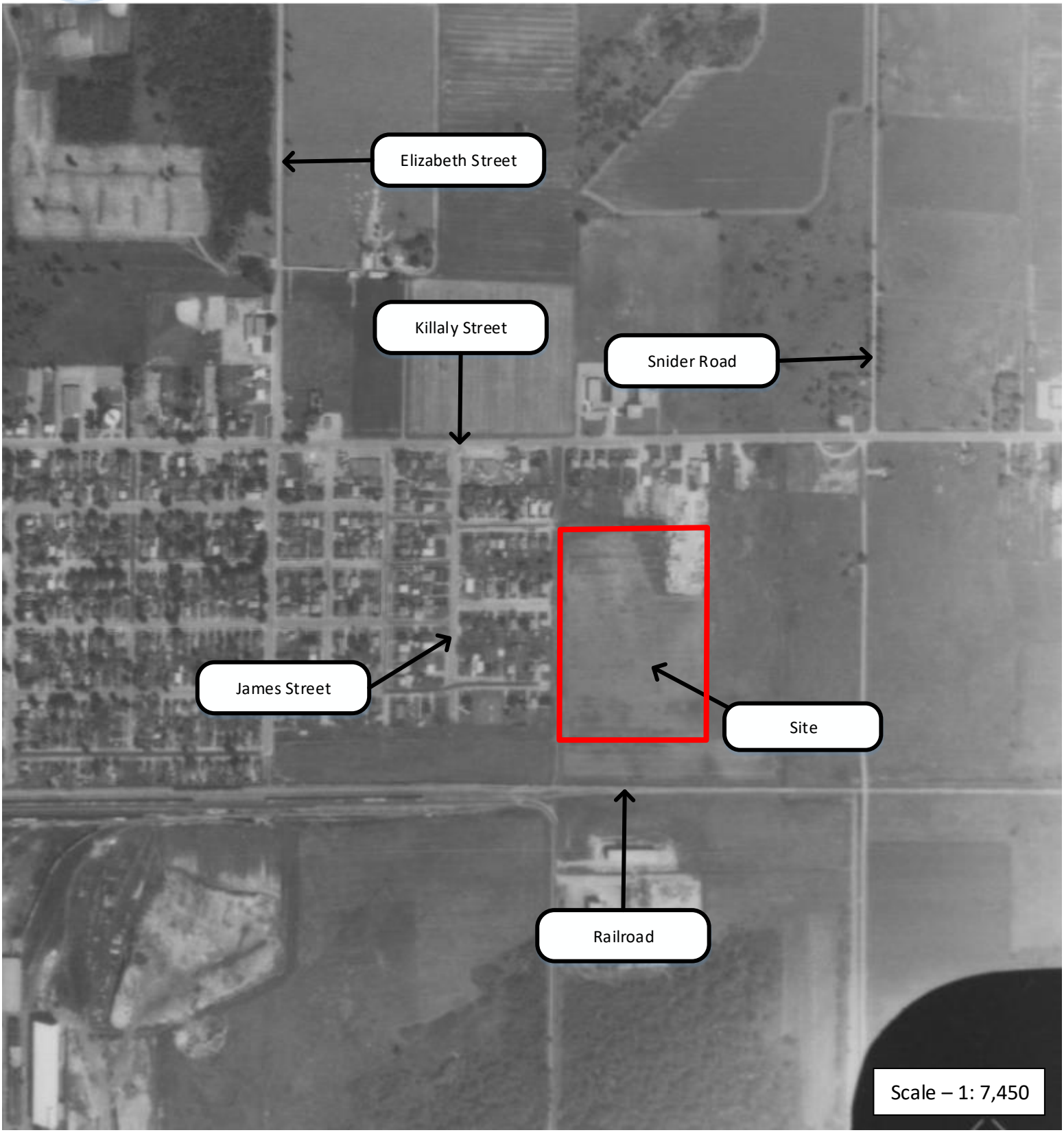
Aerial Photo – 1965

Aerial Photo – 1968

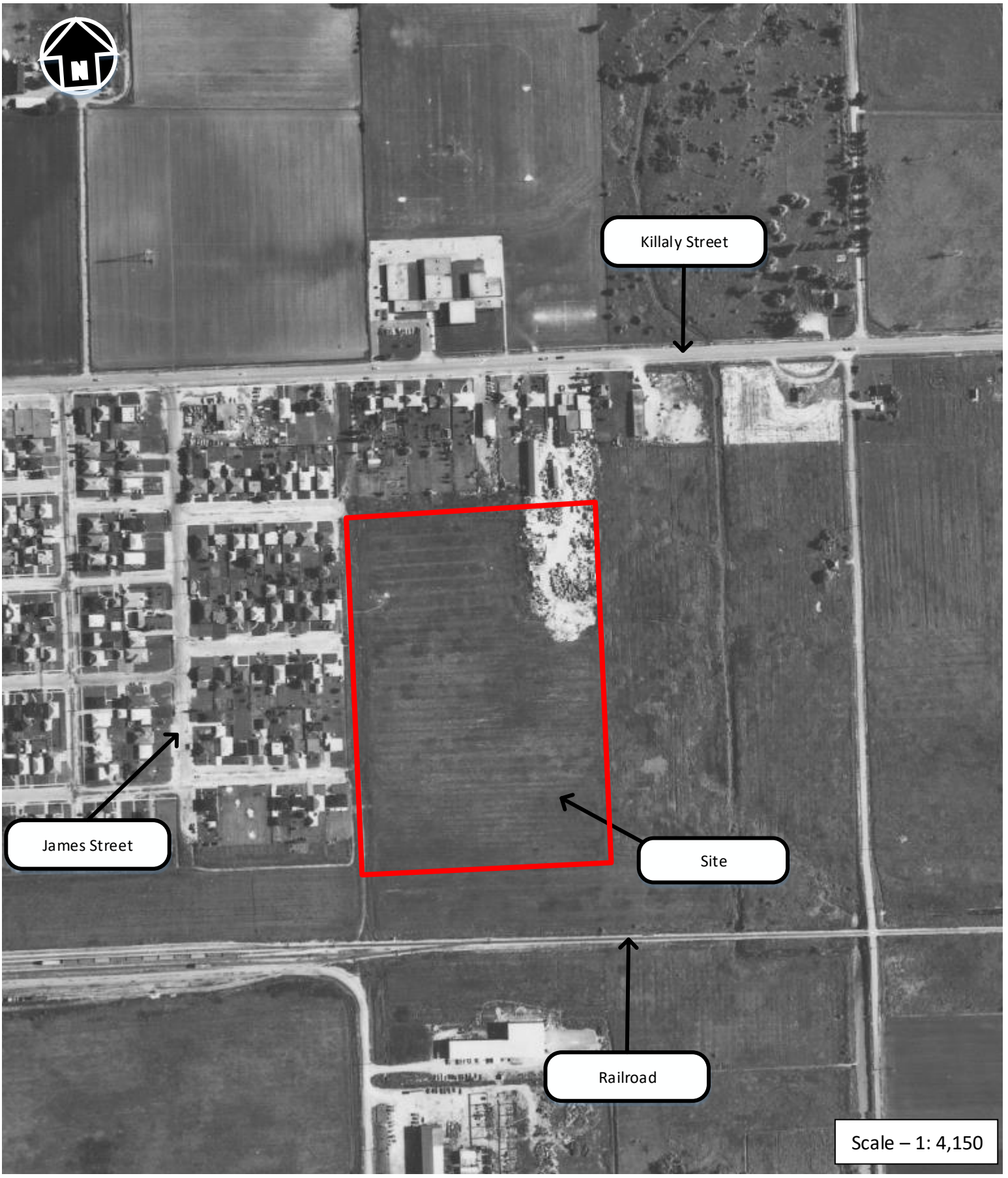


Aerial Photo – 1971

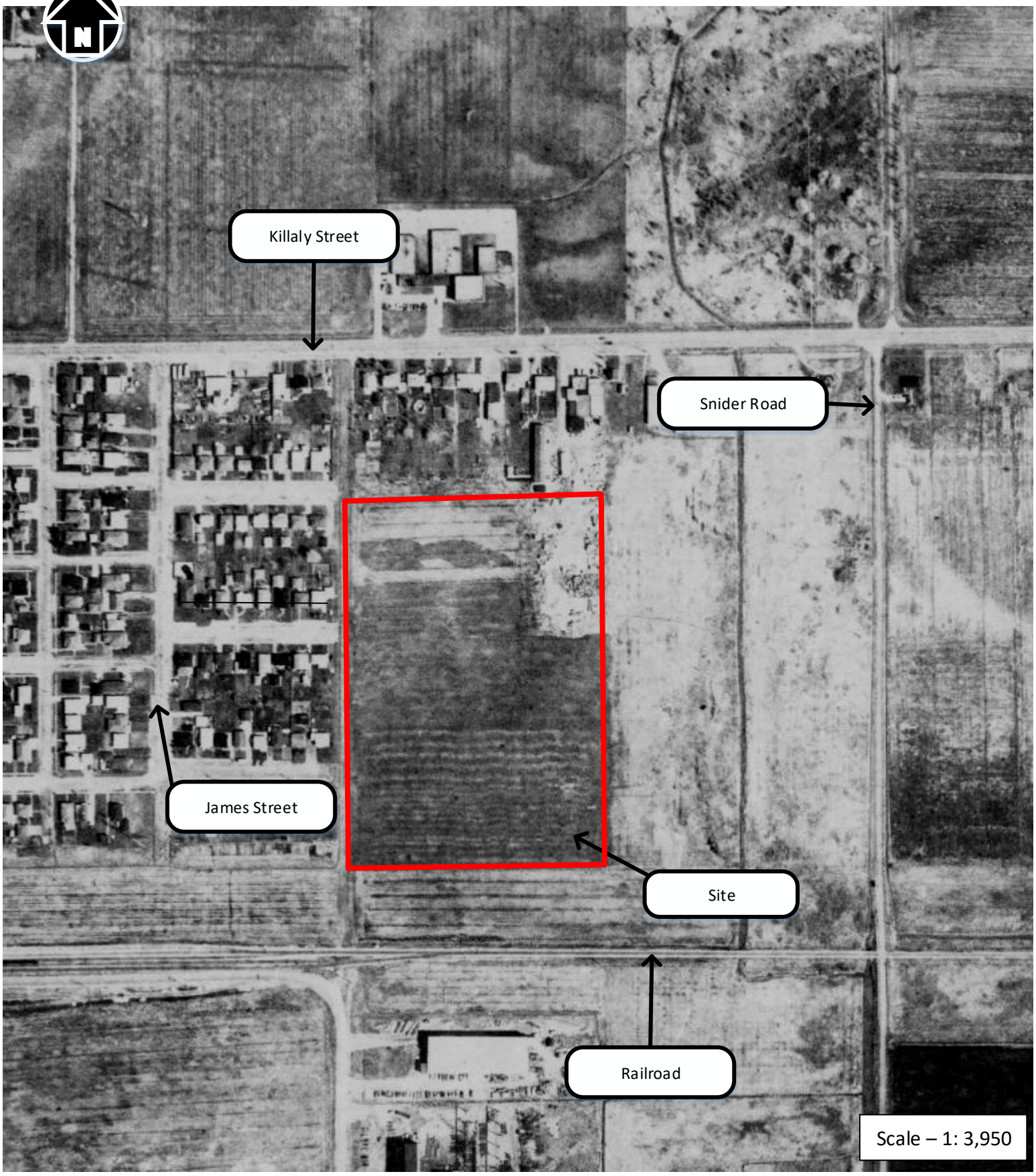
Aerial Photo – 1975



Aerial Photo – 1978



Aerial Photo – 1981



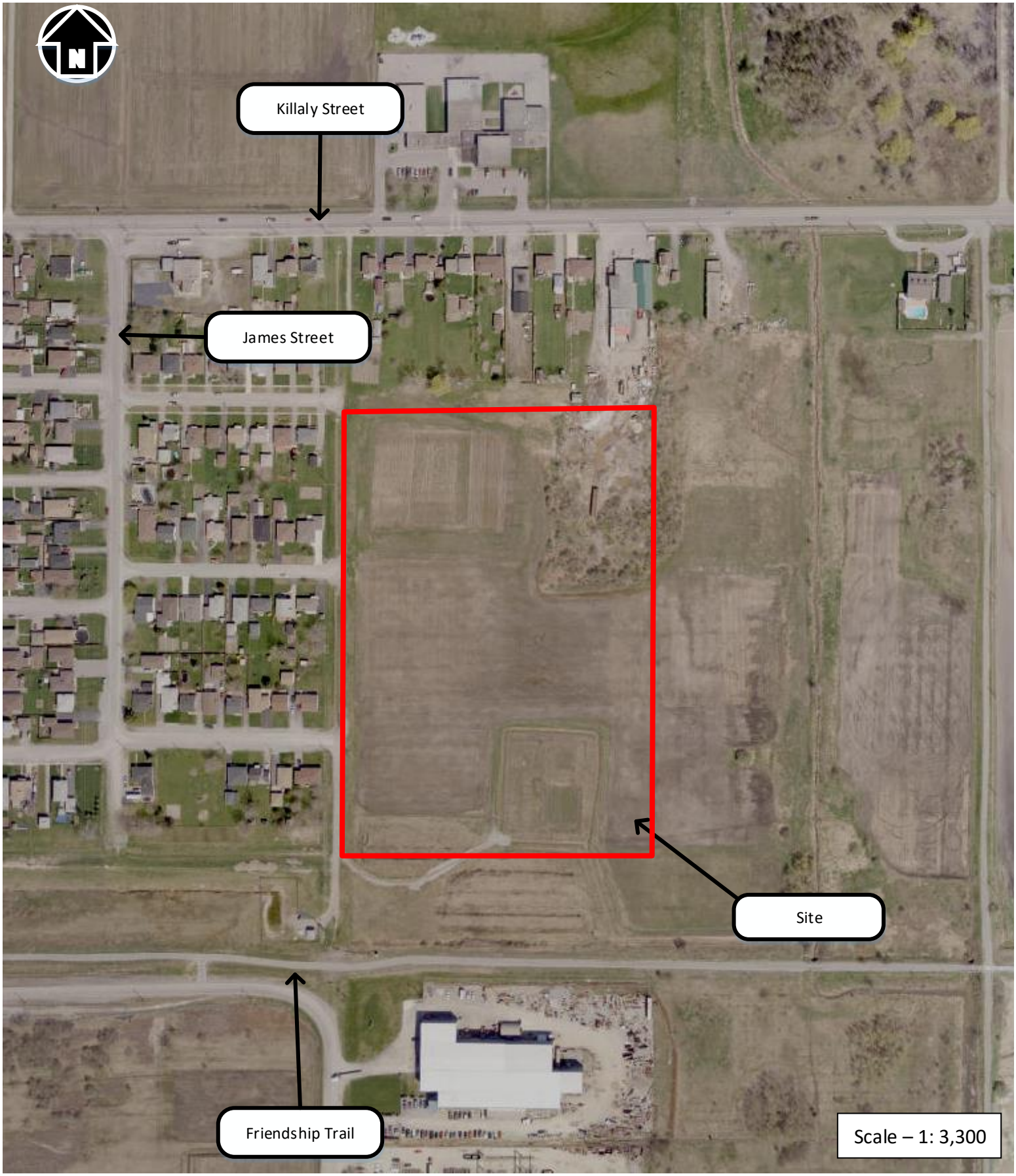
Aerial Photo – 1994

Aerial Photo – 2000

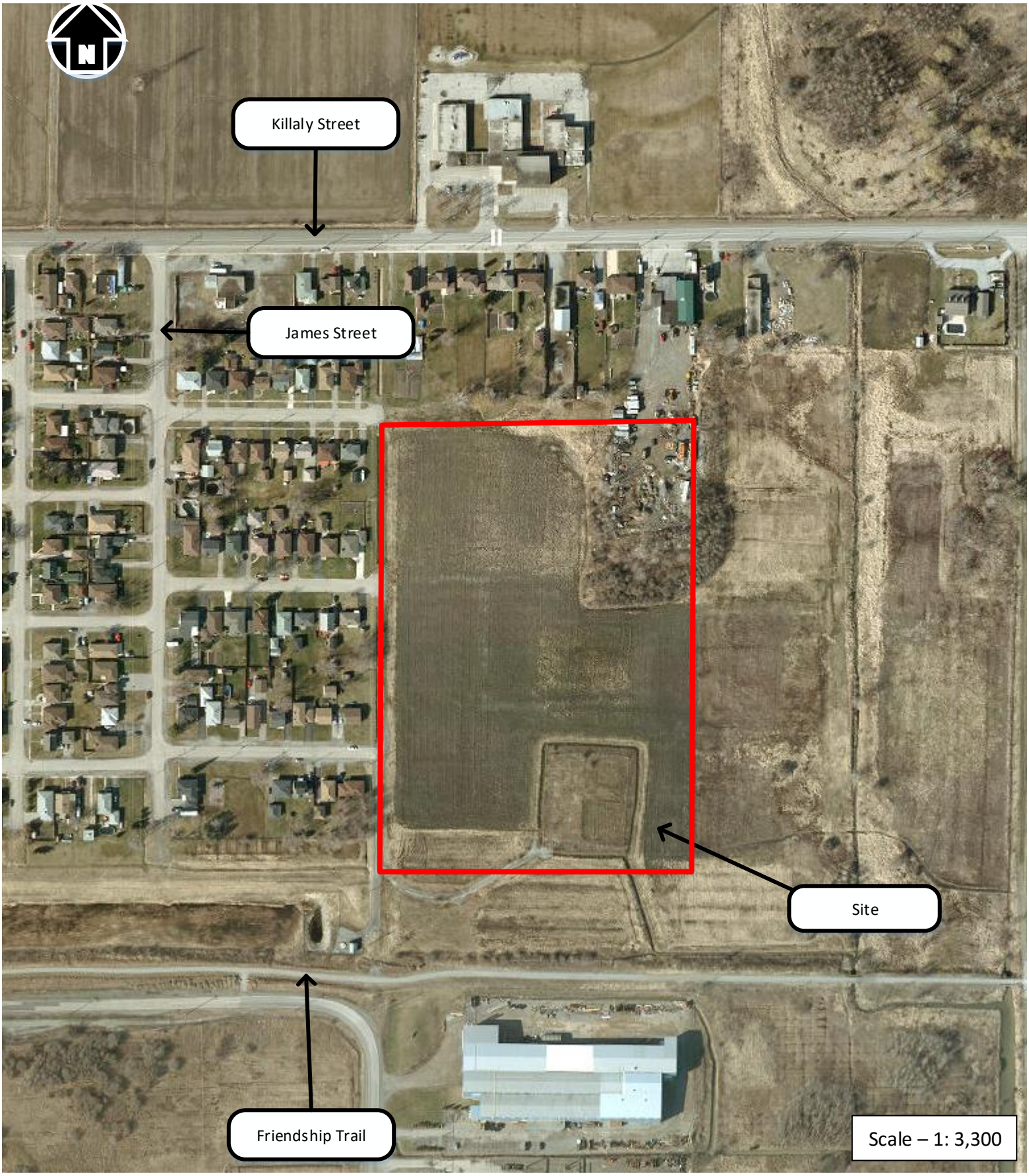
Aerial Photo – 2002

Soil-Mat

Aerial Photo – 2006

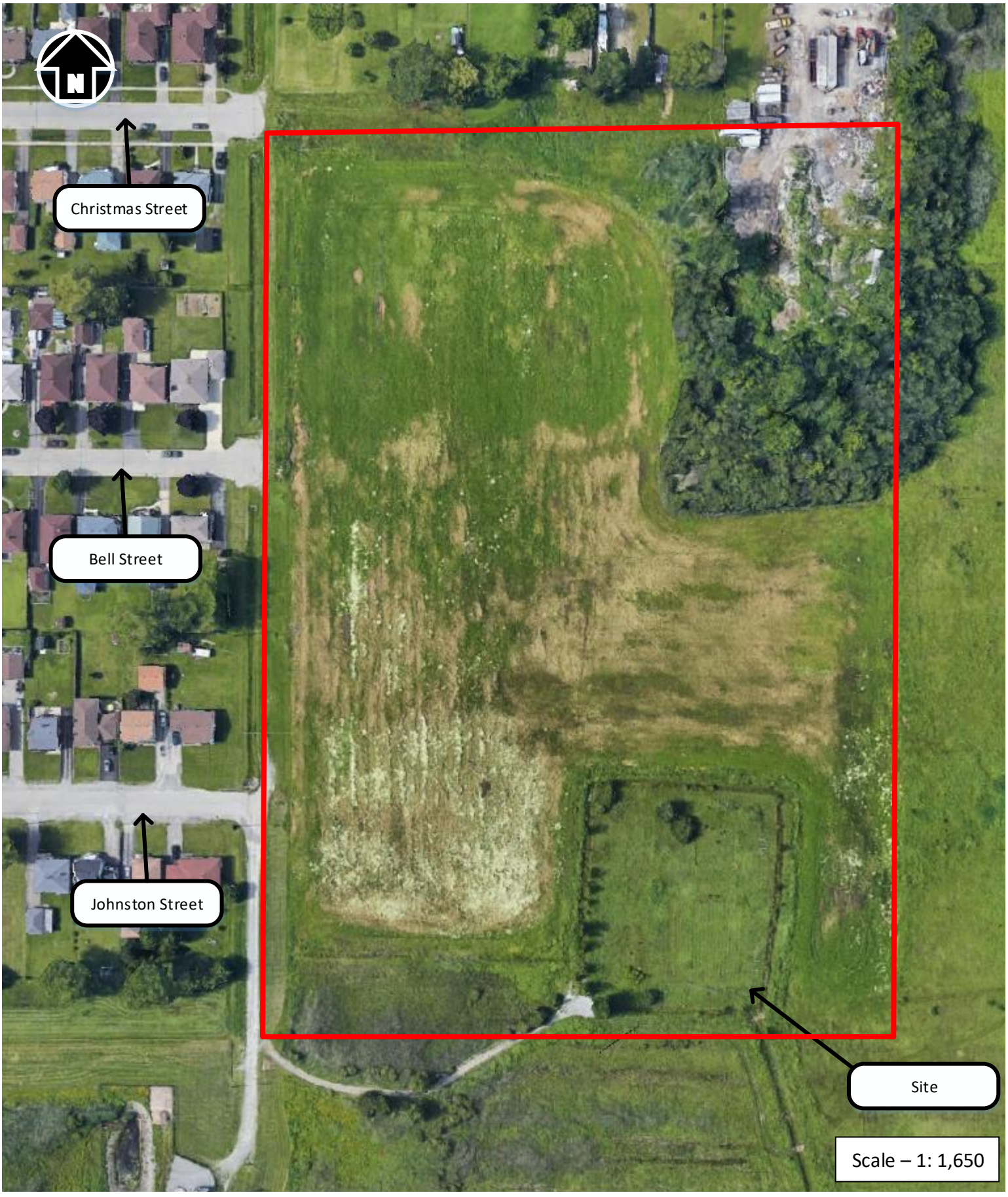


Aerial Photo – 2010



Aerial Photo – 2018

Soil-Mat



Appendix ‘G’

1. 1906 Topographic Map;
2. 1938 Topographic Map;
3. 1964 Topographic Map, and;
4. 1996 Topographic Map.

LEGEND

★ = Site Location

NOTES:

1. This drawing should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200232-E.

2. Topographic Map of Ontario, Niagara Sheet 30L/14.

3. Base map provided by: Department of Militia and Defence, 1906.

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Phase One Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE

Topographic Map 1906

PROJECT No.	SM 200232-E
SCALE	1: 63,360
DATE	June 2020
CHECKED	PM
DRAWN	LC
FILE NAME	200232 Topo 1906.vsd

DRAWING No. 4a

LEGEND

★ = Site Location

NOTES:

1. This drawing should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200232-E.

2. Topographic Map of Ontario, Niagara Sheet 30L/14.

3. Base map provided by: Department of National Defence, 1938.

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Phase One Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

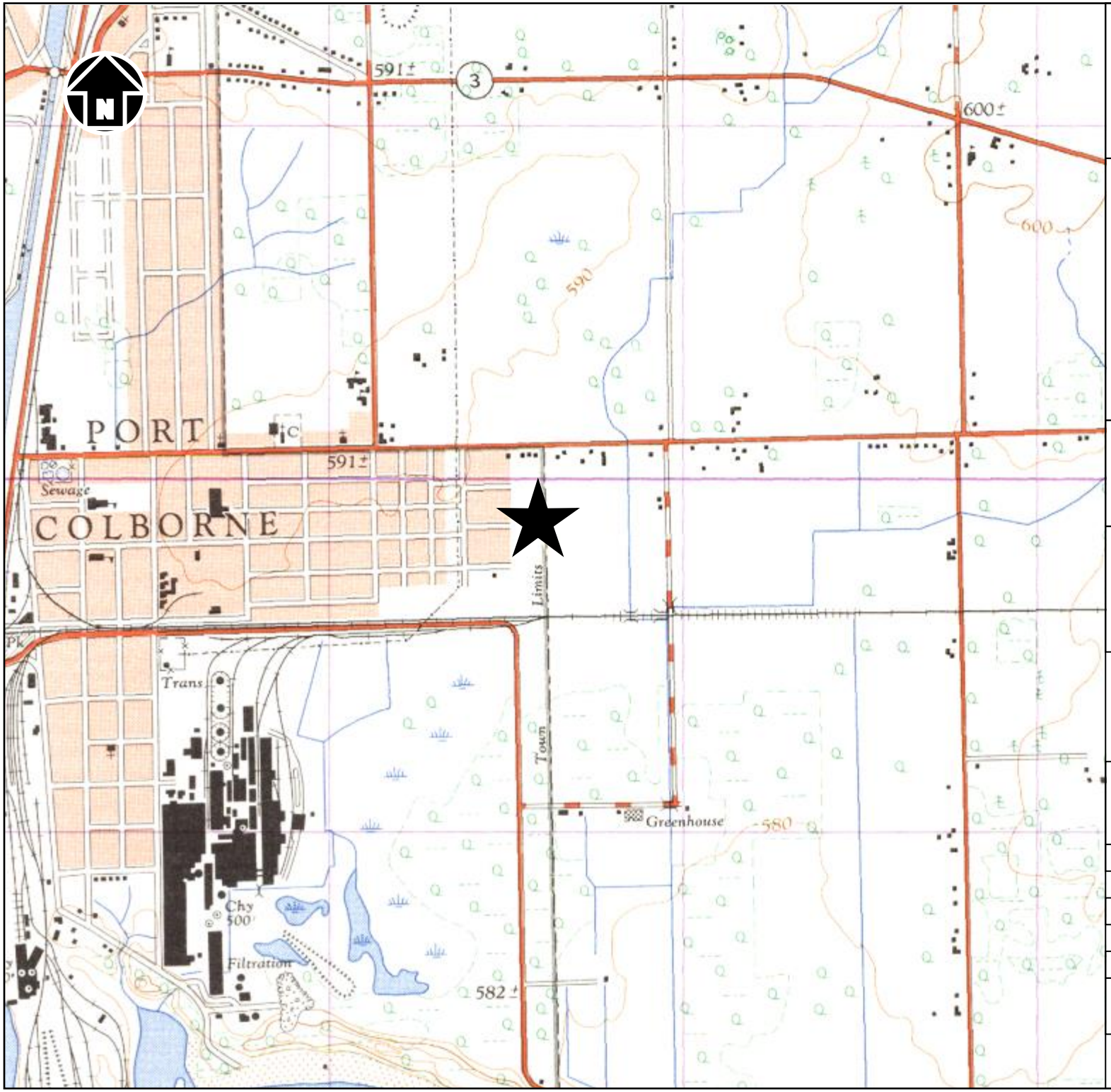
DRAWING TITLE

Topographic Map 1938

PROJECT No.	SM 200232-E
SCALE	1: 63,360
DATE	June 2020
CHECKED	PM
DRAWN	LC

FILE NAME
200232 Topo 1938.vsd

DRAWING No. 4b



LEGEND

★ = Site Location

NOTES:

1. This drawing should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200232-E.

2. Topographic Map of Ontario, Fonthill Sheet 30L/14g, Edition 1.

3. Base map provided by: Army Survey Establishment, R.C.E., 1964.

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Phase One Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

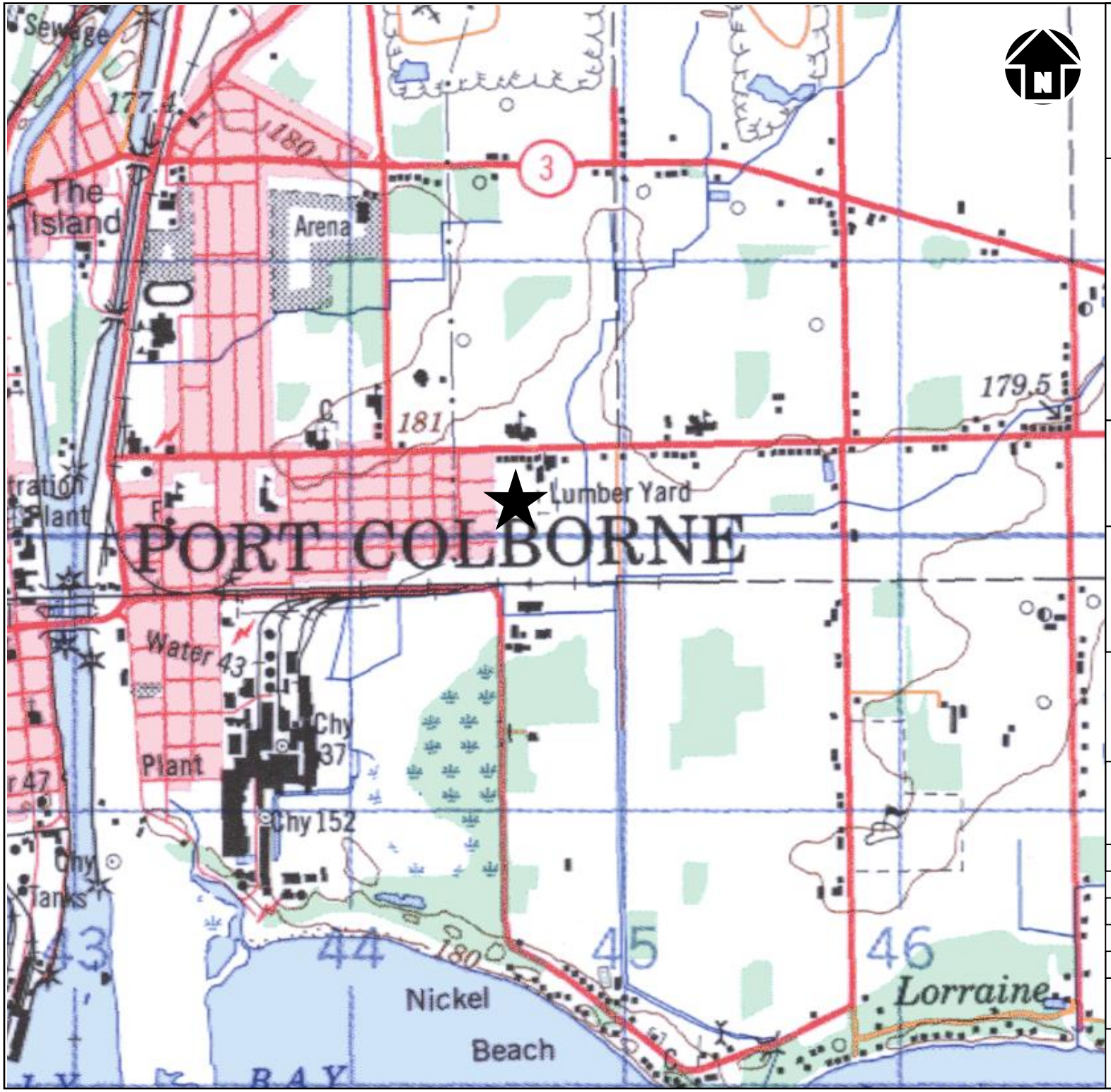
DRAWING TITLE

Topographic Map 1964

PROJECT No.	SM 200232-E
SCALE	1: 25,000
DATE	June 2020
CHECKED	PM
DRAWN	LC

FILE NAME
200232 Topo 1964.vsd

DRAWING No. 4C



LEGEND

★ = Site Location

NOTES:

1. This drawing should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200232-E.

2. Topographic Map of Ontario, Niagara Sheet 30L/14, Edition 7.

3. Base map provided by: 1996 © Her Majesty The Queen in Right of Canada.

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Phase One Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE

Topographic Map 1996

PROJECT No.	SM 200232-E
SCALE	1: 50,000
DATE	June 2020
CHECKED	PM
DRAWN	LC
FILE NAME	200232 Topo 1996.vsd

DRAWING No. 4d

Appendix ‘H’

1. Table of Current and Past Uses

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
1998 to present	INCO Limited (Now Vale)	The Site was comprised of fallow agricultural land and outdoor commercial storage at the northeast corner.	Agriculture or Other and Commercial	• Aerial photographs from 2000, 2002, 2006, 2010, and 2018 revealed the Site to consist of agricultural lands. In addition, the northeast corner of the Site was being utilised by a neighbouring commercial company.
1917 to 1998	Canadian Railway Company	The Site was comprised of fallow agricultural land. The northeast corner of the Site started to be utilised as outdoor commercial storage sometime between 1971 and 1975.	Agriculture or Other and Commercial	• Aerial photographs from 1934, 1954, 1965, 1968 and 1971 revealed the Site to consist of agricultural lands • Aerial photographs from 1975, 1978, 1981, and 1994 revealed the Site to consist of agricultural lands. In addition, the northeast corner of the Site was being utilised by a neighbouring commercial company. • Topographic maps from 1938 and 1964 illustrate the Site as undeveloped lands. • A topographic map from 1996 illustrates the Site as undeveloped lands with the northeast corner of the Site being labelled as a Lumber Yard.
1913 to 1917	Louis Kinnear and John Mathews and Wife	The Site was comprised of fallow agricultural land.	Agriculture or Other	• There were no readily available visual aids for the Site for this time period.
1912 to 1913	Etherious Wignell and Ada Wignell	The Site was comprised of fallow agricultural land.	Agriculture or Other	• There were no readily available visual aids for the Site for this time period.
1895 to 1912	William Wignell	The Site was comprised of fallow agricultural land.	Agriculture or Other	• A topographic map from 1906 illustrates the Site as undeveloped lands.
1854 to 1895	James Kerby	The Site was comprised of fallow agricultural land.	Agriculture or Other	• There were no readily available visual aids for the Site for this time period.

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
1853 to 1854	Buffalo Brantford and Goderich Railway Company	The Site was comprised of fallow agricultural land.	Agriculture or Other	• There were no readily available visual aids for the Site for this time period.
Unknown to 1853	Henry Snider	The Site was comprised of fallow agricultural land.	Agriculture or Other	• There were no readily available visual aids for the Site for this time period.

Appendix ‘I’

1. Qualifications of Assessor

COMPANY BACKGROUND

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] is a Canadian Consulting Engineering firm owned by its senior staff. Over the past thirty years the principals of SOIL-MAT ENGINEERS have undertaken geotechnical investigations in all areas of Hamilton and surrounding area and are familiar with the distinct geology of the area and therefore well-versed with the various soil, bedrock and groundwater conditions. SOIL-MAT ENGINEERS has a staff of over twenty-five engineers and technical staff who specialize in geotechnical assignments, environmental assessments, hydrogeological investigations and construction quality control/assurance projects. The company commenced operation on June 15, 1992 and has undertaken over 5,000 projects since its inception. The firm and all professional staff are in good standing with Professional Engineers Ontario. The company has maintained a current Certificate of Authorisation since it was granted on April 28, 1992. The firm's office and laboratory facilities are located at 130 Lancing Drive in Hamilton, Ontario.

REPORT AUTHORS

Lianne Crawford
Environmental Technician

Ms. Crawford has over two years of experience in conducting Phase I ESA research and Phase II ESA fieldwork, including soil and groundwater sampling. Ms. Crawford has also been a key member on a number of projects including the supervision and direction of traditional 'dig and dump' remediation projects.

Peter Markesic, B.Sc.
Project Manager

Mr. Markesic has over ten years of experience in conducting Phase I ESA research and Phase II ESA fieldwork, including soil and groundwater sampling. Mr. Markesic has also been a key project member on a number of Phase III Environmental Site Assessment projects, including the decommissioning of underground fuel storage tanks and both in-situ and ex-situ remediation projects.

Stephen R. Sears, B. Eng. Mgmt., P. Eng.
[Director/ Senior Professional]

Mr. Sears has over twenty-two years of experience in the geotechnical and geo-environmental fields. Mr. Sears holds current Consulting Engineer designations with the Professional Engineers Ontario and the Association of Professional Engineers and Geoscientists of Saskatchewan and has supervised the geotechnical investigations for numerous industrial, commercial and residential development projects in Southern Ontario, slope stability assignments associated with Hamilton Conservation Authority, Conservation Halton and Niagara Peninsula Conservation Authority requirements, and

several high rise developments throughout Ontario. Mr. Sears has also been involved in geotechnical and hydrogeological investigations for industrial park developments in the Greater Toronto Area and Niagara Peninsula. Some of Mr. Sears' projects have included the decommissioning and reconstruction of underground and above ground fuel oil storage tanks in Ontario and Saskatchewan, the study of the containment structures at a number of Petroleum Storage Facilities in Ontario and and numerous 'dig and dump' remediation projects.

Keith Gleadall, B.A., EA Dipl.

Vice-President [Senior Professional]

Mr. Gleadall has over fourteen years of experience in conducting Phase I, II and III Environmental Site Assessments and has successfully completed the requirements of the Associated Environmental Site Assessors of Canada and a Post Graduate Diploma in Environmental Site Assessment from Niagara College. Mr. Gleadall is responsible for undertaking numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects, together with Phase I, II and III Environmental Site Assessments. Projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes, the decommissioning of a former dry cleaning facility and numerous 'dig and dump' remediation projects.

PROJECT NO.: SM 200342-E

AUGUST 31, 2020

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED RESIDENTIAL DEVELOPMENT
KILLALY PROPERTY
PORT COLBORNE, ONTARIO

PREPARED FOR:

AMZ HOLDINGS

Soil-Mat

BY

SOIL-MAT ENGINEERS & CONSULTANTS LTD.
130 LANCING DRIVE
HAMILTON, ONTARIO
L8W 3A1

PROJECT NO.: SM 200342-E

AUGUST 31, 2020

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED RESIDENTIAL DEVELOPMENT
KILLALY PROPERTY
PORT COLBORNE, ONTARIO

PREPARED FOR:

AMZ HOLDINGS

BY

SOIL-MAT ENGINEERS & CONSULTANTS LTD.
130 LANCING DRIVE
HAMILTON, ONTARIO
L8W 3A1

SOIL-MAT ENGINEERS & CONSULTANTS LTD.

www.soil-mat.ca info@soil-mat.ca TF: 800.243.1922

Hamilton: 130 Lancing Drive L8W 3A1 T: 905.318.7440 F: 905.318.7455
Milton: PO Box 40012 Derry Heights PO L9T 7W4 T: 800.243.1922

PROJECT NO.: SM 200342-E

AUGUST 31, 2020

AMZ HOLDINGS
2308 Hoover Court
Burlington, Ontario
L7P 4V2

Attention: John Cheung

PRELIMINARY PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED RESIDENTIAL DEVELOPMENT
KILLALY PROPERTY
PORT COLBORNE, ONTARIO

Dear Mr. Cheung,

1.0 EXECUTIVE SUMMARY

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] were retained by AMZ Holdings to undertake preliminary Phase Two Environmental Site Assessment [ESA] activities on the above captioned property.

The Phase Two ESA fieldwork included the advancement of fourteen [14] hand dug test pits on the property to facilitate the collection and submission of select soil samples for laboratory analytical testing.

Based on SOIL-MAT ENGINEERS' field observations and the laboratory analytical test results received in its office, SOIL-MAT ENGINEERS offered the following:

- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically Cobalt, Arsenic Nickel, Copper, Free Cyanide, and Selenium] across the Site in the upper shallow soils, however, vertical delineation was not achieved across the Site during these assessment activities;
- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically EC, Cobalt and Nickel] within existing stockpiled material located at the northeast corner of the Site, and;
- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS did not reveal any elevated levels Petroleum Hydrocarbons [PHCs], Polycyclic Aromatic Hydrocarbons [PAHs], Organochlorine Pesticides [OCs], or Benzene, Toluene, Ethylbenzene, and Xylene Mixture [BTEX] above the applicable site condition standards on the Site.

The samples secured for analytical testing are believed to be representative of the conditions at the sample locations only. If any significant changes are noted, i.e., odours, staining etc., SOIL-MAT ENGINEERS should be contacted to reassess the environmental characteristics of the Site.

As noted above, soil with elevated levels of select Metal parameters was identified within the soil medium across the entire Site. The specific contaminants of concerns [COCs] include Electrical Conductivity [EC], Cobalt, Arsenic, Nickel, Copper, Free Cyanide and Selenium. The elevated levels of these select Metals were documented within the upper approximate 0.6 metres of the Site. However, it is noted that additional intrusive sampling is recommended to further delineate that lateral and vertical limits of the are(s) of specific concern. Based on the present information, a Record of Site Condition [RSC] cannot be filed for the Site at this time.

It is noted that, further to the request of the client at this stage, groundwater sampling was not conducted as part of the Phase Two ESA activities. Groundwater sampling will need to be conducted in order fully address the PCAs listed in SOIL-MAT ENGINEERS' June 2020 Phase One ESA.

It is also noted that subsurface soil conditions may be present on-site that are not typical of those presented in this Report. If future activities reveal such soils, SOIL-MAT ENGINEERS should be contacted to assess the soil conditions with respect to the proposed activity.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of AMZ HOLDINGS. The material in if reflects SOIL-MAT ENGINEERS' best judgement in light of the information available to it at the time of preparation. 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-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.

2.0 INTRODUCTION

SOIL-MAT ENGINEERS were retained by AMZ HOLDINGS to undertake a preliminary Phase Two ESA on the above captioned property. It is noted that the Phase Two activities were undertaken in accordance with the methods outlined in Ontario Regulation 153/04 [as amended].

A Phase One ESA was previously undertaken on the property, by SOIL-MAT ENGINEERS, and was utilised in determining the rationale for these Phase Two ESA activities [refer to SOIL-MAT ENGINEERS' Report No.: SM 200232-E dated June 30, 2020].

Our fieldwork, laboratory testing and interpretation in connection with the assessment activities has been finalised and our comments and recommendations, based on our findings, are presented in the following paragraphs.

The subject property is herein referred to as the 'Site' and/or the 'Phase Two Property'.

2.0 (i) SITE DESCRIPTION

The Site is comprised of a roughly rectangular shaped parcel of undeveloped land located on the south side of Killaly Street between James Street and Snider Road in the City of Port Colborne, Ontario.

For descriptive purposes Killaly Street has been designated as having an east-west alignment.

At the time of this Report, the Site was a vacant parcel of land that was comprised primarily of overgrown grass and low lying weeds with a small forested area toward the northeast portion of the Site. A gravel covered parking lot area was observed on the northern portion of the property. It is noted that this portion of the Site was utilized as outdoor storage for an excavating company [Emburgh Backhoe Service]. In addition, a small area on the southern portion of the Site appeared to have recently been utilized as agricultural land.

In addition to the above, a mand-made drainage ditch surrounds the agricultural lands described above and was observed to flow southeast away from the Site.

The Site was bounded to the north by a vacant parcel of undeveloped lands, as well as residential and commercial lands, to the east by agricultural lands, to the south by a community walking trail and vacant undeveloped lands and to the west by residential lands.

The Phase Two Property is recognised with the legal description of "Part Lot 23, Concession 1 Humberstone Surface Only as in HU18858 (Firstly) T/W HU18858; Port Colborne" and does not have a municipal address. The property identification number [PIN] is '64164-0454'.

2.0 (ii) PROPERTY OWNERSHIP

At the time of this report, the Site was owned by INCO Limited. However, as noted in the preamble of this Report, SOIL-MAT ENGINEERS were retained by AMZ HOLDINGS to undertake the Phase Two ESA activities on the Site in support of the redevelopment of the Site. The contact information for the owner is provided below:

1. Contact Name: Mr. John Cheung
2. Mailing Address: 2308 Hoover Court, Burlington, Ontario, L7P 4V2
3. Contact e-mail: john@zamcaninc.com
4. Contact Phone: no phone number

2.0 (iii) CURRENT AND PROPOSED FUTURE USE

Current Use: Agricultural / Commercial
Proposed Use: Residential

Based on the current use and the proposed use of the Site, the proposed development is subject to a mandatory Record of Site Condition [RSC].

2.0 (iv) APPLICABLE SITE CONDITION STANDARDS

The following criteria was utilised to determine the appropriate site classification and applicable soil and groundwater standards.

- Current land use: Commercial / Residential;
- Intended land use: Residential;
- Drinking Water Supply: Non-Potable Ground Water;
- On-site Soil Texture: Medium to Fine Grained Soils;
- Depth to Bedrock: 0.9 to 2.7 metres;
- pH of soils on the Site: Within the Applicable Generic Site Condition Standards Range;
- Surface Water Body: Not observed on-Site or within 30 metres of the Site.

Based on the above, the applicable site condition standards [SCSs] are the Table 3 SCSs for a Residential/Parkland/Institutional Use [RPI] property use in a non-potable groundwater condition from the Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environment Protection Act, (2011), hereinafter referred to as the 'Table 3 RPI Standards'.

It is noted that the present information does suggest that the depth to bedrock is greater than 2.0 metres over at least 50% of the site, however further determination of bedrock depth across the site may be required to confirm this is the case. If this is not found to be the case, then it would be necessary to apply a site condition standard of Table 7 for shallow soils in a non-potable groundwater condition.

3.0 BACKGROUND INFORMATION

3.0 (i) PHYSICAL SETTING

The Site is located in an area of mixed residential, community, commercial, agricultural and industrial use lands.

With the exception of a drainage channel on the south portion of the Site that drains off the Site to the southeast, there are no water bodies in whole or in part on the RSC Property. In addition, no surface water bodies were observed within 30 metres of the RSC Property.

There are no areas of natural significance located in whole or in part on the RSC Property.

The topography of the Site is relatively flat and level, with surface water being directed primarily to the southeast towards a drainage channel that goes southeast from the Site.

3.0 (ii) PAST INVESTIGATIONS

SOIL-MAT ENGINEERS had access to the following environmental reports, which were utilized as supporting documents during the completion of this Report.

1. Phase One Environmental Site Assessment, Killaly Site, Port Colborne, Ontario, dated June 30, 2020: prepared for AMZ Holdings [Mr. John Cheung].

The June 30, 2020 Phase One ESA report revealed four [4] potentially contaminating activities [PCAs] on the Phase One Property, including the following:

- An aerial photograph from 1975 suggests that gravel cover has been placed on the northeast portion of the Site. The subsequent 1978 aerial photograph illustrates stockpiles of an unknown material in this area. In addition, a 1994 aerial photograph suggests that vegetation growth is now present in this area.
  - Of note, several stockpiles of soil of unknown quality were observed on the northeastern portion of the property. during SOIL-MAT ENGINEERS' reconnaissance of the property;
- Aerial photographs from 2002, 2006, 2010 and 2018 revealed a fenced off 'agricultural area' on the southern portion of the Site. Review of Vale's (formerly known as INCO Limited) Community Based Risk Assessment [CBRA] report revealed the company had used this area for an agricultural study to determine plant growth with varying levels of metals in the supporting soil;
- In addition, aerial photographs indicate that the majority of the property was formerly utilised for agricultural purposes; and
- The reconnaissance of the Phase One property revealed several aboveground fuel storage tanks [ASTs] located on the northeast portion of the property.

The lands in the general vicinity of the Site are comprised primarily of a mixture of residential, community, commercial, agricultural and industrial use lands. The Phase One ESA research revealed three [3] PCAs on lands in the Phase One Study Area that are considered a potential environmental liability to the property of medium concern, including the following items:

- The Phase One ESA research revealed 'H&S Automobilia', located approximately 20 metres north of the Phase One property, which is an automotive dealer and potential retail fuel outlet [RFO];
- The reconnaissance of the Phase One property revealed 'bulk' storage of road salt on the property located immediately adjacent to the northeast portion of the Phase One property, and;
- Review of Vale's (formerly INCO Limited) CBRA report revealed that 'refinery operations of Vale' (located to the southwest of the Phase One Property) has resulted in adverse impacts the Phase One property soil medium as a result of "decades of emissions and atmospheric depositions".

Based on the above, the PCAs were limited to the following:

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #1	The northeast portion of the property	30. Importation of Fill Material of Unknown Quality	On-Site	PHCs, BTEX, Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #2	In the fenced off section on the south portion of the property	30. Importation of Fill Material of Unknown Quality	On-Site	Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #3	Occupying the majority of the Site	40. Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-Site	OCs, Metals	Soil
APEC #4	The northeast portion of the property	28. Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs, VOCs, BTEX	Soil
APEC #5	Adjacent to the north of the Site. (Specifically south of 549 Killaly Street)	28. Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	PHCs, VOCs, BTEX	Soil and Groundwater
APEC #6	Adjacent to the northeast of the Site.	48. Salt Manufacturing, Processing and Bulk Storage	Off-Site	Metals	Soil and Groundwater
APEC #7	Occupying the majority of the Site	35. Mining, Smelting and Refining; Ore Processing; Tailings Storage	Off-Site	Metals, PAHs	Soil

The above noted report was supervised by a Qualified Person [QP] of SOIL-MAT ENGINEERS.

In addition to the above, SOIL-MAT ENGINEERS contacted Mr. David Schulz, a Planner with the City of Port Colborne Planning and Development Department to request a copy of previous environmental reports for the Site that may be on file with the City. However, no reports were available for viewing and according to Mr. Schulz there are none on file with the City. However, Mr. Schulz did inform SOIL-MAT ENGINEERS that the previous owner, Vale Canada Ltd., conducted a community based risk assessment that included studies that were conducted on the Site as well as the surrounding lands and can be found at the following website: *http://www.vale.com/canada/EN/aboutvale/communities/port-colborne/CBRA/CBRA-documentation/Pages/default.aspx*

In addition, a search of the MOE's *Brownfields Environmental Site Registry* did not reveal a previous Phase One ESA that may have been undertaken on the Site.

4.0 SCOPE OF THE INVESTIGATION

4.0 (i) OVERVIEW OF SITE INVESTIGATION

Based on the Phase One ESA findings fourteen [14] hand dug test pits were advanced on Site to assess the impact to the soil, if any, as a result of the noted PCAs to determine an initial baseline of possible exceedances on the Site.

Representative soil samples were secured following standard industry sampling protocols and were submitted to AGAT laboratories for laboratory analytical testing for the specific Phase Two ESA contaminants of potential concern [COPC], in this case being Petroleum Hydrocarbons [PHCs], Benzene, Toluene, Ethylbenzene, and Xylene Mixture [BTEX], Organochlorine Pesticides [OCs], Polycyclic Aromatic Hydrocarbons [PAHs], Metals, As, Sb, Se, BHWS, CN-, Electrical Conductivity, Cr (VI), Hg and SAR. For reporting purposes, the COPCs listed above [with the exception of PHCs, BTEX, OCs, and PAHs] are hereinafter referred to as "Metals".

4.0 (ii) MEDIA INVESTIGATED

The purpose of the Phase Two ESA was to assess the soil quality at the Property, as related to the environmental concerns raised in the findings of the June 30, 2020 Phase One ESA.

4.0 (iii) PHASE ONE CONCEPTUAL SITE MODEL

The Phase One ESA property is comprised of a roughly rectangular shaped parcel of undeveloped land consisting on the south side of Killaly Street between James Street and Snider Road in the City of Port Colborne, Ontario.

SOIL-MAT ENGINEERS completed a Phase One ESA on the Site in June of 2020. The information gathered during the completion of the Phase One ESA reports revealed that the Site has remained undeveloped. The first readily available visual aid for the Site is a topographic map from 1906 which illustrates the Site as undeveloped land. Other visual aids, including aerial photographs from 1934, 1954, 1968, 1971, 1975, 1978, 1981, 1994, 2000, 2002, 2006, 2010 and 2018, and topographic maps from 1938, 1964, and 1996, confirm the development timeline above.

The Phase One ESA research revealed four [4] PCAs on the Phase One Property.

The neighbouring and nearby lands to the Site are comprised primarily of a mixture of residential, community, commercial, agricultural and industrial use lands. The Phase One ESA research revealed three [3] PCAs on lands in the Phase One Study Area that are considered a potential environmental liability to the Site.

As a result of the Phase One ESA carried out by SOIL-MAT ENGINEERS for the Site, the following PCAs were identified on the Site.

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #1	The northeast portion of the property	30. Importation of Fill Material of Unknown Quality	On-Site	PHCs, BTEX, Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #2	In the fenced off section on the south portion of the property	30. Importation of Fill Material of Unknown Quality	On-Site	Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity, Cr (VI), Hg and SAR	Soil
APEC #3	Occupying the majority of the Site	40. Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On-Site	OCs, Metals	Soil
APEC #4	The northeast portion of the property	28. Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs, VOCs, BTEX	Soil
APEC #5	Adjacent to the north of the Site. (Specifically south of 549 Killaly Street).	28. Gasoline and Associated Products Storage in Fixed Tanks	Off-Site	PHCs, VOCs, BTEX	Soil and Groundwater
APEC #6	Adjacent to the northeast of the Site.	48. Salt Manufacturing, Processing and Bulk Storage	Off-Site	Metals	Soil and Groundwater
APEC #7	Occupying the majority of the Site	35. Mining, Smelting and Refining; Ore Processing; Tailings Storage	Off-Site	Metals, PAHs	Soil

No other PCAs were identified on the RSC property or on the neighbouring lands or lands located within the Phase One ESA study area.

4.0 (iv) DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN

Professional care was exercised during the retrieval of each sample, the placement of each sample in the appropriate sample jar, the labeling of the field samples and associated chain of custody and in the delivery of the samples to the testing laboratory.

As our standard operating procedures dictate unusual field observations, such as visual or olfactory evidence of a suspected impact, a deviation from SOIL-MAT ENGINEERS' field sampling and handling protocols or incident on the testing laboratories' side was documented either on our field borehole logs or in-house copy of the sample certificate of analysis. There were no deviations recorded during this Phase Two ESA.

4.0 (v) IMPEDIMENTS

There were no impediments to SOIL-MAT ENGINEERS' field work and assessment activities during the Phase Two ESA.

5.0 INVESTIGATION METHODS

5.0 (i) GENERAL

The Phase Two ESA included securing near surface soil samples.

Professional care was exercised during the retrieval of each sample, the placement of each sample in the appropriate sample jar, the labeling of the field samples and associated chain of custody and in the delivery of the samples to the testing laboratory.

As our standard operating procedures dictate unusual field observations, such as visual or olfactory evidence of a suspected impact, a deviation from SOIL-MAT ENGINEERS' field sampling and handling protocols or incident on the testing laboratories' side was documented either on our field test pit logs or in-house copy of the sample Certificate of Analysis.

5.0 (ii) DRILLING AND EXCAVATING

All test pits were advanced on July 14, 2020 via hand dug test pits by a representative of SOIL-MAT ENGINEERS.

Soil samples were generally collected at depths ranging between 0.05 and 0.6 metres below ground surface at each test pit location. After each sampling event, the sampling equipment was thoroughly washed with non-phosphate detergent then rinsed with water before the collection of each subsequent sample to minimise the potential for cross-contamination between samples. The test pits were advanced on the Site using hand held shovel equipment.

A site plan drawing illustrating the test pit locations is included in Appendix 'B' for reference [refer to Drawing No.: 2].

5.0 (iii) SOIL SAMPLING

Soil samples were examined in the field for visual and olfactory evidence of potential impacts such as unusual staining and/or odours, etc., and were sealed in sampling jars for submission to AGAT for analytical testing.

The soil samples that were delivered to AGAT were sealed in pre-cleaned wide mouth, amber glass sample jars, no head space, as provided by the laboratory. The samples were stored and transported in a cooler and kept under ice packs to minimise potential volatilisation of select parameters. New disposable sampling gloves were used for the collection of each soil sample with care given not to make contact with the samples and gloves. Dedicated sample retrieval equipment, including a stainless steel split-spoon, was used to retrieve each sample and before depositing it directly it into the AGAT Laboratories sample jar.

The samples were delivered to AGAT's depot location in Stoney Creek, Ontario in coolers equipped with ice packs to help maintain a temperature range between the applicable 0°C to 10°C. As reported on the chain of custody for the soil samples, the samples were

delivered to AGAT with an average temperatures of 2.6°C, and arrived at AGAT's lab in Mississauga, Ontario with a final temperature of 7.2°C.

5.0 (iv) FIELD SCREENING MEASUREMENTS

All of the Phase Two ESA soil samples were examined in the field for visual and olfactory evidence of potential PHC impact(s), such as unusual staining and/or odours, etc.

No hand held field screening units were utilised during the collection of the confirmatory soil samples.

5.0 (v) GROUND WATER: MONITORING WELL INSTALLATION

As noted above, further to discussion with the client, no groundwater wells were installed as part of this preliminary Phase Two ESA scope.

5.0 (vi) GROUND WATER: FIELD MEASUREMENT OF WATER QUALITY PARAMETERS

Groundwater sampling was not conducted as part of this Phase Two ESA.

5.0 (vii) GROUND WATER: SAMPLING

Groundwater sampling was not conducted as part of this Phase Two ESA.

5.0 (viii) SEDIMENT SAMPLING

Sediment sampling was not conducted as part of the Phase Two ESA activities. The medium investigated was limited to the soil and groundwater medium.

5.0 (ix) ANALYTICAL TESTING

All laboratory analytical work was performed by AGAT Laboratories [AGAT] in Mississauga, Ontario.

AGAT is a member of the Canadian Association for Laboratory Accreditation [CALA] and meets the requirements of Section 47 of the Record of Site Condition [RSC] Regulation.

5.0 (x) RESIDUAL MANAGEMENT PROCEDURES

Residual soil produced from the hand dug test pits was immediately placed back after the soil samples were retrieved.

5.0 (xi) ELEVATION SURVEYING

Surveying was not conducted as part of the Phase Two ESA activities.

5.0 (xii) QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

QA/QC was maintained during the field program through equipment decontamination and sampling procedures, as outlined in the "*MOE Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*" (May, 1996).

Standard QA/QC protocols were followed for bottle preparation, sample collection and transportation, as outlined by MOE guidance documents, including the MOE's 2011 "*Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.1 of the Environmental Protection Act*".

In addition to these field-based measures, extensive QA/QC procedures were carried out by the analytical laboratories, including:

- Lab blanks;
- Spikes;
- Matrix blanks; and
- Instrument blanks and assessments of instrument tuning and performance.

Based on the evaluation of the sampling and analytical procedures used, the following data quality statements can be made:

- The data are adequate for the RSC objectives and approach utilized; and,
- Soil analytical data were of an acceptable quality for comparison to 2011 MOE SCS as defined by *O.Reg.153/04, as amended,* for current investigations.

6.0 REVIEW AND EVALUATION

6.0 (i) GEOLOGY

SOIL-MAT ENGINEERS' previously conducted a Geotechnical Investigation on the property [Refer to SOIL-MAT ENGINEERS' Report No.: SM 200213-G dated August 11, 2020]. The Geotechnical Investigation revealed the following Site stratigraphy:

- TOPSOIL: A surficial veneer of topsoil, approximately 150 to 225 millimetres in thickness was encountered at all borehole locations. It is noted that the term 'topsoil' has been used from a geotechnical point of view, and does not necessarily reflect its nutrient content or ability to support plant life.
- SILTY CLAY/CLAYEY SILT: Native silty clay/clayey silt was encountered beneath the topsoil at all borehole locations. The native cohesive soil is brown in colour, contains trace sand and gravel, and is generally firm to very stiff in consistency. The native silty clay/clayey silt was proven to auger refusal on assumed bedrock at depths of approximately 0.9 to 2.7 metres at all borehole locations. In the lower levels, increased sand and gravel content was noted, likely associated with weathered upper levels of the bedrock.
- BEDROCK: Bedrock was inferred from auger refusal and sampling spoon refusal at depths of approximately 0.9 to 2.7 below the existing grade at all borehole locations.
- GROUNDWATER: All of the boreholes were recorded as being 'dry' upon completion of drilling. It is noted that insufficient time would have passed for the static groundwater level to stabilise in the open boreholes. It is also noted that in cohesive soils such as the silty clay/clayey silt encountered in the boreholes, the static groundwater elevation generally coincides with the transition in colour from brown to grey. Based on information extrapolated from water well records for monitoring wells located in the proximity of the Phase One ESA Study Area, the depth to groundwater is between 2 to 5 metres below the existing ground surface elevation.

A copy of the Borehole Logs are included in Appendix 'A' for reference.

6.0 (ii) GROUND WATER: ELEVATIONS AND FLOW DIRECTIONS

As mentioned above, based on information extrapolated from water well records for monitoring wells located in the proximity of the Phase One ESA Study Area, the static groundwater level is estimated to be in the range of about 2 to 5 metres below the ground surface. Regional groundwater flow is expected to the south towards Lake Erie.

6.0 (iii) GROUND WATER: HYDRAULIC GRADIENTS

As no groundwater monitoring wells were installed on the Site during these Phase Two ESA activities, the horizontal hydraulic gradient was not calculated.

6.0 (iv) FINE-MEDIUM SOIL TEXTURE

SOIL-MAT ENGINEERS' performed a hydrometer on one sample. The result of the hydrometer indicates that the surface and subsurface soil consists primarily of a brown clay and silt with traces of sand and gravel as the predominant soil type. Given the above, the soil has more than 50% finer than the 75 um sieve, and so is classified as medium to fine textured.

6.0 (v) SOIL: FIELD SCREENING

SOIL-MAT ENGINEERS did not observe any visual or olfactory evidence that suggested a new COPC grouping should be considered during the assessment activities.

6.0 (vi) SOIL QUALITY

In total, twenty [20] soil samples were secured from the Site to assess potential adverse impact(s) on the Site as a result of PCAs noted in the Phase One ESA.

The secured soil samples were submitted to AGAT for laboratory analytical testing as described in the summary table below:

SUMMARY OF TESTED SOIL SAMPLES

Sample ID	Depth [m bgs]	Laboratory Analysis	Soil Description
July 14-S1	0.3	Metals, PHCs & BTEX	Silty Clay / Clayey Silt
July 14-S2	0.2	Metals	Silty Clay / Clayey Silt
July 14-S3	0.05 – 0.1	PHCs & BTEX	Silty Clay / Clayey Silt
July 14-S4	0.2 – 0.3	Metals	Silty Clay / Clayey Silt
July 14-S5	0.05 – 0.1	PHCs & BTEX	Coarse Sand, trace Clay
July 14-S6	0.05 – 0.1	Metals	Silty Clay / Clayey Silt
July 14-S7	0.3	Metals	Silty Clay / Clayey Silt
July 14-S8	0.1	Metals, PAHs & OCs	Silty Clay / Clayey Silt
July 14-S9	0.3	Metals	Silty Clay / Clayey Silt
July 14-S10	0.05 – 0.1	Metals, PAHs & OCs	Topsoil
July 14-S11	0.6	Metals	Silty Clay / Clayey Silt
July 14-S12	0.05 – 0.1	Metals	Topsoil
July 14-S13	0.05 – 0.1	Metals	Topsoil
July 14-S14	0.3	Metals	Silty Clay / Clayey Silt
July 14-S15	0.05 – 0.1	Metals & OCs	Topsoil
July 14-S16	0.05 – 0.1	Metals, PAHs & OCs	Topsoil
July 14-S17	0.6	Metals	Silty Clay / Clayey Silt
July 14-S18	0.05 – 0.1	Metals, PAHs & OCs	Topsoil
July 14-S19	0.05 – 0.1	Metals & OCs	Topsoil
July 14-S20	0.3	Metals	Silty Clay / Clayey Silt

The laboratory analytical test results for the submitted soil samples are summarised on the following page:

SUMMARY OF SOIL SAMPLE TEST RESULTS

Sample ID	Depth [m bgs]	Laboratory Analysis	Soil Description	Table 3 RPI Exceedances
July 14-S1	0.3	Metals, PHCs & BTEX	Silty Clay / Clayey Silt	Exceeds the Table 3 RPI SCSs in Metals as: EC – 1.61ppm vs 0.7ppm Cobalt – 25.2ppm vs 22ppm Nickel – 598ppm vs 130ppm
July 14-S2	0.2	Metals	Silty Clay / Clayey Silt	No exceedances reported
July 14-S3	0.05 – 0.1	PHCs & BTEX	Silty Clay / Clayey Silt	No exceedances reported
July 14-S4	0.2 – 0.3	Metals	Silty Clay / Clayey Silt	Exceeds the Table 3 RPI SCSs in Metals as: Cobalt – 31.5ppm vs 22ppm Copper – 206ppm vs 180ppm Cyanide, Free – 0.072ppm vs 0.051ppm Nickel – 1720ppm vs 130ppm Selenium – 3.2ppm vs 2.4ppm
July 14-S5	0.05 – 0.1	PHCs & BTEX	Coarse Sand, trace Clay	No exceedances reported
July 14-S6	0.05 – 0.1	Metals	Silty Clay / Clayey Silt	Exceeds the Table 3 RPI SCSs in Metals as: Cobalt – 36.9ppm vs 22ppm Copper – 262ppm vs 180ppm Cyanide, Free – 0.077ppm vs 0.051ppm Nickel – 2020ppm vs 130ppm Selenium – 3.2ppm vs 2.4ppm
July 14-S7	0.3	Metals	Silty Clay / Clayey Silt	Exceeds the Table 3 RPI SCSs in Metals as: Nickel – 186ppm vs 130ppm
July 14-S8	0.1	Metals, PAHs & OCs	Silty Clay / Clayey Silt	Exceeds the Table 3 RPI SCSs in Metals as: Cobalt – 30.3ppm vs 22ppm Copper – 212ppm vs 180ppm Nickel – 1730ppm vs 130ppm Selenium – 2.8ppm vs 2.4ppm
July 14-S9	0.3	Metals	Silty Clay / Clayey Silt	Exceeds the Table 3 RPI SCSs in Metals as: Cobalt – 23.6ppm vs 22ppm
July 14-S10	0.05 – 0.1	Metals, PAHs & OCs	Topsoil	Exceeds the Table 3 RPI SCSs in Metals as: Cobalt – 32.0ppm vs 22ppm Copper – 213ppm vs 180ppm Nickel – 1890ppm vs 130ppm Selenium – 2.9ppm vs 2.4ppm
July 14-S11	0.6	Metals	Silty Clay / Clayey Silt	No exceedances reported
July 14-S12	0.05 – 0.1	Metals	Topsoil	Exceeds the Table 3 RPI SCSs in Metals as: Cobalt – 40.4ppm vs 22ppm Copper – 300ppm vs 180ppm Nickel – 2350ppm vs 130ppm Selenium – 3.7ppm vs 2.4ppm
July 14-S13	0.05 – 0.1	Metals	Topsoil	Exceeds the Table 3 RPI SCSs in Metals as: Cobalt – 40.8ppm vs 22ppm Copper – 322ppm vs 180ppm Nickel – 2560ppm vs 130ppm Selenium – 3.9ppm vs 2.4ppm
July 14-S14	0.3	Metals	Silty Clay / Clayey Silt	No exceedances reported
July 14-S15	0.05 – 0.1	Metals & OCs	Topsoil	Exceeds the Table 3 RPI SCSs in Metals as: Cobalt – 39.5ppm vs 22ppm Copper – 264ppm vs 180ppm Cyanide, Free – 0.074ppm vs 0.051ppm Nickel – 2160ppm vs 130ppm

				Selenium – 3.3ppm vs 2.4ppm
July 14-S16	0.05 – 0.1	Metals, PAHs & OCs	Topsoil	Exceeds the Table 3 RPI SCSs in Metals as: Arsenic – 20ppm vs 18ppm Cobalt – 57.4ppm vs 22ppm Copper – 448ppm vs 180ppm Nickel – 3740ppm vs 130ppm Selenium – 5.2ppm vs 2.4ppm
July 14-S17	0.6	Metals	Silty Clay / Clayey Silt	No exceedances reported
July 14-S18	0.05 – 0.1	Metals, PAHs & OCs	Topsoil	Exceeds the Table 3 RPI SCSs in Metals as: Cobalt – 43.1ppm vs 22ppm Copper – 319ppm vs 180ppm Cyanide, Free – 0.062ppm vs 0.051ppm Nickel – 2620ppm vs 130ppm Selenium – 4.9ppm vs 2.4ppm
July 14-S19	0.05 – 0.1	Metals & OCs	Topsoil	Exceeds the Table 3 RPI SCSs in Metals as: Arsenic – 19ppm vs 18ppm Cobalt – 46.9ppm vs 22ppm Copper – 380ppm vs 180ppm Nickel – 3190ppm vs 130ppm Selenium – 5.5ppm vs 2.4ppm
July 14-S20	0.3	Metals	Silty Clay / Clayey Silt	Exceeds the Table 3 RPI SCSs in Metals as: Cobalt – 23.2ppm vs 22ppm Nickel – 517ppm vs 130ppm
Notes: Metals = Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity [EC], Cr (VI), Hg and SAR PHCs = Petroleum Hydrocarbons, PAHs = Polycyclic Aromatic Hydrocarbons, OCs = Organochlorine Pesticides, BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture				

The laboratory analytical test results for the submitted soil samples indicate the following Table 3 RPI exceedances:

- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically Cobalt, Arsenic Nickel, Copper, Free Cyanide, and Selenium] across the Site in the upper shallow soils, however, vertical delineation was not achieved across the Site during these assessment activities;
- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically EC, Cobalt and Nickel] within existing stockpiled material located at the northeast corner of the Site, and;
- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS did not reveal any elevated levels Petroleum Hydrocarbons [PHCs], Polycyclic Aromatic Hydrocarbons [PAHs], Organochlorine Pesticides [OCs], or Benzene, Toluene, Ethylbenzene, and Xylene Mixture [BTEX] above the applicable site condition standards on the Site.

The Phase Two ESA property, borehole locations and analytical test results are illustrated on Drawing Nos. 3 and 3A – 3F in Appendix 'A'.

The AGAT Certificate of Analysis is included in Appendix 'C' for reference.

6.0 (vii) GROUND WATER QUALITY

Groundwater sampling was not conducted as part of this Phase Two ESA fieldwork.

6.0 (viii) SEDIMENT QUALITY

Sediment sampling was not conducted as part of the Phase Two ESA fieldwork.

6.0 (ix) QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

QA/QC was maintained during the field program through equipment decontamination and sampling procedures, as outlined in the "*MOE Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*" (May, 1996).

Standard QA/QC protocols were followed for bottle preparation, sample collection and transportation, as outlined by MOE guidance documents, including the MOE's 2011 "*Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.1 of the Environmental Protection Act*".

In addition to these field-based measures, extensive QA/QC procedures were carried out by the analytical laboratories, including:

- Lab blanks;
- Spikes;
- Matrix blanks; and
- Instrument blanks and assessments of instrument tuning and performance.

Based on the evaluation of the sampling and analytical procedures used, the following data quality statements can be made:

- The data is adequate for the RSC objectives and approach utilized; and,
- Soil analytical data were of an acceptable quality for comparison to Table 3 SCS as defined by *O.Reg.153/04, as amended,* for current investigations;

No deviations from the QA/QC protocols were noted during the completion of the Phase Two ESA fieldwork.

6.0 (x) PHASE TWO CONCEPTUAL SITE MODEL

SOIL-MAT ENGINEERS' has not prepared a Phase Two CSM as part of this Phase Two ESA. However, a Phase Two CSM will be prepared to support the filing of an RSC, once remediation/removal of the affected soil has been completed.

7.0 CONCLUSIONS

A description of the staff members associated with the completion of the Phase Two ESA activities is contained in Appendix 'F' of this Report. The ESA activities were supervised by Mr. Ian Shaw, P.Eng., QP_{ESA}, who is a Qualified Person for the undertaking of ESA activities.

Based on SOIL-MAT ENGINEERS' field observations and the laboratory analytical test results received in its office, SOIL-MAT ENGINEERS offered the following:

- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically Cobalt, Arsenic Nickel, Copper, Free Cyanide, and Selenium] across the Site in the upper shallow soils, however, vertical delineation was not achieved across the Site during these assessment activities;
- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically EC, Cobalt and Nickel] within existing stockpiled material located at the northeast corner of the Site, and;
- The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS did not reveal any elevated levels Petroleum Hydrocarbons [PHCs], Polycyclic Aromatic Hydrocarbons [PAHs], Organochlorine Pesticides [OCs], or Benzene, Toluene, Ethylbenzene, and Xylene Mixture [BTEX] above the applicable site condition standards on the Site.

The samples secured for analytical testing are believed to be representative of the conditions at the sample locations only. If any significant changes are noted, i.e., odours, staining etc., SOIL-MAT ENGINEERS should be contacted to reassess the environmental characteristics of the Site.

As noted above, soil with elevated levels of select Metal parameters was identified within the soil medium across the entire Site. The specific contaminants of concerns [COCs] include Electrical Conductivity [EC], Cobalt, Arsenic, Nickel, Copper, Free Cyanide and Selenium. The elevated levels of these select Metals were documented within the upper approximate 0.6 metres of the Site. However, it is noted that additional intrusive sampling is recommended to further delineate that lateral and vertical limits of the are(s) of specific concern. Based on the present information, a Record of Site Condition [RSC] cannot be filed for the Site at this time.

It is noted that, further to the request of the client at this stage, groundwater sampling was not conducted as part of the Phase Two ESA activities. Groundwater sampling will need to be conducted in order fully address the PCAs listed in SOIL-MAT ENGINEERS' June 2020 Phase One ESA.

It is also noted that subsurface soil conditions may be present on-site that are not typical of those presented in this Report. If future activities reveal such soils, SOIL-MAT ENGINEERS should be contacted to assess the soil conditions with respect to the proposed activity.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of AMZ HOLDINGS. The material in if reflects SOIL-MAT ENGINEERS' best judgement in light of the information available to it at the time of preparation. 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-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.

We trust this Report is satisfactory for your purposes. Please feel free to contact our Office if you have any questions, or we may be of further service to you.

Yours very truly,
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

Peter Markesic, B.Sc.
Project Manager

Ian Shaw, P.Eng., QP_{ESA}
Review Engineer

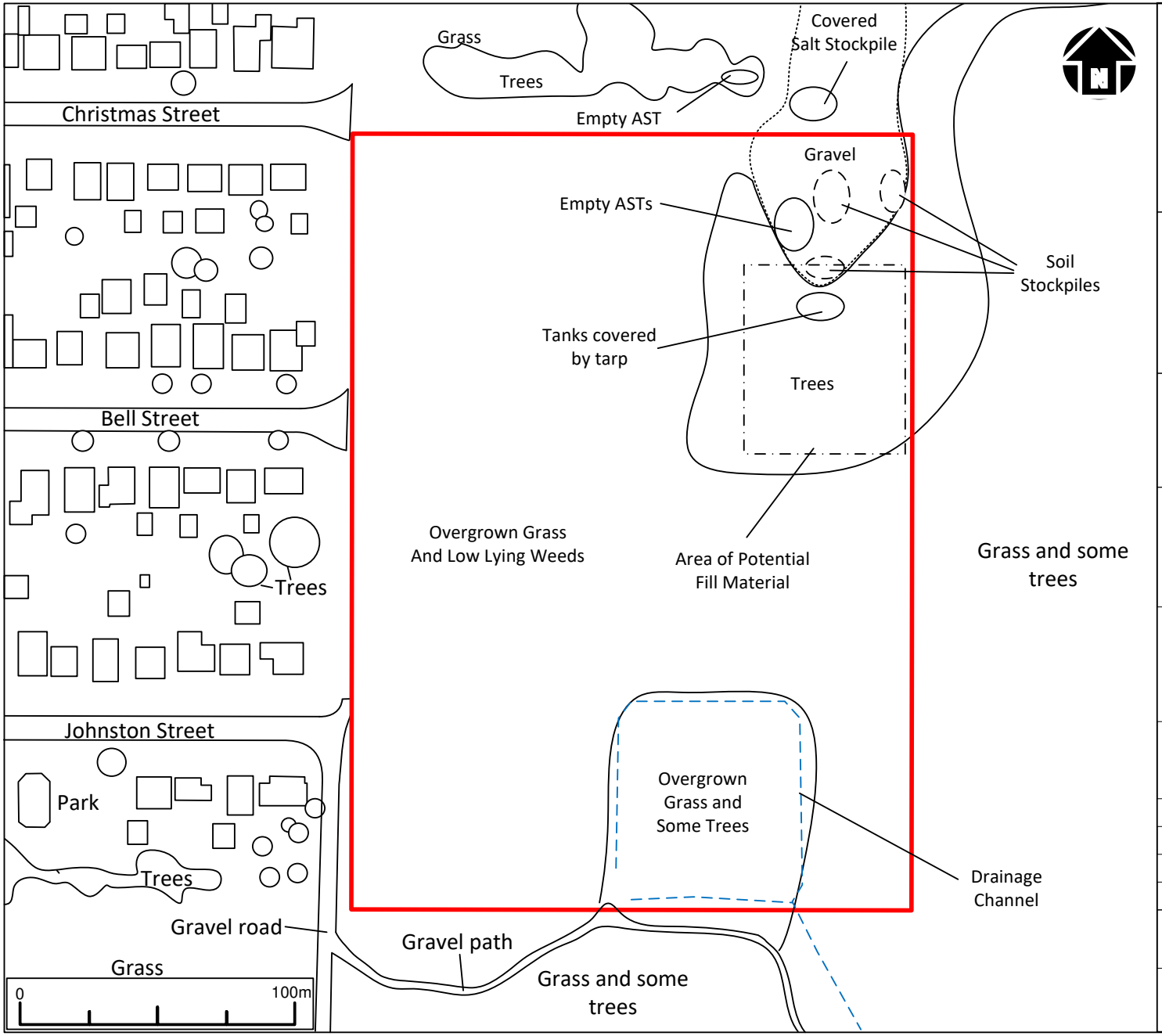
for Keith Gleadall, B.A., EA Dipl.
Environmental Manager

Distribution: AMZ HOLDINGS [2]

Enclosures:
Appendix 'A' Site Plan Drawings and Borehole Logs;
Appendix 'B' AGAT Soil Analytical Data;
Appendix 'C' Qualifications of Assessors;
Appendix 'D' Statement of Limitations

Appendix 'A'

1. Drawing No.: 1: Site Plan;
2. Drawing No.: 1A: APECs;
3. Drawing No.: 2: Borehole Location Plan;
4. Drawing No.: 3A: Analytical Data Summary [Soil] Metals;
5. Drawing No.: 3B: Analytical Data Summary [Soil] EC & SAR;
6. Drawing No.: 3C: Analytical Data Summary [Soil] Hydrides;
7. Drawing No.: 3D: Analytical Data Summary [Soil] PHCs;
8. Drawing No.: 3E: Analytical Data Summary [Soil] BTEX,
9. Drawing No.: 3F: Analytical Data Summary [Soil] PAHs,
10. Drawing No.: 3G: Analytical Data Summary [Soil] OCs, and;
11. Borehole Logs



LEGEND

= Site Boundary

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Phase One Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE

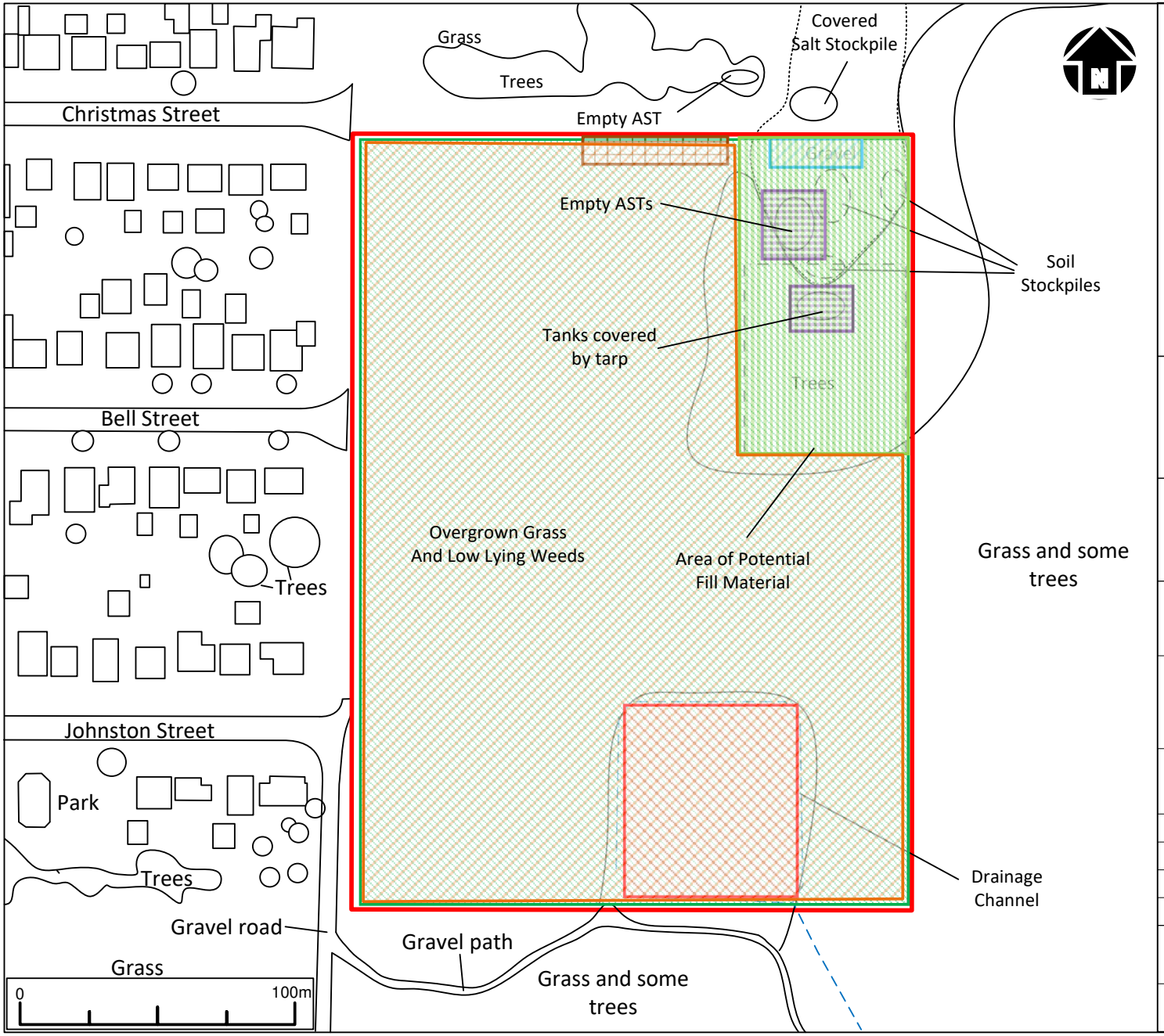
Site Plan Drawing

PROJECT No.	SM 200342-E
DATE	August 2020
CHECKED	KG
DRAWN	PM

FILE NAME

200342 Site Plan.vsd

DRAWING No. 1



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

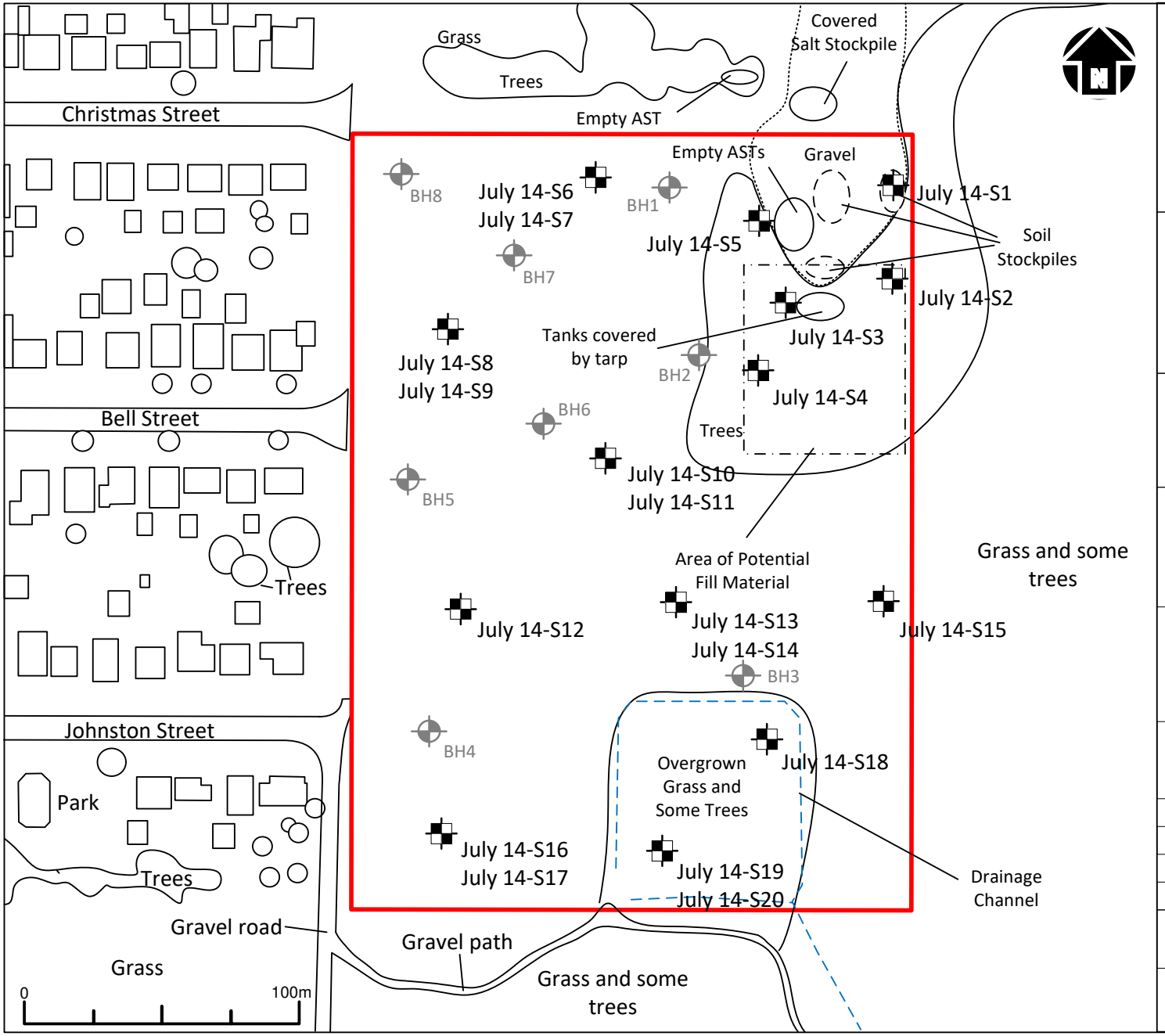
PROJECT TITLE
Phase One Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
APECs

PROJECT No.	SM 200342-E
DATE	August 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200342 Drawing 1A - APECs.vsd

DRAWING No. 1A



LEGEND

= Site Boundary

S# = Sample Location

BH# = Borehole Location

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE

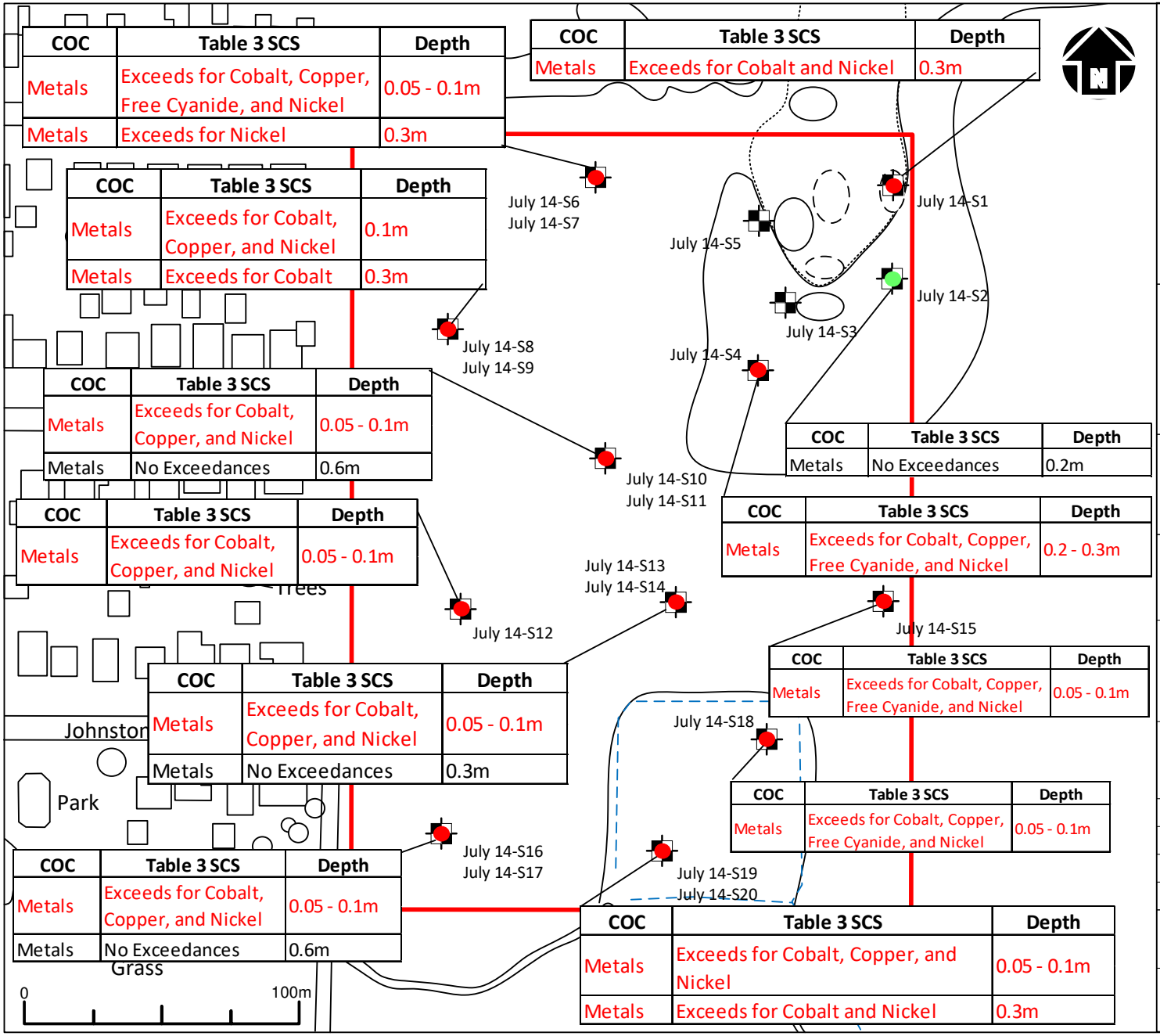
Sample Locations

PROJECT No.	SM 200342-E
DATE	August 2020
CHECKED	KG
DRAWN	PM

FILE NAME

200342 Sample Location Plan.vsd

DRAWING No. 2



LEGEND

- = Site Boundary
- S# = Sample Location
- = Soil Samples that meet Applicable Table 3 SCSs
- = Soil Samples that exceed Applicable Table 3 SCSs

The Metals grouping listed on the drawing includes: Metals, BHWS, CN, Cr(VI), and Hg

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

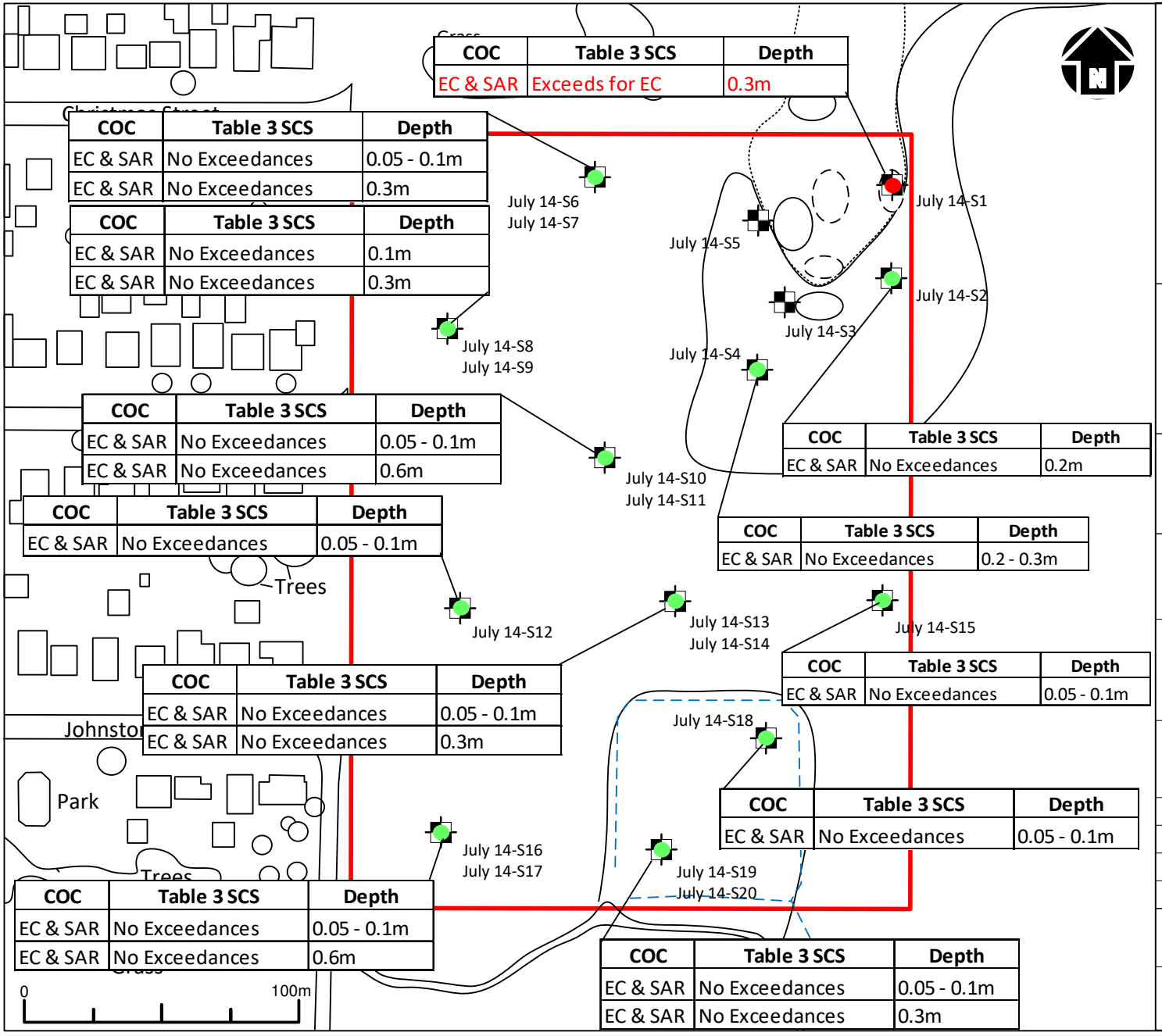
PROJECT TITLE
Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil]
Metals

PROJECT No.	SM 200342-E
DATE	August 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200342 Drawing 3A – Soil – Metals.vsd

DRAWING No. 3A



COC	Table 3 SCS	Depth
EC & SAR	Exceeds for EC	0.3m

COC	Table 3 SCS	Depth
EC & SAR	No Exceedances	0.05 - 0.1m
EC & SAR	No Exceedances	0.3m

COC	Table 3 SCS	Depth
EC & SAR	No Exceedances	0.1m
EC & SAR	No Exceedances	0.3m

COC	Table 3 SCS	Depth
EC & SAR	No Exceedances	0.2m

COC	Table 3 SCS	Depth
EC & SAR	No Exceedances	0.05 - 0.1m
EC & SAR	No Exceedances	0.6m

COC	Table 3 SCS	Depth
EC & SAR	No Exceedances	0.2 - 0.3m

COC	Table 3 SCS	Depth
EC & SAR	No Exceedances	0.05 - 0.1m

COC	Table 3 SCS	Depth
EC & SAR	No Exceedances	0.05 - 0.1m
EC & SAR	No Exceedances	0.3m

COC	Table 3 SCS	Depth
EC & SAR	No Exceedances	0.05 - 0.1m

COC	Table 3 SCS	Depth
EC & SAR	No Exceedances	0.05 - 0.1m
EC & SAR	No Exceedances	0.6m

COC	Table 3 SCS	Depth
EC & SAR	No Exceedances	0.05 - 0.1m
EC & SAR	No Exceedances	0.3m

LEGEND

= Site Boundary

S# = Sample Location

= Soil Samples that meet Applicable Table 3 SCSs

= Soil Samples that exceed Applicable Table 3 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

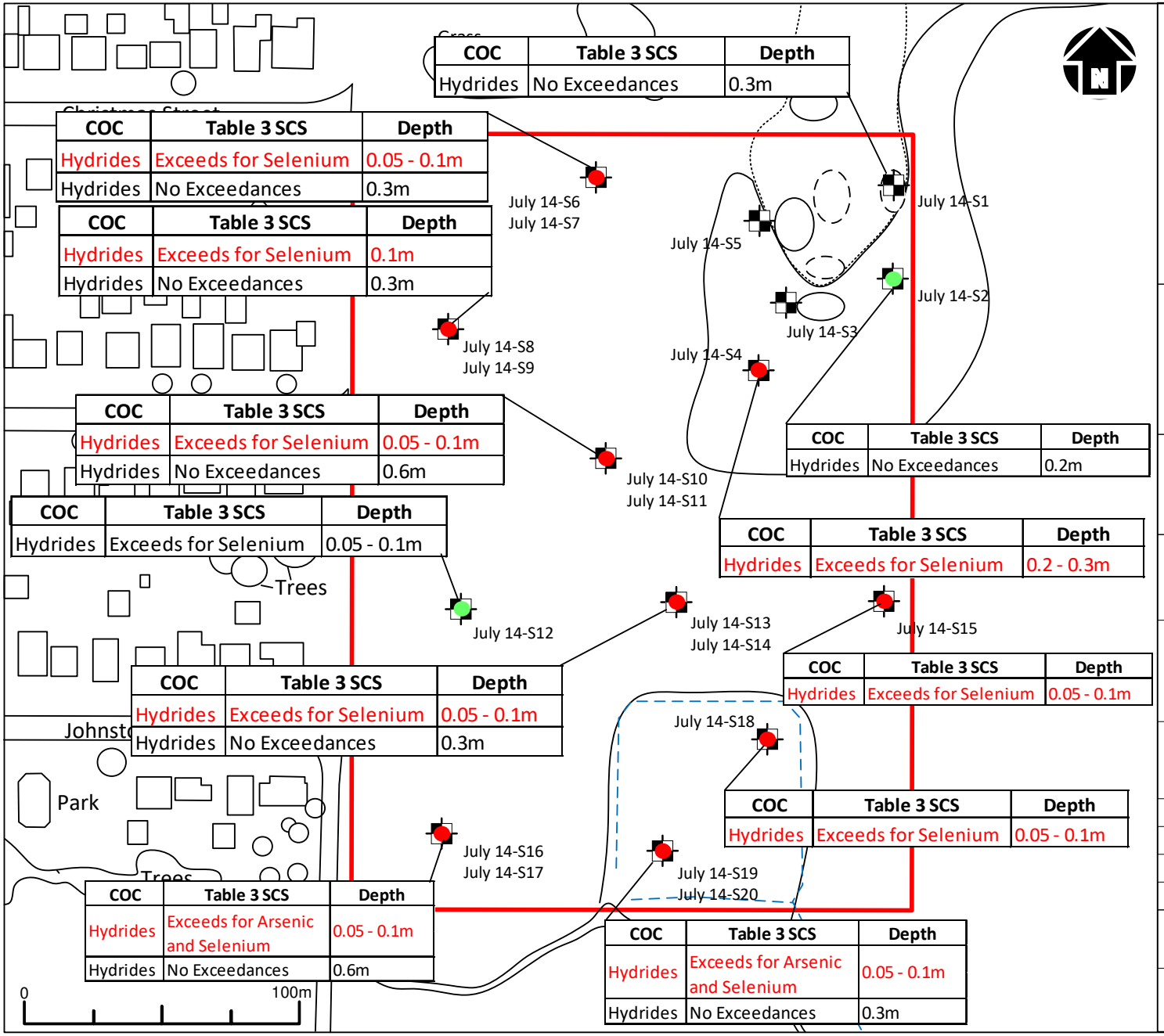
PROJECT TITLE
Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil]
EC & SAR

PROJECT No.	SM 200342-E
DATE	August 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200342 Drawing 3B – Soil – EC & SAR.vsd

DRAWING No. 3B



LEGEND

= Site Boundary

S# = Sample Location

= Soil Samples that meet Applicable Table 3 SCSs

= Soil Samples that exceed Applicable Table 3 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

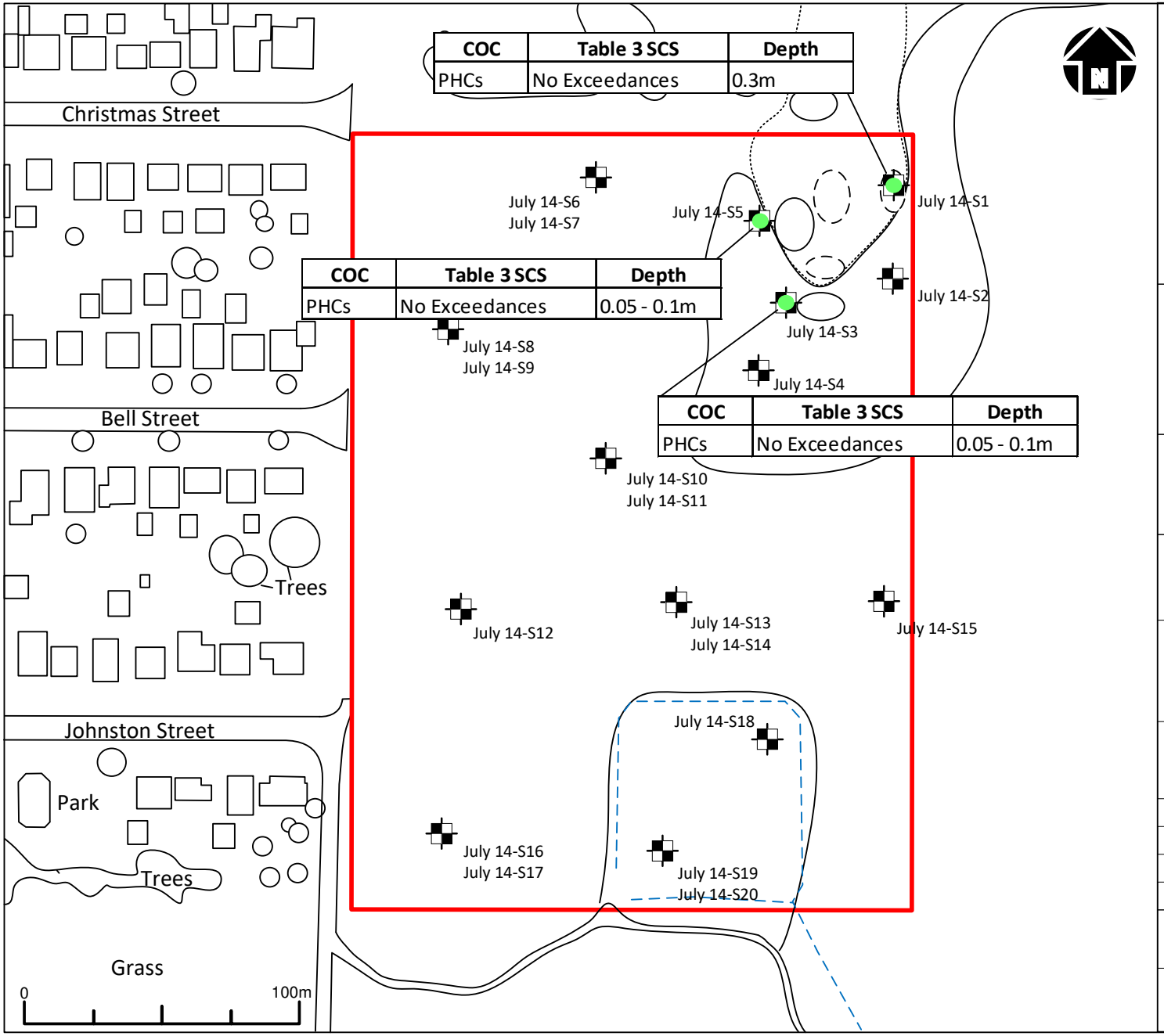
PROJECT TITLE
Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil]
Hydride Forming Metals [Sb, As, & Se]

PROJECT No.	SM 200342-E
DATE	August 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200342 Drawing 3C – Soil – Hydrides.vsd

DRAWING No. 3C



LEGEND

= Site Boundary

S# = Sample Location

= Soil Samples that meet Applicable Table 3 SCSs

= Soil Samples that exceed Applicable Table 3 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

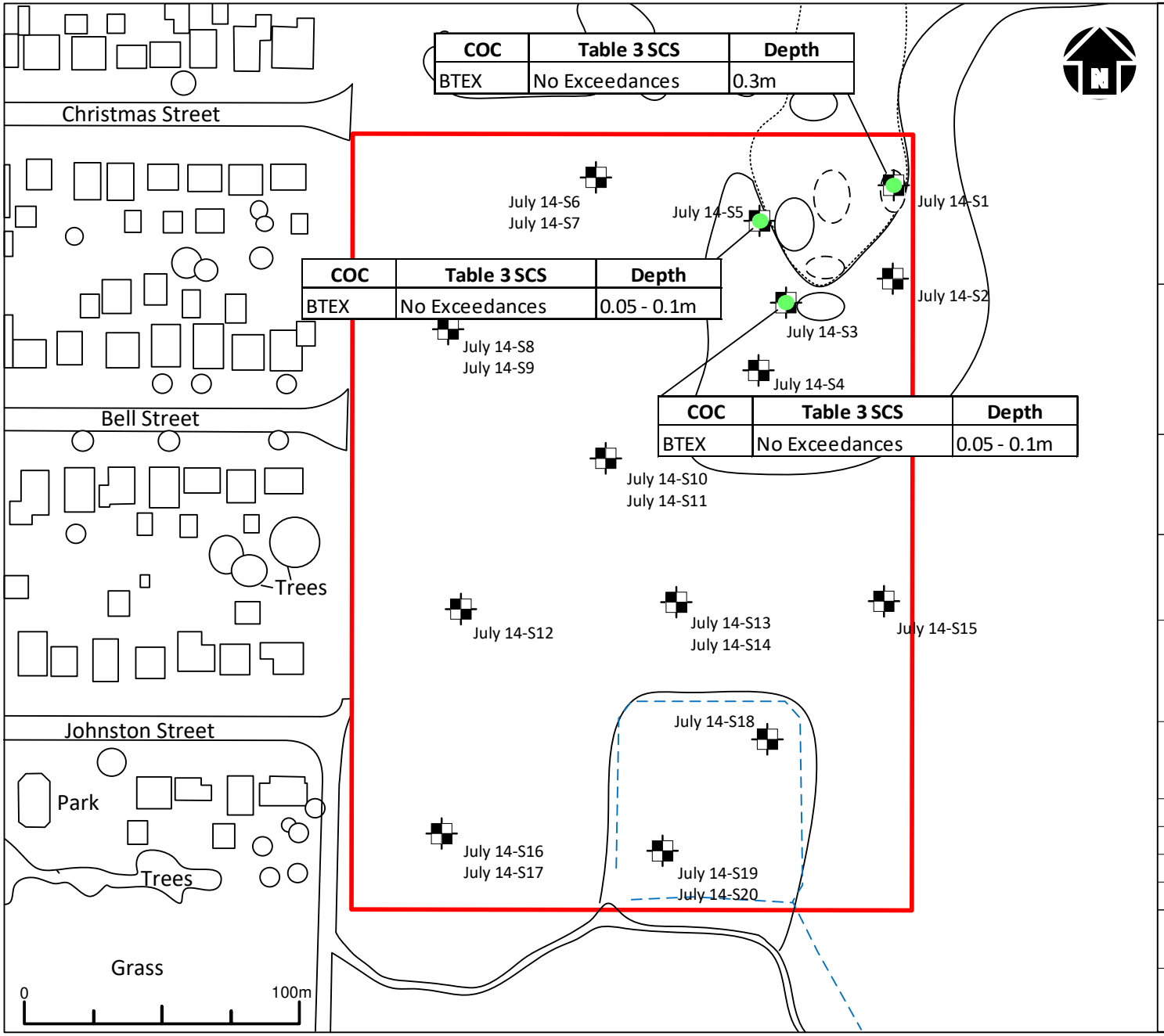
PROJECT TITLE
Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil]
Petroleum Hydrocarbons [PHCs]

PROJECT No.	SM 200342-E
DATE	August 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200342 Drawing 3D – Soil – PHCs.vsd

DRAWING No. 3D



LEGEND

= Site Boundary

S# = Sample Location

= Soil Samples that meet Applicable Table 3 SCSs

= Soil Samples that exceed Applicable Table 3 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

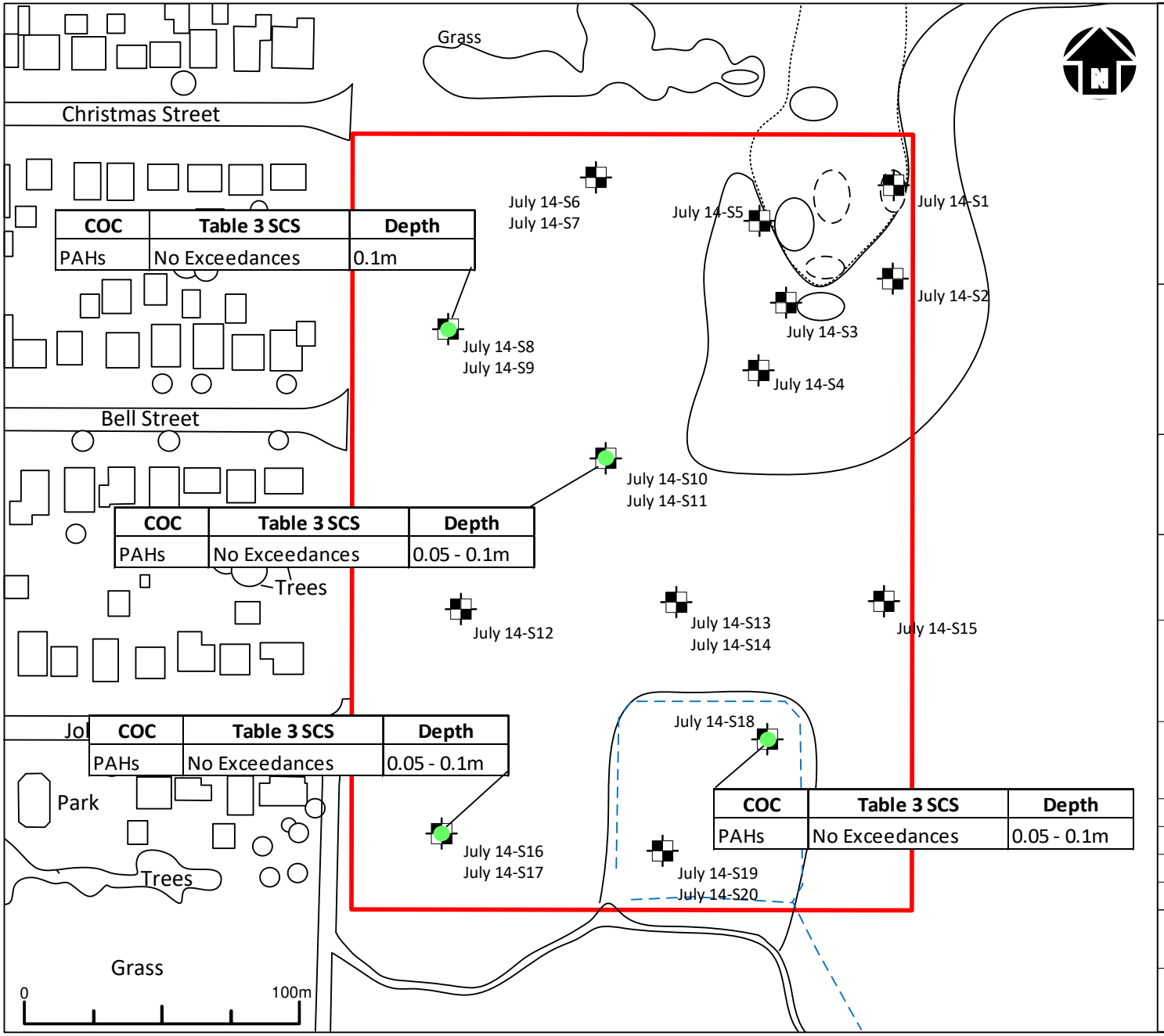
PROJECT TITLE
Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil]
BTEX

PROJECT No.	SM 200342-E
DATE	August 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200342 Drawing 3E – Soil – BTEX.vsd

DRAWING No. 3E



COC	Table 3 SCS	Depth
PAHs	No Exceedances	0.1m

COC	Table 3 SCS	Depth
PAHs	No Exceedances	0.05 - 0.1m

COC	Table 3 SCS	Depth
PAHs	No Exceedances	0.05 - 0.1m

COC	Table 3 SCS	Depth
PAHs	No Exceedances	0.05 - 0.1m

LEGEND

= Site Boundary

S# = Sample Location

= Soil Samples that meet Applicable Table 3 SCSs

= Soil Samples that exceed Applicable Table 3 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

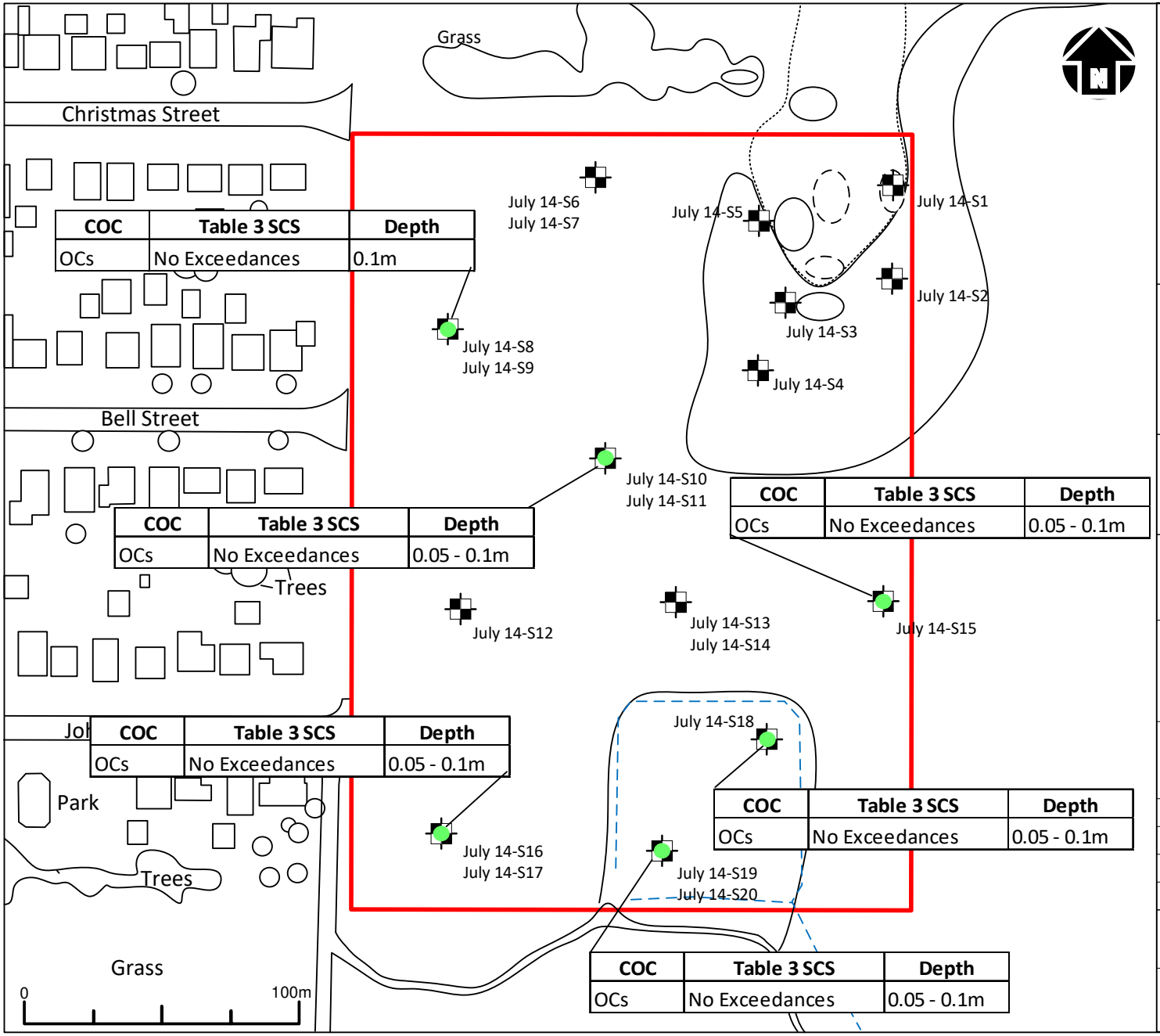
PROJECT TITLE
Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil]
Polycyclic Aromatic Hydrocarbons [PAHs]

PROJECT No.	SM 200342-E
DATE	August 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200342 Drawing 3F – Soil – PAHs.vsd

DRAWING No. 3F



COC	Table 3 SCS	Depth
OCs	No Exceedances	0.1m

COC	Table 3 SCS	Depth
OCs	No Exceedances	0.05 - 0.1m

COC	Table 3 SCS	Depth
OCs	No Exceedances	0.05 - 0.1m

COC	Table 3 SCS	Depth
OCs	No Exceedances	0.05 - 0.1m

COC	Table 3 SCS	Depth
OCs	No Exceedances	0.05 - 0.1m

COC	Table 3 SCS	Depth
OCs	No Exceedances	0.05 - 0.1m

LEGEND

= Site Boundary

S# = Sample Location

= Soil Samples that meet Applicable Table 3 SCSs

= Soil Samples that exceed Applicable Table 3 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

PROJECT TITLE
Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil]
Organochlorine Pesticides [OCs]

PROJECT No.	SM 200342-E
DATE	August 2020
CHECKED	KG
DRAWN	PM

FILE NAME
200342 Drawing 3G – Soil – OCs.vsd

DRAWING No. 3G

Log of Borehole No. 1

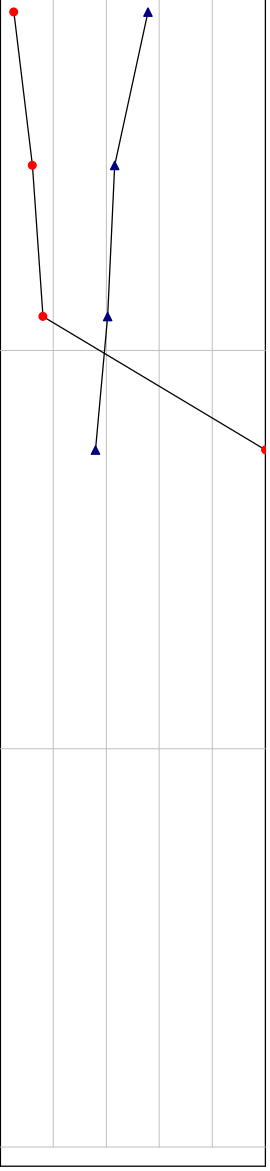
Project No: SM 200213-G
Project: Proposed Residential Development
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

Project Manager: Kyle Richardson, P.Eng.
Borehole Location: See Drawing No.1
UTM Coordinates - N: 4750183
E: 644674

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	177.58	Ground Surface								
0 / 0	177.35	**Topsoil** Approximately 225 millimetres of topsoil.								
1 / 0		**Silty Clay / Clayey Silt** Brown, trace to some sand and gravel, firm to hard.		SS	1	1,3,2,2	5		3.5	
4 / 1				SS	2	4,5,7,9	12		4.0	
6 / 2				SS	3	5,7,9,10	16		4.5	
8 / 2	174.90	Auger Refusal on Assumed Bedrock		SS	4	27,38,50/4"	100		>4.5	
9 / 3		End of Borehole								

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced using solid stem auger equipment on June 17, 2020 to auger refusal on assumed bedrock at a depth of 2.7 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: June 17, 2020
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 2

Project No: SM 200213-G
Project: Proposed Residential Development
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

Project Manager: Kyle Richardson, P.Eng.
Borehole Location: See Drawing No.1
UTM Coordinates - N: 4750106
E: 644678

Soil-Mat

Depth (ft)	Depth (m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0	0	177.16	Ground Surface								
		176.96	**Topsoil** Approximately 200 millimetres of topsoil.								
1			**Silty Clay / Clayey Silt** Brown, trace to some sand and gravel, firm to very stiff.		SS	1	2,2,3,5	5		3.5	
2											
3	1				SS	2	5,7,8,10	15		4.5	
4											
5											
6					SS	3	7,9,10,50/5"	19		4.0	
7	2	175.10	Auger Refusal on Assumed Bedrock End of Borehole								
8											
9											
10	3										
11											
12											
13	4										
14											
15											
16	5										
17											
18											
19	6										

Moisture Content w%: 10 20 30 40

Standard Penetration Test blows/300mm: 20 40 60 80

NOTES:

1. Borehole was advanced using solid stem auger equipment on June 17, 2020 to auger refusal on assumed bedrock at a depth of 2.1 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: June 17, 2020
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 3

Project No: SM 200213-G
Project: Proposed Residential Development
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

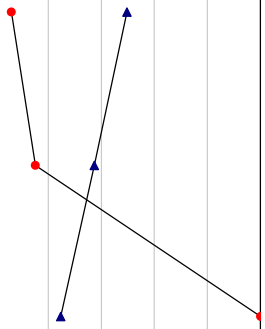
Project Manager: Kyle Richardson, P.Eng.
Borehole Location: See Drawing No.1
UTM Coordinates - N: 4749996
E: 644700

Soil-Mat

Depth (ft)	Depth (m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0	0	176.90	Ground Surface								
		176.72	**Topsoil** Approximately 175 millimetres of topsoil.								
1			**Silty Clay / Clayey Silt** Brown, trace to some sand and gravel, firm to hard.		SS	1	1,3,3,3	6		3.0	
2											
3	1				SS	2	5,7,8,12	15		4.0	
4											
5											
6					SS	3	8,23,28,50/1"	100		4.0	
7	2	174.80	Auger Refusal on Assumed Bedrock								
			End of Borehole								
8											
9											
10	3										
11											
12											
13	4										
14											
15											
16	5										
17											
18											
19	6										

Moisture Content w%: 10 20 30 40

Standard Penetration Test blows/300mm: 20 40 60 80



NOTES:

1. Borehole was advanced using solid stem auger equipment on June 17, 2020 to auger refusal on assumed bedrock at a depth of 2.1 metres.

2. Borehole was recorded as open and 'wet' at a depth of 1.8 metres upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: June 17, 2020
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 4

Project No: SM 200213-G
Project: Proposed Residential Development
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

Project Manager: Kyle Richardson, P.Eng.
Borehole Location: See Drawing No.1
UTM Coordinates - N: 4749974
E: 644588

Soil-Mat

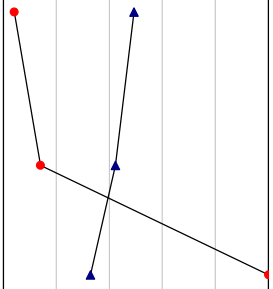
Depth (ft)	Depth (m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		176.92	Ground Surface							
0	0	176.76	**Topsoil** Approximately 150 millimetres of topsoil.							
1			**Silty Clay / Clayey Silt** Brown, trace to some sand and gravel, firm to stiff.	SS	1	2,2,2,5	4		2.5	
2										
3	1			SS	2	5,6,8,13	14		4.5	
4										
5		175.20	Auger Refusal on Assumed Bedrock	SS	3	50/4"	100		>4.5	
6	2		End of Borehole							
7										
8										
9										
10	3									
11										
12										
13	4									
14										
15										
16	5									
17										
18										
19	6									

Well Data

SAMPLE

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced using solid stem auger equipment on June 17, 2020 to auger refusal on assumed bedrock at a depth of 1.7 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: June 17, 2020
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 5

Project No: SM 200213-G
Project: Proposed Residential Development
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

Project Manager: Kyle Richardson, P.Eng.
Borehole Location: See Drawing No.1
UTM Coordinates - N: 4750062
E: 644561

Soil-Mat

Depth (ft)	Depth (m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
		177.17		Ground Surface									
0	0	176.97		**Topsoil** Approximately 200 millimetres of topsoil.									
1				**Silty Clay / Clayey Silt** Brown, reworked in upper levels, trace to some sand and gravel, firm to stiff.		SS	1	3,2,3,3	5		3.5		
2													
3	1	176.00		Auger Refusal on Assumed Bedrock		SS	2	5,6,50/6"	100		4.0		
4				End of Borehole									
5													
6	2												
7													
8													
9													
10	3												
11													
12													
13	4												
14													
15													
16	5												
17													
18													
19	6												

NOTES:

1. Borehole was advanced using solid stem auger equipment on June 17, 2020 to auger refusal on assumed bedrock at a depth of 1.2 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: June 17, 2020
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 6

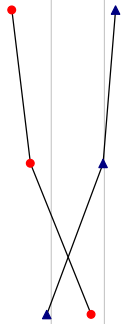
Project No: SM 200213-G
Project: Proposed Residential Development
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

Project Manager: Kyle Richardson, P.Eng.
Borehole Location: See Drawing No.1
UTM Coordinates - N: 4750080
E: 644597

Soil-Mat

Depth (ft)	Depth (m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0	0	177.22	Ground Surface								
		177.04	**Topsoil** Approximately 175 millimetres of topsoil.								
1			**Silty Clay / Clayey Silt** Brown, reworked in upper levels, trace to some sand and gravel, firm to hard.		SS	1	2,3,2,2	5		3.5	
2											
3	1				SS	2	6,3,9,6	12		4.5	
4											
5					SS	3	5,16,19,18	35		3.5	
6	2										
7		174.90	Auger Refusal on Assumed Bedrock								
8			End of Borehole								
9											
10	3										
11											
12											
13	4										
14											
15											
16	5										
17											
18											
19	6										

Moisture Content w% (10 20 30 40)
Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced using solid stem auger equipment on June 17, 2020 to auger refusal on assumed bedrock at a depth of 2.3 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: June 17, 2020
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 7

Project No: SM 200213-G
Project: Proposed Residential Development
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

Project Manager: Kyle Richardson, P.Eng.
Borehole Location: See Drawing No.1
UTM Coordinates - N: 4750150
E: 644614

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	177.37	Ground Surface								
0 / 0	177.17	**Topsoil** Approximately 200 millimetres of topsoil.								
1 / 0		**Silty Clay / Clayey Silt** Brown, trace to some sand and gravel, firm to very stiff.		SS	1	2,3,3,3	6		3.5	
3 / 1				SS	2	8,9,6,5	15		4.5	
6 / 2				SS	3	5,9,10,40	19		4.5	
7 / 2	175.10	Auger Refusal on Assumed Bedrock								
8 / 3		End of Borehole								

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)

NOTES:

1. Borehole was advanced using solid stem auger equipment on June 17, 2020 to auger refusal on assumed bedrock at a depth of 2.3 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: June 17, 2020
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Log of Borehole No. 8

Project No: SM 200213-G
Project: Proposed Residential Development
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

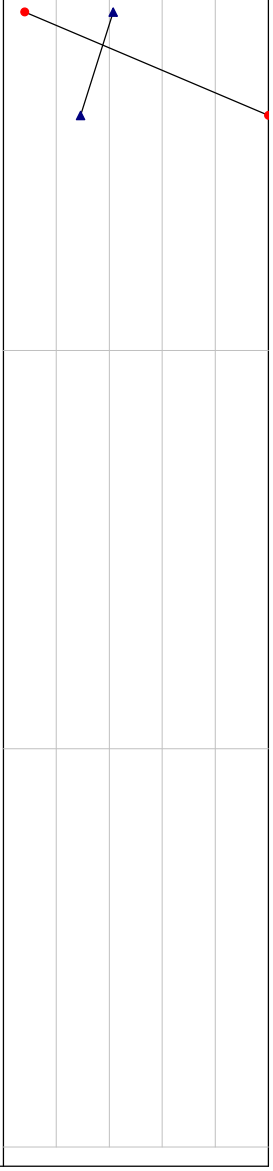
Project Manager: Kyle Richardson, P.Eng.
Borehole Location: See Drawing No.1
UTM Coordinates - N: 4750177
E: 644570

Soil-Mat

Depth (ft / m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
	177.39		Ground Surface								
0 / 0	177.19		**Topsoil** Approximately 200 millimetres of topsoil.								
1			**Silty Clay / Clayey Silt** Brown, trace to some sand and gravel, stiff.		SS	1	3,4,4,4	8		4.0	
2											
3 / 1	176.50		Auger Refusal on Assumed Bedrock		SS	2	50/5"	100		4.5	
4			End of Borehole								
5											
6 / 2											
7											
8											
9											
10 / 3											
11											
12											
13 / 4											
14											
15											
16 / 5											
17											
18											
19 / 6											

Moisture Content w%
10 20 30 40

Standard Penetration Test blows/300mm
20 40 60 80



NOTES:

1. Borehole was advanced using solid stem auger equipment on June 17, 2020 to auger refusal on assumed bedrock at a depth of 0.9 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: June 17, 2020
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: KR
Sheet: 1 of 1

Appendix 'B'

1. AGAT Certificate of Analysis – Soil

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
130 LANCING DRIVE
HAMILTON, ON L8W3A1
(905) 318-7440

ATTENTION TO: Lianne Crawford

PROJECT: 200342

AGAT WORK ORDER: 20H625232

SOIL ANALYSIS REVIEWED BY: Jacky Zhu, Spectroscopy Technician

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: Jul 21, 2020

PAGES (INCLUDING COVER): 20

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days following analysis, unless expressly agreed otherwise in writing. Please contact your Client Project Manager if you require additional sample storage time.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

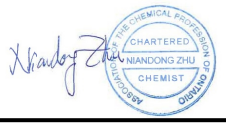
SAMPLED BY:Lianne

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-07-15 **DATE REPORTED: 2020-07-21**

		SAMPLE DESCRIPTION:		July 14 - S1		July 14 - S2		July 14 - S4		July 14 - S6
		SAMPLE TYPE:		Soil		Soil		Soil		Soil
		DATE SAMPLED:		2020-07-14		2020-07-14		2020-07-14		2020-07-14
Parameter	Unit	G / S	RDL	1270818	RDL	1270834	RDL	1270837	RDL	1270839
Antimony	µg/g	1.3	0.8	<0.8	0.8	<0.8	0.8	<0.8	0.8	<0.8
Arsenic	µg/g	18	1	7	1	5	1	11	1	11
Barium	µg/g	220	2	127	2	109	2	139	2	129
Beryllium	µg/g	2.5	0.5	1.0	0.5	0.8	0.5	1.0	0.5	1.0
Boron	µg/g	36	5	17	5	9	5	10	5	13
Boron (Hot Water Extractable)	µg/g	NA	0.10	0.87	0.10	0.47	0.10	1.16	0.10	1.29
Cadmium	µg/g	1.2	0.5	<0.5	0.5	0.5	0.5	<0.5	0.5	<0.5
Chromium	µg/g	70	5	27	5	21	5	30	5	30
Cobalt	µg/g	21	0.5	**25.2**	0.5	8.6	0.5	**31.5**	0.5	**36.9**
Copper	µg/g	92	1	**103**	1	28	1	**206**	1	**262**
Lead	µg/g	120	1	33	1	27	1	29	1	34
Molybdenum	µg/g	2	0.5	1.5	0.5	<0.5	0.5	0.8	0.5	0.7
Nickel	µg/g	82	10	**598**	1	**83**	10	**1720**	10	**2020**
Selenium	µg/g	1.5	0.4	1.5	0.4	0.6	0.4	**3.2**	0.4	**3.2**
Silver	µg/g	0.5	0.2	0.3	0.2	<0.2	0.2	**0.6**	0.2	**0.6**
Thallium	µg/g	1	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4
Uranium	µg/g	2.5	0.5	1.3	0.5	0.7	0.5	1.5	0.5	1.1
Vanadium	µg/g	86	1	36	1	30	1	36	1	37
Zinc	µg/g	290	5	125	5	96	5	135	5	124
Chromium, Hexavalent	µg/g	0.66	0.2	<0.2	0.2	<0.2	0.2	<0.2	0.2	<0.2
Cyanide, Free	µg/g	0.051	0.044	0.046	0.040	<0.040	0.050	**0.072**	**0.056**	**0.077**
Mercury	µg/g	0.27	0.10	<0.10	0.10	0.10	0.10	0.11	0.10	0.11
Electrical Conductivity (2:1)	mS/cm	0.57	0.005	**1.61**	0.005	0.135	0.005	0.310	0.005	0.146
Sodium Adsorption Ratio	NA	2.4	NA	**2.80**	NA	0.060	NA	2.18	NA	0.153
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.22	NA	7.47	NA	6.85	NA	6.44

Certified By:



AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

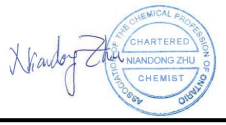
SAMPLED BY:Lianne

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-07-15 **DATE REPORTED: 2020-07-21**

		SAMPLE DESCRIPTION:		July 14 - S7		July 14 - S8		July 14 - S9		July 14 - S10
		SAMPLE TYPE:		Soil		Soil		Soil		Soil
		DATE SAMPLED:		2020-07-14		2020-07-14		2020-07-14		2020-07-14
Parameter	Unit	G / S	RDL	1270840	RDL	1270842	RDL	1270845	RDL	1270846
Antimony	µg/g	1.3	0.8	<0.8	0.8	<0.8	0.8	<0.8	0.8	<0.8
Arsenic	µg/g	18	1	3	1	11	1	9	1	10
Barium	µg/g	220	2	142	2	124	2	**245**	2	143
Beryllium	µg/g	2.5	0.5	1.1	0.5	1.0	0.5	2.0	0.5	1.0
Boron	µg/g	36	5	12	5	11	5	23	5	12
Boron (Hot Water Extractable)	µg/g	NA	0.10	0.54	0.10	0.58	0.10	0.49	0.10	0.40
Cadmium	µg/g	1.2	0.5	<0.5	0.5	<0.5	0.5	<0.5	0.5	<0.5
Chromium	µg/g	70	5	33	5	28	5	41	5	29
Cobalt	µg/g	21	0.5	12.0	0.5	**30.3**	0.5	**23.6**	0.5	**32.0**
Copper	µg/g	92	1	27	1	**212**	1	36	1	**213**
Lead	µg/g	120	1	14	1	31	1	18	1	31
Molybdenum	µg/g	2	0.5	0.6	0.5	1.0	0.5	0.8	0.5	0.7
Nickel	µg/g	82	1	**186**	10	**1730**	1	82	10	**1890**
Selenium	µg/g	1.5	0.4	0.5	0.4	**2.8**	0.4	0.8	0.4	**2.9**
Silver	µg/g	0.5	0.2	<0.2	0.2	**0.6**	0.2	<0.2	0.2	**0.6**
Thallium	µg/g	1	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4
Uranium	µg/g	2.5	0.5	0.9	0.5	0.9	0.5	1.3	0.5	1.0
Vanadium	µg/g	86	1	51	1	38	1	61	1	38
Zinc	µg/g	290	5	60	5	97	5	89	5	111
Chromium, Hexavalent	µg/g	0.66	0.2	<0.2	0.2	<0.2	0.2	<0.2	0.2	<0.2
Cyanide, Free	µg/g	0.051	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.57	0.005	0.086	0.005	0.141	0.005	0.212	0.005	0.188
Sodium Adsorption Ratio	NA	2.4	NA	0.154	NA	0.112	NA	0.349	NA	0.086
pH, 2:1 CaCl2 Extraction	pH Units		NA	6.73	NA	6.68	NA	6.95	NA	7.15

Certified By:



AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

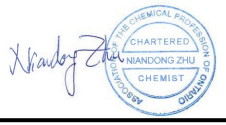
SAMPLED BY:Lianne

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-07-15 **DATE REPORTED: 2020-07-21**

		SAMPLE DESCRIPTION:		July 14 - S11		July 14 - S12	July 14 - S13		July 14 - S14		July 14 - S15
		SAMPLE TYPE:		Soil		Soil	Soil		Soil		Soil
		DATE SAMPLED:		2020-07-14		2020-07-14	2020-07-14		2020-07-14		2020-07-14
Parameter	Unit	G / S	RDL	1270858	RDL	1270859	1270860	RDL	1270861	RDL	1270862
Antimony	µg/g	1.3	0.8	<0.8	0.8	<0.8	<0.8	0.8	<0.8	0.8	<0.8
Arsenic	µg/g	18	1	8	1	12	13	1	4	1	12
Barium	µg/g	220	2	201	2	158	176	2	168	2	165
Beryllium	µg/g	2.5	0.5	1.7	0.5	1.1	1.3	0.5	1.4	0.5	1.4
Boron	µg/g	36	5	23	5	11	9	5	10	5	13
Boron (Hot Water Extractable)	µg/g	NA	0.10	0.36	0.10	0.67	1.22	0.10	0.69	0.10	0.96
Cadmium	µg/g	1.2	0.5	<0.5	0.5	<0.5	0.6	0.5	<0.5	0.5	0.6
Chromium	µg/g	70	5	41	5	32	31	5	34	5	34
Cobalt	µg/g	21	0.5	17.8	0.5	**40.4**	**40.8**	0.5	10.5	0.5	**39.5**
Copper	µg/g	92	1	30	1	**300**	**322**	1	25	1	**264**
Lead	µg/g	120	1	14	1	36	35	1	14	1	33
Molybdenum	µg/g	2	0.5	0.7	0.5	0.8	0.7	0.5	0.9	0.5	0.8
Nickel	µg/g	82	1	48	10	**2350**	**2560**	1	**93**	10	**2160**
Selenium	µg/g	1.5	0.4	0.7	0.4	**3.7**	**3.9**	0.4	0.8	0.4	**3.3**
Silver	µg/g	0.5	0.2	<0.2	0.2	**0.8**	**1.0**	0.2	<0.2	0.2	**0.8**
Thallium	µg/g	1	0.4	<0.4	0.4	<0.4	<0.4	0.4	<0.4	0.4	<0.4
Uranium	µg/g	2.5	0.5	1.0	0.5	1.2	1.5	0.5	1.1	0.5	1.4
Vanadium	µg/g	86	1	60	1	39	37	1	48	1	44
Zinc	µg/g	290	5	80	5	124	114	5	59	5	128
Chromium, Hexavalent	µg/g	0.66	0.2	<0.2	0.2	<0.2	<0.2	0.2	<0.2	0.2	<0.2
Cyanide, Free	µg/g	0.051	0.040	<0.040	0.040	<0.040	<0.040	0.040	<0.040	**0.071**	**0.074**
Mercury	µg/g	0.27	0.10	<0.10	0.10	<0.10	0.13	0.10	<0.10	0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.57	0.005	0.252	0.005	0.111	0.482	0.005	0.210	0.005	0.100
Sodium Adsorption Ratio	NA	2.4	NA	0.279	NA	0.079	0.782	NA	0.239	NA	0.105
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.21	NA	6.76	6.59	NA	6.69	NA	6.15

Certified By:



AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

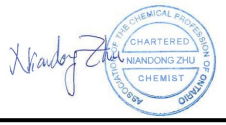
SAMPLED BY:Lianne

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-07-15 **DATE REPORTED: 2020-07-21**

		SAMPLE DESCRIPTION:		July 14 - S16		July 14 - S17		July 14 - S18		July 14 - S19	July 14 - S20
		SAMPLE TYPE:		Soil		Soil		Soil		Soil	Soil
		DATE SAMPLED:		2020-07-14		2020-07-14		2020-07-14		2020-07-14	2020-07-14
Parameter	Unit	G / S	RDL	1270865	RDL	1270866	RDL	1270868	RDL	1270869	1270870
Antimony	µg/g	1.3	0.8	<0.8	0.8	<0.8	0.8	<0.8	0.8	<0.8	<0.8
Arsenic	µg/g	18	1	**20**	1	6	1	15	1	**19**	5
Barium	µg/g	220	2	165	2	174	2	152	2	173	218
Beryllium	µg/g	2.5	0.5	1.3	0.5	1.1	0.5	1.2	0.5	1.4	2.0
Boron	µg/g	36	5	14	5	19	5	12	5	13	17
Boron (Hot Water Extractable)	µg/g	NA	0.10	1.37	0.10	0.50	0.10	0.93	0.10	0.91	0.62
Cadmium	µg/g	1.2	0.5	0.5	0.5	<0.5	0.5	<0.5	0.5	0.6	<0.5
Chromium	µg/g	70	5	32	5	32	5	32	5	35	45
Cobalt	µg/g	21	0.5	**57.4**	0.5	14.4	0.5	**43.1**	0.5	**46.9**	**23.2**
Copper	µg/g	92	1	**448**	1	24	1	**319**	1	**380**	72
Lead	µg/g	120	1	35	1	13	1	32	1	37	18
Molybdenum	µg/g	2	0.5	1.2	0.5	0.7	0.5	1.1	0.5	1.1	0.5
Nickel	µg/g	82	10	**3740**	1	55	10	**2620**	10	**3190**	**517**
Selenium	µg/g	1.5	0.4	**5.2**	0.4	0.5	0.4	**4.9**	0.4	**5.5**	1.3
Silver	µg/g	0.5	0.2	**1.2**	0.2	<0.2	0.2	**0.8**	0.2	**1.1**	0.2
Thallium	µg/g	1	0.4	<0.4	0.4	<0.4	0.4	<0.4	0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	1.4	0.5	0.9	0.5	1.4	0.5	1.3	1.0
Vanadium	µg/g	86	1	44	1	45	1	39	1	43	62
Zinc	µg/g	290	5	127	5	74	5	121	5	131	99
Chromium, Hexavalent	µg/g	0.66	0.2	<0.2	0.2	<0.2	0.2	<0.2	0.2	<0.2	<0.2
Cyanide, Free	µg/g	0.051	0.040	<0.040	0.040	<0.040	**0.053**	**0.062**	0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	0.12	0.10	<0.10	0.10	0.11	0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.57	0.005	0.194	0.005	0.312	0.005	0.094	0.005	0.098	0.079
Sodium Adsorption Ratio	NA	2.4	NA	0.180	NA	0.318	NA	0.065	NA	0.080	0.099
pH, 2:1 CaCl2 Extraction	pH Units		NA	5.69	NA	7.39	NA	6.08	NA	6.11	6.29

Certified By:



AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

SAMPLED BY:Lianne

O. Reg. 153(511) - Metals & Inorganics (Soil)

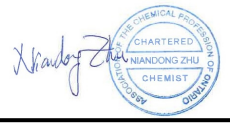
DATE RECEIVED: 2020-07-15 **DATE REPORTED: 2020-07-21**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1270818-1270870 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.
Elevated RDL indicates the degree of sample dilution prior to the analysis in order to keep analytes within the calibration range of the instrument and to reduce matrix interference.
Cyanide - RDL was increased to correct for the moisture content of the sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

SAMPLED BY:Lianne

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2020-07-15 **DATE REPORTED: 2020-07-21**

		SAMPLE DESCRIPTION:		July 14 - S8	July 14 - S10	July 14 - S15	July 14 - S16	July 14 - S18	July 14 - S19
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-07-14	2020-07-14	2020-07-14	2020-07-14	2020-07-14	2020-07-14
Parameter	**Unit**	**G / S**	**RDL**	**1270842**	**1270846**	**1270862**	**1270865**	**1270868**	**1270869**
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
DDE	µg/g	0.05	0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
DDD	µg/g	0.05	0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	µg/g	0.01	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Moisture Content	%		0.1	28.4	27.0	29.6	29.2	32.3	27.0
wet weight OC	g		NA	5.14	5.29	5.44	5.15	5.16	5.16
Surrogate	**Unit**	**Acceptable Limits**							
TCMX	%	50-140		81	100	102	106	94	104
Decachlorobiphenyl	%	50-140		82	107	108	111	108	104

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1270842-1270869 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

SAMPLED BY:Lianne

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2020-07-15

DATE REPORTED: 2020-07-21

		SAMPLE DESCRIPTION:		July 14 - S8	July 14 - S10	July 14 - S16	July 14 - S18
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-07-14	2020-07-14	2020-07-14	2020-07-14
Parameter	**Unit**	**G / S**	**RDL**	**1270842**	**1270846**	**1270865**	**1270868**
Naphthalene	µg/g	0.09	0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	0.12	0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	0.06
Anthracene	µg/g	0.16	0.05	<0.05	<0.05	<0.05	0.06
Fluoranthene	µg/g	0.56	0.05	<0.05	<0.05	<0.05	0.09
Pyrene	µg/g	1	0.05	<0.05	<0.05	<0.05	0.09
Benz(a)anthracene	µg/g	0.36	0.05	<0.05	<0.05	<0.05	0.05
Chrysene	µg/g	2.8	0.05	<0.05	<0.05	<0.05	0.08
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05	<0.05	<0.05	<0.05
1 and 2 Methlynaphthalene	µg/g	0.59	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	28.4	27.0	29.2	32.3
Surrogate	**Unit**	**Acceptable Limits**					
Naphthalene-d8	%	50-140		68	72	69	61
Acenaphthene-d10	%	50-140		69	76	74	72
Chrysene-d12	%	50-140		85	100	76	88

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1270842-1270868 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: NPopowich

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

SAMPLED BY:Lianne

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2020-07-15

DATE REPORTED: 2020-07-21

		SAMPLE DESCRIPTION:		July 14 - S1	July 14 - S3	July 14 - S5
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2020-07-14	2020-07-14	2020-07-14
Parameter	**Unit**	**G / S**	**RDL**	**1270818**	**1270836**	**1270838**
Benzene	µg/g	0.02	0.02	<0.02	<0.02	<0.02
Toluene	µg/g	0.2	0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	0.05	0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g	0.05	0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	25	5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	50	72	<50	51
F4 (C34 to C50)	µg/g	120	50	<50	<50	86
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA
Moisture Content	%		0.1	27.6	25.0	18.9
Surrogate	**Unit**	**Acceptable Limits**				
Terphenyl	%	60-140		88	100	60

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

SAMPLED BY:Lianne

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2020-07-15 **DATE REPORTED: 2020-07-21**

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

1270818-1270838 Results are based on sample dry weight.
The C6-C10 fraction is calculated using Toluene response factor.
Xylenes is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.
Quality Control Data is available upon request.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: 

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Guideline Violation

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
1270818	July 14 - S1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	25.2
1270818	July 14 - S1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	103
1270818	July 14 - S1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.57	1.61
1270818	July 14 - S1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	598
1270818	July 14 - S1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Sodium Adsorption Ratio	NA	2.4	2.80
1270834	July 14 - S2	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	83
1270837	July 14 - S4	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	31.5
1270837	July 14 - S4	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	206
1270837	July 14 - S4	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cyanide, Free	µg/g	0.051	0.072
1270837	July 14 - S4	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	1720
1270837	July 14 - S4	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	1.5	3.2
1270837	July 14 - S4	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Silver	µg/g	0.5	0.6
1270839	July 14 - S6	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	36.9
1270839	July 14 - S6	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	262
1270839	July 14 - S6	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cyanide, Free	µg/g	0.051	0.077
1270839	July 14 - S6	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	2020
1270839	July 14 - S6	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	1.5	3.2
1270839	July 14 - S6	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Silver	µg/g	0.5	0.6
1270840	July 14 - S7	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	186
1270842	July 14 - S8	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	30.3
1270842	July 14 - S8	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	212
1270842	July 14 - S8	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	1730
1270842	July 14 - S8	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	1.5	2.8
1270842	July 14 - S8	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Silver	µg/g	0.5	0.6
1270845	July 14 - S9	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Barium	µg/g	220	245
1270845	July 14 - S9	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	23.6
1270846	July 14 - S10	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	32.0
1270846	July 14 - S10	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	213
1270846	July 14 - S10	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	1890
1270846	July 14 - S10	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	1.5	2.9
1270846	July 14 - S10	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Silver	µg/g	0.5	0.6
1270859	July 14 - S12	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	40.4
1270859	July 14 - S12	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	300
1270859	July 14 - S12	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	2350
1270859	July 14 - S12	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	1.5	3.7
1270859	July 14 - S12	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Silver	µg/g	0.5	0.8
1270860	July 14 - S13	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	40.8
1270860	July 14 - S13	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	322
1270860	July 14 - S13	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	2560
1270860	July 14 - S13	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	1.5	3.9
1270860	July 14 - S13	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Silver	µg/g	0.5	1.0
1270861	July 14 - S14	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	93
1270862	July 14 - S15	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	39.5

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Guideline Violation

AGAT WORK ORDER: 20H625232

PROJECT: 200342

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Lianne Crawford

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
1270862	July 14 - S15	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	264
1270862	July 14 - S15	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cyanide, Free	µg/g	0.051	0.074
1270862	July 14 - S15	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	2160
1270862	July 14 - S15	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	1.5	3.3
1270862	July 14 - S15	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Silver	µg/g	0.5	0.8
1270865	July 14 - S16	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Arsenic	µg/g	18	20
1270865	July 14 - S16	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	57.4
1270865	July 14 - S16	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	448
1270865	July 14 - S16	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	3740
1270865	July 14 - S16	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	1.5	5.2
1270865	July 14 - S16	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Silver	µg/g	0.5	1.2
1270868	July 14 - S18	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	43.1
1270868	July 14 - S18	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	319
1270868	July 14 - S18	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cyanide, Free	µg/g	0.051	0.062
1270868	July 14 - S18	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	2620
1270868	July 14 - S18	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	1.5	4.9
1270868	July 14 - S18	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Silver	µg/g	0.5	0.8
1270869	July 14 - S19	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Arsenic	µg/g	18	19
1270869	July 14 - S19	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	46.9
1270869	July 14 - S19	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	92	380
1270869	July 14 - S19	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	3190
1270869	July 14 - S19	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	1.5	5.5
1270869	July 14 - S19	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Silver	µg/g	0.5	1.1
1270870	July 14 - S20	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	21	23.2
1270870	July 14 - S20	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	517

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20H625232

PROJECT: 200342

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

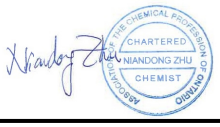
SAMPLED BY:Lianne

Soil Analysis

RPT Date: Jul 21, 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) - Metals & Inorganics (Soil)															
Antimony	1270818	1270818	<0.8	<0.8	NA	< 0.8	108%	70%	130%	101%	80%	120%	103%	70%	130%
Arsenic	1270818	1270818	7	7	0.0%	< 1	106%	70%	130%	102%	80%	120%	97%	70%	130%
Barium	1270818	1270818	127	128	0.8%	< 2	106%	70%	130%	103%	80%	120%	105%	70%	130%
Beryllium	1270818	1270818	1.0	0.8	NA	< 0.5	114%	70%	130%	115%	80%	120%	108%	70%	130%
Boron	1270818	1270818	17	16	NA	< 5	100%	70%	130%	113%	80%	120%	106%	70%	130%
Boron (Hot Water Extractable)	1270818	1270818	0.87	0.86	1.2%	< 0.10	100%	60%	140%	96%	70%	130%	98%	60%	140%
Cadmium	1270818	1270818	<0.5	<0.5	NA	< 0.5	103%	70%	130%	100%	80%	120%	100%	70%	130%
Chromium	1270818	1270818	27	28	3.6%	< 5	100%	70%	130%	98%	80%	120%	94%	70%	130%
Cobalt	1270818	1270818	25.2	26.2	3.9%	< 0.5	96%	70%	130%	106%	80%	120%	95%	70%	130%
Copper	1270818	1270818	103	102	1.0%	< 1	93%	70%	130%	109%	80%	120%	79%	70%	130%
Lead	1270818	1270818	33	31	6.3%	< 1	101%	70%	130%	105%	80%	120%	98%	70%	130%
Molybdenum	1270818	1270818	1.5	1.1	NA	< 0.5	100%	70%	130%	99%	80%	120%	96%	70%	130%
Nickel	1270818	1270818	598	623	4.1%	< 1	97%	70%	130%	109%	80%	120%	107%	70%	130%
Selenium	1270818	1270818	1.5	1.5	NA	< 0.4	107%	70%	130%	105%	80%	120%	100%	70%	130%
Silver	1270818	1270818	0.3	0.2	NA	< 0.2	105%	70%	130%	102%	80%	120%	90%	70%	130%
Thallium	1270818	1270818	<0.4	<0.4	NA	< 0.4	113%	70%	130%	106%	80%	120%	104%	70%	130%
Uranium	1270818	1270818	1.3	1.3	NA	< 0.5	115%	70%	130%	107%	80%	120%	106%	70%	130%
Vanadium	1270818	1270818	36	36	0.0%	< 1	104%	70%	130%	100%	80%	120%	98%	70%	130%
Zinc	1270818	1270818	125	115	8.3%	< 5	100%	70%	130%	106%	80%	120%	84%	70%	130%
Chromium, Hexavalent	1270860	1270860	<0.2	<0.2	NA	< 0.2	90%	70%	130%	85%	80%	120%	92%	70%	130%
Cyanide, Free	1270818	1270818	0.046	0.047	NA	< 0.040	102%	70%	130%	99%	80%	120%	114%	70%	130%
Mercury	1270818	1270818	<0.10	<0.10	NA	< 0.10	100%	70%	130%	101%	80%	120%	91%	70%	130%
Electrical Conductivity (2:1)	1270818	1270818	1.61	1.60	0.6%	< 0.005	100%	80%	120%						
Sodium Adsorption Ratio	1270818	1270818	2.80	2.76	1.4%	NA									
pH, 2:1 CaCl2 Extraction	1270870	1270870	6.29	6.24	0.8%	NA	100%	80%	120%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
If the RPD value is NA, the results of the duplicates are under 5X the RDL and will not be calculated.

Certified By:



AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20H625232

PROJECT: 200342

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

SAMPLED BY:Lianne

Trace Organics Analysis

RPT Date: Jul 21, 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) - PHCs F1 - F4 (Soil)															
Benzene	1273271		< 0.02	< 0.02	NA	< 0.02	82%	50%	140%	85%	60%	130%	96%	50%	140%
Toluene	1273271		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	112%	60%	130%	92%	50%	140%
Ethylbenzene	1273271		< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	90%	60%	130%	98%	50%	140%
Xylenes (Total)	1273271		< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	88%	60%	130%	103%	50%	140%
F1 (C6 to C10)	1273271		< 5	< 5	NA	< 5	108%	60%	140%	99%	60%	140%	88%	60%	140%
F2 (C10 to C16)	1269586		< 10	< 10	NA	< 10	119%	60%	140%	98%	60%	140%	79%	60%	140%
F3 (C16 to C34)	1269586		< 50	< 50	NA	< 50	109%	60%	140%	123%	60%	140%	83%	60%	140%
F4 (C34 to C50)	1269586		< 50	< 50	NA	< 50	103%	60%	140%	103%	60%	140%	101%	60%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	1273297		<0.05	<0.05	NA	< 0.05	90%	50%	140%	75%	50%	140%	89%	50%	140%
Acenaphthylene	1273297		<0.05	<0.05	NA	< 0.05	116%	50%	140%	88%	50%	140%	108%	50%	140%
Acenaphthene	1273297		<0.05	<0.05	NA	< 0.05	110%	50%	140%	85%	50%	140%	104%	50%	140%
Fluorene	1273297		<0.05	<0.05	NA	< 0.05	115%	50%	140%	89%	50%	140%	112%	50%	140%
Phenanthrene	1273297		<0.05	<0.05	NA	< 0.05	110%	50%	140%	96%	50%	140%	113%	50%	140%
Anthracene	1273297		<0.05	<0.05	NA	< 0.05	110%	50%	140%	106%	50%	140%	103%	50%	140%
Fluoranthene	1273297		<0.05	<0.05	NA	< 0.05	108%	50%	140%	119%	50%	140%	115%	50%	140%
Pyrene	1273297		<0.05	<0.05	NA	< 0.05	115%	50%	140%	116%	50%	140%	112%	50%	140%
Benz(a)anthracene	1273297		<0.05	<0.05	NA	< 0.05	90%	50%	140%	111%	50%	140%	81%	50%	140%
Chrysene	1273297		<0.05	<0.05	NA	< 0.05	115%	50%	140%	111%	50%	140%	117%	50%	140%
Benzo(b)fluoranthene	1273297		<0.05	<0.05	NA	< 0.05	85%	50%	140%	97%	50%	140%	116%	50%	140%
Benzo(k)fluoranthene	1273297		<0.05	<0.05	NA	< 0.05	102%	50%	140%	105%	50%	140%	117%	50%	140%
Benzo(a)pyrene	1273297		<0.05	<0.05	NA	< 0.05	108%	50%	140%	103%	50%	140%	120%	50%	140%
Indeno(1,2,3-cd)pyrene	1273297		<0.05	<0.05	NA	< 0.05	74%	50%	140%	109%	50%	140%	71%	50%	140%
Dibenz(a,h)anthracene	1273297		<0.05	<0.05	NA	< 0.05	71%	50%	140%	82%	50%	140%	84%	50%	140%
Benzo(g,h,i)perylene	1273297		<0.05	<0.05	NA	< 0.05	68%	50%	140%	85%	50%	140%	86%	50%	140%
O. Reg. 153(511) - OC Pesticides (Soil)															
Hexachloroethane	1270869	1270869	< 0.01	< 0.01	NA	< 0.01	80%	50%	140%	90%	50%	140%	86%	50%	140%
Gamma-Hexachlorocyclohexane	1270869	1270869	< 0.005	< 0.005	NA	< 0.005	88%	50%	140%	82%	50%	140%	83%	50%	140%
Heptachlor	1270869	1270869	< 0.005	< 0.005	NA	< 0.005	83%	50%	140%	91%	50%	140%	103%	50%	140%
Aldrin	1270869	1270869	< 0.005	< 0.005	NA	< 0.005	99%	50%	140%	88%	50%	140%	92%	50%	140%
Heptachlor Epoxide	1270869	1270869	< 0.005	< 0.005	NA	< 0.005	104%	50%	140%	107%	50%	140%	108%	50%	140%
Endosulfan	1270869	1270869	< 0.005	< 0.005	NA	< 0.005	96%	50%	140%	82%	50%	140%	86%	50%	140%
Chlordane	1270869	1270869	< 0.007	< 0.007	NA	< 0.007	95%	50%	140%	88%	50%	140%	96%	50%	140%
DDE	1270869	1270869	< 0.007	< 0.007	NA	< 0.007	106%	50%	140%	95%	50%	140%	109%	50%	140%
DDD	1270869	1270869	< 0.007	< 0.007	NA	< 0.007	100%	50%	140%	106%	50%	140%	100%	50%	140%
DDT	1270869	1270869	< 0.007	< 0.007	NA	< 0.007	82%	50%	140%	79%	50%	140%	94%	50%	140%
Dieldrin	1270869	1270869	< 0.005	< 0.005	NA	< 0.005	87%	50%	140%	87%	50%	140%	86%	50%	140%
Endrin	1270869	1270869	< 0.005	< 0.005	NA	< 0.005	107%	50%	140%	99%	50%	140%	109%	50%	140%

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20H625232

PROJECT: 200342

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

SAMPLED BY:Lianne

Trace Organics Analysis (Continued)

RPT Date: Jul 21, 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
Methoxychlor	1270869	1270869	< 0.005	< 0.005	NA	< 0.005	107%	50%	140%	100%	50%	140%	105%	50%	140%
Hexachlorobenzene	1270869	1270869	< 0.005	< 0.005	NA	< 0.005	106%	50%	140%	90%	50%	140%	102%	50%	140%
Hexachlorobutadiene	1270869	1270869	< 0.01	< 0.01	NA	< 0.01	90%	50%	140%	83%	50%	140%	81%	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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20H625232

PROJECT: 200342

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

SAMPLED BY:Lianne

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron (Hot Water Extractable)	MET-93-6104	modified from EPA 6010D and MSA PART 3, CH 21	ICP/OES
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium, Hexavalent	INOR-93-6068	modified from EPA 3060 and EPA 7196	SPECTROPHOTOMETER
Cyanide, Free	INOR-93-6052	modified from ON MOECC E3015 and SM 4500-CN- I	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
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
pH, 2:1 CaCl2 Extraction	INOR-93-6031	modified from EPA 9045D and MCKEAGUE 3.11	PH METER

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20H625232

PROJECT: 200342

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

SAMPLED BY:Lianne

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Hexachloroethane	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Aldrin	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Endosulfan	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
TCMX	ORG-91-5112	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		Tier 1 method	BALANCE
wet weight OC	ORG-91-5113		BALANCE
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benz(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20H625232

PROJECT: 200342

ATTENTION TO: Lianne Crawford

SAMPLING SITE:Killaly

SAMPLED BY:Lianne

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
1 and 2 Methlynaphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	ORG-91-5106	Tier 1 Method	BALANCE
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene-d10	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene-d12	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	P&T GC/MS
Ethylbenzene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	P&T GC/MS
Xylenes (Total)	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	P&T GC/MS
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID

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 #: 20H625232

Cooler Quantity: LG COOLER

Arrival Temperatures: 2.3 | 2.4 | 3.0
7.1 | 7.4 | 7

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: ON ICE

Report Information:

Company: SOIL MAT

Contact: Lianne

Address: 130 Lancing Dr., Hamilton

Phone: _____ Fax: _____

Reports to be sent to:

1. Email: Lianne

2. Email: Peter

Project Information:

Project: 200342

Site Location: Killaly

Sampled By: Lianne

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: _____

Regulatory Requirements:

☐ No Regulatory Requirement

(Please check all applicable boxes)

☒ Regulation 153/04

Table 1 *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

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	Y / N
July 14 - S1	07/14		3	S		
July 14 - S2			1			
July 14 - S3			2			
July 14 - S4			1			
July 14 - S5			2			
July 14 - S6			1			
July 14 - S7			1			
July 14 - S8			3			
July 14 - S9			1			
July 14 - S10			3			

Field Filtered - Metals, Hg, CrVI

O. Reg 153

Metals and Inorganics ☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides)

ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr^{VI} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR

Full Metals Scan

Regulation/Custom Metals

Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2

Volatiles: ☐ VOC ☒ BTEX ☐ THM

PHCs F1 - F4

ABNs

PAHs

PCBs: ☐ Total ☐ Aroclors

Organochlorine Pesticides

TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs

Sewer Use

Potentially Hazardous or High Concentration (Y/N)

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Lianne Crawford	20/07/14	4:00	Daniella Jaic	July 14/20	4:30pm
Daniella Jaic	July 15/20	3pm	John Chyrycha	Jul 15	2:50
			John Chyrycha	Jul 15	4:10

Page 1 of 2

No: T 099054

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

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 #: 20H625232

Cooler Quantity: LG COOLER

Arrival Temperatures: 2.3 | 2.4 | 3.0
7.1 | 7.4 | 7

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: ON ICE

Report Information:

Company: SOIL MAT
Contact: Lianne
Address:
Phone: Fax:
Reports to be sent to:
1. Email: Lianne
2. Email: Peter

Regulatory Requirements: ☐ No Regulatory Requirement

(Please check all applicable boxes)

☒ Regulation 153/04
Table 1 *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*

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: 200342
Site Location: Killaly
Sampled By: Lianne
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Is this submission for a **Record of Site Condition?** ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

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	O. Reg 153: All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides)	O. Reg 153: ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr^{6+} ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3+NO_2	Volatiles: ☐ VOC ☐ BTEX ☐ THM	PHCs F1 - F4	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	Potentially Hazardous or High Concentration (Y/N)
July 14 - S11	07/14		1	S			X													
July 14 - S12			1				X													
July 14 - S13			1				X													
July 14 - S14			1				X													
July 14 - S15			2				X										X			
July 14 - S16			3				X								X		X			
July 14 - S17			1				X													
July 14 - S18			3				X								X		X			
July 14 - S19			2				X										X			
July 14 - S20	↓		1	↓			X													

	Date	Time		Date	Time
Samples Relinquished By (Print Name and Sign): Lianne Crawford	20/07/14	4:00	Samples Received By (Print Name and Sign): Daniella Jaic	July 14/20	4:30pm
Samples Relinquished By (Print Name and Sign): Daniella Jaic	July 15/20	3pm	Samples Received By (Print Name and Sign): John Chypyha	Jul 15	2:58
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign): John Chypyha	Date Jul 15	Time 4:11

Page 2 of 2

N°: T 099055

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

Appendix 'C'

1. Qualifications of Assessors

COMPANY BACKGROUND

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] is a Canadian Consulting Engineering firm owned by its senior staff. Over the past thirty years the principals of SOIL-MAT ENGINEERS have undertaken geotechnical investigations in all areas of Hamilton and surrounding area and are familiar with the distinct geology of the area and therefore well-versed with the various soil, bedrock and groundwater conditions. SOIL-MAT ENGINEERS has a staff of over twenty-five engineers and technical staff who specialize in geotechnical assignments, environmental assessments, hydrogeological investigations and construction quality control/assurance projects. The company commenced operation on June 15, 1992 and has undertaken over 5,000 projects since its inception. The firm and all professional staff are in good standing with Professional Engineers Ontario. The company has maintained a current Certificate of Authorisation since it was granted on April 28, 1992. The firm's office and laboratory facilities are located at 130 Lancing Drive in Hamilton, Ontario.

REPORT AUTHORS

Peter Markesic, B.Sc.
Environmental Project Manager

Mr. Markesic has over ten years of experience in conducting Phase I ESA research and Phase II ESA fieldwork, including soil and groundwater sampling. Mr. Markesic has also been a key project member on a number of Phase III Environmental Site Assessment projects, including the decommissioning of underground fuel storage tanks and both in-situ and ex-situ remediation projects.

Ian Shaw, P. Eng.
[Director/ Senior Professional]

Mr. Shaw has over fourteen years of experience in the geotechnical and geo-environmental fields. Mr. Shaw has supervised the geotechnical investigations for the replacement/rehabilitation of bridge/culvert structures located within the Haldimand County, numerous residential and industrial subdivision projects, slope stability assignments associated with Hamilton Conservation Authority and Conservation Halton requirements, and several high rise developments in Hamilton, Burlington, Oakville, Brantford, St. Catharines, and Niagara Falls. Mr. Shaw has also been involved in numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects. Some of Mr. Shaw's projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes and numerous 'dig and dump' remediation projects.

Keith Gleadall, B.A., EA Dipl.

Vice-President [Senior Professional]

Mr. Gleadall has over fourteen years of experience in conducting Phase I, II and III Environmental Site Assessments and has successfully completed the requirements of the Associated Environmental Site Assessors of Canada and a Post Graduate Diploma in Environmental Site Assessment from Niagara College. Mr. Gleadall is responsible for undertaking numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects, together with Phase I, II and III Environmental Site Assessments. Projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes, the decommissioning of a former dry cleaning facility and numerous 'dig and dump' remediation projects.

Appendix 'D'

1. Statement of Limitations

REPORT LIMITATIONS

Achieving the objectives that are stated in this report has required SOIL-MAT ENGINEERS to derive conclusions based upon the best and most recent information currently available to SOIL-MAT ENGINEERS. No investigative method can completely eliminate the possibility of obtaining partially imprecise information. SOIL-MAT ENGINEERS has expressed professional judgement in gathering and analysing the information obtained and in the formulation of its conclusions.

Information in this report was obtained from sources deemed to be reliable, however, no representation or warranty is made as to the accuracy of this information. To the best of SOIL-MAT ENGINEERS' knowledge, the information gathered from outside sources contained in this report on which SOIL-MAT ENGINEERS has formulated its opinions and conclusions, are both true and correct. SOIL-MAT ENGINEERS assumes no responsibility for any misrepresentation of facts gathered from outside sources.

This report was prepared to assess and document evidence of potential environmental contamination, and not to judge the acceptability of the risks associated with such environmental contamination. Much of the information gathered for this report is only accurate at the time of collection and a change in the Site conditions may alter the interpretation of SOIL-MAT ENGINEERS' findings. Furthermore, the reader should note that the Site reconnaissance described in this report was an environmental assessment of the Site, not a regulatory compliance or an environmental audit of the Site.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of AMZ HOLDINGS. The material in it reflects SOIL-MAT ENGINEERS best judgement in light of the information available to it at the time of preparation. 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-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.

SOIL-MAT ENGINEERS & CONSULTANTS LTD.

www.soil-mat.ca info@soil-mat.ca TF: 800.243.1922

Hamilton: 130 Lancing Drive L8W 3A1 T: 905.318.7440 F: 905.318.7455
Milton: PO Box 40012 Derry Heights PO L9T 7W4 T: 800.243.1922

PROJECT NO.: SM 301011-E April 26, 2021

AMZ HOLDINGS
2308 Hoover Court
Burlington, Ontario
L7P 4V2

Attention: John Cheung

SUPPLEMENTAL PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED RESIDENTIAL DEVELOPMENT
KILLALY PROPERTY
PORT COLBORNE, ONTARIO

Dear Mr. Cheung,

1.0 EXECUTIVE SUMMARY

Further to our previous Phase Two Environmental Site Assessment [ESA] in connection with the above noted property, SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] were retained by AMZ HOLDINGS to undertake a Supplemental Phase Two ESA on the above captioned property. This work was undertaken in general accordance with our proposal P9038, dated September 15, 2020, revised September 30, 2020.

The supplemental Phase Two ESA fieldwork included the advancement of fourteen [14] boreholes on the property to facilitate the collection and submission of select soil and groundwater samples for laboratory analytical testing.

Based on SOIL-MAT ENGINEERS' field observations and the laboratory analytical test results received in its office, SOIL-MAT ENGINEERS offered the following:

- An isolated area of PHC exceedance as well as a wide spread area of elevated levels of select Metal parameters have been identified in the soil medium. The elevated levels of select PHC parameters, identified in Test Pit No. S1-Dec 10, were found in the near surface topsoil [approximately 0.05 to 0.1 m bgs] in the proximity of an existing aboveground fuel storage tank [AST]. This isolated area of impacted soil would be readily remediated through a traditional 'dig and dump' program to remove the relatively small volume of affected soil.

- The elevated levels of select Metal parameters are reasonably confined to the upper 0.05 to 0.6 metres of soil across the Site, with the exception of the elevated levels of EC which was found in the overburden soils down to the underlying bedrock in Borehole No. 102. Based on these results and our previous Phase Two activities, there are elevated levels of select metal parameters within the upper approximately 0.05 to 0.6 metres in various areas across the Site.

- The present data does provide for a discrete vertical delineation across the Site, suggesting that select metals exceedances are reasonably confined to the surficial soils across the Site, specifically in the upper 0.6 metres of the overburden soils. Based on the wide extent of select metal exceedances across the site, lateral delineation essentially encompasses the entirety of site, from east property line to west property line.

- The supplemental Phase Two ESA activities did not reveal any elevated levels of select Metal, Petroleum Hydrocarbons [PHCs], or Benzene, Toluene, Ethylbenzene and Xylene Mixture [BTEX] parameters above the applicable site condition standards on the Site for the secured groundwater samples.

It is understood that the property requires a Record of Site Condition [RSC] to support the proposed residential development. As such it will be necessary to undertake a remediation programme of the on-site soils, in order to restore the site to the applicable generic site condition standards for a residential property, or subject the site to some level of Risk Assessment activities to support the filing of an RSC. Given the nature of the identified exceedances in soil, and the size of proposed development of the Site, it is anticipated that a traditional 'dig and dump' soil removal remediation program would not be considered economically feasible.

Given the above, and as recommended in previous Phase Two ESA Reports, Risk Assessment [RA] activities are likely the most ideal and most cost effective approach to facilitate the redevelopment of the Phase Two Property as residential lands.

Risk Assessments, whether completed as a Modified Generic Risk Assessment [MGRA] or a Site Specific Risk Assessment [SSRA] are a scientific approach that can be used for the assessment and management of adverse environmental conditions on a property while allowing [in many cases] a change in land use to a more sensitive use. Risk assessments can be used to identify unacceptable risks [as defined by the generic site condition standards of Ontario Regulation 153/04] and assess the potential adverse impacts on a site specific basis, whether through the development of Property Specific Standards or implementing mitigative control measures to manage soil/groundwater on-site.

The estimated timeline to complete an MGRA is approximately 10-12 months while the estimated timeline to complete a SSRA is approximately two [2] years from the date of commencement of the risk assessment study. Of note, RAs typically facilitate the on-site management of soil exhibiting elevated levels of select COCs, although some soil removal and disposal is often required as part of the RA, while still facilitating a change in land use to a more sensitive use.

It is noted that our office has already engaged in initial discussion and consultation with MTE with respect to risk assessment approaches for the site. This included a review by MTE of the data presented in the previous Phase Two ESA report. Given the available laboratory analytical test results [to date], the potential "data gaps" and/or "limiting factors" identified in MTE's "data gap analysis" technical memorandum have been sufficiently addressed during these Phase Two ESA activities. As such, it is recommended that an MGRA study be undertaken to support the proposed residential development of the Phase Two Property. Further discussion and consultation should be conducted with MTE to refine the scope, timeline and budget for the MGRA approach.

It is noted that subsurface soil conditions may be present on-site that are not typical of those presented in this Report. If future activities reveal such soils, SOIL-MAT ENGINEERS should be contacted to assess the soil conditions with respect to the proposed activity.

2.0 BACKGROUND INFORMATION

2.1 PREVIOUS INVESTIGATIONS

A Phase One Environmental Site Assessment was previously prepared by SOIL-MAT ENGINEERS under our Project No.: SM 200232-E, dated June 30, 2020.

Upon completion of the Phase One ESA Report the following potential contaminating activities [PCAs] were identified in connection with the Site:

PCA Number	PCA Description
30	Importation of Fill Material of Unknown Quality
30	Importation of Fill Material of Unknown Quality
40	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications
28	Gasoline and Associated Products Storage in Fixed Tanks
28	Gasoline and Associated Products Storage in Fixed Tanks
48	Salt Manufacturing, Processing and Bulk Storage
35	Mining, Smelting and Refining; Ore Processing; Tailings Storage
30	Importation of Fill Material of Unknown Quality

In response to the concerns outlined in our previous Phase One Environmental Site Assessment, SOIL-MAT ENGINEERS conducted a Preliminary Phase Two Environmental Site Assessment of the above noted Site. The results of the initial Phase Two ESA investigation are detailed in our report of Project No. SM 200342-E, dated August 31, 2020, which noted the following:

> *'Given the proposed future use of the Site [residential], the Site will be subject to a mandatory Record of Site Condition [RSC] filing. In order to complete and file an RSC the properties will either need to meet the applicable Ontario Regulation 153/04 [as amended] soil and groundwater standards or be subjected to some level of Risk Assessment Activities. In either scenario, additional intrusive sampling is recommended to complete the following:*

- *'The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically Cobalt, Arsenic Nickel, Copper, Free Cyanide, and Selenium] across the Site in the upper shallow soils, however, vertical delineation was not achieved across the Site during these assessment activities;*
- *The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically EC, Cobalt and Nickel] within existing stockpiled material located at the northeast corner of the Site, and;*
- *The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS did not reveal any elevated levels Petroleum Hydrocarbons [PHCs], Polycyclic Aromatic Hydrocarbons [PAHs], Organochlorine Pesticides [OCs], or Benzene, Toluene, Ethylbenzene, and Xylene Mixture [BTEX] above the applicable site condition standards on the Site.'*

'The samples secured for analytical testing are believed to be representative of the conditions at the sample locations only. If any significant changes are noted, i.e., odours, staining etc., SOIL-MAT ENGINEERS should be contacted to reassess the environmental characteristics of the Site.'

'As noted above, soil with elevated levels of select Metal parameters was identified within the soil medium across the entire Site. The specific contaminants of concerns [COCs] include Electrical Conductivity [EC], Cobalt, Arsenic, Nickel, Copper, Free Cyanide and Selenium. The elevated levels of these select Metals were documented within the upper approximate 0.6 metres of the Site. However, it is noted that additional intrusive sampling is recommended to further delineate that lateral and vertical limits of the are(s) of specific concern. Based on the present information, a Record of Site Condition [RSC] cannot be filed for the Site at this time.'

'It is noted that, further to the request of the client at this stage, groundwater sampling was not conducted as part of the Phase Two ESA activities. Groundwater sampling will need to be conducted in order fully address the PCAs listed in SOIL-MAT ENGINEERS' June 2020 Phase One ESA.'

Based on the above, SOIL-MAT ENGINEERS was retained to undertake additional Phase Two ESA activities to assess the above noted areas of concern.

2.2 VISUAL OBSERVATIONS OF THE SITE

The Site is comprised of a roughly rectangular shaped parcel of undeveloped land located on the south side of Killaly Street between James Street and Snider Road in the City of Port Colborne, Ontario.

For descriptive purposes Killaly Street has been designated as having an east-west alignment.

At the time of this Report, the Site was comprised of a vacant parcel of land that was primarily overgrown with grass and low lying weeds with a small forested area located toward the northeast portion of the property. A gravel covered parking lot area was observed on the northern portion of the property. It is noted that this portion of the Site was utilized as outdoor storage for a neighboring excavating company [Emburgh Backhoe Service]. In addition, a small area on the southern portion of the Site appeared to have recently been utilized as agricultural land.

In addition to the above, a man-made drainage ditch surrounds the agricultural lands and was observed to flow southeast away from the Site.

The Site was bounded to the north by a vacant parcel of undeveloped lands, as well as residential and commercial lands, to the east by agricultural lands, to the south by a community walking trail and vacant undeveloped lands and to the west by residential lands.

3.0 METHODOLOGY

3.1 PHASE TWO ESA SCOPE OF WORK

The purpose of the Supplementary Phase Two ESA was to assess the specific concerns identified in the previous Phase Two ESA, as discussed above. Specifically, this Supplementary Phase Two ESA was designed to address the following:

1. Further delineate the lateral and vertical extent of select Metal and Electrical Conductivity [EC] exceedances in the soil medium;
2. Further investigate potential Petroleum Hydrocarbon [PHC], Benzene, Toluene, Ethylbenzene and Xylene [BTEX], Polycyclic Aromatic Hydrocarbon [PAH], and Organochlorine Pesticide [OC] adverse environmental impact(s) in the soil medium, and;
3. Investigate potential Metal, Petroleum Hydrocarbon [PHC], and Benzene, Toluene, Ethylbenzene and total Xylenes [BTEX] adverse environmental impact(s) in the groundwater medium.

Based on the above, the following supplemental Phase Two ESA activities were recommended for the Site:

1. Advance a total of fourteen [14] sampled boreholes to auger refusal, on assumed bedrock, on the Site to further delineate the vertical and lateral extent of the elevated levels of EC and select Metal parameters in the soil medium and to further assess potential PHC, BTEX and PAH adverse environmental impact(s) to the soil medium;
2. Further advance six [6] of the fourteen [14] boreholes into bedrock to approximately 5.6 to 6.1 metres below ground surface [m bgs] and install six [6] groundwater monitoring wells to investigate potential elevated levels of Metal, PHC and BTEX parameters in the groundwater medium;
3. Advance four [4] hand dug test pits to depths ranging between approximately 0.1 to 0.2 m bgs to further delineate the vertical and lateral extent of elevated levels of EC and select Metal parameters in the soil medium and to further assess potential elevated levels of PHC, BTEX and OC parameters in the soil medium;
4. Submit forty [40] 'worst-case' soil samples, based on field observations, for laboratory analytical testing for select COC groupings including Metals and Inorganics [MI], PHCs as Fractions 1 to 4 including Benzene, Toluene, Ethylbenzene and total Xylenes [BTEX], Polycyclic Aromatic Hydrocarbons [PAH] and Organochlorine Pesticides [OC];
5. Submit eight [8] groundwater samples for laboratory analytical testing for select COC groupings, including Metals, PHCs as Fractions 1 to 4 including Benzene, Toluene, Ethylbenzene and total Xylenes [BTEX];
6. Present our findings in a Supplemental Phase Two ESA report with brief discussions on various remediation methods should the analytical test results indicate exceedances.

3.2 PROCEDURE

The supplemental Phase Two ESA fieldwork programme was carried out on December 10th, 16th, 18th and 21st, 2020.

The physical drilling being performed by Elements Geo and Elite Drilling Ltd. under the direction of SOIL-MAT ENGINEERS.

A total of fourteen [14] sampled boreholes were advanced at the locations illustrated on the enclosed Drawing No. 2, Borehole Location Plan. The borings were advanced using direct solid stem continuous flight auger equipment on December 10th, 16th, 18th and 21st, 2020 under the supervision of a representative of SOIL-MAT ENGINEERS to depths of approximately 1.5 to 2.9 metres below existing ground surface.

A total of six [6] of the fourteen [14] sampled boreholes were further advanced into the bedrock using air rotary tri-cone drilling equipment. Upon completion, six [6] groundwater monitoring wells were installed at depths ranging between 5.6 and 6.1 m bgs. The groundwater monitoring wells consisted of 50 millimetre PVC pipe, screened in the lower 3 metres, filled with well sand to approximately 0.3 metres above the screen then filled with bentonite 'hole plug'. The groundwater monitoring wells were fitted with a protective stick up casing upon completion.

In addition, four [4] sampled hand dug test pits were advanced to depths ranging between approximately 0.01 to 0.2 m bgs.

The ground surface elevation at the borehole locations was referenced to a site specific geodetic benchmark, described as the top of the manhole cover located at eastern edge of Christmas Street, as illustrated in the Borehole Location Plan. This benchmark was noted to have an elevation of 178.01 metres, as indicated in the topo survey map prepared by IBI Group, provided to our office.

The borehole locations are identified on Drawing No.: 2, Appendix 'A' for reference.

3.3 LABORATORY ANALYTICAL TESTING

All laboratory analytical work was performed by AGAT Laboratories [AGAT] in Mississauga, Ontario. AGAT is a member of the Canadian Association for Laboratory Accreditation [CALA] and meets the requirements of Section 47 of the RSC Regulation.

3.4 SOIL SAMPLES

Soil samples were examined in the field for visual and olfactory evidence of potential impacts such as unusual staining and/or odours, etc., and were split into two separate samples, including the following:

- One half of the sample was sealed in sampling jars for submission to AGAT for analytical testing, and;
- One half of the sample was sealed in a plastic sampling bag for further characterisation in SOIL-MAT ENGINEERS' in-house soils laboratory.

The soil samples that were delivered to AGAT were sealed with no head space in pre-cleaned wide mouth, amber glass sample jars, as provided by the laboratory. The samples were stored and transported in a cooler and kept under ice packs to minimise potential volatilisation of select parameters. New disposable sampling gloves were used for the collection of each soil sample with care given to limit contact between the samples and gloves. Dedicated sample retrieval

equipment, including a stainless steel split-spoon, was used to retrieve each sample and before depositing it directly it into the AGAT Laboratories sample jar.

The samples were delivered to AGAT's depot location in Stoney Creek, Ontario in coolers equipped with ice packs to help maintain a temperature range between the applicable 0°C to 10°C. As reported on the chain of custody for the soil samples, the samples were delivered to AGAT with an average temperature of 6.0 °C and 6.4°C.

3.5 GROUNDWATER SAMPLES

Three [3] well volumes were purged from each groundwater monitoring well prior to the collection of the groundwater samples. The monitoring wells were then allowed to recharge back to recorded static groundwater levels prior to the physical sample collection.

The monitoring wells installed on the Site during this supplemental Phase Two ESA were equipped with dedicated sampling equipment, including a 25 millimetre water bailer for sample collection for the PHC and BTEX parameters.

A low flow bladder pump was utilised for the collection of groundwater samples for the remaining COPC groupings as the samples were subjected to laboratory analytical testing for VOCs.

3.6 SAMPLE MANAGEMENT AND FIELD OBSERVATIONS

Professional care was exercised during the retrieval of each sample, the placement of each sample in the appropriate sample jar or bottle, the labeling of the field samples and associated chain of custody and in the delivery of the samples to the testing laboratory.

As our standard operating procedures dictate unusual field observations, such as visual or olfactory evidence of a suspected impact, a deviation from SOIL-MAT ENGINEERS' field sampling and handling protocols or incident on the testing laboratories' side was documented either on our field borehole logs or in-house copy of the sample certificate of analysis. There were no deviations recorded during this supplemental Phase Two ESA.

4.0 GEOLOGICAL SETTING

A copy of SOIL-MAT ENGINEERS' borehole logs are presented in Appendix 'B' for reference.

In summary, the supplemental Phase Two ESA revealed the following Site stratigraphy:

PAVEMENT STRUCTURE

Borehole No. 102 was advanced through the existing pavement structure. The pavement structure generally consisted of approximately 350 millimetres of granular base.

TOPSOIL

Borehole Nos. 101 through 114 and Test Pit No. S1-Dec 10 through S4-Dec 10, with the exception Borehole No. 102, were advanced through a surficial veneer of topsoil. The topsoil was found to a thickness of approximately 200 to 300 millimetres. It is noted that the depth of topsoil may vary across the site and from the borehole locations. It is also noted that the term 'topsoil' has been used from a geotechnical point of view, and does not necessarily reflect its nutrient content or ability to support plant life.

SILTY CLAY/CLAYEY SILT

A native silty clay/clayey silt was encountered beneath the topsoil or pavement structure in all boreholes. The silty clay/clayey silt was brown in colour with trace sand and gravel, and was generally found to be firm to very stiff in consistency. The silty clay/clayey silt was proven to auger refusal on assumed bedrock in all boreholes.

A review of available published information [Quaternary Geology of Ontario, Southern Sheet Map 2556] indicate the subsurface soils to consist of fine-textured glaciolacustrine deposits of silt and clay with minor sand and gravel, with limestone bedrock at relatively shallow depths, consistent with our experience in the area and observations during drilling.

BEDROCK

Bedrock was inferred from auger refusal at all borehole locations at a depth of approximately 1.5 to 2.8 metres below the existing ground surface, illustrated on Drawing No. 2B, and noted in the table below.

Borehole No.	Surface Elevation	Assumed Bedrock Depth	Assumed Bedrock Elevation
Borehole No. 101	177.43 m	2.3 m	175.1 m
Borehole No. 102	177.58 m	2.8 m	174.8 m
Borehole No. 103	177.04 m	2.1 m	174.9 m
Borehole No. 104	176.89 m	1.4 m	175.5 m
Borehole No. 105	176.96 m	1.8 m	175.2 m
Borehole No. 106	177.26 m	2.4 m	174.9 m
Borehole No. 107	176.94 m	1.8 m	175.1 m
Borehole No. 108	176.95 m	2.0 m	175.0 m

Borehole No.	Surface Elevation	Assumed Bedrock Depth	Assumed Bedrock Elevation
Borehole No. 109	176.94 m	2.2 m	174.7 m
Borehole No. 110	176.87 m	1.8 m	175.1 m
Borehole No. 111	177.08 m	2.4 m	174.7 m
Borehole No. 112	177.49 m	2.3 m	175.2 m
Borehole No. 113	177.45 m	2.0 m	174.9 m
Borehole No. 114	177.08 m	1.5 m	175.6 m

Borehole Nos. 101 through 106 were advanced through the bedrock via air rotary tri-coning equipment to termination at depths of approximately 5.6 to 6.1 m bgs. The bedrock was noted to be grey limestone and fractured in the upper levels.

Based on a review of available published information, as well as our experience in the area, the bedrock consists of limestone, of the Onondaga formation. The upper levels of the bedrock are generally weathered and fractured, becoming more sound with depth, and has been known to contain harder 'chert' deposits. The bedrock is generally considered very competent in terms of the excavation and foundation requirements of the proposed project. The bedrock was not cored as part of this investigation.

GROUNDWATER OBSERVATIONS

All boreholes were recorded as 'dry' upon completion with the exception of Borehole Nos. 101 through 106. Groundwater, confined to the limestone bedrock aquifer, was encountered at depths of approximately 2.7 to 5.3 m bgs. It is noted that insufficient time would have passed for the static groundwater level to stabilize in the open boreholes.

Groundwater monitoring wells were installed in Borehole Nos.: 101 through 106 for future monitoring of the static groundwater level and environmental sampling of the on-site groundwater. The groundwater monitoring well installation details are summarized in the table below.

TABLE A
SUMMARY OF GROUNDWATER LEVELS

Borehole No.	Surface Elevation (m)	January 4, 2021		January 8, 2021	
		Depth [m]	Elev. [m]	Depth [m]	Elev. [m]
BH-#101	177.43	1.42	176.01	1.72	175.71
BH-#102	177.58	1.35	176.23	1.43	176.15
BH-#103	177.04	1.05	175.99	1.27	175.77
BH-#104	176.89	0.97	175.92	1.24	175.65
BH-#105	176.96	1.03	175.93	1.32	175.64
BH-#106	177.26	1.12	176.14	1.53	175.73

Groundwater readings were secured at each groundwater monitoring well location and the static groundwater level was observed to be situated at a depth of approximately 1.0 and 1.7 m bgs.

However, it is noted that these groundwater monitoring wells were installed into the existing bedrock groundwater aquifer and are exhibiting artesian groundwater conditions.

Based on observations recorded during drilling activities where groundwater was encountered in the limestone bedrock, it is more accurate to estimate that the static groundwater level is at a depth of approximately 3 to 5 m bgs, although seasonal fluctuations must be expected.

Based on the groundwater contours extrapolated from the recorded static groundwater levels, the groundwater flow direction through the Site is to the south/southeast.

The groundwater monitoring well locations are illustrated on Drawing No. 2 in Appendix ‘A’.

5.0 ONTARIO REGULATION 153/04 [AS AMENDED] SITE CLASSIFICATION AND SELECTION CRITERIA

The following criteria was utilised to determine the appropriate site classification and Ontario Regulation 153/04 [as amended] soil and groundwater standards.

- Current land use: Agricultural and Commercial;
- Intended land use: Residential;
- Drinking Water Supply: Non-Potable Ground Water;
- On-site Soil Texture: Medium to Fine Grained Soils;
- Depth to Bedrock: 0.8 to 2.8 metres;
- pH of soils on the Site: Within the Applicable Generic Site Condition Standards Range;
- Surface Water Body: Not observed on-Site or within 30 metres of the Site.

Based on the above, all soil and groundwater laboratory analytical test results were compared to the Table 7 for Soil and Ground Water Standards for a Residential/Parkland/Institutional Property Use [RPI] with shallow, medium to fine textured soils in a non-potable groundwater condition from the Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environment Protection Act, [2011], hereinafter referred to as the 'Table 7 RPI MT Standards'.

6.0 SUPPLEMENTAL PHASE TWO ESA ANALYTICAL TEST RESULTS

6.1 SOIL SAMPLES SELECTED FOR LABORATORY ANALYTICAL TESTING

In total, forty [40] discrete soil samples were secured from the Site to assess potential adverse environmental impacts on the Site. The secured soil samples were submitted to AGAT for laboratory analytical testing as described in the summary table below:

TABLE B: SUMMARY OF SOIL SAMPLE TEST RESULTS

Sample ID	Depth [m bgs]	Laboratory Analysis	Soil Description	Table 7 RPI MFT Exceedances
S1-Dec 10	0.05 – 0.1	PHCs, BTEX	Topsoil	Exceeds the Table 7 RPI MFT SCSs in PHCs as: F2 – 3000ppm vs 150ppm F3 – 4900ppm vs 1300ppm
S2-Dec 10	0.05 – 0.1	PHCs, BTEX	Topsoil	No exceedances reported
S3-Dec 10	0.1 – 0.2	PHCs, BTEX, Metals, OCs	Topsoil	Exceeds the Table 7 RPI MFT SCSs in Metals as: Arsenic – 35ppm vs 15ppm Nickel – 326 vs 130ppm
S4-Dec 10	0.1 – 0.2	PHCs, BTEX, Metal, OCs	Topsoil	Exceeds the Table 7 RPI MFT SCSs in Metals as: Cobalt – 36.1ppm vs 22ppm Copper – 254ppm vs 180ppm Nickel – 2280 vs 130ppm Selenium – 4.1ppm vs 2.4ppm
BH101 SS2	0.8 – 1.4	PHCs, BTEX, Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH101 SS3	1.5 – 2.1	PHCs, BTEX, Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH102 SS2	0.8 – 1.4	Metals	Silty Clay/ Clayey Silt	Exceeds the Table 7 RPI MFT SCSs in Metals as: EC – 1.27mS/cm vs 0.7mS/cm
BH102 SS3	1.5 – 2.1	Metals	Silty Clay/ Clayey Silt	Exceeds the Table 7 RPI MFT SCSs in Metals as: EC – 0.826mS/cm vs 0.7mS/cm
BH103 SS2	0.8 – 1.4	Metals, PAHs	Silty Clay/ Clayey Silt	No exceedances reported
BH103 SS3	1.5 – 2.1	Metals, PAHs	Silty Clay/ Clayey Silt	No exceedances reported
BH104 SS1	0 – 0.6	Metals, PAHs	Silty Clay/ Clayey Silt	No exceedances reported
BH104 SS2	0.8 – 1.4	Metals, PAHs	Silty Clay/ Clayey Silt	No exceedances reported
BH105 SS1	0 – 0.6	Metals, PAHs	Silty Clay/ Clayey Silt	No exceedances reported
BH105 SS2	0.8 – 1.4	Metals, PAHs	Silty Clay/ Clayey Silt	No exceedances reported
BH106 SS2	0.8 – 1.4	Metals, PAHs	Silty Clay/ Clayey Silt	No exceedances reported
BH106 SS3	1.5 – 2.1	Metals, PAHs	Silty Clay/ Clayey Silt	No exceedances reported
BH107 SS2	0.8 – 1.4	Metals	Silty Clay/ Clayey Silt	No exceedances reported

Notes:
Metals = Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity [EC], Cr (VI), Hg and SAR
PHCs = Petroleum Hydrocarbons, PAHs = Polycyclic Aromatic Hydrocarbons,
OCs = Organochlorine Pesticides, BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture

Sample ID	Depth [m bgs]	Laboratory Analysis	Soil Description	Table 7 RPI MFT Exceedances
BH107 SS3	1.5 – 2.1	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH108 SS2	0.8 – 1.4	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH108 SS3	1.5 – 2.1	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH109 SS2	0.8 – 1.4	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH109 SS3	1.5 – 2.1	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH110 SS2	0.8 – 1.4	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH110 SS3	1.5 – 2.1	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH111 SS2	0.8 – 1.4	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH111 SS3	1.5 – 2.1	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH112 SS2	0.8 – 1.4	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH112 SS3	1.5 – 2.1	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH113 SS2	0.8 – 1.4	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH113 SS3	1.5 – 2.1	Metals	Silty Clay/ Clayey Silt	No exceedances reported
BH114 SS2	1.5 – 2.1	Metals	Silty Clay/ Clayey Silt	No exceedances reported
DUP1	1.5 – 2.1	PAHs	Silty Clay/ Clayey Silt	No exceedances reported
DUP2	0.8 – 1.4	Metals	Silty Clay/ Clayey Silt	No exceedances reported
DUP3	1.5 – 2.1	Metals	Silty Clay/ Clayey Silt	No exceedances reported
DUP4	0.8 – 1.4	Metals	Silty Clay/ Clayey Silt	No exceedances reported
DUP5	0.1 – 0.2	OCs	Topsoil	No exceedances reported

Notes:
Metals = Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity [EC], Cr (VI), Hg and SAR
PHCs = Petroleum Hydrocarbons, PAHs = Polycyclic Aromatic Hydrocarbons,
OCs = Organochlorine Pesticides, BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture

The laboratory analytical test results for the submitted soil samples indicate the following Table 7 RPI MT exceedances:

1. Elevated levels of select Metal parameters in Borehole Nos. 102 and Test Pit Nos. S3-Dec 10 and S4-Dec 10
2. Elevated levels of select PHC parameters in Test Pit Nos. S1-Dec 10

The AGAT Certificate of Analysis for soil is included in Appendix ‘C’ for reference.

6.2 GROUNDWATER SAMPLES SELECTED FOR LABORATORY ANALYTICAL TESTING

In total, eight [8] discrete groundwater samples were secured from the Site to assess potential adverse environmental impacts on the Site.

The secured groundwater samples were submitted to AGAT for laboratory analytical testing as described in the summary table below:

TABLE C: SUMMARY OF GROUNDWATER SAMPLE TEST RESULTS

Sample ID	Laboratory Analysis	Table 7 RPI MFT Exceedances
MW101	Metals, PHCs, BTEX	No exceedances reported
MW102	Metals, PHCs, BTEX	No exceedances reported
MW103	Metals, PHCs, BTEX	No exceedances reported
MW104	Metals, PHCs, BTEX	No exceedances reported
MW105	Metals, PHCs, BTEX	No exceedances reported
MW106	Metals, PHCs, BTEX	No exceedances reported
DUP1	Metals	No exceedances reported
DUP2	PHCs, BTEX	No exceedances reported
Notes: Metals = Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity [EC], Cr (VI), Hg and SAR PHCs = Petroleum Hydrocarbons, BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture		

The laboratory analytical test results, for the submitted groundwater samples, did not reveal any elevated levels of the select tested COC groupings above the applicable Table 7 groundwater site condition standards.

The AGAT Certificate of Analysis for groundwater is included in Appendix ‘D’ for reference.

7.0 SUMMARY AND GENERAL COMMENTS

Based on SOIL-MAT ENGINEERS' field observations and the analytical test results received in its office, SOIL-MAT ENGINEERS offers the following:

SOIL SAMPLES - PHC

The supplemental Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed a PHC exceedance in the soil medium. The PHC exceedance, specifically Fraction 2 and 3, was reported in the upper approximately 0.05 to 0.1 metres in Test Pit No. S1-Dec 10, which is located in close proximity of an aboveground fuel storage tank [AST] located on the northeast portion of the property. Our previous Phase Two ESA work did not identify any elevated PHCs in Test Pit Nos. S1-July 14, S3-July 14, and S5-July 14 in the near surface soils.

Based on these results, there appears to be an isolated area of near surface soil exhibiting elevated levels of select PHC parameters. Specifically, the topsoil located within the upper approximately 0.05 to 0.1 metres and in close proximity of an existing AST located on the northeast portion of the property.

Drawing No.: 3D-2, Appendix 'A', illustrates the PHC exceedances on the Site.

SOIL SAMPLES – METALS

The supplemental Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed a number of select metal exceedances. The metal exceedances included Nickel, Copper, Cobalt, Arsenic and Selenium as well as Electrical Conductivity [EC]. The select metal exceedances were reported in the upper approximately 0.1 to 0.2 metres in Test Pit Nos. S3-Dec 10 and S4-Dec 10, located in the forested area on the northeast corner of the site. The elevated levels of EC were reported in the upper approximately 0.8 to 2.1 metres of Borehole No. 102, directly south of salt storage stockpile located on the northeast corner of the Site, and is likely impacted to the depth of bedrock at approximately 2.8 m bgs. Our previous Phase Two ESA work identified exceedances for select metal parameters [specifically Cobalt, Arsenic Nickel, Copper, Free Cyanide, and Selenium] across the Site in the upper shallow soils as well as EC, Nickel, and Cobalt found in the stockpiled material located on the northeast corner of the Site.

Based on these results and our previous Phase Two activities, there are elevated levels of select metal parameters within the upper approximately 0.05 to 0.6 metres in various areas across the Site. The present data does provide for a discrete vertical delineation across the Site, suggesting that select metals exceedances are reasonably confined to the surficial soils across the Site. Based on the wide extent of select metal exceedances across the site, lateral delineation essentially encompasses the entirety of site, from east property line to west property line.

It is noted that exceedances for EC in Borehole No. 102 were vertically delineated to the depth of bedrock (2.8 metres) and laterally delineated between Borehole No. 101 and Test Pit No. S2-14.

Drawing Nos.: 3A-1 through 3C-2, Appendix 'A', illustrates the Metal exceedances on the Site.

SOIL SAMPLES – PAHS, OCS, BTEX

The supplemental Phase Two ESA activities did not reveal any elevated levels of Polycyclic Aromatic Hydrocarbons [PAHs], Organochlorine Pesticides [OCs], or Benzene, Toluene, Ethylbenzene, and Xylene Mixture [BTEX] above the applicable site condition standards on the Site for the secured soil samples.

GROUNDWATER SAMPLES – METALS, PHCS & BTEX

The supplemental Phase Two ESA activities did not reveal any elevated levels of select Metal, Petroleum Hydrocarbons [PHCs], or Benzene, Toluene, Ethylbenzene and Xylene Mixture [BTEX] parameters above the applicable site condition standards on the Site for the secured groundwater samples.

8.0 RECOMMENDATIONS

As stated above, an isolated area of PHC exceedance as well as a wide spread area of elevated levels of select Metal parameters have been identified in the soil medium. The elevated levels of select PHC parameters, identified in Test Pit No. S1-Dec 10, were found in the near surface topsoil [approximately 0.05 to 0.1 m bgs] in the proximity of an existing AST. This isolated area of impacted soil would be readily remediated through a traditional 'dig and dump' program to remove the relatively small volume of affected soil.

The elevated levels of select Metal parameters are reasonably confined to the upper 0.05 to 0.6 metres of soil across the Site, with the exception of the elevated levels of EC which was found in the overburden soils down to the underlying bedrock in Borehole No. 102. Based on these results and our previous Phase Two activities, there are elevated levels of select metal parameters within the upper approximately 0.05 to 0.6 metres in various areas across the Site.

The present data does provide for a discrete vertical delineation across the Site, suggesting that select metals exceedances are reasonably confined to the surficial soils across the Site, specifically in the upper 0.6 metres of the overburden soils. Based on the wide extent of select metal exceedances across the site, lateral delineation essentially encompasses the entirety of site, from east property line to west property line.

The supplemental Phase Two ESA activities did not reveal any elevated levels of select Metal, Petroleum Hydrocarbons [PHCs], or Benzene, Toluene, Ethylbenzene and Xylene Mixture [BTEX] parameters above the applicable site condition standards on the Site for the secured groundwater samples.

It is understood that the property requires a Record of Site Condition [RSC] to support the proposed residential development. As such it will be necessary to undertake a remediation programme of the on-site soils, in order to restore the site to the applicable generic site condition standards for a residential property, or subject the site to some level of Risk Assessment activities to support the filing of an RSC. Given the nature of the identified exceedances in soil, and the size of proposed development of the Site, it is anticipated that a traditional 'dig and dump' soil removal remediation program would not be considered economically feasible.

Given the above, and as recommended in previous Phase Two ESA Reports, Risk Assessment [RA] activities are likely the most ideal and most cost effective approach to facilitate the redevelopment of the Phase Two Property as residential lands.

Risk Assessments, whether completed as a Modified Generic Risk Assessment [MGRA] or a Site Specific Risk Assessment [SSRA] are a scientific approach that can be used for the assessment and management of adverse environmental conditions on a property while allowing [in many cases] a change in land use to a more sensitive use. Risk assessments can be used to identify unacceptable risks [as defined by the generic site condition standards of Ontario Regulation 153/04] and assess the potential adverse impacts on a site specific basis, whether through the development of Property Specific Standards or implementing mitigative control measures to manage soil/groundwater on-site.

The estimated timeline to complete an MGRA is approximately 10-12 months while the estimated timeline to complete a SSRA is approximately two [2] years from the date of

commencement of the risk assessment study. Of note, RAs typically facilitate the on-site management of soil exhibiting elevated levels of select COCs, although some soil removal and disposal is often required as part of the RA, while still facilitating a change in land use to a more sensitive use.

It is noted that our office has already engaged in initial discussion and consultation with MTE with respect to risk assessment approaches for the site. This included a review by MTE of the data presented in the previous Phase Two ESA report. Given the available laboratory analytical test results [to date], the potential "data gaps" and/or "limiting factors" identified in MTE's "data gap analysis" technical memorandum have been sufficiently addressed during these Phase Two ESA activities. As such, it is recommended that an MGRA study be undertaken to support the proposed residential development of the Phase Two Property. Further discussion and consultation should be conducted with MTE to refine the scope, timeline and budget for the MGRA approach.

It is noted that subsurface soil conditions may be present on-site that are not typical of those presented in this Report. If future activities reveal such soils, SOIL-MAT ENGINEERS should be contacted to assess the soil conditions with respect to the proposed activity.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of AMZ HOLDINGS. The material in it reflects SOIL-MAT ENGINEERS' best judgement in light of the information available to it at the time of preparation. 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-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.

We trust this Report is satisfactory for your purposes. Please feel free to contact our Office if you have any questions, or we may be of further service to you.

Yours very truly,
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

Billy Olds, B.Sc.
Environmental Technician

Keith Gleadall, B.A., EA Dipl.
Environmental Manager

Ian Shaw, P. Eng., QP_{ESA}
Review Engineer

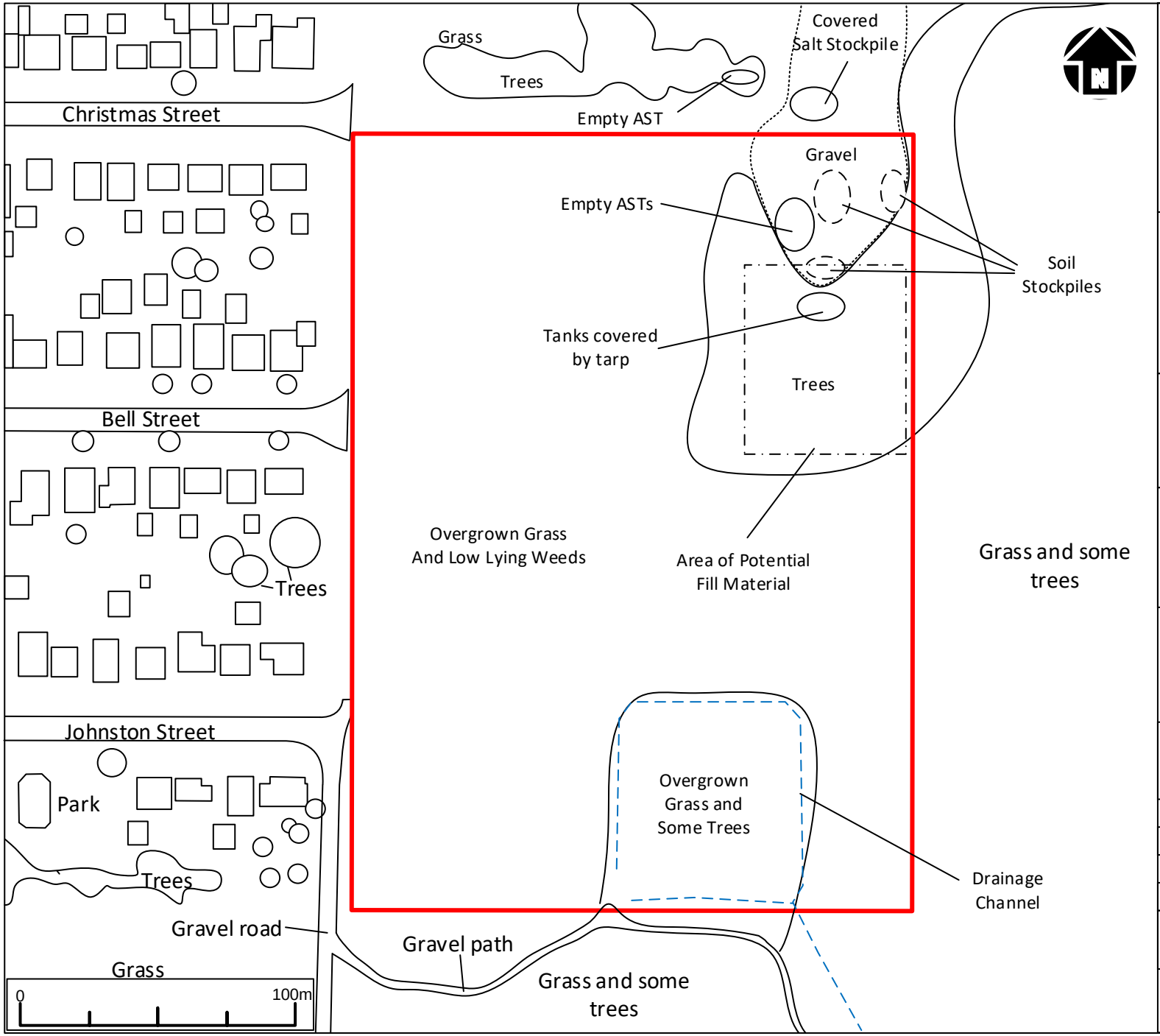
Distribution: AMZ HOLDINGS [1]

Enclosures:

Appendix 'A':	Drawing Nos. 1 - 4 – Borehole Location Plan & Analytical Data summary
Appendix 'B'	Borehole Logs;
Appendix 'C'	AGAT Soil Analytical Test Results;
Appendix 'D'	AGAT Groundwater Analytical Test Results
Appendix 'E'	Qualifications of Assessors;
Appendix 'F'	Statement of Limitations.

Appendix 'A'

1. Drawing No.: 1: Site Plan;
2. Drawing No.: 1A: APECs;
3. Drawing No.: 2: Borehole/Monitoring Well Location Plan;
4. Drawing No.:2A: Groundwater Flow Direction;
5. Drawing No.:2B: Assumed Bedrock Depths;
6. Drawing No.: 3A-1: Analytical Data Summary [Soil] Metals - July 2020;
7. Drawing No.: 3A-2: Analytical Data Summary [Soil] Metals - December 2020;
8. Drawing No.: 3B-1: Analytical Data Summary [Soil] EC & SAR - July 2020;
9. Drawing No.: 3B-2: Analytical Data Summary [Soil] EC & SAR - December 2020;
10. Drawing No.: 3C-1: Analytical Data Summary [Soil] Hydrides - July 2020;
11. Drawing No.: 3C-2: Analytical Data Summary [Soil] Hydrides - December 2020;
12. Drawing No.: 3D-1: Analytical Data Summary [Soil] PHCs - July 2020;
13. Drawing No.: 3D-2: Analytical Data Summary [Soil] PHCs - December 2020;
14. Drawing No.: 3E-1: Analytical Data Summary [Soil] BTEX - July 2020;
15. Drawing No.: 3E-2: Analytical Data Summary [Soil] BTEX - December 2020;
16. Drawing No.: 3F-1: Analytical Data Summary [Soil] PAHs - July 2020;
17. Drawing No.: 3F-2: Analytical Data Summary [Soil] PAHs - December 2020;
18. Drawing No.: 3G-1: Analytical Data Summary [Soil] OCs - July 2020;
19. Drawing No.: 3G-2: Analytical Data Summary [Soil] OCs - December 2020;
20. Drawing No.: 4A: Analytical Data Summary [Groundwater] Metals;
21. Drawing No.: 4B: Analytical Data Summary [Groundwater] PHCs, and;
22. Drawing No.: 4C: Analytical Data Summary [Groundwater] BTEX



LEGEND

= Site Boundary

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200232-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE

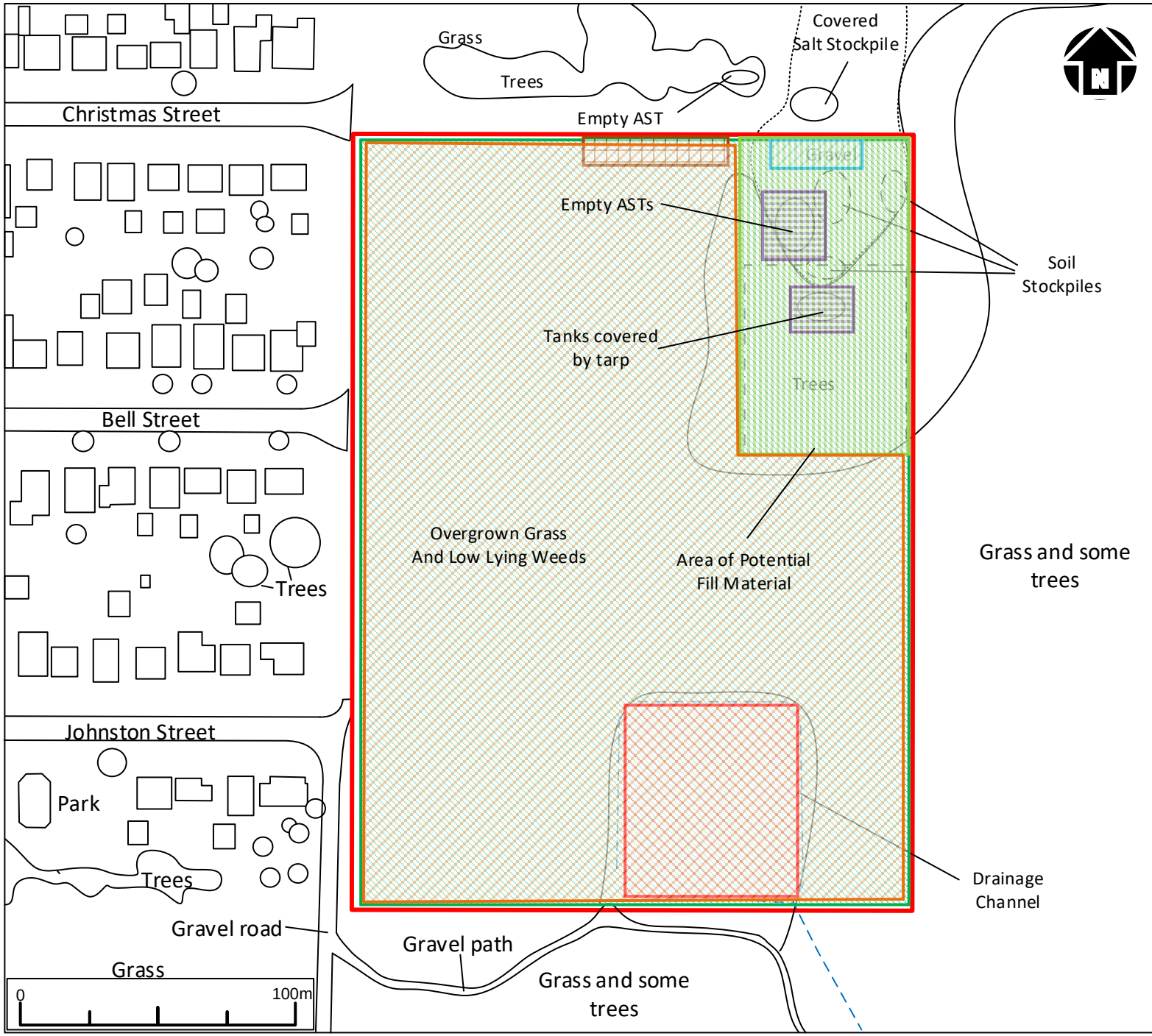
Site Plan Drawing

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME

301011 Drawings.vsd

DRAWING No. 1



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- = APEC #7

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 200342-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

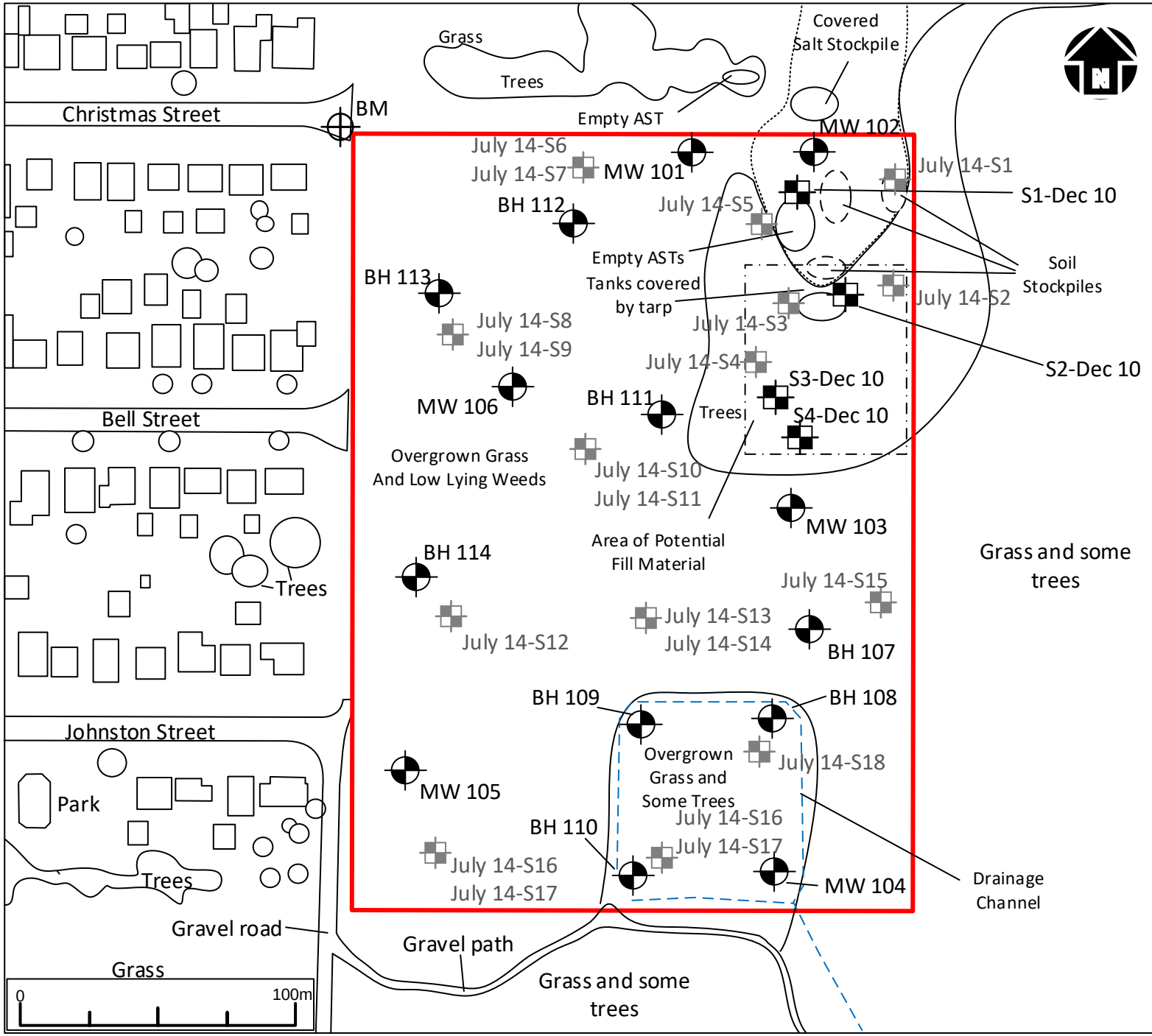
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
APECs

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 1A



LEGEND

= Site Boundary

= Borehole/Monitoring Well Location (BH/MW#)

= Testpit Location (TP#)

= Previous Testpit Location (TP#)

= Benchmark (BM)
(Top of Manhole. Geodetic Elevation of 178.01 metres)

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

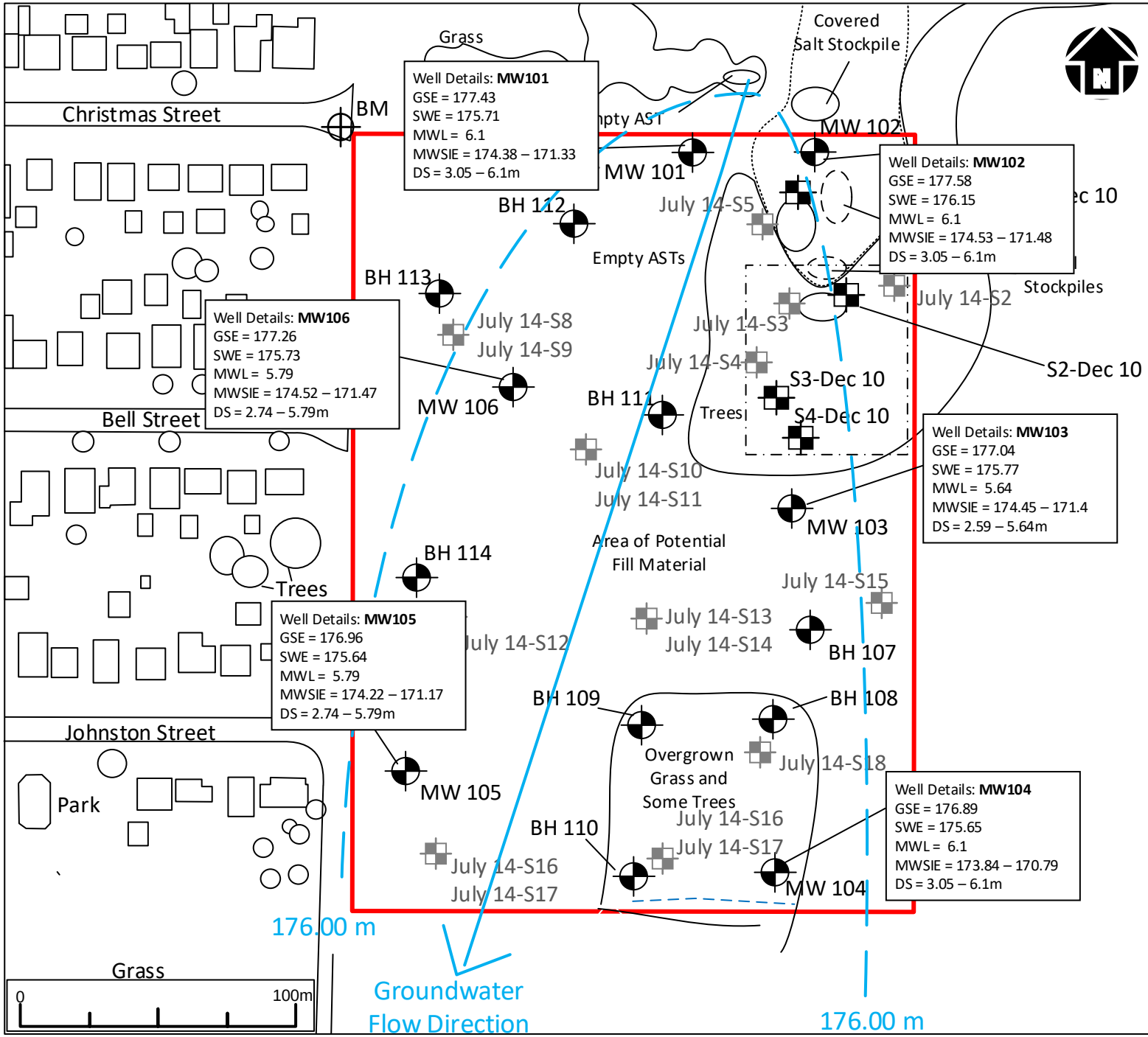
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Borehole / Monitoring Well Location Plan

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 2



LEGEND

= Site Boundary

= Borehole/Monitoring Well Location (BH/MW#)

= Benchmark (BM) (Top of Manhole. Geodetic Elevation of 178.01 metres)

GSE = Monitoring Well Ground Surface Elevation
SWE = Static Water Elevation
MWL = Monitoring Well Length
MWSIE = Monitoring Well Screen Interval Elevation
DS = Depth of Screen

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

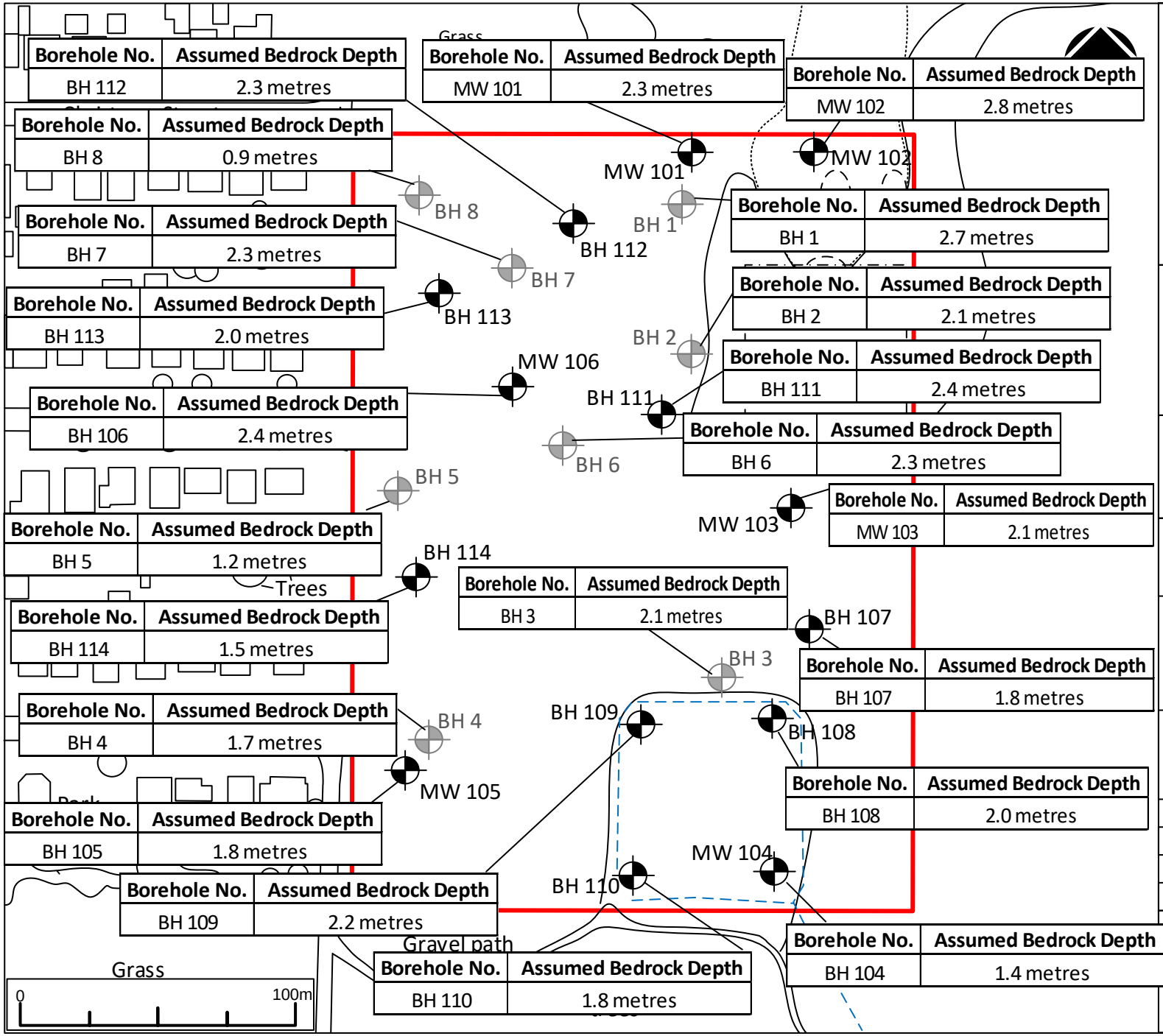
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Groundwater Flow Direction

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 2A



LEGEND

= Site Boundary

= Borehole/Monitoring Well Location (BH/MW#)

= Previous Borehole Location (BH#)

= Benchmark (BM) (Top of Manhole. Geodetic Elevation of 178.01 metres)

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

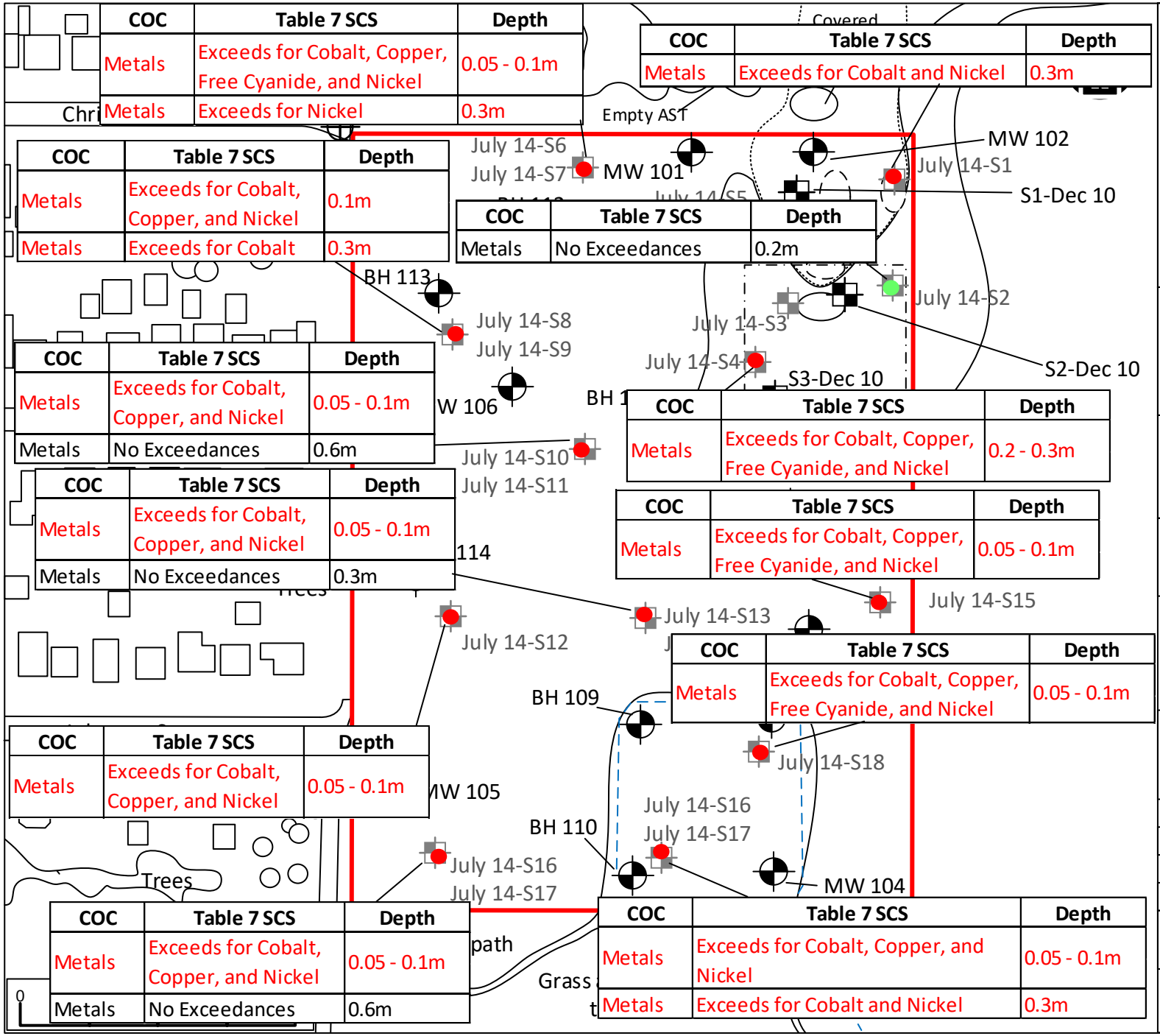
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Assumed Bedrock Depths

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 2B



LEGEND

- = Site Boundary
- = Borehole/Monitoring Well Location (BH/MW#)
- = Testpit Location (TP#)
- = Previous Testpit Location (TP#)
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

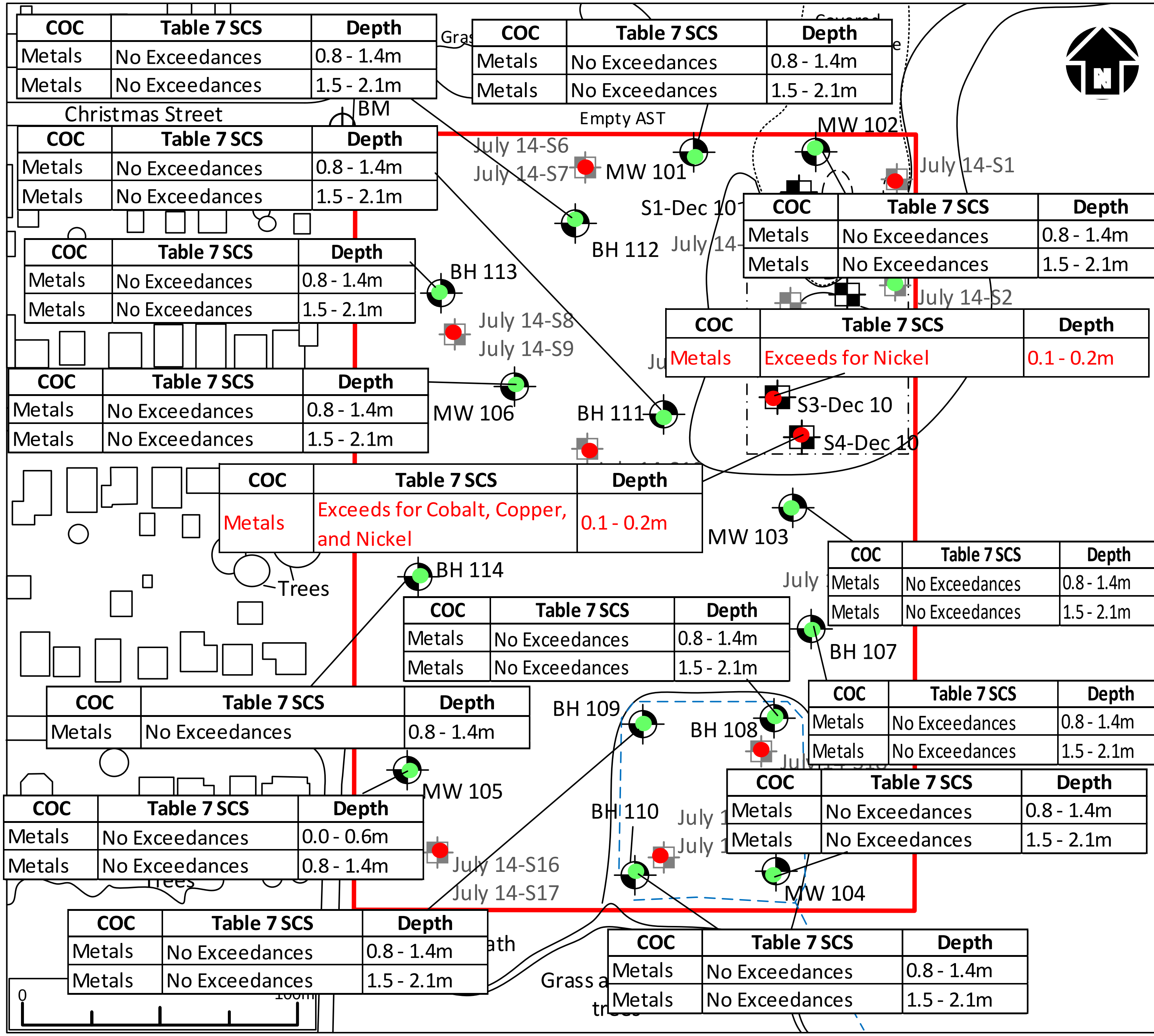
CLIENT
AMZ HOLDINGS

PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil] – Metals

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO
FILE NAME	301011 Drawings.vsd

DRAWING No. 3A-1



COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	Exceeds for Nickel	0.1 - 0.2m

COC	Table 7 SCS	Depth
Metals	Exceeds for Cobalt, Copper, and Nickel	0.1 - 0.2m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.0 - 0.6m
Metals	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Metals	No Exceedances	0.8 - 1.4m
Metals	No Exceedances	1.5 - 2.1m

LEGEND

= Site Boundary

BH/MW# = Borehole/Monitoring Well Location

TP# = Testpit Location

TP# = Previous Testpit Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

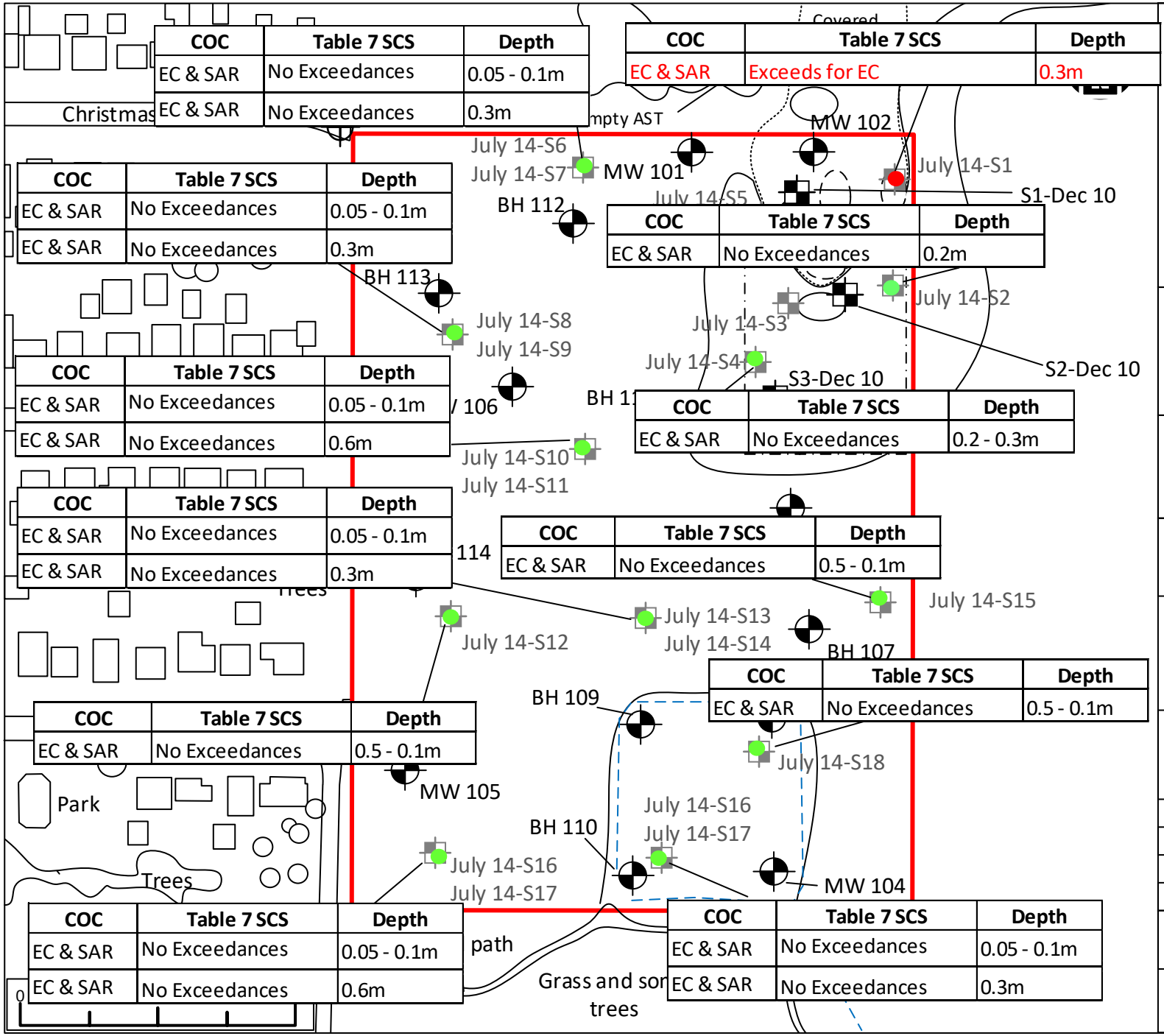
CLIENT
AMZ HOLDINGS

PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil] - Metals

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO
FILE NAME	301011 Drawings.vsd

DRAWING No. 3A-2



LEGEND

- = Site Boundary
- = Borehole/Monitoring Well Location (BH/MW#)
- = Testpit Location (TP#)
- = Previous Testpit Location (TP#)
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

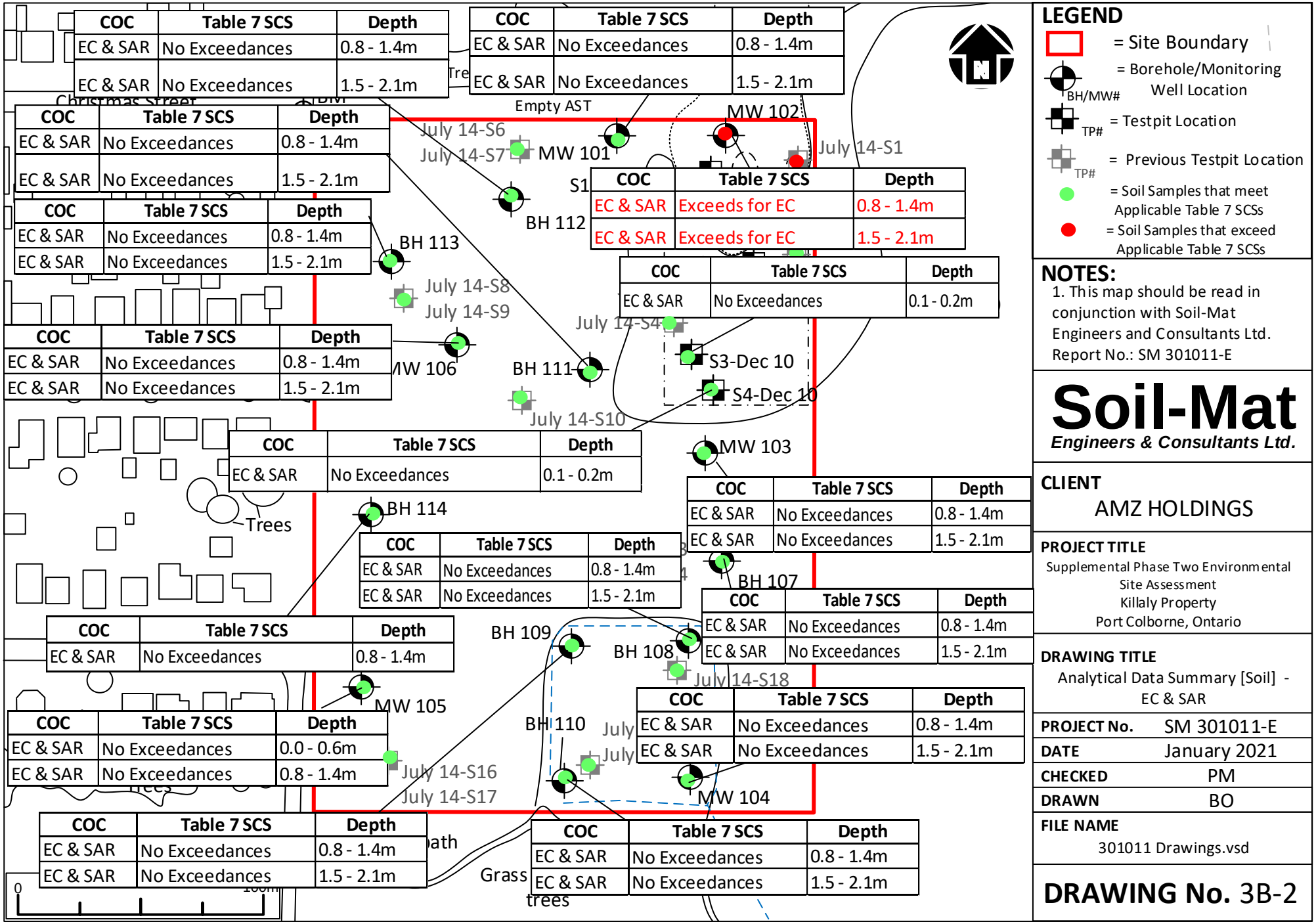
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

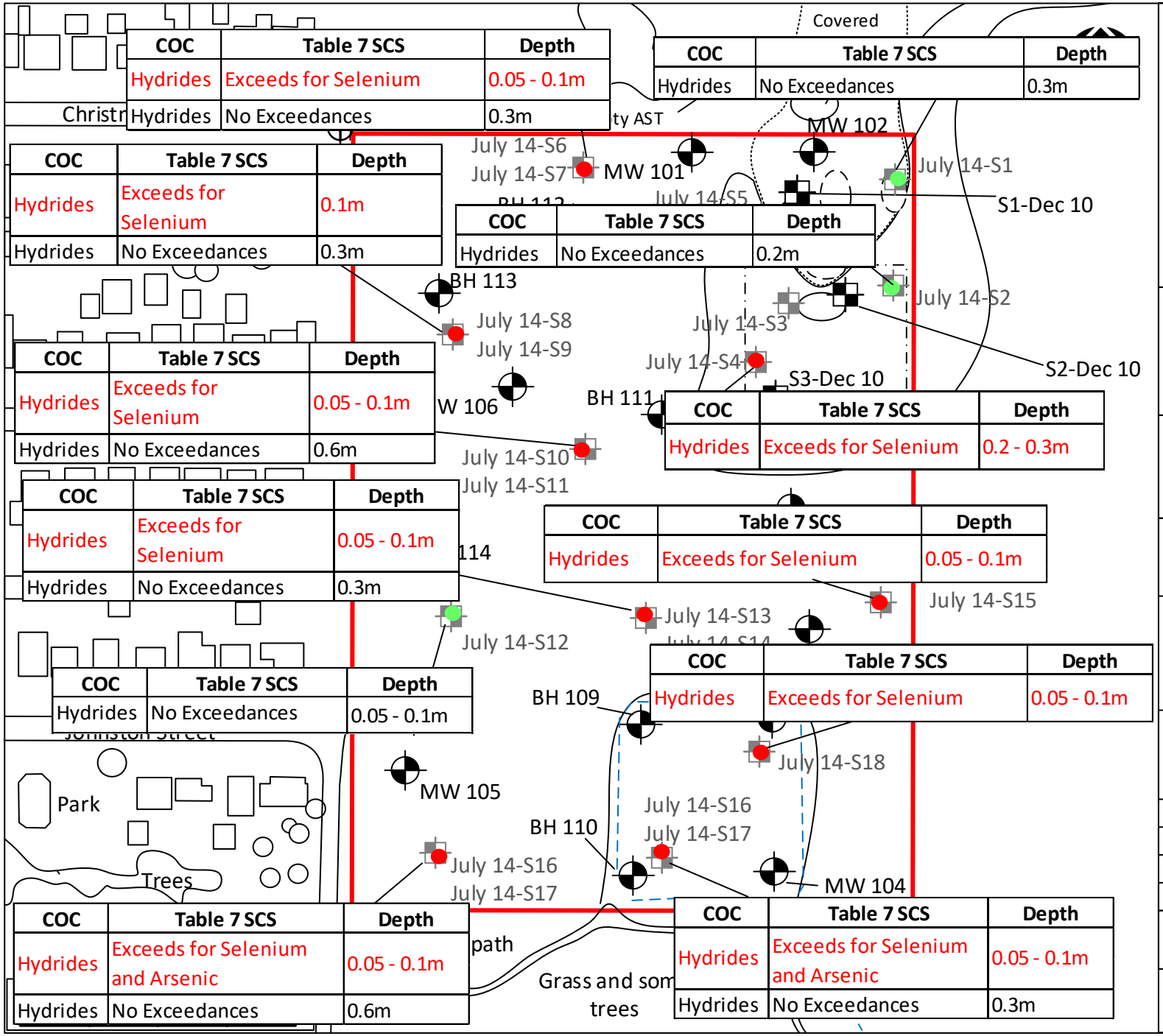
DRAWING TITLE
Analytical Data Summary [Soil] – EC & SAR

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3B-1


COC | Table 7 SCS | Depth
EC & SAR | No Exceedances | 0.8 - 1.4m
EC & SAR | No Exceedances | 1.5 - 2.1m
Christmas Street
Empty AST
MW 102
MW 101
July 14-S6
July 14-S7
July 14-S1
S1
BH 112
EC & SAR | Exceeds for EC | 0.8 - 1.4m
EC & SAR | Exceeds for EC | 1.5 - 2.1m
BH 113
July 14-S8
July 14-S9
EC & SAR | No Exceedances | 0.1 - 0.2m
July 14-S4
S3-Dec 10
S4-Dec 10
MW 106
BH 111
July 14-S10
MW 103
EC & SAR | No Exceedances | 0.1 - 0.2m
BH 114
Trees
EC & SAR | No Exceedances | 0.8 - 1.4m
EC & SAR | No Exceedances | 1.5 - 2.1m
BH 107
BH 109
BH 108
July 14-S18
BH 110
July
July
MW 105
July 14-S16
July 14-S17
MW 104
EC & SAR | No Exceedances | 0.0 - 0.6m
Grass
trees
0
LEGEND
= Site Boundary
= Borehole/Monitoring Well Location
BH/MW#
TP#
= Testpit Location
= Previous Testpit Location
= Soil Samples that meet Applicable Table 7 SCSs
= Soil Samples that exceed Applicable Table 7 SCSs
NOTES:
1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E
Soil-Mat
Engineers & Consultants Ltd.
CLIENT
AMZ HOLDINGS
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario
DRAWING TITLE
Analytical Data Summary [Soil] - EC & SAR
PROJECT No. SM 301011-E
DATE January 2021
CHECKED PM
DRAWN BO
FILE NAME
301011 Drawings.vsd
DRAWING No. 3B-2



COC	Table 7 SCS	Depth
Hydrides	Exceeds for Selenium	0.05 - 0.1m
Hydrides	No Exceedances	0.3m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.3m

COC	Table 7 SCS	Depth
Hydrides	Exceeds for Selenium	0.1m
Hydrides	No Exceedances	0.3m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.2m

COC	Table 7 SCS	Depth
Hydrides	Exceeds for Selenium	0.05 - 0.1m
Hydrides	No Exceedances	0.6m

COC	Table 7 SCS	Depth
Hydrides	Exceeds for Selenium	0.2 - 0.3m

COC	Table 7 SCS	Depth
Hydrides	Exceeds for Selenium	0.05 - 0.1m
Hydrides	No Exceedances	0.3m

COC	Table 7 SCS	Depth
Hydrides	Exceeds for Selenium	0.05 - 0.1m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.05 - 0.1m

COC	Table 7 SCS	Depth
Hydrides	Exceeds for Selenium	0.05 - 0.1m

COC	Table 7 SCS	Depth
Hydrides	Exceeds for Selenium and Arsenic	0.05 - 0.1m
Hydrides	No Exceedances	0.6m

COC	Table 7 SCS	Depth
Hydrides	Exceeds for Selenium and Arsenic	0.05 - 0.1m
Hydrides	No Exceedances	0.3m

LEGEND

- = Site Boundary
- = Borehole/Monitoring Well Location (BH/MW#)
- = Testpit Location (TP#)
- = Previous Testpit Location (TP#)
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

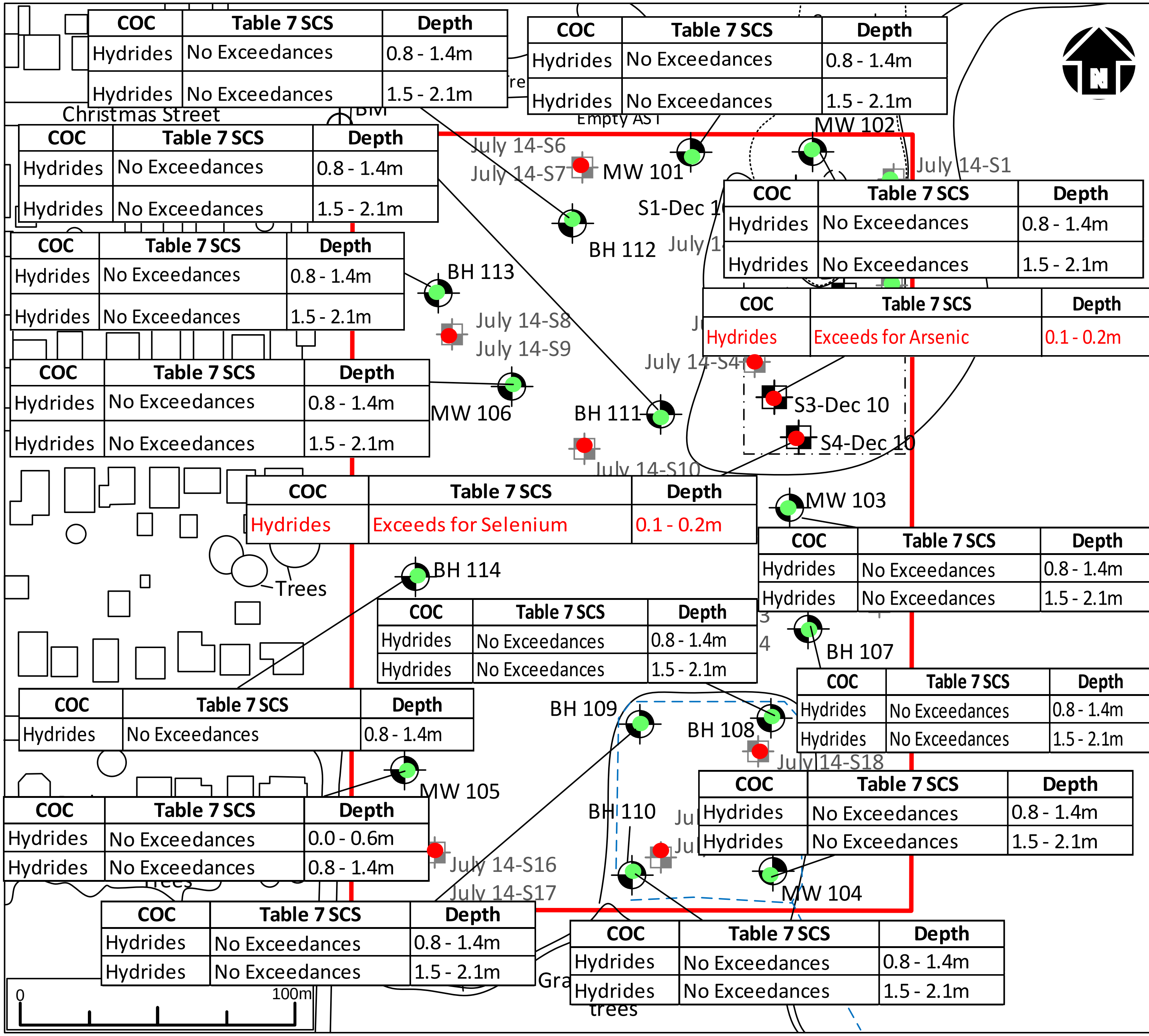
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil] - Hydride Forming Metals [Sb, As, & Se]

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3C-1



COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	Exceeds for Arsenic	0.1 - 0.2m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	Exceeds for Selenium	0.1 - 0.2m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.0 - 0.6m
Hydrides	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
Hydrides	No Exceedances	0.8 - 1.4m
Hydrides	No Exceedances	1.5 - 2.1m

LEGEND

= Site Boundary

BH/MW# = Borehole/Monitoring Well Location

TP# = Testpit Location

TP# = Previous Testpit Location

= Soil Samples that meet Applicable Table 7 SCSs

= Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

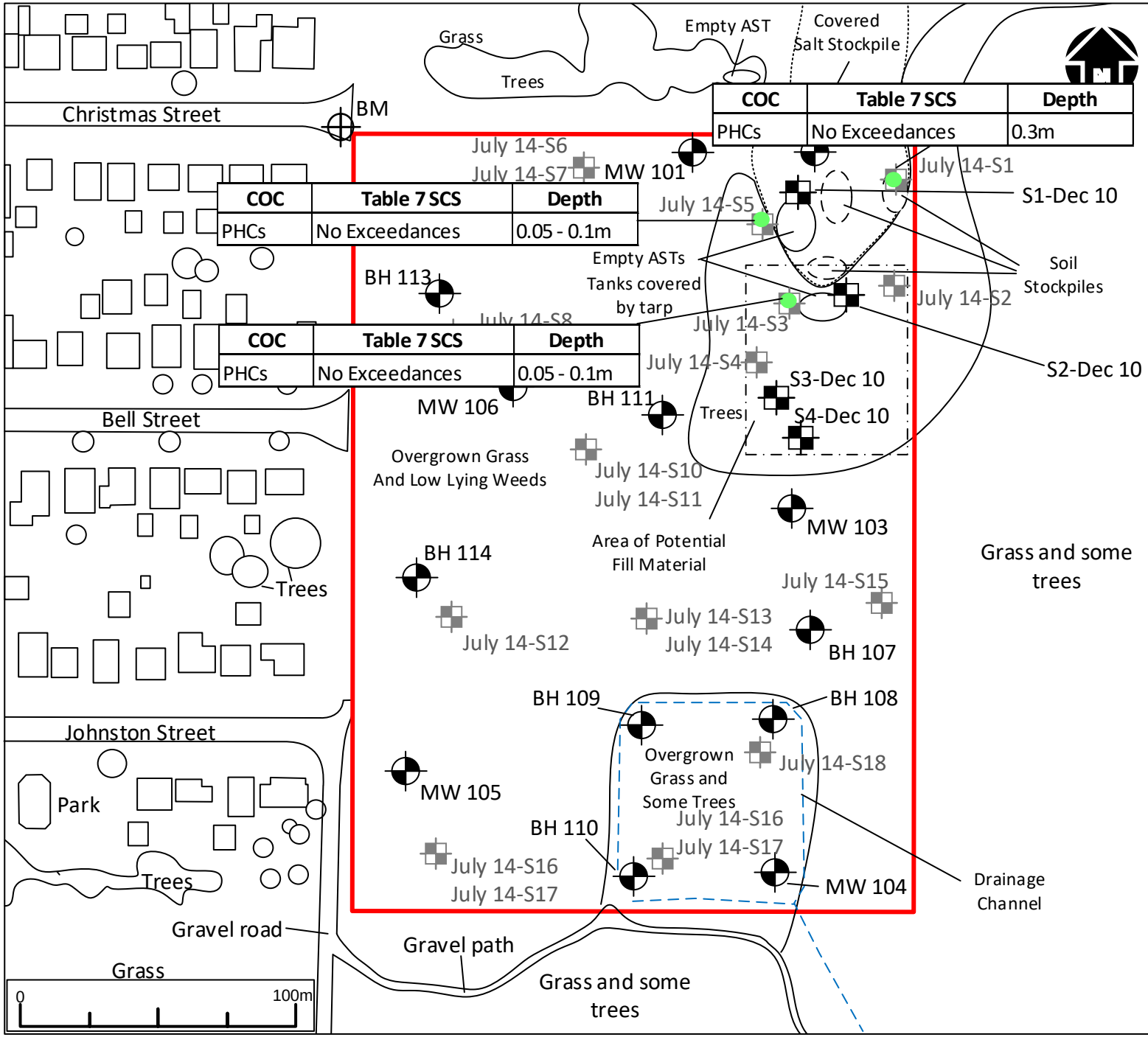
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Analytical Data Summary [Soil] - Hydride Forming Metals [Sb, As, & Se]

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3C-2



COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.05 - 0.1m

COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.05 - 0.1m

COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.3m

LEGEND

- = Site Boundary
- BH/MW# = Borehole/Monitoring Well Location
- TP# = Testpit Location
- TP# = Previous Testpit Location
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

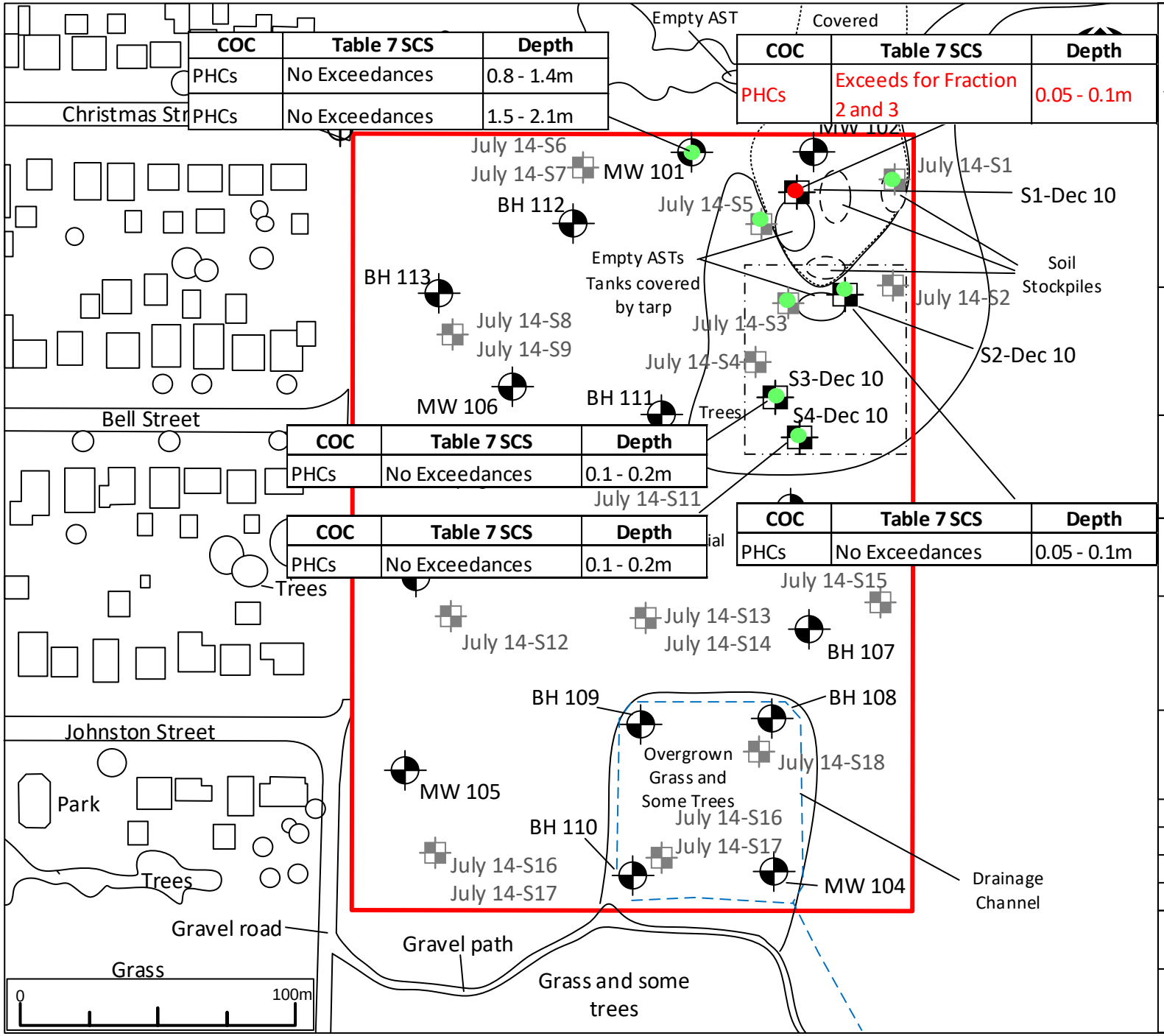
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Soil] - Petroleum Hydrocarbons [PHCs]

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3D-1



COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.8 - 1.4m
PHCs	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
PHCs	Exceeds for Fraction 2 and 3	0.05 - 0.1m

COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.1 - 0.2m

COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.1 - 0.2m

COC	Table 7 SCS	Depth
PHCs	No Exceedances	0.05 - 0.1m

LEGEND

- = Site Boundary
- BH/MW# = Borehole/Monitoring Well Location
- TP# = Testpit Location
- TP# = Previous Testpit Location
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

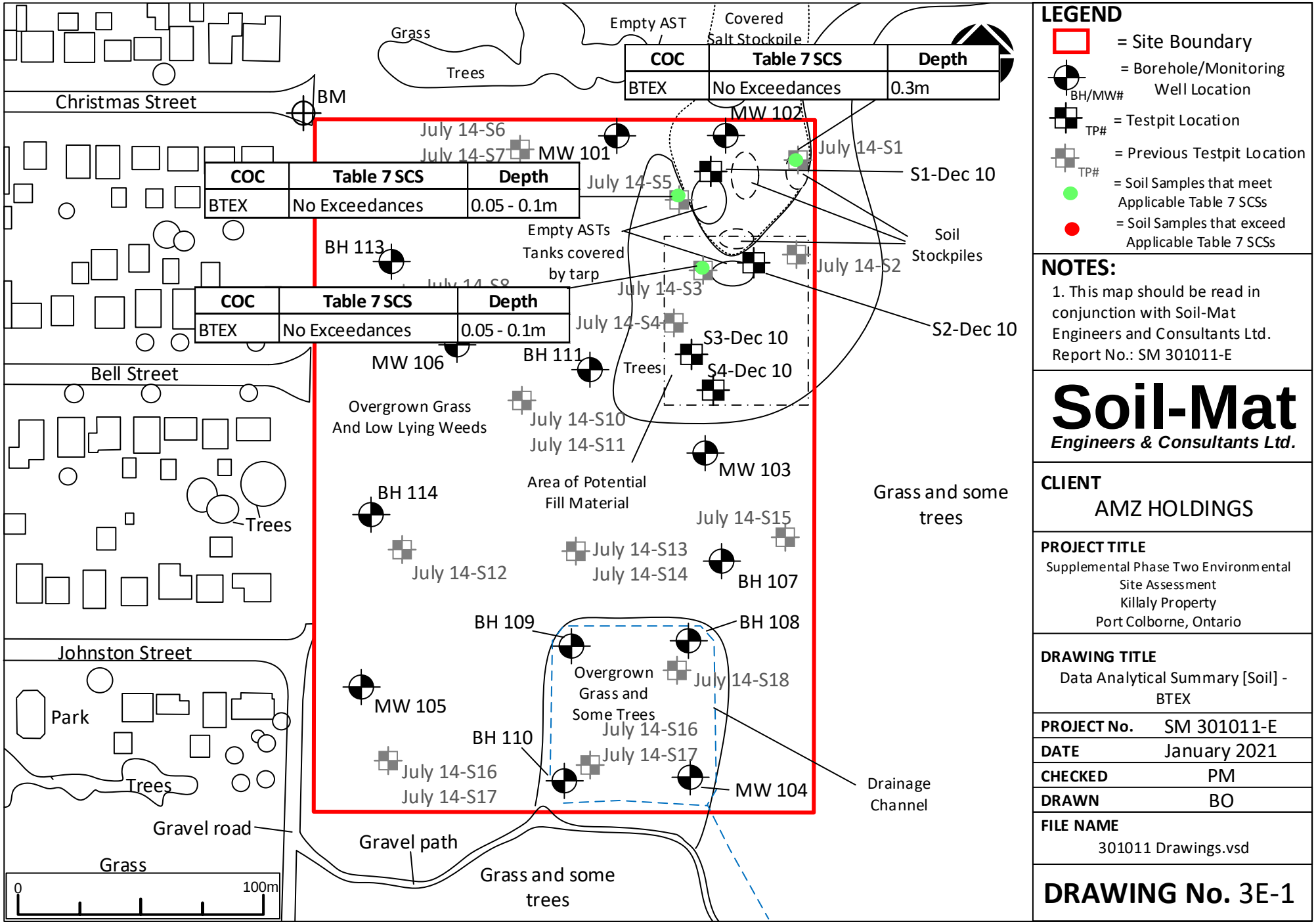
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Soil] - Petroleum Hydrocarbons [PHCs]

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3D-2



COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.3m

COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.05 - 0.1m

COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.05 - 0.1m

LEGEND

- = Site Boundary
- BH/MW# = Borehole/Monitoring Well Location
- TP# = Testpit Location
- TP# = Previous Testpit Location
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

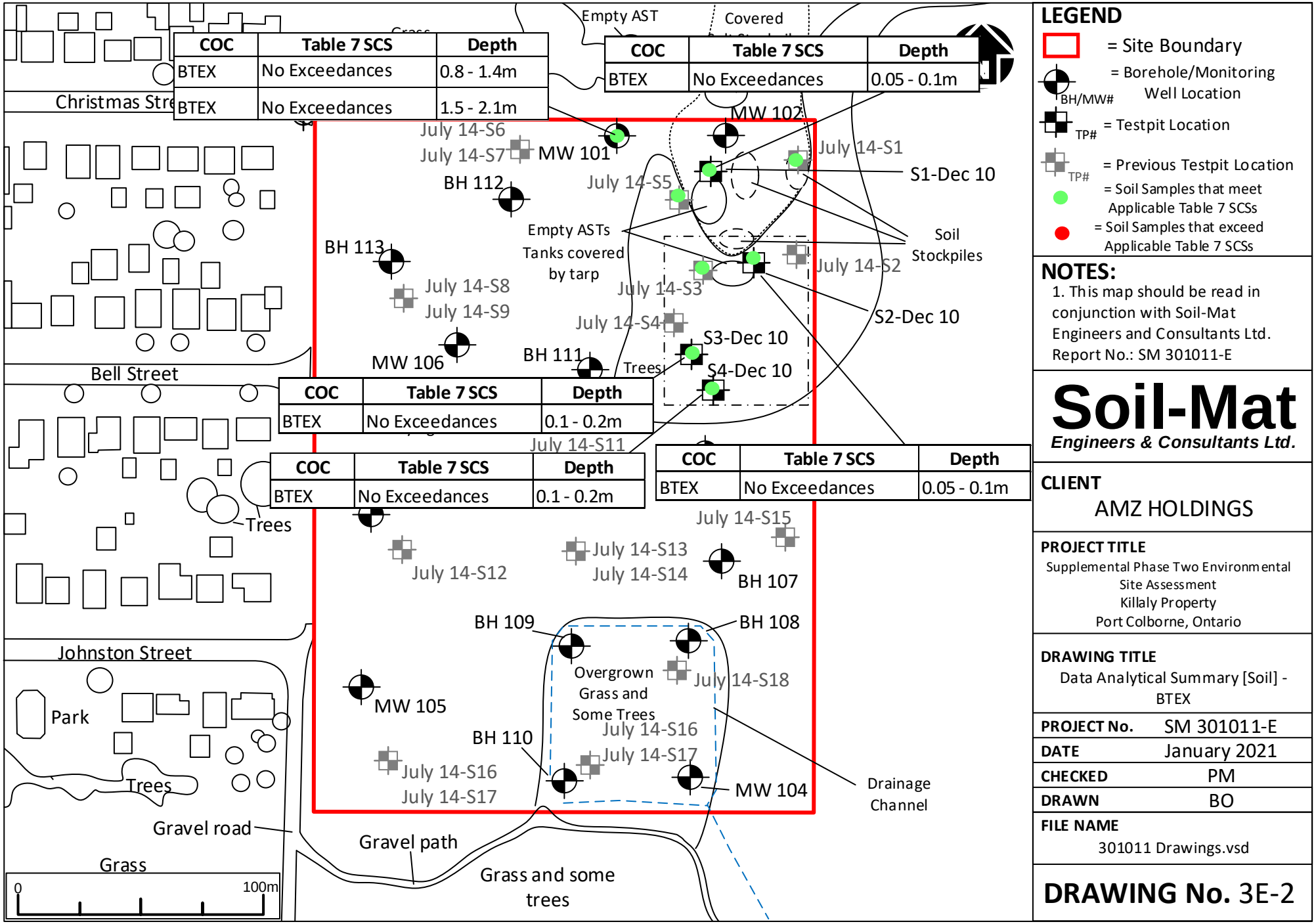
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Soil] - BTEX

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3E-1



COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.8 - 1.4m
BTEX	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.05 - 0.1m

COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.1 - 0.2m

COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.1 - 0.2m

COC	Table 7 SCS	Depth
BTEX	No Exceedances	0.05 - 0.1m

LEGEND

- = Site Boundary
- BH/MW# = Borehole/Monitoring Well Location
- TP# = Testpit Location
- TP# = Previous Testpit Location
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

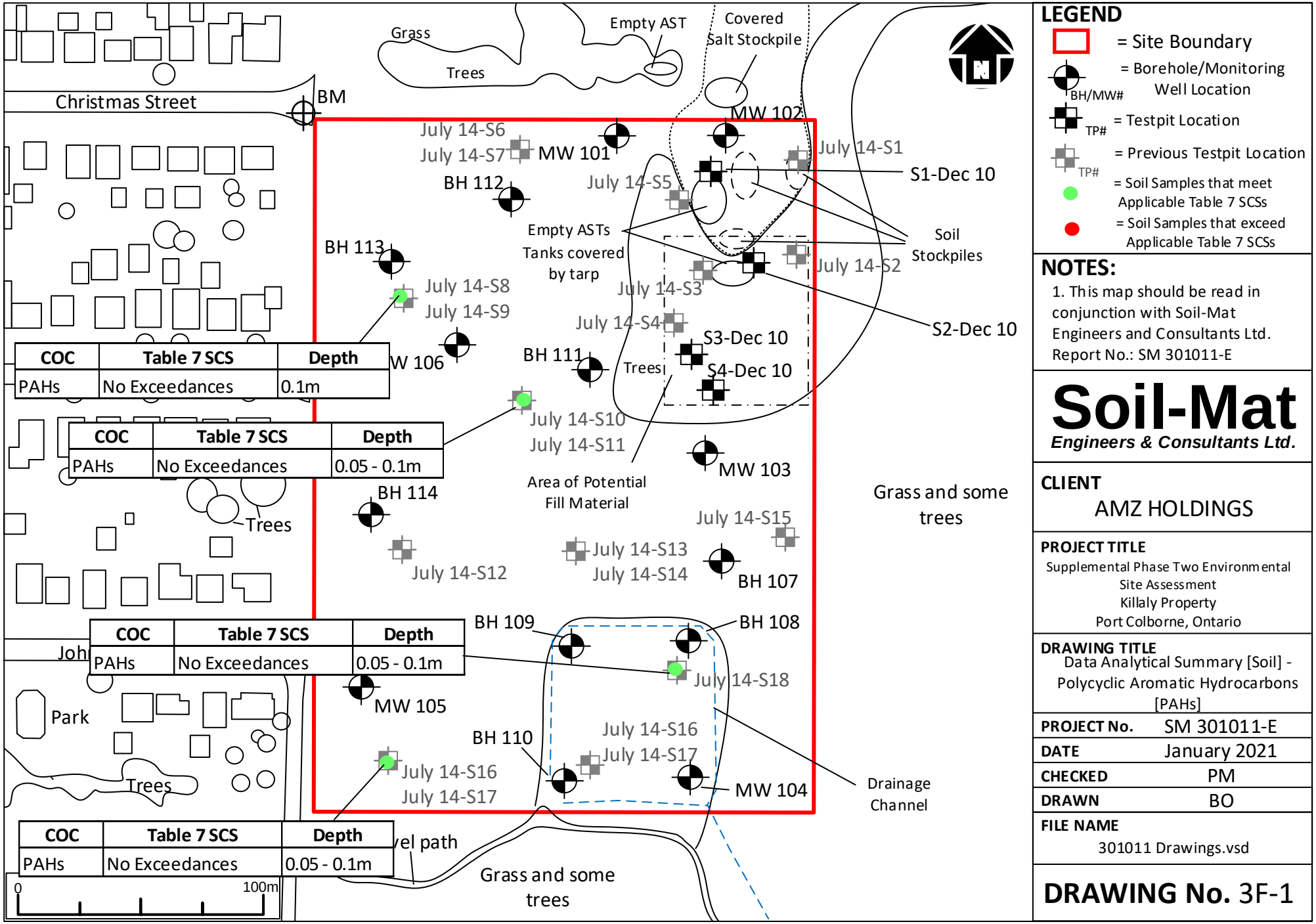
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Soil] - BTEX

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3E-2



COC	Table 7 SCS	Depth
PAHs	No Exceedances	0.1m

COC	Table 7 SCS	Depth
PAHs	No Exceedances	0.05 - 0.1m

COC	Table 7 SCS	Depth
PAHs	No Exceedances	0.05 - 0.1m

COC	Table 7 SCS	Depth
PAHs	No Exceedances	0.05 - 0.1m

LEGEND

- = Site Boundary
- BH/MW# = Borehole/Monitoring Well Location
- TP# = Testpit Location
- TP# = Previous Testpit Location
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

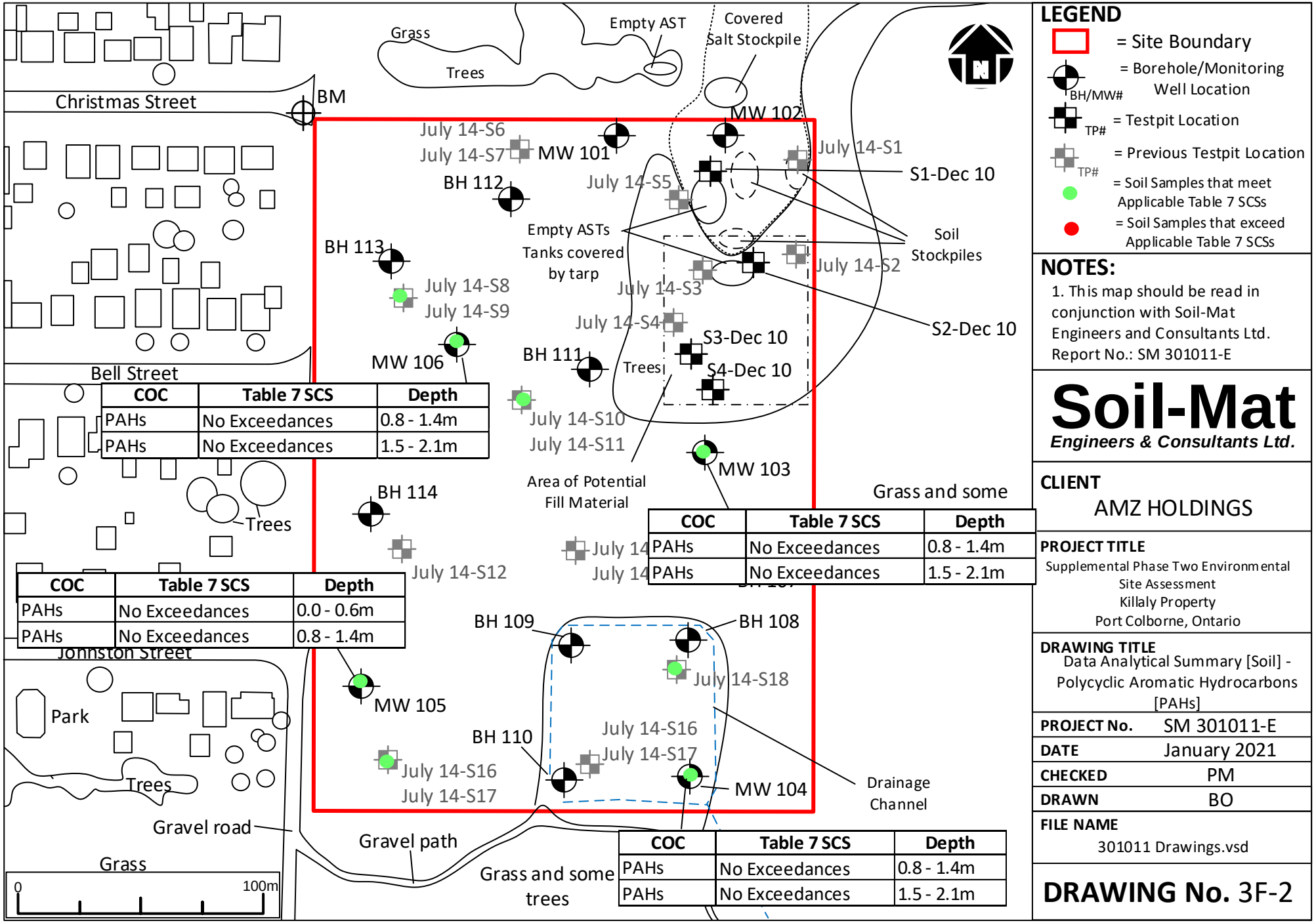
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Soil] - Polycyclic Aromatic Hydrocarbons [PAHs]

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3F-1



COC	Table 7 SCS	Depth
PAHs	No Exceedances	0.8 - 1.4m
PAHs	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
PAHs	No Exceedances	0.8 - 1.4m
PAHs	No Exceedances	1.5 - 2.1m

COC	Table 7 SCS	Depth
PAHs	No Exceedances	0.0 - 0.6m
PAHs	No Exceedances	0.8 - 1.4m

COC	Table 7 SCS	Depth
PAHs	No Exceedances	0.8 - 1.4m
PAHs	No Exceedances	1.5 - 2.1m

LEGEND

- = Site Boundary
- BH/MW# = Borehole/Monitoring Well Location
- TP# = Testpit Location
- TP# = Previous Testpit Location
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

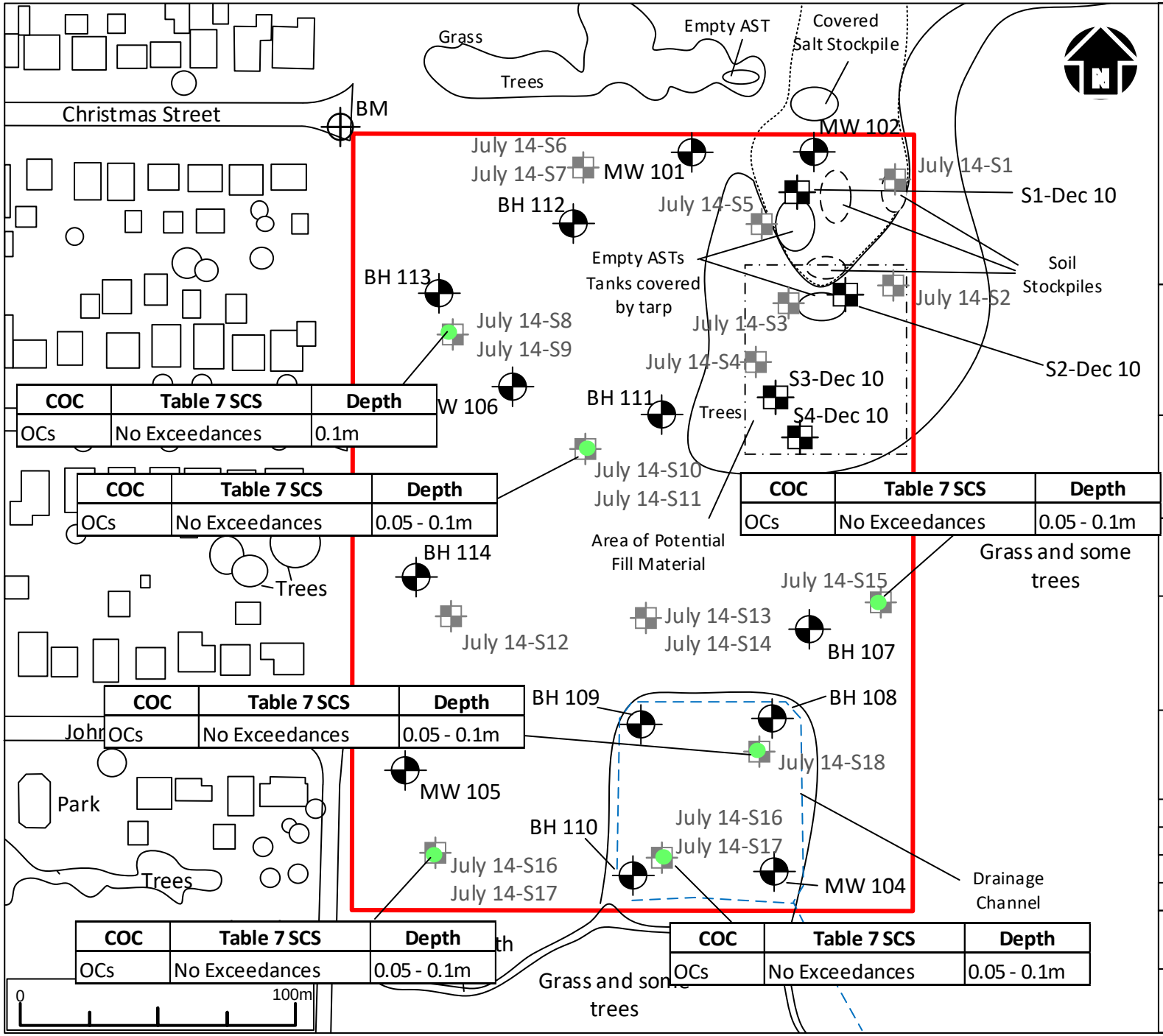
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Soil] - Polycyclic Aromatic Hydrocarbons [PAHs]

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3F-2



COC	Table 7 SCS	Depth
OCs	No Exceedances	0.1m

COC	Table 7 SCS	Depth
OCs	No Exceedances	0.05 - 0.1m

COC	Table 7 SCS	Depth
OCs	No Exceedances	0.05 - 0.1m

COC	Table 7 SCS	Depth
OCs	No Exceedances	0.05 - 0.1m

COC	Table 7 SCS	Depth
OCs	No Exceedances	0.05 - 0.1m

LEGEND

- = Site Boundary
- BH/MW# = Borehole/Monitoring Well Location
- TP# = Testpit Location
- TP# = Previous Testpit Location
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

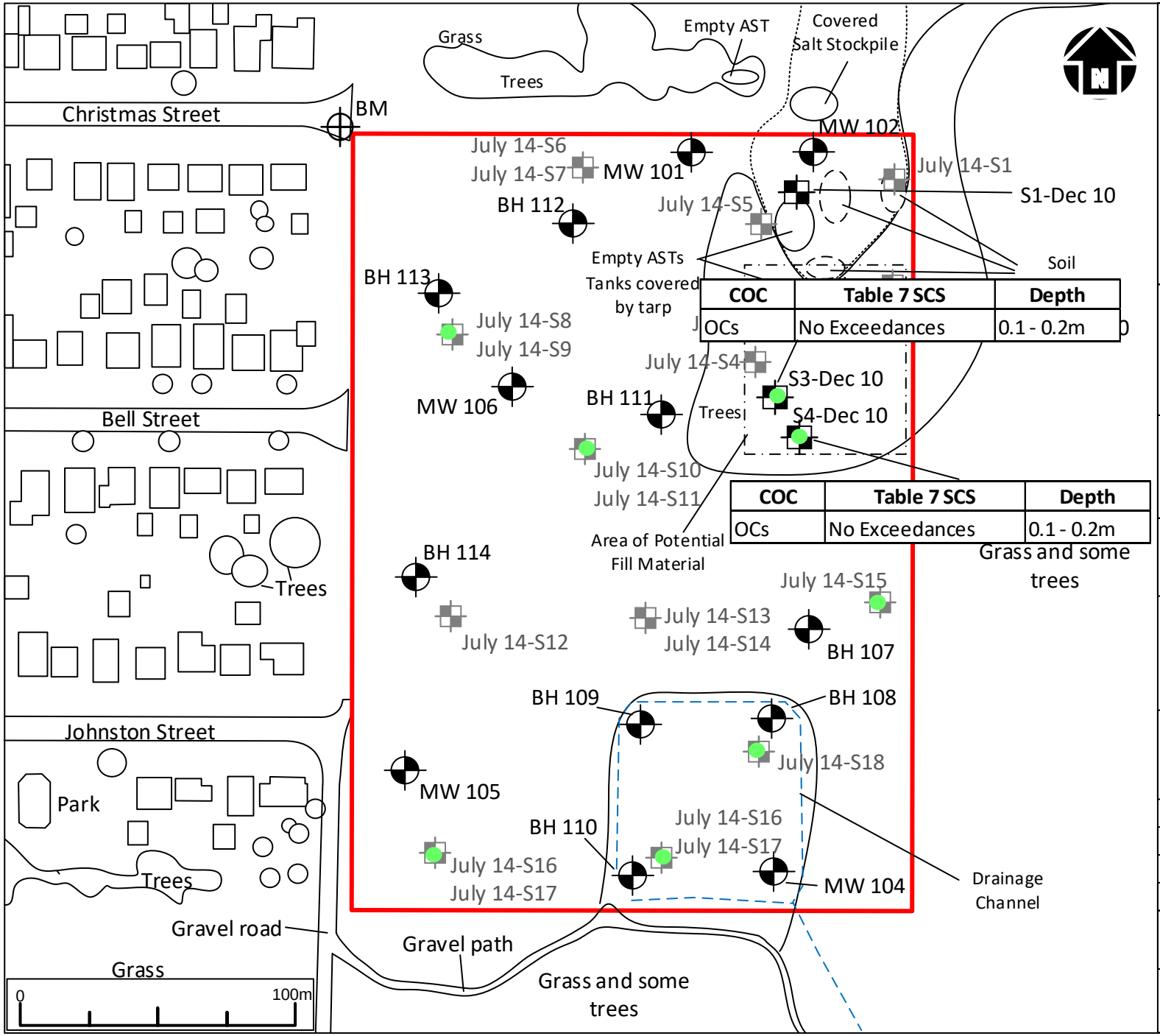
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Soil] - Organochlorine Pesticides [OCs]

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3G-1



COC	Table 7 SCS	Depth
OCs	No Exceedances	0.1 - 0.2m

COC	Table 7 SCS	Depth
OCs	No Exceedances	0.1 - 0.2m

LEGEND

- = Site Boundary
- = Borehole/Monitoring Well Location (BH/MW#)
- = Testpit Location (TP#)
- = Previous Testpit Location (TP#)
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

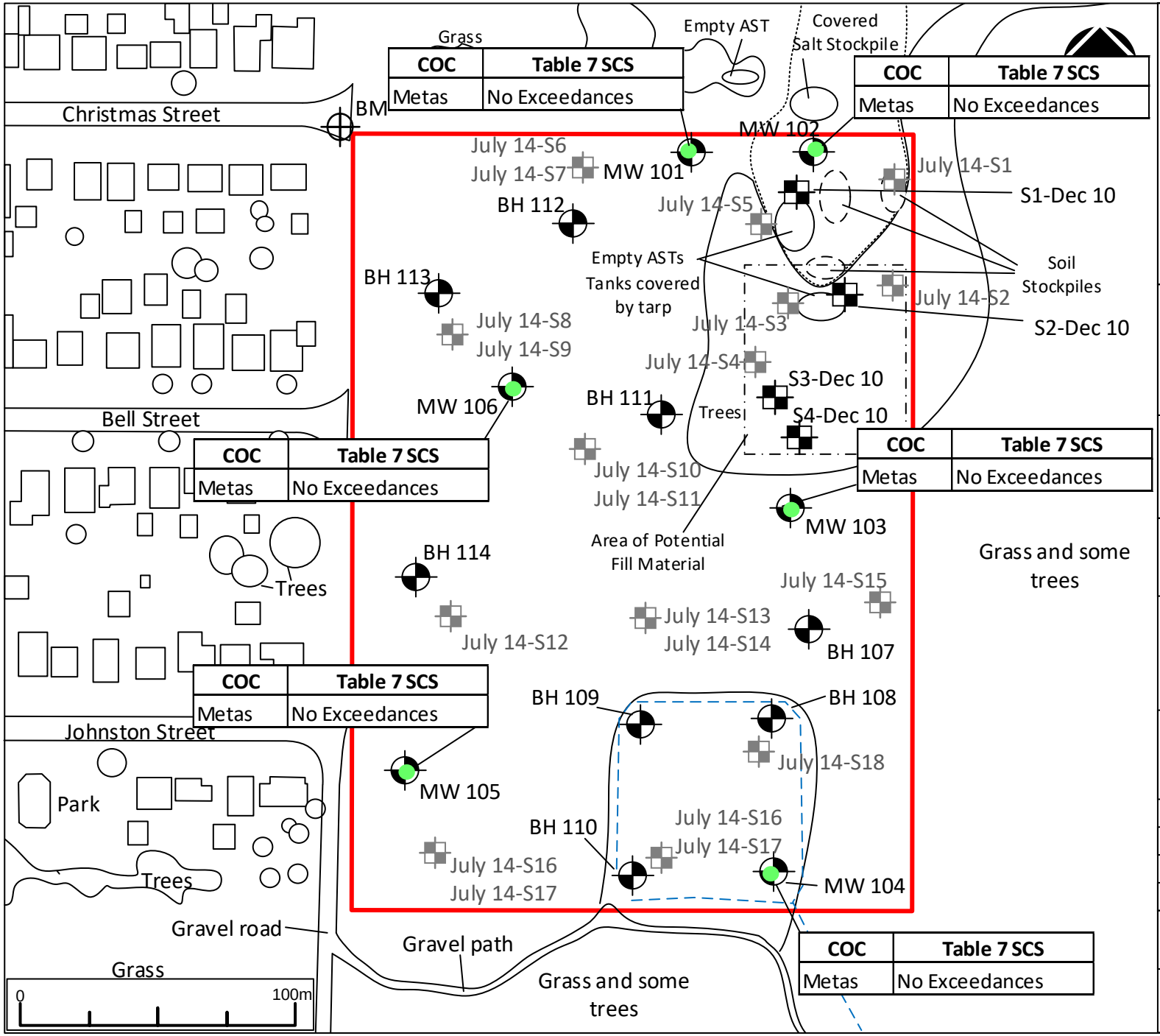
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Soil] - Organochlorine Pesticides [OCs]

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 3G-2



LEGEND

- = Site Boundary
- BH/MW# = Borehole/Monitoring Well Location
- TP# = Testpit Location
- TP# = Previous Testpit Location
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

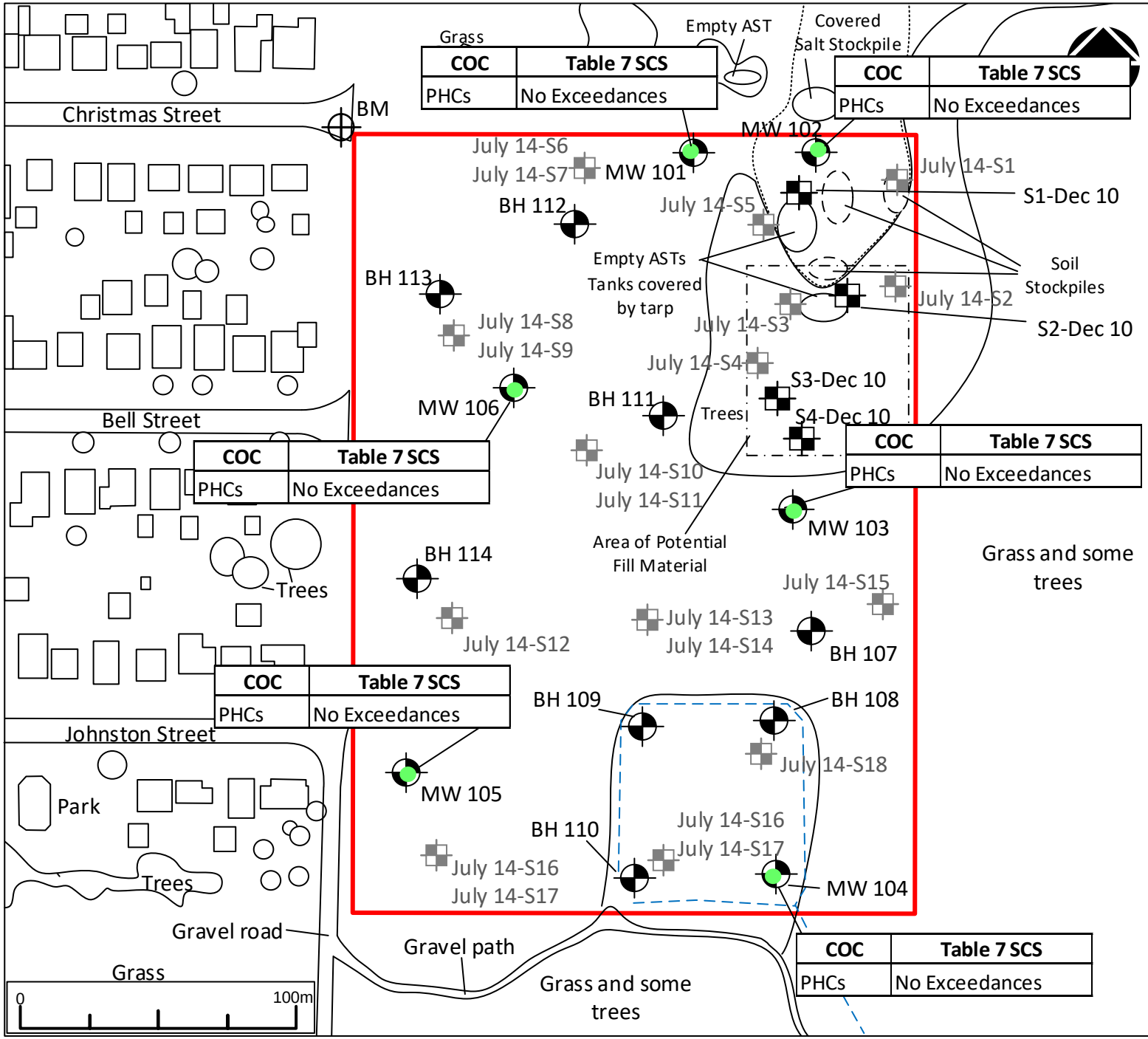
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Water] - Metals

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 4A



COC	Table 7 SCS
PHCs	No Exceedances

COC	Table 7 SCS
PHCs	No Exceedances

COC	Table 7 SCS
PHCs	No Exceedances

COC	Table 7 SCS
PHCs	No Exceedances

COC	Table 7 SCS
PHCs	No Exceedances

LEGEND

- = Site Boundary
- BH/MW# = Borehole/Monitoring Well Location
- TP# = Testpit Location
- TP# = Previous Testpit Location
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

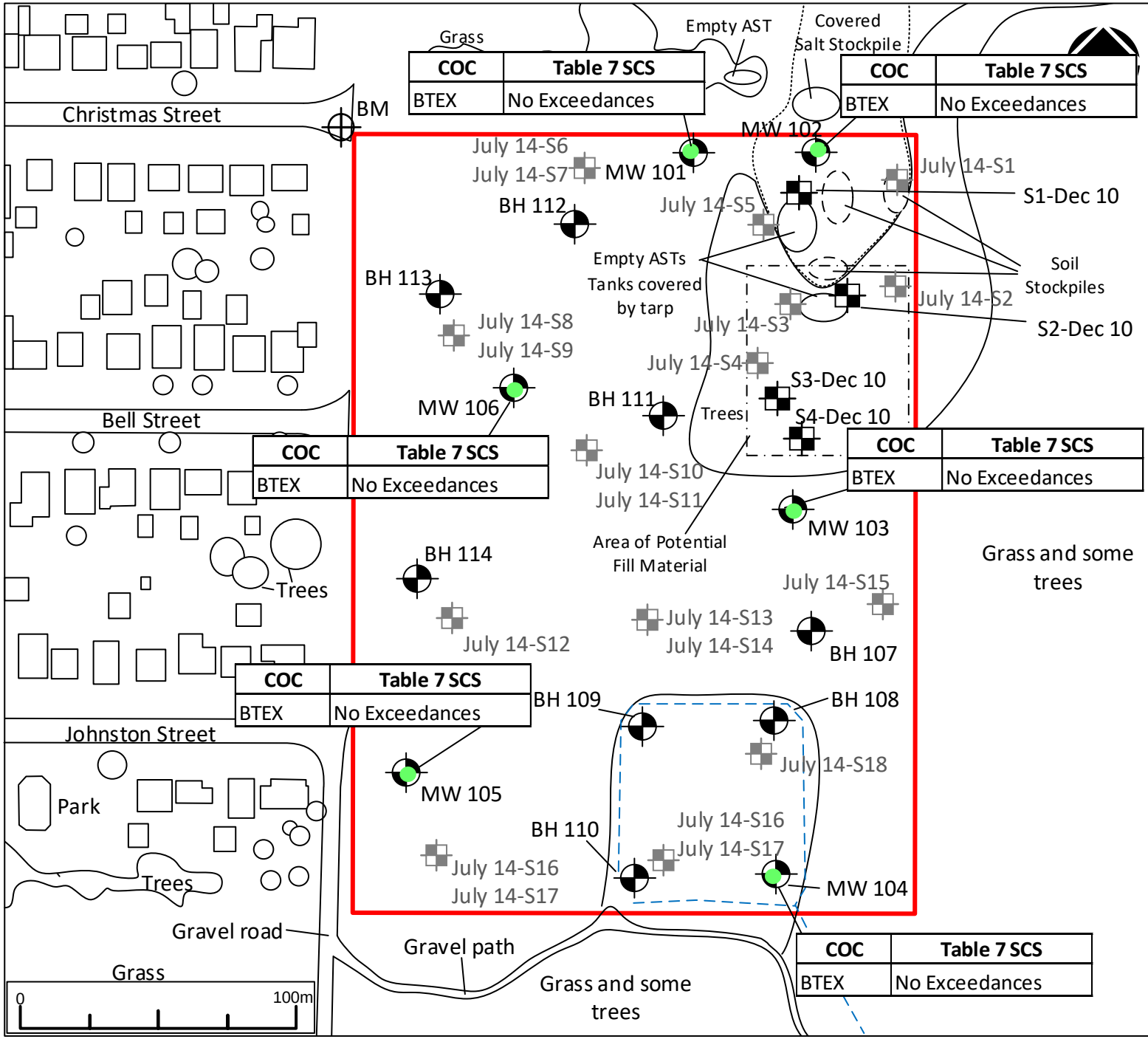
PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Water] - Petroleum Hydrocarbons [PHCs]

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 4B



COC	Table 7 SCS
BTEX	No Exceedances

COC	Table 7 SCS
BTEX	No Exceedances

COC	Table 7 SCS
BTEX	No Exceedances

COC	Table 7 SCS
BTEX	No Exceedances

COC	Table 7 SCS
BTEX	No Exceedances

COC	Table 7 SCS
BTEX	No Exceedances

LEGEND

- = Site Boundary
- BH/MW# = Borehole/Monitoring Well Location
- TP# = Testpit Location
- TP# = Previous Testpit Location
- = Soil Samples that meet Applicable Table 7 SCSs
- = Soil Samples that exceed Applicable Table 7 SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

PROJECT TITLE
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Data Analytical Summary [Water] - BTEX

PROJECT No.	SM 301011-E
DATE	January 2021
CHECKED	PM
DRAWN	BO

FILE NAME
301011 Drawings.vsd

DRAWING No. 4C

Appendix ‘B’

1. Borehole Logs

Log of Borehole No. 101

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

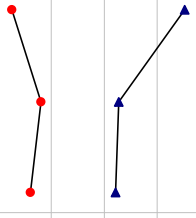
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4750196
E: 644656

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	177.43	Ground Surface								
0 / 0	177.18	**Topsoil** Approximately 250 millimetres of topsoil.		SS	1	3,2,3,3	5			
1 / 1		**Silty Clay / Clayey Silt** Brown, trace sand and gravel, firm to very stiff.		SS	2	5,5,11,12	16			
2 / 1				SS	3	3,4,8,11	12			
2 / 1	175.10	**Bedrock** Grey limestone, fractured in upper levels.								
6 / 2	171.30	End of Borehole								

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced on December 10, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 2.3 metres and air rotary equipment to termination at a depth of 6.1 metres.

2. Borehole was recorded as 'wet' at a depth of 2.7 metres upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
Jan 4, 2021: 1.42m below ground surface
Jan 8, 2021: 1.72m below ground surface

Drill Method: Solid Stem Augers/Air Rotary
Drill Date: December 10, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 102

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

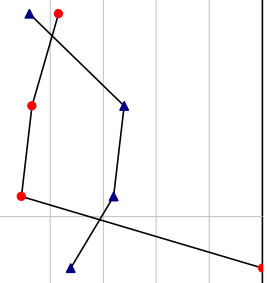
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4750190
E: 644710

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	177.58	Ground Surface								
0 / 0	177.23	**Pavement Structure** Approximately 350 millimetres of compact granular base.		SS	1	18,17,6,3	23			
1 / 0		**Silty Clay / Clayey Silt** Brown, reworked in the upper levels, trace sand and gravel, stiff to very stiff.		SS	2	4,5,8,8	13			
2 / 1				SS	3	3,3,6,9	9			
3 / 1	174.80			SS	4	6, 24, 50/2"	100			
3 / 1		**Bedrock** Grey limestone, fractured in upper levels.								
6 / 2	171.50	End of Borehole								

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced on December 10, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 2.8 metres and air rotary equipment to termination at a depth of 6.1 metres.

2. Borehole was recorded as 'wet' at a depth of 5.2 metres upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
Jan 4, 2021: 1.35m below ground surface
Jan 8, 2021: 1.43m below ground surface

Drill Method: Solid Stem Augers/Air Rotary
Drill Date: December 10, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 103

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

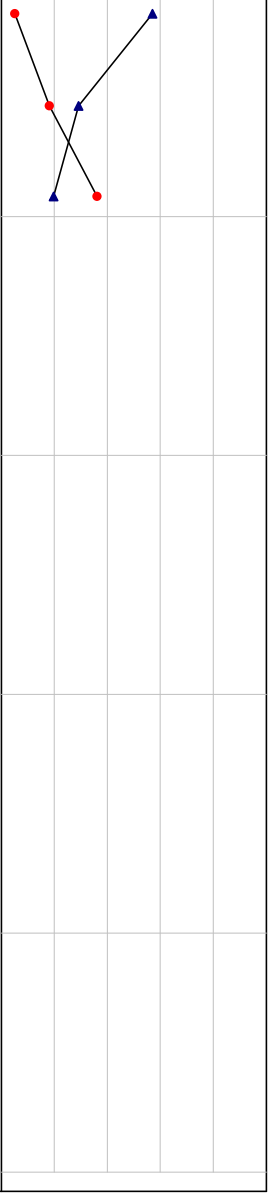
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4750051
E: 644718

Soil-Mat

Depth ft	Depth m	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		177.04	Ground Surface								
0	0	176.74	**Topsoil** Approximately 300 millimetres of topsoil.		SS	1	1,2,3,5	5			
1			**Silty Clay / Clayey Silt** Brown, trace sand and gravel, firm to very stiff.		SS	2	4,8,10,11	18			
2	1	174.90			SS	3	9,12,22,50/5"	36			
3			**Bedrock** Grey limestone, fractured in upper levels.								
4	2										
5											
6	3										
7											
8	4										
9											
10	5										
11											
12		171.40	End of Borehole								
13	6										
14											
15											
16	7										
17											
18											
19	8										
20											
21											
22	9										
23											
24											
25											
26											
27											
28											
29											
30											
31											
32											
33											

Moisture Content w%
10 20 30 40

Standard Penetration Test
blows/300mm
20 40 60 80



NOTES:

1. Borehole was advanced on December 21, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 2.1 metres and air rotary equipment to termination at a depth of 5.6 metres.

2. Borehole was recorded as 'wet' at a depth of 3.8 metres upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
Jan 4, 2021: 1.05m below ground surface
Jan 8, 2021: 1.27m below ground surface

Drill Method: Solid Stem Augers/Air Rotary
Drill Date: December 21, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 104

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4749919
E: 644706

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	176.89	Ground Surface								
0 / 0	176.64	**Topsoil** Approximately 250 millimetres of topsoil.		SS	1	2,2,3,6	5			
3 / 1	175.50	**Silty Clay / Clayey Silt** Brown, trace sand and gravel, firm to very stiff.		SS	2	4,7,10,50/4"	17			
		Bedrock Grey limestone, fractured in upper levels.								
20 / 6	170.80	End of Borehole								

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)

NOTES:

1. Borehole was advanced on December 21, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 1.4 metres and air rotary equipment to termination at a depth of 6.1 metres.

2. Borehole was recorded as 'wet' at a depth of 4.6 metres upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
Jan 4, 2021: 0.97m below ground surface
Jan 8, 2021: 1.24m below ground surface

Drill Method: Solid Stem Augers/Air Rotary
Drill Date: December 21, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 105

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

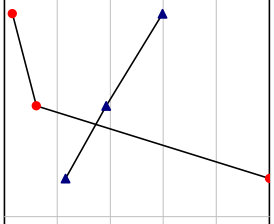
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4749965
E: 644570

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	176.96	Ground Surface								
0 / 0	176.76	**Topsoil** Approximately 200 millimetres of topsoil.		SS	1	1,1,2,5	3			
1 / 1		**Silty Clay / Clayey Silt** Brown, trace sand and gravel, soft to stiff.		SS	2	5,5,7,10	12			
5 / 2	175.20			SS	3	12, 50/4"	100			
2 / 2		**Bedrock** Grey limestone, fractured in upper levels.								
19 / 5	171.20									
19 / 6		End of Borehole								

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced on December 18, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 1.8 metres and air rotary equipment to termination at a depth of 5.8 metres.

2. Borehole was recorded as 'wet' at a depth of 4.0 metres upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
Jan 4, 2021: 1.04m below ground surface
Jan 8, 2021: 1.32m below ground surface

Drill Method: Solid Stem Augers/Air Rotary
Drill Date: December 18, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 106

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

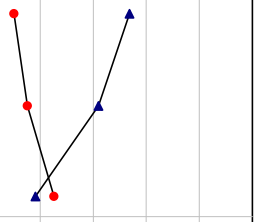
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4740094
E: 644606

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	177.26	Ground Surface								
0 / 0	177.06	**Topsoil** Approximately 200 millimetres of topsoil.		SS	1	3,4,6,9	10			
3 / 1		**Silty Clay / Clayey Silt** Brown, trace sand and gravel, stiff to very stiff.		SS	2	5,8,7,10	15			
7 / 2	174.90			SS	3	5,12,13,14	25			
8 / 3		**Bedrock** Grey limestone, fractured in upper levels.								
19 / 5	171.50									
19 / 6		End of Borehole								

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced on December 18, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 2.4 metres and air rotary equipment to termination at a depth of 5.8 metres.

2. Borehole was recorded as 'wet' at a depth of 3.7 metres upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:
Jan 4, 2021: 1.12m below ground surface
Jan 8, 2021: 1.53m below ground surface

Drill Method: Solid Stem Augers/Air Rotary
Drill Date: December 18, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 107

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

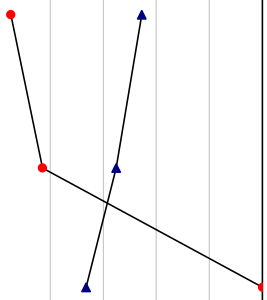
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4750000
E: 644735

Soil-Mat

Depth (ft)	Depth (m)	Elevation (m)	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		176.94	Ground Surface								
0	0	176.74	**Topsoil** Approximately 200 millimetres of topsoil.								
1			**Silty Clay / Clayey Silt** Brown, trace sand and gravel, stiff to very stiff.		SS	1	2,2,3,4	5			
2											
3	1				SS	2	5,6,11,12	17			
4											
5					SS	3	6, 50/6"	100			
6	2	175.10	Auger Refusal on Assumed Bedrock								
7			End of Borehole								
8											
9											
10	3										
11											
12											
13	4										
14											
15											
16	5										
17											
18											
19	6										

Moisture Content w%
10 20 30 40

Standard Penetration Test blows/300mm
20 40 60 80



NOTES:

1. Borehole was advanced on December 16, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 1.8 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: December 16, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elite Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 108

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

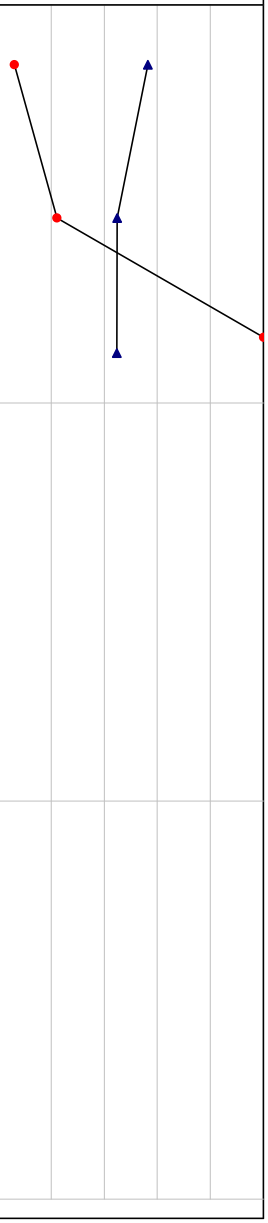
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4749968
E: 644704

Soil-Mat

Depth (ft)	Depth (m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		176.95		Ground Surface								
0	0	176.75		**Topsoil** Approximately 200 millimetres of topsoil.								
1				**Silty Clay / Clayey Silt** Brown, trace sand and gravel, stiff to very stiff.		SS	1	3,2,4,3	6			
2												
3	1					SS	2	5,8,14,17	22			
4												
5						SS	3	5,7,50/5"	100			
6	2	175.00		Auger Refusal on Assumed Bedrock End of Borehole								
7												
8												
9												
10	3											
11												
12												
13	4											
14												
15												
16	5											
17												
18												
19	6											

Moisture Content w%
10 20 30 40

Standard Penetration Test blows/300mm
20 40 60 80



NOTES:

1. Borehole was advanced on December 16, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 2.0 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: December 16, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elite Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 109

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4749971
E: 644663

Soil-Mat

Depth ft	Depth m	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		176.94	Ground Surface								
0	0	176.69	**Topsoil** Approximately 250 millimetres of topsoil.								
1					SS	1	3,3,4,3	7			
2			**Silty Clay / Clayey Silt** Brown, trace sand and gravel, stiff to very stiff.								
3	1				SS	2	5,8,14,15	22			
4											
5					SS	3	6,8,14,26	22			
6	2	174.70	Auger Refusal on Assumed Bedrock								
7			End of Borehole								
8											
9											
10	3										
11											
12											
13	4										
14											
15											
16	5										
17											
18											
19	6										

Moisture Content w%
10 20 30 40

Standard Penetration Test blows/300mm
20 40 60 80

NOTES:

1. Borehole was advanced on December 16, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 2.2 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: December 16, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elite Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 110

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

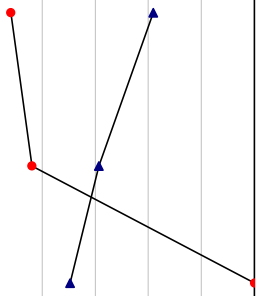
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4749923
E: 644668

Soil-Mat

Depth (ft)	Depth (m)	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
		176.87		Ground Surface								
0	0	176.67		**Topsoil** Approximately 200 millimetres of topsoil.								
1				**Silty Clay / Clayey Silt** Brown, trace sand and gravel, stiff to very stiff.		SS	1	3,4,4,5	8			
2												
3	1					SS	2	4,5,9,9	16			
4												
5		175.10				SS	3	8,50/4"	100			
6	2			Auger Refusal on Assumed Bedrock End of Borehole								
7												
8												
9												
10	3											
11												
12												
13	4											
14												
15												
16	5											
17												
18												
19	6											

Moisture Content w%
10 20 30 40

Standard Penetration Test blows/300mm
20 40 60 80



NOTES:

1. Borehole was advanced on December 16, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 1.8 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: December 16, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elite Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 111

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

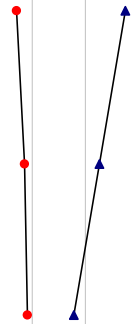
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4750094
E: 644665

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	177.08	Ground Surface								
	176.88	**Topsoil** Approximately 200 millimetres of topsoil.								
1		**Silty Clay / Clayey Silt** Brown, trace sand and gravel, stiff to very stiff.		SS	1	4,5,9,9	14			
2										
3 / 1				SS	2	3,6,11,12	17			
4										
5				SS	3	5,6,12,21	18			
6 / 2	174.70	Auger Refusal on Assumed Bedrock								
7		End of Borehole								
8										
9										
10 / 3										
11										
12										
13 / 4										
14										
15										
16 / 5										
17										
18										
19 / 6										

Moisture Content w%: 10 20 30 40

Standard Penetration Test blows/300mm: 20 40 60 80



NOTES:

1. Borehole was advanced on December 16, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 2.4 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: December 16, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elite Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 112

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

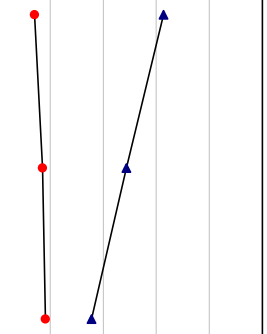
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4750155
E: 644624

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	177.49	Ground Surface								
	177.24	**Topsoil** Approximately 250 millimetres of topsoil.								
1		**Silty Clay / Clayey Silt** Brown, trace sand and gravel, stiff to very stiff.		SS	1	4,5,9,9	14			
2										
3 / 1				SS	2	3,6,11,12	17			
4										
5				SS	3	5,6,12,21	18			
6 / 2	175.20									
7		Auger Refusal on Assumed Bedrock								
8		End of Borehole								
9										
10 / 3										
11										
12										
13 / 4										
14										
15										
16 / 5										
17										
18										
19 / 6										

Moisture Content w%: 10 20 30 40

Standard Penetration Test blows/300mm: 20 40 60 80



NOTES:

1. Borehole was advanced on December 16, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 2.3 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: December 16, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elite Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 113

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

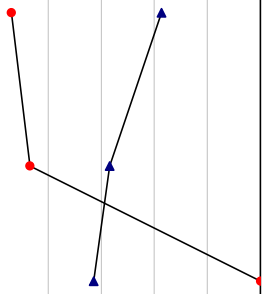
Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4750130
E: 644581

Soil-Mat

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	177.45	Ground Surface								
0 / 0	177.20	**Topsoil** Approximately 250 millimetres of topsoil.		SS	1	1,3,3,4	6			
1 / 0		**Silty Clay / Clayey Silt** Brown, trace sand and gravel, firm to stiff.								
3 / 1				SS	2	2,4,9,12	13			
5 / 1				SS	3	9, 50/3"	100			
6 / 2	175.50	Auger Refusal on Assumed Bedrock								
		End of Borehole								

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced on December 16, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 2.0 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: December 16, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elite Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 114

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: Killaly Property, Port Colborne
Client: AMZ Holdings

Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No. 2
UTM Coordinates - N: 4750031
E: 644574

Soil-Mat

Depth ft	Depth m	Elevation (m)	Symbol	Description	Well Data	SAMPLE Type	SAMPLE Number	SAMPLE Blow Counts	SAMPLE Blows/300mm	SAMPLE Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)	Moisture Content w% (10 20 30 40) / Standard Penetration Test blows/300mm (20 40 60 80)
		177.08		Ground Surface									
0	0	176.83		**Topsoil** Approximately 250 millimetres of topsoil.									
1				**Silty Clay / Clayey Silt** Brown, trace sand and gravel, firm to stiff.		SS	1	2,3,4,6	7				
2													
3	1					SS	2	3,6,8,11	14				
4		175.60											
5				Auger Refusal on Assumed Bedrock									
6	2			End of Borehole									
7													
8													
9													
10	3												
11													
12													
13	4												
14													
15													
16	5												
17													
18													
19	6												

NOTES:

1. Borehole was advanced on December 16, 2020 using solid stem auger equipment to refusal on assumed bedrock at a depth of 1.5 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: December 16, 2021
Hole Size: 150 millimetres
Drilling Contractor: Elite Drilling Ltd.

Soil-Mat Engineers & Consultants Ltd.
130 Lancing Drive, Hamilton, ON L8W 3A1
T: 905.318.7440 F: 905.318.7455
E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: BO
Checked by: PM
Sheet: 1 of 1

Appendix ‘C’

1. AGAT Certificate of Analysis – Soil

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
130 LANCING DRIVE
HAMILTON, ON L8W3A1
(905) 318-7440

ATTENTION TO: Keith Glendell

PROJECT: 301011

AGAT WORK ORDER: 20T693959

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Lab Manager

TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor

DATE REPORTED: Dec 30, 2020

PAGES (INCLUDING COVER): 27

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*Notes

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

		SAMPLE DESCRIPTION:		S3 Dec 10		S4 Dec 10		BH101 SS2	BH101 SS3	BH102 SS2	BH102 SS3
		SAMPLE TYPE:		Soil		Soil		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-12-10		2020-12-10		2020-12-10	2020-12-10	2020-12-10	2020-12-10
Parameter	Unit	G / S	RDL	1880244	RDL	1880245	RDL	1880246	1880247	1880248	1880249
Antimony	µg/g	7.5	0.8	<0.8	0.8	<0.8	0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	35	1	16	1	6	7	6	7
Barium	µg/g	390	2	94	2	157	2	166	166	157	187
Beryllium	µg/g	5	0.5	0.6	0.5	1.1	0.5	0.8	0.8	0.9	0.9
Boron	µg/g	120	5	17	5	5	5	14	16	12	16
Boron (Hot Water Soluble)	µg/g	1.5	0.10	1.24	0.10	1.20	0.10	0.25	0.23	0.43	0.54
Cadmium	µg/g	1.2	0.5	0.8	0.5	0.5	0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	5	41	5	29	5	27	27	28	30
Cobalt	µg/g	22	0.5	17.0	0.5	36.1	0.5	15.4	14.8	14.6	15.5
Copper	µg/g	180	1	94	1	254	1	26	27	24	28
Lead	µg/g	120	1	62	1	33	1	17	16	11	13
Molybdenum	µg/g	6.9	0.5	1.7	0.5	1.1	0.5	1.0	1.0	0.7	1.2
Nickel	µg/g	130	1	326	10	2280	1	37	31	35	33
Selenium	µg/g	2.4	0.4	1.2	0.4	4.1	0.4	<0.4	0.4	0.7	0.4
Silver	µg/g	25	0.2	0.4	0.2	0.6	0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	0.4	0.5	0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	23	0.5	0.8	0.5	1.5	0.5	1.0	1.0	0.8	1.1
Vanadium	µg/g	86	1	20	1	34	1	38	39	39	42
Zinc	µg/g	340	5	138	5	125	5	85	84	70	80
Chromium, Hexavalent	µg/g	10	0.2	<0.2	0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2
Cyanide, Free	µg/g	0.051	0.040	<0.040	0.040	<0.040	0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	1.8	0.10	0.15	0.10	0.14	0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.7	0.005	0.316	0.005	0.156	0.005	0.340	0.410	1.27	0.826
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	0.255	N/A	0.532	N/A	0.539	0.558	0.731	0.377
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.36	NA	6.68	NA	7.76	7.73	7.68	7.94

Certified By:

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

		SAMPLE DESCRIPTION:		DUP4
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2020-12-21
Parameter	Unit	G / S	RDL	1880288
Antimony	µg/g	7.5	0.8	<0.8
Arsenic	µg/g	18	1	5
Barium	µg/g	390	2	153
Beryllium	µg/g	5	0.5	0.9
Boron	µg/g	120	5	18
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.27
Cadmium	µg/g	1.2	0.5	<0.5
Chromium	µg/g	160	5	26
Cobalt	µg/g	22	0.5	12.6
Copper	µg/g	180	1	23
Lead	µg/g	120	1	15
Molybdenum	µg/g	6.9	0.5	0.9
Nickel	µg/g	130	1	28
Selenium	µg/g	2.4	0.4	0.4
Silver	µg/g	25	0.2	<0.2
Thallium	µg/g	1	0.4	<0.4
Uranium	µg/g	23	0.5	1.0
Vanadium	µg/g	86	1	38
Zinc	µg/g	340	5	82
Chromium, Hexavalent	µg/g	10	0.2	<0.2
Cyanide, Free	µg/g	0.051	0.040	<0.040
Mercury	µg/g	1.8	0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.7	0.005	0.341
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	0.511
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.82

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 S RPI MFT
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.

1880244 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

1880245 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.
Dilution required, RDL has been increased accordingly.

1880246-1880288 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

		SAMPLE DESCRIPTION:		BH103 SS2	BH103 SS3	BH104 SS1	BH104 SS2	BH105 SS1	BH105 SS2	BH106 SS2	BH106 SS3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-12-21	2020-12-21	2020-12-21	2020-12-21	2020-12-18	2020-12-18	2020-12-18	2020-12-18
Parameter	Unit	G / S	RDL	1880250	1880252	1880253	1880254	1880255	1880256	1880257	1880258
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	5	4	4	4	6	6	6	4
Barium	µg/g	390	2	166	54	251	174	172	185	138	43
Beryllium	µg/g	5	0.5	0.7	<0.5	1.6	0.7	1.0	0.8	0.8	<0.5
Boron	µg/g	120	5	14	11	9	13	8	11	14	11
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	5	23	12	40	24	30	25	26	11
Cobalt	µg/g	22	0.5	12.0	6.2	19.8	12.4	17.9	13.0	13.9	5.6
Copper	µg/g	180	1	26	23	31	24	33	24	24	18
Lead	µg/g	120	1	19	10	18	14	14	14	17	9
Molybdenum	µg/g	6.9	0.5	1.0	0.6	0.7	0.9	0.7	0.9	0.9	0.6
Nickel	µg/g	130	1	26	28	76	27	85	28	38	11
Selenium	µg/g	2.4	0.4	<0.4	<0.4	0.7	0.6	0.7	<0.4	0.4	<0.4
Silver	µg/g	25	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	23	0.5	1.0	0.6	0.7	1.0	0.8	0.9	1.0	0.6
Vanadium	µg/g	86	1	33	20	53	33	42	36	38	18
Zinc	µg/g	340	5	80	57	137	77	80	71	82	51

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

		SAMPLE DESCRIPTION:		BH107 SS2	BH107 SS3	BH108 SS2	BH108 SS3	BH109 SS2	BH109 SS3	BH110 SS2	BH110 SS3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-12-16	2020-12-16	2020-12-16	2020-12-16	2020-12-16	2020-12-16	2020-12-16	2020-12-16
Parameter	Unit	G / S	RDL	1880259	1880260	1880261	1880262	1880263	1880264	1880265	1880266
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	7	5	5	4	4	3	7	6
Barium	µg/g	390	2	157	138	156	156	153	118	188	107
Beryllium	µg/g	5	0.5	1.0	0.6	0.8	0.6	0.9	0.5	0.9	0.6
Boron	µg/g	120	5	12	12	14	14	12	13	13	14
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	5	31	23	25	19	25	15	26	17
Cobalt	µg/g	22	0.5	15.8	11.9	12.9	9.2	12.1	8.2	14.7	8.5
Copper	µg/g	180	1	25	26	21	24	21	24	25	25
Lead	µg/g	120	1	13	18	14	17	14	16	14	15
Molybdenum	µg/g	6.9	0.5	1.1	1.3	1.0	0.8	0.9	0.9	1.2	0.9
Nickel	µg/g	130	1	43	25	29	20	31	17	37	21
Selenium	µg/g	2.4	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	0.4
Silver	µg/g	25	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	23	0.5	0.9	0.8	1.1	1.0	1.0	0.9	1.2	0.8
Vanadium	µg/g	86	1	43	30	35	28	34	24	38	25
Zinc	µg/g	340	5	80	79	75	74	80	69	77	65

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
AMANJOT BHELA
CHEMIST

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

		SAMPLE DESCRIPTION:		BH111 SS2	BH111 SS3	BH112 SS2	BH112 SS3	BH113 SS2	BH113 SS3	BH114 SS2	DUP2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-12-16	2020-12-16	2020-12-16	2020-12-16	2020-12-16	2020-12-16	2020-12-16	2020-12-21
Parameter	Unit	G / S	RDL	1880267	1880268	1880269	1880270	1880271	1880272	1880273	1880286
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	5	7	7	5	7	3	5	6
Barium	µg/g	390	2	139	140	163	128	140	59	163	147
Beryllium	µg/g	5	0.5	0.9	1.0	1.0	0.8	0.8	<0.5	1.0	0.8
Boron	µg/g	120	5	18	20	17	17	13	12	12	13
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	5	27	27	29	25	26	11	27	22
Cobalt	µg/g	22	0.5	12.5	14.6	15.5	15.4	15.2	7.0	13.3	11.8
Copper	µg/g	180	1	23	24	25	25	24	24	24	27
Lead	µg/g	120	1	12	15	14	17	13	12	12	17
Molybdenum	µg/g	6.9	0.5	1.0	1.0	1.1	1.1	1.0	0.8	0.9	1.3
Nickel	µg/g	130	1	29	30	34	32	33	14	35	28
Selenium	µg/g	2.4	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Silver	µg/g	25	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	23	0.5	1.1	1.0	1.2	1.1	1.1	0.7	1.0	1.1
Vanadium	µg/g	86	1	40	39	41	36	37	19	39	34
Zinc	µg/g	340	5	74	82	80	82	75	85	73	81

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959
PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone
SAMPLED BY:BO

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)

DATE RECEIVED: 2020-12-22 DATE REPORTED: 2020-12-30

		SAMPLE DESCRIPTION:		DUP3
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2020-12-21
Parameter	Unit	G / S	RDL	1880287
Antimony	µg/g	7.5	0.8	<0.8
Arsenic	µg/g	18	1	6
Barium	µg/g	390	2	172
Beryllium	µg/g	5	0.5	0.9
Boron	µg/g	120	5	19
Cadmium	µg/g	1.2	0.5	<0.5
Chromium	µg/g	160	5	26
Cobalt	µg/g	22	0.5	12.6
Copper	µg/g	180	1	23
Lead	µg/g	120	1	15
Molybdenum	µg/g	6.9	0.5	1.0
Nickel	µg/g	130	1	28
Selenium	µg/g	2.4	0.4	<0.4
Silver	µg/g	25	0.2	<0.2
Thallium	µg/g	1	0.4	<0.4
Uranium	µg/g	23	0.5	1.1
Vanadium	µg/g	86	1	37
Zinc	µg/g	340	5	78

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 S RPI MFT
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.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO CHARTERED AMANJOT BHELA CHEMIST

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

		SAMPLE DESCRIPTION:		S3 Dec 10	S4 Dec 10	DUP5
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2020-12-10	2020-12-10	2020-12-21
Parameter	Unit	G / S	RDL	1880244	1880245	1880289
Hexachloroethane	µg/g	0.07	0.01	<0.01	<0.01	<0.01
Gamma-Hexachlorocyclohexane	µg/g	0.063	0.005	<0.005	<0.005	<0.005
Heptachlor	µg/g	0.15	0.005	<0.005	<0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005	<0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007	<0.007	<0.007
DDE	µg/g	0.33	0.007	<0.007	<0.007	<0.007
DDD	µg/g	3.3	0.007	<0.007	<0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005	<0.005
Methoxychlor	µg/g	0.13	0.005	<0.005	<0.005	<0.005
Hexachlorobenzene	µg/g	0.52	0.005	<0.005	<0.005	<0.005
Hexachlorobutadiene	µg/g	0.014	0.01	<0.01	<0.01	<0.01
Moisture Content	%		0.1	35.7	33.1	36.4
wet weight OC	g		NA	5.06	5.02	5.21
Surrogate	Unit	Acceptable Limits				
TCMX	%	50-140		86	88	89
Decachlorobiphenyl	%	50-140		115	97	110

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 S RPI MFT
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.

1880244-1880289 Results are based on the dry weight of the soil.
DDT total is a calculated parameter. The calculated value is the sum of op'DDT and pp'DDT.
DDD total is a calculated parameter. The calculated value is the sum of op'DDD and pp'DDD.
DDE total is a calculated parameter. The calculated value is the sum of op'DDE and pp'DDE.
Endosulfan total is a calculated parameter. The calculated value is the sum of Endosulfan I and Endosulfan II.
Chlordane total is a calculated parameter. The calculated value is the sum of Alpha-Chlordane and Gamma-Chlordane.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

		SAMPLE DESCRIPTION:		BH103 SS2	BH103 SS3	BH104 SS1	BH104 SS2	BH105 SS1	BH105 SS2	BH106 SS2	BH106 SS3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-12-21	2020-12-21	2020-12-21	2020-12-21	2020-12-18	2020-12-18	2020-12-18	2020-12-18
Parameter	Unit	G / S	RDL	1880250	1880252	1880253	1880254	1880255	1880256	1880257	1880258
Naphthalene	µg/g	0.75	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.17	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	58	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	7.8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.74	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.63	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	7.8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.48	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<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	7.8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1 and 2 Methlynaphthalene	µg/g	3.4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	19.5	31.8	9.3	6.3	36.1	21.4	18.8	16.8
Surrogate	Unit	Acceptable Limits									
Naphthalene-d8	%	50-140		78	68	87	106	69	101	76	99
Acenaphthene-d10	%	50-140		83	63	78	92	81	94	80	71
Chrysene-d12	%	50-140		80	63	75	91	65	93	78	75

Certified By:

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

		SAMPLE DESCRIPTION:		DUP1
		SAMPLE TYPE:		Soil
		DATE SAMPLED:		2020-12-21
Parameter	Unit	G / S	RDL	1880285
Naphthalene	µg/g	0.75	0.05	<0.05
Acenaphthylene	µg/g	0.17	0.05	<0.05
Acenaphthene	µg/g	58	0.05	<0.05
Fluorene	µg/g	69	0.05	<0.05
Phenanthrene	µg/g	7.8	0.05	<0.05
Anthracene	µg/g	0.74	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	0.63	0.05	<0.05
Chrysene	µg/g	7.8	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	0.48	0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05
Benzo(g,h,i)perylene	µg/g	7.8	0.05	<0.05
1 and 2 Methlynaphthalene	µg/g	3.4	0.05	<0.05
Moisture Content	%		0.1	34.5
Surrogate	Unit	Acceptable Limits		
Naphthalene-d8	%	50-140		91
Acenaphthene-d10	%	50-140		70
Chrysene-d12	%	50-140		77

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 S RPI MFT
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.

1880250-1880285 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:

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

		SAMPLE DESCRIPTION:		S1 Dec 10	S2 Dec 10	S3 Dec 10	S4 Dec 10	BH101 SS2	BH101 SS3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2020-12-10	2020-12-10	2020-12-10	2020-12-10	2020-12-10	2020-12-10
Parameter	Unit	G / S	RDL	1880242	1880243	1880244	1880245	1880246	1880247
Benzene	µg/g	0.17	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g	6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	µg/g	15	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	µg/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g	25	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	65	5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	150	10	3000	12	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	1300	50	4900	140	160	87	<50	<50
F4 (C34 to C50)	µg/g	5600	50	<50	68	71	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	5600	50	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	7.6	23.1	35.7	33.1	16.3	17.2
Surrogate	Unit	Acceptable Limits							
Terphenyl	%	60-140		98	100	100	79	90	89

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 20T693959

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2020-12-22

DATE REPORTED: 2020-12-30

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 S RPI MFT
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.

1880242-1880247 Results are based on sample dry weight.
The C6-C10 fraction is calculated using Toluene response factor.
Xylenes is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.
Quality Control Data is available upon request.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

Guideline Violation

AGAT WORK ORDER: 20T693959

PROJECT: 301011

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Keith Glendell

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
1880242	S1 Dec 10	ON T7 S RPI MFT	O. Reg. 153(511) - PHCs F1 - F4 (Soil)	F2 (C10 to C16)	µg/g	150	3000
1880242	S1 Dec 10	ON T7 S RPI MFT	O. Reg. 153(511) - PHCs F1 - F4 (Soil)	F3 (C16 to C34)	µg/g	1300	4900
1880244	S3 Dec 10	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Arsenic	µg/g	18	35
1880244	S3 Dec 10	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	130	326
1880245	S4 Dec 10	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	22	36.1
1880245	S4 Dec 10	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	180	254
1880245	S4 Dec 10	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	130	2280
1880245	S4 Dec 10	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	2.4	4.1
1880248	BH102 SS2	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.7	1.27
1880249	BH102 SS3	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.7	0.826

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 20T693959
PROJECT: 301011
ATTENTION TO: Keith Glendell
SAMPLING SITE:Killam, Port Colbone
SAMPLED BY:BO

Soil Analysis

RPT Date: Dec 30, 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) - Metals & Inorganics (Soil)															
Antimony	1880272	1880272	<0.8	<0.8	NA	< 0.8	120%	70%	130%	100%	80%	120%	92%	70%	130%
Arsenic	1880244	1880244	35	36	2.8%	< 1	113%	70%	130%	118%	80%	120%	118%	70%	130%
Barium	1880244	1880244	94	99	5.2%	< 2	105%	70%	130%	101%	80%	120%	100%	70%	130%
Beryllium	1880244	1880244	0.6	0.5	NA	< 0.5	74%	70%	130%	104%	80%	120%	101%	70%	130%
Boron	1880244	1880244	17	16	NA	< 5	71%	70%	130%	100%	80%	120%	80%	70%	130%
Boron (Hot Water Soluble)	1880244	1880244	1.24	1.33	7.0%	< 0.10	95%	60%	140%	115%	70%	130%	106%	60%	140%
Cadmium	1880244	1880244	0.8	0.8	NA	< 0.5	94%	70%	130%	104%	80%	120%	101%	70%	130%
Chromium	1880244	1880244	41	41	0.0%	< 5	97%	70%	130%	103%	80%	120%	110%	70%	130%
Cobalt	1880244	1880244	17.0	17.0	0.0%	< 0.5	100%	70%	130%	107%	80%	120%	105%	70%	130%
Copper	1880244	1880244	94	97	3.1%	< 1	91%	70%	130%	112%	80%	120%	105%	70%	130%
Lead	1880244	1880244	62	62	0.0%	< 1	109%	70%	130%	112%	80%	120%	99%	70%	130%
Molybdenum	1880244	1880244	1.7	1.7	NA	< 0.5	105%	70%	130%	110%	80%	120%	112%	70%	130%
Nickel	1880244	1880244	326	311	4.7%	< 1	100%	70%	130%	107%	80%	120%	103%	70%	130%
Selenium	1880244	1880244	1.2	1.4	NA	< 0.4	135%	70%	130%	111%	80%	120%	115%	70%	130%
Silver	1880244	1880244	0.4	0.4	NA	< 0.2	113%	70%	130%	111%	80%	120%	99%	70%	130%
Thallium	1880244	1880244	<0.4	<0.4	NA	< 0.4	105%	70%	130%	107%	80%	120%	98%	70%	130%
Uranium	1880244	1880244	0.8	0.8	NA	< 0.5	112%	70%	130%	109%	80%	120%	106%	70%	130%
Vanadium	1880244	1880244	20	20	0.0%	< 1	102%	70%	130%	102%	80%	120%	106%	70%	130%
Zinc	1880244	1880244	138	145	4.9%	< 5	102%	70%	130%	114%	80%	120%	118%	70%	130%
Chromium, Hexavalent	1877075		<0.2	<0.2	NA	< 0.2	101%	70%	130%	85%	80%	120%	103%	70%	130%
Cyanide, Free	1862365		<0.040	<0.040	NA	< 0.040	95%	70%	130%	101%	80%	120%	103%	70%	130%
Mercury	1880244	1880244	0.15	0.14	NA	< 0.10	104%	70%	130%	101%	80%	120%	96%	70%	130%
Electrical Conductivity (2:1)	1880244	1880244	0.316	0.342	7.9%	< 0.005	102%	80%	120%	NA			NA		
Sodium Adsorption Ratio (2:1) (Calc.)	1880244	1880244	0.255	0.267	4.6%	NA	NA			NA			NA		
pH, 2:1 CaCl2 Extraction	1880385		7.36	7.33	0.4%	NA	100%	80%	120%	NA			NA		

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
Duplicate NA: results are under 5X the RDL and will not be calculated.
More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

O. Reg. 153(511) - Metals & Inorganics (Soil)															
Cyanide, Free	1871695		< 0.040	<0.040	NA	< 0.040	99%	70%	130%	103%	80%	120%	99%	70%	130%

Comments: NA signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)															
Antimony	1880244	1880244	<0.8	<0.8	NA	< 0.8	117%	70%	130%	117%	80%	120%	78%	70%	130%
Arsenic	1880244	1880244	35	36	4%	< 1	113%	70%	130%	118%	80%	120%	118%	70%	130%
Barium	1880244	1880244	94	99	5.2%	< 2	105%	70%	130%	101%	80%	120%	100%	70%	130%
Beryllium	1880244	1880244	0.6	0.5	NA	< 0.5	74%	70%	130%	104%	80%	120%	101%	70%	130%

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 20T693959
PROJECT: 301011
ATTENTION TO: Keith Glendell
SAMPLING SITE:Killam, Port Colbone
SAMPLED BY:BO

Soil Analysis (Continued)

RPT Date: Dec 30, 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
Boron	1880244	1880244	17	16	NA	< 5	71%	70%	130%	100%	80%	120%	80%	70%	130%
Cadmium	1880244	1880244	0.8	0.8	NA	< 0.5	94%	70%	130%	104%	80%	120%	101%	70%	130%
Chromium	1880244	1880244	41	41	1.4%	< 5	97%	70%	130%	103%	80%	120%	NA	70%	130%
Cobalt	1880244	1880244	17.0	17.0	0%	< 0.5	100%	70%	130%	107%	80%	120%	105%	70%	130%
Copper	1880244	1880244	94	97	3.1%	< 1	91%	70%	130%	112%	80%	120%	NA	70%	130%
Lead	1880244	1880244	62	62	0%	< 1	109%	70%	130%	112%	80%	120%	NA	70%	130%
Molybdenum	1880244	1880244	1.7	1.7	NA	< 0.5	105%	70%	130%	110%	80%	120%	112%	70%	130%
Nickel	1880244	1880244	326	311	4.7%	< 1	100%	70%	130%	107%	80%	120%	103%	70%	130%
Selenium	1880244	1880244	1.2	1.4	NA	< 0.4	135%	70%	130%	111%	80%	120%	115%	70%	130%
Silver	1880244	1880244	0.4	0.4	NA	< 0.2	113%	70%	130%	111%	80%	120%	99%	70%	130%
Thallium	1880244	1880244	<0.4	<0.4	NA	< 0.4	105%	70%	130%	107%	80%	120%	98%	70%	130%
Uranium	1880244	1880244	0.8	0.8	NA	< 0.5	112%	70%	130%	109%	80%	120%	106%	70%	130%
Vanadium	1880244	1880244	20	20	0.6%	< 1	102%	70%	130%	102%	80%	120%	106%	70%	130%
Zinc	1880244	1880244	138	145	4.6%	< 5	102%	70%	130%	114%	80%	120%	NA	70%	130%
O. Reg. 153(511) - Metals (Including Hydrides) (Soil)															
Antimony	1880272	1880272	<0.8	<0.8	NA	< 0.8	120%	70%	130%	100%	80%	120%	92%	70%	130%
Arsenic	1880272	1880272	3	3	NA	< 1	108%	70%	130%	106%	80%	120%	106%	70%	130%
Barium	1880272	1880272	59	57	3.6%	< 2	92%	70%	130%	96%	80%	120%	96%	70%	130%
Beryllium	1880272	1880272	<0.5	<0.5	NA	< 0.5	93%	70%	130%	116%	80%	120%	114%	70%	130%
Boron	1880272	1880272	12	11	NA	< 5	78%	70%	130%	104%	80%	120%	98%	70%	130%
Cadmium	1880272	1880272	<0.5	<0.5	NA	< 0.5	99%	70%	130%	98%	80%	120%	101%	70%	130%
Chromium	1880272	1880272	11	11	NA	< 5	87%	70%	130%	98%	80%	120%	103%	70%	130%
Cobalt	1880272	1880272	7.0	7.2	3.4%	< 0.5	91%	70%	130%	102%	80%	120%	104%	70%	130%
Copper	1880272	1880272	24	20	18.2%	< 1	89%	70%	130%	103%	80%	120%	78%	70%	130%
Lead	1880272	1880272	12	11	2.2%	< 1	102%	70%	130%	114%	80%	120%	99%	70%	130%
Molybdenum	1880272	1880272	0.8	0.8	NA	< 0.5	107%	70%	130%	104%	80%	120%	112%	70%	130%
Nickel	1880272	1880272	14	14	4.6%	< 1	90%	70%	130%	101%	80%	120%	99%	70%	130%
Selenium	1880272	1880272	<0.4	<0.4	NA	< 0.4	108%	70%	130%	109%	80%	120%	111%	70%	130%
Silver	1880272	1880272	<0.2	<0.2	NA	< 0.2	118%	70%	130%	106%	80%	120%	96%	70%	130%
Thallium	1880272	1880272	<0.4	<0.4	NA	< 0.4	104%	70%	130%	108%	80%	120%	98%	70%	130%
Uranium	1880272	1880272	0.7	0.7	NA	< 0.5	110%	70%	130%	113%	80%	120%	107%	70%	130%
Vanadium	1880272	1880272	19	19	2.0%	< 1	94%	70%	130%	98%	80%	120%	104%	70%	130%
Zinc	1880272	1880272	85	83	2.7%	< 5	100%	70%	130%	107%	80%	120%	104%	70%	130%

Comments: NA Signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

Comments: NA Signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T693959

PROJECT: 301011

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

Soil Analysis (Continued)

RPT Date: Dec 30, 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

Certified By:

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 20T693959
PROJECT: 301011
ATTENTION TO: Keith Glendell
SAMPLING SITE:Killam, Port Colbone
SAMPLED BY:BO

Trace Organics Analysis

RPT Date: Dec 30, 2020

PARAMETER	Batch	Sample Id	DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (Soil)															
Benzene	1880247	1880247	< 0.02	< 0.02	NA	< 0.02	89%	50%	140%	89%	60%	130%	86%	50%	140%
Toluene	1880247	1880247	< 0.05	< 0.05	NA	< 0.05	87%	50%	140%	87%	60%	130%	82%	50%	140%
Ethylbenzene	1880247	1880247	< 0.05	< 0.05	NA	< 0.05	86%	50%	140%	86%	60%	130%	93%	50%	140%
m & p-Xylene	1880247	1880247	< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	88%	60%	130%	91%	50%	140%
o-Xylene	1880247	1880247	< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	82%	60%	130%	80%	50%	140%
Xylenes (Total)	1880247	1880247	< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	85%	60%	130%	86%	50%	140%
F1 (C6 to C10)	1880247	1880247	< 5	< 5	NA	< 5	94%	60%	140%	94%	60%	140%	96%	60%	140%
F2 (C10 to C16)	1863239		21	21	NA	< 10	96%	60%	140%	93%	60%	140%	93%	60%	140%
F3 (C16 to C34)	1863239		120	100	NA	< 50	91%	60%	140%	91%	60%	140%	97%	60%	140%
F4 (C34 to C50)	1863239		< 50	< 50	NA	< 50	90%	60%	140%	95%	60%	140%	103%	60%	140%
O. Reg. 153(511) - OC Pesticides (Soil)															
Hexachloroethane	1888583		< 0.01	< 0.01	NA	< 0.01	98%	50%	140%	92%	50%	140%	86%	50%	140%
Gamma-Hexachlorocyclohexane	1888583		< 0.005	< 0.005	NA	< 0.005	112%	50%	140%	104%	50%	140%	89%	50%	140%
Heptachlor	1888583		< 0.005	< 0.005	NA	< 0.005	103%	50%	140%	105%	50%	140%	90%	50%	140%
Aldrin	1888583		< 0.005	< 0.005	NA	< 0.005	109%	50%	140%	107%	50%	140%	96%	50%	140%
Heptachlor Epoxide	1888583		< 0.005	< 0.005	NA	< 0.005	112%	50%	140%	106%	50%	140%	98%	50%	140%
Endosulfan	1888583		< 0.005	< 0.005	NA	< 0.005	109%	50%	140%	98%	50%	140%	88%	50%	140%
Chlordane	1888583		< 0.007	< 0.007	NA	< 0.007	110%	50%	140%	105%	50%	140%	87%	50%	140%
DDE	1888583		< 0.007	< 0.007	NA	< 0.007	106%	50%	140%	107%	50%	140%	89%	50%	140%
DDD	1888583		< 0.007	< 0.007	NA	< 0.007	97%	50%	140%	108%	50%	140%	92%	50%	140%
DDT	1888583		< 0.007	< 0.007	NA	< 0.007	108%	50%	140%	92%	50%	140%	94%	50%	140%
Dieldrin	1888583		< 0.005	< 0.005	NA	< 0.005	105%	50%	140%	103%	50%	140%	86%	50%	140%
Endrin	1888583		< 0.005	< 0.005	NA	< 0.005	96%	50%	140%	86%	50%	140%	89%	50%	140%
Methoxychlor	1888583		< 0.005	< 0.005	NA	< 0.005	107%	50%	140%	91%	50%	140%	93%	50%	140%
Hexachlorobenzene	1888583		< 0.005	< 0.005	NA	< 0.005	105%	50%	140%	109%	50%	140%	102%	50%	140%
Hexachlorobutadiene	1888583		< 0.01	< 0.01	NA	< 0.01	106%	50%	140%	106%	50%	140%	88%	50%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	1854466		<0.05	<0.05	NA	< 0.05	90%	50%	140%	83%	50%	140%	95%	50%	140%
Acenaphthylene	1854466		<0.05	<0.05	NA	< 0.05	106%	50%	140%	72%	50%	140%	78%	50%	140%
Acenaphthene	1854466		<0.05	<0.05	NA	< 0.05	107%	50%	140%	73%	50%	140%	79%	50%	140%
Fluorene	1854466		<0.05	<0.05	NA	< 0.05	119%	50%	140%	77%	50%	140%	85%	50%	140%
Phenanthrene	1854466		<0.05	<0.05	NA	< 0.05	110%	50%	140%	70%	50%	140%	70%	50%	140%
Anthracene	1854466		<0.05	<0.05	NA	< 0.05	106%	50%	140%	80%	50%	140%	89%	50%	140%
Fluoranthene	1854466		<0.05	<0.05	NA	< 0.05	112%	50%	140%	75%	50%	140%	75%	50%	140%
Pyrene	1854466		<0.05	<0.05	NA	< 0.05	109%	50%	140%	74%	50%	140%	76%	50%	140%
Benz(a)anthracene	1854466		<0.05	<0.05	NA	< 0.05	89%	50%	140%	79%	50%	140%	71%	50%	140%
Chrysene	1854466		<0.05	<0.05	NA	< 0.05	104%	50%	140%	81%	50%	140%	85%	50%	140%
Benzo(b)fluoranthene	1854466		<0.05	<0.05	NA	< 0.05	65%	50%	140%	104%	50%	140%	74%	50%	140%
Benzo(k)fluoranthene	1854466		<0.05	<0.05	NA	< 0.05	72%	50%	140%	89%	50%	140%	86%	50%	140%

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T693959

PROJECT: 301011

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

Trace Organics Analysis (Continued)

RPT Date: Dec 30, 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
Benzo(a)pyrene	1854466		<0.05	<0.05	NA	< 0.05	71%	50%	140%	93%	50%	140%	71%	50%	140%
Indeno(1,2,3-cd)pyrene	1854466		<0.05	<0.05	NA	< 0.05	73%	50%	140%	78%	50%	140%	76%	50%	140%
Dibenz(a,h)anthracene	1854466		<0.05	<0.05	NA	< 0.05	69%	50%	140%	87%	50%	140%	75%	50%	140%
Benzo(g,h,i)perylene	1854466		<0.05	<0.05	NA	< 0.05	95%	50%	140%	77%	50%	140%	75%	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:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

QA Violation

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T693959

PROJECT: 301011

ATTENTION TO: Keith Glendell

RPT Date: Dec 30, 2020

PARAMETER	Sample Id	Sample Description	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
			Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
				Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - Metals & Inorganics (Soil)											
Selenium	1880244	S3 Dec 10	135%	70%	130%	111%	80%	120%	115%	70%	130%

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
Duplicate NA: results are under 5X the RDL and will not be calculated.
More than 90% of the elements met acceptance limits and overall data quality is acceptable for use. For a multi-element scan up to 10% of analytes may exceed the quoted limits by up to 10% absolute.

O. Reg. 153(511) - Metals (Including Hydrides) (Soil)											
Selenium	1880244	BH103 SS2	135%	70%	130%	111%	80%	120%	115%	70%	130%

Comments: NA Signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T693959

PROJECT: 301011

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	modified from EPA 6010D and MSA PART 3, CH 21	ICP/OES
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium, Hexavalent	INOR-93-6068	modified from EPA 3060 and EPA 7196	SPECTROPHOTOMETER
Cyanide, Free	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6036	modified from MSA PART 3, CH 14 and SM 2510 B	EC METER
Sodium Adsorption Ratio (2:1) (Calc.)	INOR-93-6007	modified from EPA 6010D & Analytical Protocol	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6031	modified from EPA 9045D and MCKEAGUE 3.11	PH METER

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: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 20T693959
PROJECT: 301011
ATTENTION TO: Keith Glendell
SAMPLING SITE:Killam, Port Colbone
SAMPLED BY:BO

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Hexachloroethane	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Gamma-Hexachlorocyclohexane	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Heptachlor	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Aldrin	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Heptachlor Epoxide	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Endosulfan	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Chlordane	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
DDE	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
DDD	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
DDT	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Dieldrin	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Endrin	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Methoxychlor	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Hexachlorobenzene	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
Hexachlorobutadiene	ORG-91-5113	modified from EPA SW-846 3570, 3620C & 8081B	GC/ECD
TCMX	ORG-91-5112	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	modified from EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		Tier 1 method	BALANCE
wet weight OC	ORG-91-5113		BALANCE
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benz(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 20T693959

PROJECT: 301011

ATTENTION TO: Keith Glendell

SAMPLING SITE:Killam, Port Colbone

SAMPLED BY:BO

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
1 and 2 Methlynaphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	ORG-91-5106	Tier 1 Method	BALANCE
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene-d10	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene-d12	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5009	modified from EPA SW-846 5035C & 8260D	(P&T)GC/MS
F1 (C6 to C10)	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID

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 #: 20T693959
Cooler Quantity:
Arrival Temperatures: 5.8 | 6 | 16.2 / 6 | 6 | 16.4
Custody Seal Intact: ☐Yes ☐No ☐N/A
Notes: No ice

Report Information:
Company: SOILMAT
Contact: Keith Glendall
Address:
Phone: Fax:
Reports to be sent to:
1. Email: kglendall@soilmat.ca
2. Email: pmarkes.c@soilmat.ca
bolds@soilmat.ca

Project Information:
Project: 30601
Site Location: Killaly, Port Colborne
Sampled By: BD
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:

Regulatory Requirements:
(Please check all applicable boxes)

☑ Regulation 153/04
Table 1 (Indicate One)
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Excess Soils R406
Table (Indicate One)
☐ Regulation 558
☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
(Region)
☐ 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

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, DOC Y/N	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐CrVI, ☐Hg, ☐HWSB	O. Reg 153: BTEX, F1-F4 PHCs, Analyze F4G if required ☐Yes ☐No	O. Reg 153: PAHs	O. Reg 153: PCBs	O. Reg 153: VOC	O. Reg 558: Landfill Disposal Characterization TCLP: ☐M&I ☐VOCs ☐ABNs ☐B(a)P ☐PCBs	O. Reg 406: Excess Soils SPLP Rainwater Leach ☐Metals ☐VOCs ☐SVOCs	O. Reg 406: Excess Soils Characterization Package pH, ICP MS Metals, BTEX, F1-F4	O. Reg 406: Salt - EC/SAR	OC Pesticides	Metals Excluding Hydrides					Potentially Hazardous or High Concentration (Y/N)
S1 Dec 10	Dec 10	PM AM/PM	2	Soil	Short Hold time				X														
S2 Dec 10		AM/PM	2						X														
S3 Dec 10		AM/PM	4				X		X								X						
S4 Dec 10		AM/PM	4				X		X								X						
BH 101 SS2		AM/PM	3				X		X														
BH 101 SS3		AM/PM	3				X		X														
BH 102 SS2		AM/PM	1				X																
BH 102 SS3		AM/PM	1				X																
BH 103 SS2	Dec 21	AM/PM	2		Dec 10 expires = Dec 24					X									X				
BH 103 SS3		AM/PM	2							X									X				
BH 104 SS1		AM/PM	2							X									X				

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Billy Olds	Dec 22	12:30	John Chypyha	Dec 22	12:30
	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
	Date	Time	Samples Received By (Print Name and Sign): John Chypyha	Dec 22	5:10

Page 1 of 4
N°: T113687

Document ID: DIV-78-1511.019

Pink Copy - Client | Yellow Copy - AGAT | White Copy- AGAT

Date Issued: August 24, 2020

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)

Report Information:

Company: SOILMAT
Contact: Keith Gleadall
Address:
Phone: Fax:
Reports to be sent to:
1. Email: Kgleadall@Soilmat.ca
2. Email: Pmartens@Soilmat.ca
bolds@soilmat.ca

Project Information:

Project: 301011
Site Location: Killaly - Port Colborne
Sampled By: BS
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:

Regulatory Requirements:

(Please check all applicable boxes)

☑ Regulation 153/04
Table 1 (Indicate One)
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Excess Soils R406
Table (Indicate One)
☐ Regulation 558
☐ CCME

☐ Sewer Use
☐ Sanitary ☐ Storm
(Region)
☐ 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

Laboratory Use Only

Work Order #:
Cooler Quantity:
Arrival Temperatures: 5.8 | 6 | 6.7 / 6 | 6 | 6.4
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes: No ice

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

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, DOC Y/N	O. Reg 153: Metals & Inorganics	Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	BTEX, F1-F4 PHCs Analyz F4G if required ☐ Yes ☐ No	PAHs	PCBs	VOC	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Excess Soils SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	Excess Soils Characterization Package pH, ICP MS Metals, BTEX, F1-F4	Salt - EC/SAR	Metals Excluding Hydride	Potentially Hazardous or High Concentration (Y/N)
BH 104 SS2	Dec21	4pm	2	Soil						X							X	
BH 105 SS1	Dec18		2							X							X	
BH 105 SS2	↓		2							X							X	
BH 106 SS2			2							X							X	
BH 106 SS3			2							X							X	
BH 107 SS2	Dec16		1														X	
BH 107 SS3																	X	
BH 108 SS2																	X	
BH 108 SS3																	X	
BH 109 SS2																	X	
BH 109 SS3	↓	↓	↓	↓													X	

Samples Relinquished By (Print Name and Sign): Billy Olds	Date Dec22	Time 12:30	Samples Received By (Print Name and Sign): John Chypyha	Date Dec22	Time 3:30
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign): John Chypyha	Date Dec22	Time 5:17
Samples Relinquished By (Print Name and Sign):	Date	Time			

Page 2 of 4
No: T113688

Document ID: DW-78-1511.018

Pink Copy - Client | Yellow Copy - AGAT | White Copy- AGAT

Date Issued: August 24, 2020

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)

Report Information:

Company: SOILMAT
Contact: Keith Gledall
Address:
Phone: Fax:
Reports to be sent to:
1. Email: Kgledall@Soilmat.ca
2. Email: pmarkes.c@Soilmat.ca
bold@Soilmat.ca

Project Information:

Project: 301011
Site Location: Killaly, Port Colborne
Sampled By:
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:

Regulatory Requirements:

(Please check all applicable boxes)

☑ Regulation 153/04
Table 1 (Indicate One)
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture (Check One)
☐ Coarse
☐ Fine

☐ Excess Soils R406
Table (Indicate One)
☐ Regulation 558
☐ CCME

☐ Sewer Use
☐ Sanitary ☐ Storm
(Region)
☐ 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

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only

Work Order #:
Cooler Quantity:
Arrival Temperatures: 5.8 | 6 | 6.2
6 | 6 | 6.4
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes: ND ice

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

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC (Y/N)	O. Reg 153: Metals & Inorganics	Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	BTEX, F1-F4 PHCs Analyze F4G if required ☐ Yes ☐ No	PAHs	PCBs	VOC	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	TCLP:	O. Reg 406: Excess Soils SPLP Rainwater Leach ☐ Metals ☐ VOCs ☐ SVOCs	SPLP:	Excess Soils Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Salt - EC/SAR	Metals Excluding Hydrides						Potentially Hazardous or High Concentration (Y/N)
BH 110 SS2	Dec16	PM	1	Soil																X					
BH110 SS3	↓	↓	↓	↓																X					
BH 111 SS2																				X					
BH 111 SS3																				X					
BH 112 SS2																				X					
BH 112 SS3																				X					
BH 113 SS2																				X					
BH 113 SS3																				X					
BH 114 SS2																				X					

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Billy Dids	Dec22	12:30	John Chypyha	Dec22	3:20
			John Chypyha	Dec22	5:10

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)

Report Information:

Company: SOILMAT
Contact: Kathy Glendall
Address:
Phone: Fax:
Reports to be sent to:
1. Email: kglendall@soilmat.ca
2. Email: pmarleau@soilmat.ca

Project Information:

Project: 301011
Site Location: Kimberly - Port Colborne
Sampled By: BD
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:

Regulatory Requirements:

(Please check all applicable boxes)

☑ Regulation 153/04
Table 1 *Indicate One*
☐ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture *(Check One)*
☐ Coarse
☐ Fine

☐ Excess Soils R406
Table *Indicate One*
☐ Regulation 558
☐ CCME

☐ Sewer Use
☐ Sanitary ☐ Storm
Region
☐ 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

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only

Work Order #:
Cooler Quantity:
Arrival Temperatures: 5.3 | 6.1 | 6.5 / 6.1 | 6.6 | 4.4
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes: no ice

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

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC Y/N	O. Reg 153: Metals & Inorganics	Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	BTEX, F1-F4 PHCs Analyze F4G if required ☐ Yes ☐ No	PAHs	PCBs	VOC	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Excess Soils SPLP Rainwater Leach ☐ Metals ☐ VOCs ☐ SVOCs	Excess Soils Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Salt - EC/SAR	Metals Excluding Hydrides	OC Pesticides						Potentially Hazardous or High Concentration (Y/N)
DUP 1	Dec 21	AM	1							X														
DUP 2	↓	↓	↓														X							
DUP 3																	X							
DUP 4							X																	
DUP 5																		X						

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Billy Ozols	Dec 22	12:30	John Chypyha	Dec 22	3:30
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
			John Chypyha	Dec 7	5:10

Page 4 of 4
N°: T 113686

Document ID: DIV-78-1511.018

Pink Copy - Client | Yellow Copy - AGAT | White Copy- AGAT

Appendix ‘D’

1. AGAT Certificate of Analysis – Groundwater

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
130 LANCING DRIVE
HAMILTON, ON L8W3A1
(905) 318-7440

ATTENTION TO: Peter Markesic

PROJECT: 301011

AGAT WORK ORDER: 21T698257

TRACE ORGANICS REVIEWED BY: Pinkal Patel, Report Reviewer

WATER ANALYSIS REVIEWED BY: Jacky Zhu, Spectroscopy Technician

DATE REPORTED: Jan 15, 2021

PAGES (INCLUDING COVER): 10

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days following analysis, unless expressly agreed otherwise in writing. Please contact your Client Project Manager if you require additional sample storage time.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This report shall not be reproduced or distributed, in whole or in part, without the prior written consent of AGAT Laboratories.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the information contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 21T698257

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (Water)

DATE RECEIVED: 2021-01-11

DATE REPORTED: 2021-01-15

				SAMPLE DESCRIPTION:	MW 101	MW 103	DUP2
				SAMPLE TYPE:	Water	Water	Water
				DATE SAMPLED:	2021-01-08 12:00	2021-01-08 12:00	2021-01-08 12:00
Parameter	Unit	G / S	RDL		1940040	1940042	1940047
Benzene	µg/L	0.5	0.20		<0.20	<0.20	<0.20
Toluene	µg/L	320	0.20		<0.20	<0.20	<0.20
Ethylbenzene	µg/L	54	0.10		<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20		<0.20	<0.20	<0.20
o-Xylene	µg/L		0.10		<0.10	<0.10	<0.10
Xylenes (Total)	µg/L	72	0.20		<0.20	<0.20	<0.20
F1 (C6 - C10)	µg/L		25		<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25		<25	<25	<25
F2 (C10 to C16)	µg/L	150	100		<100	<100	<100
F3 (C16 to C34)	µg/L	500	100		<100	<100	<100
F4 (C34 to C50)	µg/L	500	100		<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500		NA	NA	NA
Sediment					No	No	No
Surrogate	Unit	Acceptable Limits					
Toluene-d8	% Recovery	50-140			101	84	108
Terphenyl	% Recovery	60-140			70	91	65

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 21T698257

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (Water)

DATE RECEIVED: 2021-01-11

DATE REPORTED: 2021-01-15

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 NPGW MFT
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.

1940040-1940047 The C6-C10 fraction is calculated using Toluene response factor.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6-C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153/04, results are considered valid without determining the PAH contribution if not requested by the client.
NA = Not Applicable

Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: Jinkal Patel

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 21T698257

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2021-01-11

DATE REPORTED: 2021-01-15

SAMPLE DESCRIPTION:				MW 101		MW 102	MW 103	MW 104	MW 105	MW 106	DUP1
SAMPLE TYPE:				Water		Water	Water	Water	Water	Water	Water
DATE SAMPLED:				2021-01-08 12:00		2021-01-08 12:00	2021-01-08 12:00	2021-01-08 12:00	2021-01-08 12:00	2021-01-08 12:00	2021-01-08 12:00
Parameter	Unit	G / S	RDL	1940040	RDL	1940041	1940042	1940043	1940044	1940045	1940046
Dissolved Antimony	µg/L	16000	1.0	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dissolved Arsenic	µg/L	1500	1.0	<1.0	1.0	<1.0	1.8	<1.0	<1.0	<1.0	<1.0
Dissolved Barium	µg/L	23000	2.0	6.6	2.0	22.0	51.6	18.9	16.6	56.4	21.1
Dissolved Beryllium	µg/L	53	0.50	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Boron	µg/L	36000	10.0	678	10.0	802	518	516	66.3	123	70.6
Dissolved Cadmium	µg/L	2.1	0.20	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Chromium	µg/L	640	2.0	<2.0	2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dissolved Cobalt	µg/L	52	0.50	<0.50	0.50	<0.50	<0.50	<0.50	<0.50	1.05	0.64
Dissolved Copper	µg/L	69	1.0	<1.0	1.0	1.0	<1.0	<1.0	1.9	<1.0	1.4
Dissolved Lead	µg/L	20	0.50	<0.50	0.50	0.81	<0.50	<0.50	<0.50	<0.50	<0.50
Dissolved Molybdenum	µg/L	7300	0.50	<0.50	0.50	0.51	3.06	<0.50	2.69	1.73	6.71
Dissolved Nickel	µg/L	390	3.0	<3.0	3.0	<3.0	<3.0	<3.0	3.9	3.2	3.2
Dissolved Selenium	µg/L	50	1.0	<1.0	1.0	1.2	2.0	4.9	1.2	<1.0	<1.0
Dissolved Silver	µg/L	1.2	0.20	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dissolved Thallium	µg/L	400	0.30	<0.30	0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Dissolved Uranium	µg/L	330	0.50	<0.50	0.50	0.53	5.49	0.61	25.8	3.30	26.8
Dissolved Vanadium	µg/L	200	0.40	<0.40	0.40	0.90	0.47	0.44	0.55	<0.40	0.50
Dissolved Zinc	µg/L	890	5.0	<5.0	5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Mercury	µg/L	0.1	0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chromium VI	µg/L	110	5	<5	5	<5	<5	<5	<5	<5	<5
Cyanide, Free	µg/L	52	2	<2	2	<2	<2	<2	<2	<2	<2
Dissolved Sodium	µg/L	1800000	250	16000	250	57000	63400	25400	26200	29000	27400
Chloride	µg/L	1800000	200	15200	500	114000	120000	32800	12700	13800	13400
Electrical Conductivity	uS/cm	NA	2	705	2	1250	1640	1200	1550	1450	1560
pH	pH Units		NA	7.73	NA	7.75	7.80	7.76	7.74	7.76	7.75

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 21T698257

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2021-01-11

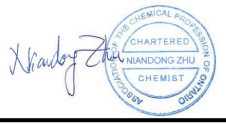
DATE REPORTED: 2021-01-15

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 NPGW MFT
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.

1940040-1940046 Metals analysis completed on a filtered sample.
Dilution required, RDL has been increased accordingly.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:



AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 21T698257

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: Jan 15, 2021			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) - PHCs F1 - F4 (Water)															
Benzene	1944587		(55)	(53)	2.8%	< 0.20	97%	50%	140%	102%	60%	130%	NA	50%	140%
Toluene	1944587		1.0	1.2	10%	< 0.20	103%	50%	140%	92%	60%	130%	90%	50%	140%
Ethylbenzene	1944587		1.7	1.9	8.3%	< 0.10	101%	50%	140%	99%	60%	130%	81%	50%	140%
m & p-Xylene	1944587		3.5	3.2	8.9%	< 0.20	101%	50%	140%	104%	60%	130%	88%	50%	140%
o-Xylene	1944587		<0.10	<0.10	NA	< 0.10	94%	50%	140%	93%	60%	130%	95%	50%	140%
F1 (C6 - C10)	1944587		170	160	10.3%	< 25	101%	60%	140%	103%	60%	140%	69%	60%	140%
Toluene-d8	1944587		80	84	5.2%	< 1	NA			NA			10%		
F2 (C10 to C16)	1930690		< 100	< 100	NA	< 100	119%	60%	140%	82%	60%	140%	84%	60%	140%
F3 (C16 to C34)	1930690		< 100	< 100	NA	< 100	101%	60%	140%	80%	60%	140%	78%	60%	140%
F4 (C34 to C50)	1930690		< 100	< 100	NA	< 100	100%	60%	140%	86%	60%	140%	89%	60%	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: Jinkal Patel

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 21T698257

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:

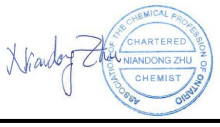
SAMPLED BY:

Water Analysis

RPT Date: Jan 15, 2021			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) - Metals & Inorganics (Water)															
Dissolved Antimony	1941127		<1.0	1.4	NA	< 1.0	96%	70%	130%	99%	80%	120%	100%	70%	130%
Dissolved Arsenic	1941127		<1.0	1.2	NA	< 1.0	90%	70%	130%	101%	80%	120%	103%	70%	130%
Dissolved Barium	1941127		122	129	5.6%	< 2.0	91%	70%	130%	99%	80%	120%	98%	70%	130%
Dissolved Beryllium	1941127		<0.50	<0.50	NA	< 0.50	98%	70%	130%	100%	80%	120%	111%	70%	130%
Dissolved Boron	1941127		102	111	8.5%	< 10.0	97%	70%	130%	102%	80%	120%	105%	70%	130%
Dissolved Cadmium	1941127		<0.20	0.93	NA	< 0.20	99%	70%	130%	99%	80%	120%	104%	70%	130%
Dissolved Chromium	1941127		<2.0	<2.0	NA	< 2.0	100%	70%	130%	101%	80%	120%	99%	70%	130%
Dissolved Cobalt	1941127		<0.50	<0.50	NA	< 0.50	92%	70%	130%	103%	80%	120%	99%	70%	130%
Dissolved Copper	1941127		1.7	1.8	NA	< 1.0	99%	70%	130%	99%	80%	120%	98%	70%	130%
Dissolved Lead	1941127		<0.50	<0.50	NA	< 0.50	93%	70%	130%	98%	80%	120%	97%	70%	130%
Dissolved Molybdenum	1941127		6.26	6.32	1.0%	< 0.50	100%	70%	130%	102%	80%	120%	103%	70%	130%
Dissolved Nickel	1941127		<3.0	<3.0	NA	< 3.0	93%	70%	130%	103%	80%	120%	99%	70%	130%
Dissolved Selenium	1941127		3.9	4.8	NA	< 1.0	95%	70%	130%	101%	80%	120%	108%	70%	130%
Dissolved Silver	1941127		<0.20	<0.20	NA	< 0.20	93%	70%	130%	103%	80%	120%	98%	70%	130%
Dissolved Thallium	1941127		<0.30	<0.30	NA	< 0.30	93%	70%	130%	98%	80%	120%	99%	70%	130%
Dissolved Uranium	1941127		1.76	1.95	NA	< 0.50	94%	70%	130%	100%	80%	120%	104%	70%	130%
Dissolved Vanadium	1941127		1.47	1.80	NA	< 0.40	94%	70%	130%	104%	80%	120%	100%	70%	130%
Dissolved Zinc	1941127		<5.0	<5.0	NA	< 5.0	100%	70%	130%	100%	80%	120%	104%	70%	130%
Mercury	1941127		<0.02	<0.02	NA	< 0.02	100%	70%	130%	103%	80%	120%	98%	70%	130%
Chromium VI	1940040	1940040	<5	<5	NA	< 5	102%	70%	130%	99%	80%	120%	99%	70%	130%
Cyanide, Free	1940041	1940041	<2	<2	NA	< 2	101%	70%	130%	94%	80%	120%	102%	70%	130%
Dissolved Sodium	1940040	1940040	16000	15700	1.9%	< 50	103%	70%	130%	101%	80%	120%	98%	70%	130%
Chloride	1941333		81800	78300	4.4%	< 100	100%	70%	130%	104%	80%	120%	104%	70%	130%
Electrical Conductivity	1937889		351	350	0.3%	< 2	105%	90%	110%						
pH	1937889		7.56	7.58	0.3%	NA	100%	90%	110%						

Comments: NA Signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

Certified By:



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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 21T698257

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Benzene	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Toluene	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5010	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
F1 (C6 - C10)	VOL-91- 5010	modified from MOE PHC-E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/FID
Toluene-d8	VOL-91-5009	modified from EPA SW-846 5030C & 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	modified from MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Sediment			

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 21T698257

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Water Analysis			
Dissolved Antimony	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Arsenic	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Barium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Beryllium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Boron	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cadmium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Chromium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cobalt	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Copper	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Lead	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Molybdenum	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Nickel	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Selenium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Silver	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Thallium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Uranium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Vanadium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Zinc	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Mercury	MET-93-6100	modified from EPA 245.2 and SM 3112 B	CVAAS
Chromium VI	INOR-93-6034	modified from SM 3500-CR B	SPECTROPHOTOMETER
Cyanide, Free	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	TECHNICON AUTO ANALYZER
Dissolved Sodium	MET-93-6105	modified from EPA 6010D	ICP/OES
Chloride	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	modified from SM 4500-H+ B	PC TITRATE

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 #: 21T698257

Cooler Quantity: 1 Large

Arrival Temperatures: 9.4 | 9.6 | 10.8 / 8.7 | 7.5 | 8.9

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: ICE PACKS

Report Information:

Company: SOIL MAT
Contact: Peter Markesic
Address:
Phone: Fax:
Reports to be sent to:
1. Email: pmarkesic@soilmat.ca
2. Email: bold@soilmat.ca

Regulatory Requirements:

(Please check all applicable boxes)

☑ Regulation 153/04
Table (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine

☐ Excess Soils R406
Table (Indicate One)
☐ Regulation 558
☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm
Region
☐ 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: 30101
Site Location: Kirkly, Port Colborne
Sampled By: BD
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, DOC Y/N	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs Analyze F4G if required ☐ Yes ☐ No	O. Reg 153: PAHs	O. Reg 153: PCBs	O. Reg 153: VOC	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Excess Soils SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Excess Soils Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Salt - EC/SAR	Potentially Hazardous or High Concentration (Y/N)
MW 101	Jan 8/21	PM	11	GW	* MW 103		X		X								
MW 102		AM PM	6		Hexachroma		X										
MW 103		AM PM	11		taken from INORGANICS		X		X								
MW 104		AM PM	6		Bottle due to		X										
MW 105		AM PM	6		missing blue		X										
MW 106		AM PM	6		bottle.		X										
DUP 1		AM PM	6				X										
DUP 2		AM PM	5						X								
		AM PM															
		AM PM															
		AM PM															

	Date	Time		Date	Time
Samples Relinquished By (Print Name and Sign): Billy Oldham	Jan 8/21	5:30pm	Samples Received By (Print Name and Sign): Chris Talone	Jan 11/21	2:00pm
Samples Relinquished By (Print Name and Sign): Chris Talone	Jan 11/21	3:00pm	Samples Received By (Print Name and Sign): John Chypyha	Jan 11	3:00
Samples Relinquished By (Print Name and Sign): John Chypyha			Samples Received By (Print Name and Sign): John Chypyha	Jan 11	4:20

Page 1 of 1

N°: T111258

Appendix ‘E’

1. Qualifications of Assessors

COMPANY BACKGROUND

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] is a Canadian Consulting Engineering firm owned by its senior staff. Over the past thirty years the principals of SOIL-MAT ENGINEERS have undertaken geotechnical investigations in all areas of Hamilton and surrounding area and are familiar with the distinct geology of the area and therefore well-versed with the various soil, bedrock and groundwater conditions. SOIL-MAT ENGINEERS has a staff of over twenty-five engineers and technical staff who specialize in geotechnical assignments, environmental assessments, hydrogeological investigations and construction quality control/assurance projects. The company commenced operation on June 15, 1992 and has undertaken over 5,000 projects since its inception. The firm and all professional staff are in good standing with Professional Engineers Ontario. The company has maintained a current Certificate of Authorisation since it was granted on April 28, 1992. The firm's office and laboratory facilities are located at 130 Lancing Drive in Hamilton, Ontario.

REPORT AUTHORS

Billy Olds, B.Sc.
Environmental Technician

Mr. Olds has two years of experience in conducting Phase I ESA research and Phase II ESA fieldwork, including soil and groundwater sampling. Mr. Olds has also been a key member on a number of projects including the supervision and direction of traditional 'dig and dump' remediation projects.

Ian Shaw, P. Eng.
[Director/ Senior Professional]

Mr. Shaw has over fourteen years of experience in the geotechnical and geo-environmental fields. Mr. Shaw has supervised the geotechnical investigations for the replacement/rehabilitation of bridge/culvert structures located within the Haldimand County, numerous residential and industrial subdivision projects, slope stability assignments associated with Hamilton Conservation Authority and Conservation Halton requirements, and several high rise developments in Hamilton, Burlington, Oakville, Brantford, St. Catharines, and Niagara Falls. Mr. Shaw has also been involved in numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects. Some of Mr. Shaw's projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes and numerous 'dig and dump' remediation projects.

Keith Gleadall, B.A., EA Dipl.

Vice-President [Senior Professional]

Mr. Gleadall has over fourteen years of experience in conducting Phase I, II and III Environmental Site Assessments and has successfully completed the requirements of the Associated Environmental Site Assessors of Canada and a Post Graduate Diploma in Environmental Site Assessment from Niagara College. Mr. Gleadall is responsible for undertaking numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects, together with Phase I, II and III Environmental Site Assessments. Projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes, the decommissioning of a former dry cleaning facility and numerous 'dig and dump' remediation projects.

Appendix ‘F’

1. Statement of Limitations

REPORT LIMITATIONS

Achieving the objectives that are stated in this report has required SOIL-MAT ENGINEERS to derive conclusions based upon the best and most recent information currently available to SOIL-MAT ENGINEERS. No investigative method can completely eliminate the possibility of obtaining partially imprecise information. SOIL-MAT ENGINEERS has expressed professional judgement in gathering and analysing the information obtained and in the formulation of its conclusions.

Information in this report was obtained from sources deemed to be reliable, however, no representation or warranty is made as to the accuracy of this information. To the best of SOIL-MAT ENGINEERS' knowledge, the information gathered from outside sources contained in this report on which SOIL-MAT ENGINEERS has formulated its opinions and conclusions, are both true and correct. SOIL-MAT ENGINEERS assumes no responsibility for any misrepresentation of facts gathered from outside sources.

This report was prepared to assess and document evidence of potential environmental contamination, and not to judge the acceptability of the risks associated with such environmental contamination. Much of the information gathered for this report is only accurate at the time of collection and a change in the Site conditions may alter the interpretation of SOIL-MAT ENGINEERS' findings. Furthermore, the reader should note that the Site reconnaissance described in this report was an environmental assessment of the Site, not a regulatory compliance or an environmental audit of the Site.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of AMZ HOLDINGS. The material in it reflects SOIL-MAT ENGINEERS best judgement in light of the information available to it at the time of preparation. 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-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.

SOIL-MAT ENGINEERS & CONSULTANTS LTD.

401 Grays Road · Hamilton, ON · L8E 2Z3

www.soil-mat.ca info@soil-mat.ca 905.318.7440 / 800.243.1922 (*toll free*) 905.318.7455

PROJECT NO.: SM 301011-E November 30, 2022

AMZ HOLDINGS
C/O DESIGN PLAN SERVICES INC.
900 THE EAST MALL, SUITE 300
TORONTO, ONTARIO
M9B 6K2

Attention: Kimberly Harrison-McMillan

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT UPDATE
PROPOSED RESIDENTIAL DEVELOPMENT – ADDITIONAL LANDS
KILLALY PROPERTY
PORT COLBORNE, ONTARIO

Dear Ms. Harrison-McMillan,

As requested, SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] has completed a Phase One Environmental Site Assessment [ESA] update for the 'additional lands' that have been added to the proposed Killaly Street residential development. As part of the Phase One ESA Update, a representative of SOIL-MAT ENGINEERS visited the 'additional lands' on September 16, 2022 to observe the site conditions of the lands. In addition, our representative visited the original Phase One Property to observe the current site conditions with respect to those reported in a previous Phase One ESA Report completed for the original Phase One Property by SOIL-MAT ENGINEERS in 2020 [refer to SOIL-MAT ENGINEERS Report No.: SM 200232-E, dated June 30, 2020].

Of note, our 2020 Phase One ESA Report revealed information that suggests there are potentially contaminating activities [PCAs] on the original Phase One Property as well as on nearby properties that may contribute to areas of potential environmental concern [APECs] on the Site.

Given the above preamble, it is noted that this Phase One ESA Update letter must be read in conjunction with SOIL-MAT ENGINEERS 2020 Phase One ESA Report and is intended to update our 2020 Phase One Report to include the newly acquired 'additional lands'.

For the purpose of this update letter, the lands subject to our Phase One ESA update are herein referred to as the 'Site' and include the following:

- A small strip of land extending north from the northern boundary of the 2020 Phase One Property between 517 and 567 Killaly Street East; and
- The property recognised as 563 Killaly Street East [located immediately north of the northern limit of the 2020 Phase One Property.

Refer to the attached site plan drawing for an illustration of the newly acquired 'additional lands' and the original 2020 Phase One Property.

In addition to the above, it is noted that SOIL-MAT ENGINEERS completed a Phase Two ESA Report in connection with the original 2020 Phase One Property [refer to SOIL-MAT ENGINEERS' Report No.: SM 200342-E, dated August 31, 2020], and a Supplemental Phase Two ESA Report in connection with the original 2020 Phase One Property [refer to SOIL-MAT ENGINEERS' Report No.: SM 301011-E, dated April 26, 2021].

The purpose of this Phase One ESA Update letter is to assess the 'additional lands' to determine if a potentially contaminating activity [PCA] is present on the Site which may result in the need for additional intrusive soil and/or groundwater sampling.

SUMMARY OF PAST REPORTS

SOIL-MAT ENGINEERS were retained by AMZ HOLDINGS in 2020 to undertake a Phase One Environmental Site Assessment for a proposed residential development to south of Killaly Street East between James Street and Snider Street. The results of the Phase One ESA Report were reported to AMZ HOLDINGS under our Project Number: SM 301011-E, dated June 30, 2020 and concluded:

> *"Based on the findings of the Phase One Environmental Site Assessment, SOIL-MAT ENGINEERS & CONSULTANTS LTD. find the potential of Site contamination to be of low concern, however, for the purposes of the filing of a Record of Site Condition [RSC], the potential is considered **MEDIUM** and therefore recommend that additional investigations **ARE** required at this time, pending the results of the Ministry of the Environment database search which will be forwarded to AMZ HOLDINGS under a separate cover once they are received in our Office."*

SOIL-MAT ENGINEERS were also retained by AMZ HOLDINGS in 2020 to undertake a Phase Two Environmental Site Assessment on the same lands. The results of the Phase Two Environmental Site Assessment were reported to AMZ HOLDINGS under our Project Number: SM 200342-E, dated August 31, 2020 and concluded:

> *"Based on SOIL-MAT ENGINEERS' field observations and the laboratory analytical test results received in its office, SOIL-MAT ENGINEERS offered the following:*
>
> - *The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically Cobalt, Arsenic, Nickel, Copper, Free Cyanide, and Selenium] across the Site in the upper shallow soils, however, vertical delineation was not achieved across the Site during these assessment activities;*
> - *The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically EC, Cobalt and Nickel] within existing stockpiled material located at the northeast corner of the Site, and;*
> - *The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS did not reveal any elevated levels Petroleum Hydrocarbons [PHCs], Polycyclic Aromatic Hydrocarbons [PAHs], Organochlorine Pesticides [OCs], or Benzene, Toluene, Ethylbenzene, and Xylene Mixture [BTEX] above the applicable site condition standards on the Site."*

SOIL-MAT ENGINEERS were also retained by AMZ HOLDINGS in 2021 to undertake a Supplemental Phase Two Environmental Site Assessment on the same lands. The

results of the Supplemental Phase Two Environmental Site Assessment were reported to AMZ HOLDINGS under our Project Number: SM 301011-E, dated April 26, 2021 and concluded:

> *"Based on SOIL-MAT ENGINEERS' field observations and the laboratory analytical test results received in its office, SOIL-MAT ENGINEERS offered the following:*
>
> - *An isolated area of PHC exceedance as well as a wide spread area of elevated levels of select Metal parameters have been identified in the soil medium. The elevated levels of select PHC parameters, identified in Test Pit No. S1-Dec 10, were found in the near surface topsoil [approximately 0.05 to 0.1 m bgs] in the proximity of an existing aboveground fuel storage tank [AST]. This isolated area of impacted soil would be readily remediated through a traditional 'dig and dump' program to remove the relatively small volume of affected soil.*
>
> - *The elevated levels of select Metal parameters are reasonably confined to the upper 0.05 to 0.6 metres of soil across the Site, with the exception of the elevated levels of EC which was found in the overburden soils down to the underlying bedrock in Borehole No. 102. Based on these results and our previous Phase Two activities, there are elevated levels of select metal parameters within the upper approximately 0.05 to 0.6 metres in various areas across the Site.*
>
> - *The present data does provide for a discrete vertical delineation across the Site, suggesting that select metals exceedances are reasonably confined to the surficial soils across the Site, specifically in the upper 0.6 metres of the overburden soils. Based on the wide extent of select metal exceedances across the site, lateral delineation essentially encompasses the entirety of site, from east property line to west property line.*
>
> - *The supplemental Phase Two ESA activities did not reveal any elevated levels of select Metal, Petroleum Hydrocarbons [PHCs], or Benzene, Toluene, Ethylbenzene and Xylene Mixture [BTEX] parameters above the applicable site condition standards on the Site for the secured groundwater samples."*

It is noted that the Phase One and/or Two Property, assessed in the above noted reports, did not include the 'additional lands' that are subject to this update letter.

In addition, a search of the MOE's Brownfields Environmental Site Registry did not reveal a previous Phase One ESA that may have been undertaken on the Site.

PHASE ONE ESA UPDATE SUMMARY

The Phase One ESA Update for the Site included the following activities:

1. A review of SOIL-MAT ENGINEERS' 2020 Phase One ESA;
2. An updated Site reconnaissance;
3. An updated Title Search of the Site; and
4. An updated search of the Ministry of the Environment's Freedom of Information and Protection of Privacy Office for outstanding orders, spills, buried tanks etc.

2020 SITE RECONNAISSANCE

At the time of the June 2020 Phase One ESA Report, the Phase One Property was comprised of a roughly rectangular shaped parcel of undeveloped land consisting primarily of overgrown grass and low-lying weeds with a small forested area toward the northeast portion of the site. A gravel covered parking lot area, which was utilized as storage for an excavating company, was observed on the northern portion of the property. In addition, a small area on the southern portion of the site, appears to have recently been utilized as agricultural land.

The Phase One Property was bounded to the north by a vacant parcel of undeveloped land, as well as residential and commercial lands, to the east by agricultural lands, to the south by a community walking trail and vacant undeveloped lands and to the west by residential lands.

The project area was relatively flat and level with surface water being directed primarily to the southeast towards a drainage channel that flows southeast from the Site.

The reconnaissance of the Phase One Property revealed three [3] potentially contaminating activities [PCAs] on the Phase One Property, including the following:

- Several stockpiles of soil of unknown quality were observed on the northeastern portion of the property;
- 'Bulk' storage of road salt was observed on the property located immediately adjacent to the northeast of the Phase One Property; and
- Several aboveground fuel storage tanks [ASTs] were observed on the northeast portion of the Phase One Property.

With the exception of the above, our visual observations of the Phase One Property and adjacent properties did not reveal the presence of typical items of concern, including but not limited to:

- vent/fill pipes associated with underground storage tanks;
- sheens on surface/ ponded water; and
- areas exhibiting significant surface stains or unusual odours.

All observations were recorded from select portions of the Phase One Property that presented views of the neighbouring lands. It was not possible to have a complete view of all the neighbouring lands due to visual obstructions caused by existing structures, trees, fence lines etc.

2022 SITE RECONNAISSANCE

SOIL-MAT ENGINEERS' 2022 reconnaissance of the 'additional lands' and original Phase One Property was carried out on September 16, 2022.

In addition to the reconnaissance, a representative from SOIL-MAT ENGINEERS interviewed the tenant of the property who owns the excavating company [Emburgh's Backhoe Service] located onsite. He confirmed there was a 1,000-gallon underground septic tank located adjacent southeast of the building. The tenant also further stated there was a former underground septic tank north of the building, though he could not confirm the dimensions or when it was removed.

Information on the reconnaissance of the 'additional lands' is presented in the table below:

General Requirements:

Reporting Requirements	SOIL-MAT ENGINEERS' Details
Date and Time of the Reconnaissance	September 16, 2022 [10:00am to 12:00am]
Weather Conditions	The weather conditions did not limit the visual observations of the Site.
Duration of Site Visit	~2 hour
Enhanced Investigation Property	The Site is not an Enhanced Investigation property
Field Representative	Mr. Alex Lajkosz [qualifications included in the appendix]

Specific Observations of the 'Additional Lands':

Reporting Requirements	SOIL-MAT ENGINEERS' Details
Description of Structures and Other Improvements	A one and a half-storey residential and commercial building with no basement level. The northern and western units were used for residential purposes, the south-central unit was used for storage, the southeast unit was used as a 'hobby' automotive repair facility, and the northeast unit was used for a catering company [Port Colborne Catering and Vending]. The structure is approximately 800 m^2 and was constructed sometime between 1955 and 1965.
Description of the Number, Age and Depth of Below-Ground Structures	A 4,000-litre underground septic tank is present southeast of the multiunit building. A 'pit' was observed in the 'hobby' automotive repair facility near the northeast corner. The pit measured approximately four [4] metres long, two [2] metres wide, and one metre deep and was present for the purposes of collecting any spills.
Details of all tanks (aboveground and underground)	An aboveground storage tank, utilised for waste oil storage, was observed to the southeast of the multiunit building. Our visual observations of the AST did not reveal any obvious signs of leaks in the tank. However, there was obvious visual evidence of spillage in the immediate vicinity of the AST. An empty AST was observed to the southeast of the multiunit structure. Our visual observations of the AST did not reveal any obvious signs of leaks in the tank or signs of obvious spillage in the immediate area. An empty AST was observed to the southwest of the multiunit structure. Our visual observations of the AST did not reveal any obvious signs of leaks in the tank or signs of obvious spillage in the immediate area.
Details of any potable and non-potable water sources	The Site is serviced with a municipal water supply.
Buried Utilities	The Site is serviced with natural gas, water/sewer/storm sewer services, etc., though hydro wiring is above ground. The depth of these service trenches is not anticipated to affect contaminant distribution on the Site.

Reporting Requirements	SOIL-MAT ENGINEERS' Details
Existing Buildings: Exit/Entry Points	Access to the unit is available via the front [north side], west side, and south side of the multiunit structure, as well as garages in the north and south sides.
Existing Buildings: Cooling / Heating System	Wall-mounted A/C units and a natural gas fired furnace.
Existing Buildings: Drains, Pits, Sumps, etc.	A sump pump was observed in the storage area located in the southern portion of the multiunit building
Existing Buildings: Details of any unidentified substances	None observed
Existing Buildings: Details of Stains, Corrosion on Floors other than from Water	None observed
Details of Former and Current Wells	None observed
Details of Sewage Works	The Site is serviced with a private use septic system.
Details of Ground Surface Cover	The ground surface was comprised of an asphaltic-concrete covered parking lot area north of the existing building, a gravel-covered driveway west and south of the existing building and a mixture of landscaped and overgrown grass-covered areas.
Details of Former or Current Railway Lines	None observed
Details of Stained Soil, Damaged Vegetation or Pavement	None observed
Details of Stressed Vegetation	None observed
Areas Where Fill and Debris Materials Appear to be Present	None observed
PCAs	PCA No.: Other – Hobby Autobody Shop [associated with the hobby autobody shop in the southeast unit of the multiunit structure in the northeast portion of the 'additional lands']; PCA No. 28 – Gasoline and Associated Products Storage in Fixed Tanks [associated with the empty AST located southeast of the existing building]; PCA No. 28 – Gasoline and Associated Products Storage in Fixed Tanks [associated with the AST located southwest of the existing building]; PCA No. 28 – Gasoline and Associated Products Storage in Fixed Tanks [associated with the waste oil AST located southeast of the existing building]; and PCA No. 28 – Gasoline and Associated Products Storage in Fixed Tanks [associated with the collection pit located in the 'hobby' automotive repair unit].

NEIGHBOURING PROPERTIES

With the exception of an AST, observed on a nearby property [571 Killaly Street East] located approximately 30 metres east of the Site, our visual observations of the adjoining and nearby lands did not reveal any obvious PCAs that should be considered likely to cause an area of potential environmental concern on the Site.

In addition to the above, the visual observations of the adjacent properties did not reveal the presence of any other items of concern, including but not limited to:

- vent/ fill pipes associated with underground storage tanks;
- chemical storage in 45-gallon drums; and
- recent excavations or grading of the properties, etc.

All observations were recorded from select portions of the Site that presented views of the neighbouring lands. It was not possible to have a complete view of all the neighbouring lands due to visual obstructions caused by existing structures, trees, fence lines etc.

TITLE SEARCH

A representative of SOIL-MAT ENGINEERS undertook a title search of the Site at the Land Registry Office in Port Colborne, Ontario.

The title search of the Site did not reveal any past owners of the Site that may suggest there is a potential environmental liability on the Site.

The 'additional lands' was owned by SG Red III Land Corporation at the time of SOIL-MAT ENGINEERS' 2022 title search.

MINISTRY OF THE ENVIRONMENT DATABASE SEARCH

SOIL-MAT ENGINEERS had not received the information from the Ministry of the Environment's Freedom of Information and Protection of Privacy Office, with respect to the Phase One ESA Update.

The results of the database search for this Update letter will be sent under a separate cover once they are received in our office [typically one to two months]. SOIL-MAT ENGINEERS' MOE database search request is attached to this update letter for reference.

RECOMMENDATIONS

Based on the information gathered during the completion of this Phase One ESA Update, it is the opinion of SOIL-MAT ENGINEERS & CONSULTANTS LTD. that the potential of an adverse environmental impact to the Site should be considered **MEDIUM** and therefore recommend that additional investigations **ARE** required at this time, pending the results of the Ministry of the Environment, Conservation and Parks' database search which will be forwarded to AMZ HOLDINGS C/O DESIGN PLAN SERVICES INC. under a separate cover once they are received in our Office.

The Phase One ESA Update research revealed five [5] potentially contaminating activities [PCAs] on the 'additional lands', including the following:

- Our visual observations recorded during the reconnaissance of the 'additional lands' revealed that 'hobby' automotive repairs are conducted in one of the units.
- An AST was observed to southeast of the existing building on the 'additional lands';
- An AST was observed to the southwest of the existing building on the 'additional lands';
- A waste oil AST was observed to the southeast of the existing building on the 'additional lands'; and
- An oil collection pit was observed in the unit where 'hobby' automotive repairs are conducted.

The lands in the general vicinity of the 'additional lands' are comprised of a mixture of industrial, institutional and residential lands. The Phase One ESA research did not reveal any current or historical PCAs on lands in the Phase One Study Area that are considered likely to cause an area of potential environmental concern [APEC] on the Phase One Property.

The specific PCA numbers, associated with the above noted PCAs, include the following:

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #1	The southeast portion of the existing building.	Other.: Hobby Autobody Shop [PCA A]	On-Site	Metals, PHCs, VOCs, PAHs, and BTEX	Soil and groundwater
APEC #2	Southeast of the existing building.	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA B]	On-Site	PHCs, VOCs, and BTEX	Soil
APEC #3	Southwest of the existing building.	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA C]	On-Site	PHCs, VOCs, and BTEX	Soil

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #4	Southeast of the existing building.	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA D]	On-Site	PHCs, VOCs, and BTEX	Soil
APEC #5	The 'pit' area observed in the unit utilised for 'hobby' automotive repairs	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA E]	On-Site	PHCs, VOCs, and BTEX	Soil

To reduce SOIL-MAT ENGINEERS' degree of uncertainty associated with the environmental liabilities listed above, further assessment activities are recommended.

Each environmental liability, and our rationale for further assessment activities, is provided below:

Environmental Liability	Recommendation	Rationale
1. PCA No.: Other: Hobby Auto Body Shops	Advance four [4] boreholes, each equipped with a groundwater monitoring well, along the structure located on the northeastern portion of the 'additional lands'. The contaminants of potential concern [COPCs] should include Metals, Petroleum Hydrocarbons [PHCs], Volatile Organic Compounds [VOCs], and Benzene, Toluene, Ethylbenzene and Xylenes [BTEX].	Assess the potential of adverse impacts to the soil and groundwater mediums as a result of the current on-site hobby autobody shop.
2. PCA No.: 28: Gasoline and Associated Products Storage in Fixed Tanks	Advance two [2] hand dug test pits, around the AST located southeast of the structure located on the northeastern portion of the 'additional lands'. The COCs should include PHCs, VOCs, and BTEX.	Assess the potential of adverse impacts to the soil medium as a result of the on-site AST located southeast of the multiunit structure.
3. PCA No.: 28: Gasoline and Associated Products Storage in Fixed Tanks	Advance two [2] hand dug test pits, around the AST located southwest of the structure located on the northeastern portion of the 'additional lands'. The COCs should include PHCs, VOCs, and BTEX.	Assess the potential of adverse impacts to the soil medium as a result of the on-site AST located southwest of the multiunit structure.

Environmental Liability	Recommendation	Rationale
4. PCA No.: 28: Gasoline and Associated Products Storage in Fixed Tanks	Advance two [2] hand dug test pits, around the AST in the eastern portion of the 'additional lands'. The COCs should include PHCs, VOCs, and BTEX.	Assess the potential of adverse impacts to the soil medium as a result of the on-site AST located on the eastern portion of the 'additional lands'.
5. PCA No.: 28: Gasoline and Associated Products Storage in Fixed Tanks	Advance two [2] hand dug test pits in the concrete pit area located in the hobby shop structure. The COCs should include PHCs, VOCs, and BTEX.	Assess the potential of adverse impacts to the soil medium as a result of the on-site collection pit located in the current on-site personal auto autobody shop.

We trust this letter is satisfactory for your purposes. Please feel free to contact our Office if you have any questions, or we may be of further service to you.

Yours very truly,
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

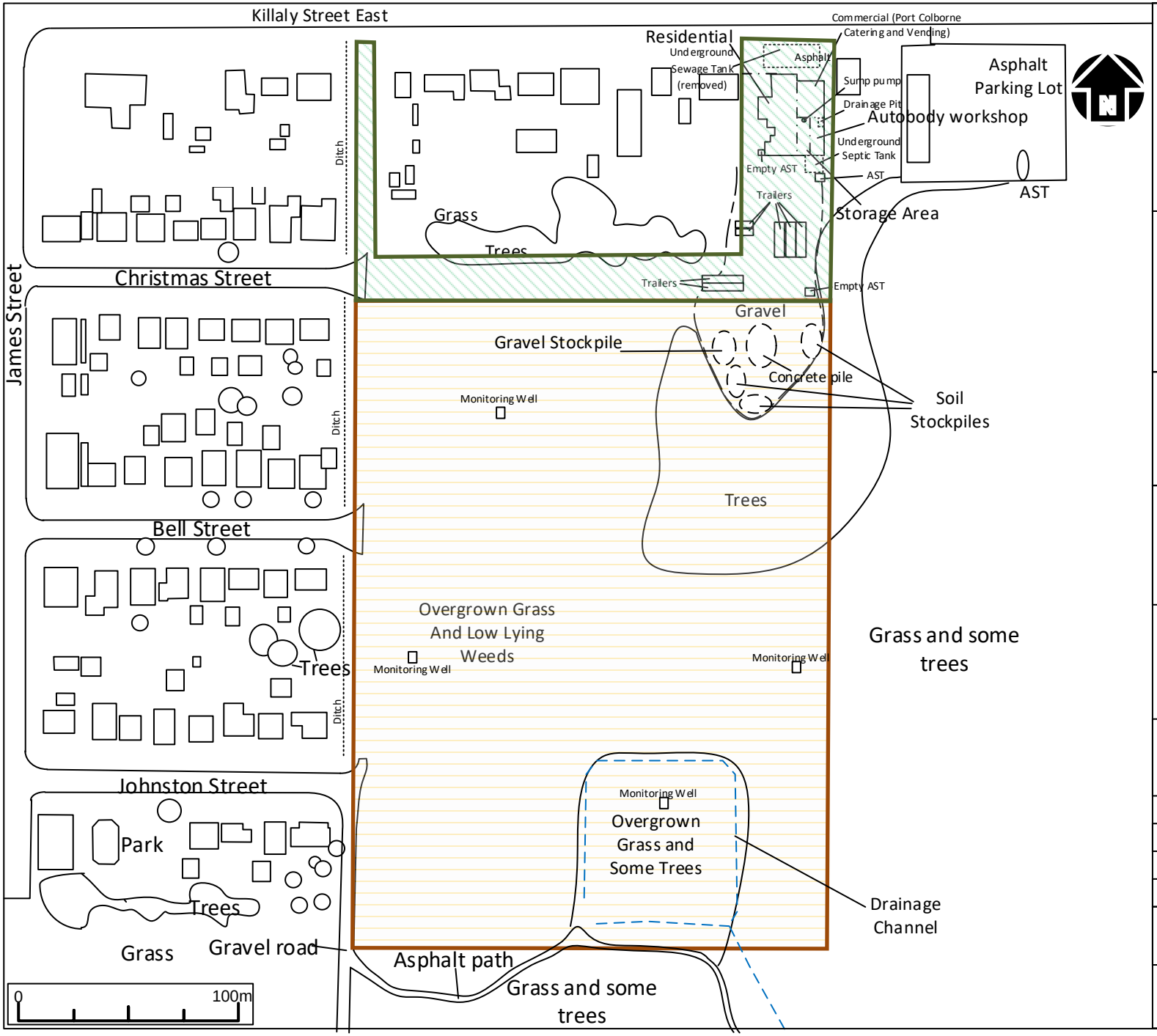
Alex Lajkosz
Environmental Technician

Keith Gleadall, B.A., EA Dipl.
Environmental Manager

Stephen R. Sears, B. Eng. Mgmt., P. Eng., QP$_{ESA}$
Review Engineer

Attachments: Drawing No.: 1: Site Plan
MOE Database Search request
Qualifications of Assessors

Distribution: AMZ HOLDINGS C/O DESIGN PLAN SERVICES INC. [2, plus pdf]



LEGEND

= 2022 Additional Lands

= 2020 Phase One Site Boundary

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

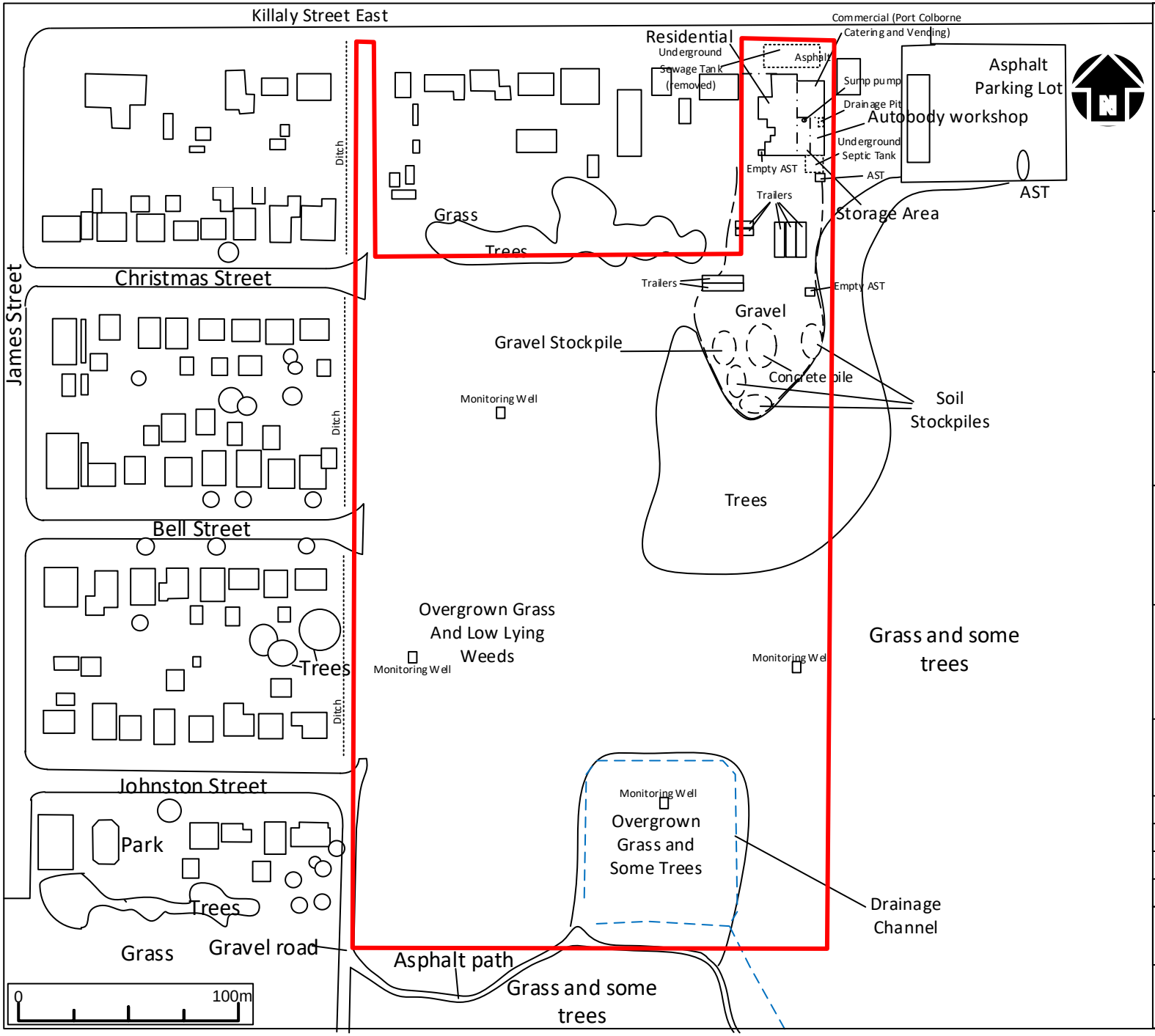
Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE

Site Plan Drawing

PROJECT No.	SM 301011-E
DATE	September 2022
CHECKED	PM
DRAWN	AL
FILE NAME	301011 Drawings.vsd

DRAWING No. 1



LEGEND

= Site Boundary

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT

AMZ HOLDINGS

PROJECT TITLE

Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE

Site Plan Drawing

PROJECT No.	SM 301011-E
DATE	September 2022
CHECKED	PM
DRAWN	AL
FILE NAME	301011 Drawings.vsd

DRAWING No. 1A

Ministry of the Environment, Conservation and Parks

Access and Privacy Office

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Bureau de l'accès à l'information et de la protection de la vie privée

12e étage
40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél. : (416) 314-4075

Ontario

October 12, 2022

Alex Lajkosz
Soil-Mat Engineers and Consultants Ltd.
130 Lancing Drive
Hamilton, Ontario L8W 3A1
alajkosz@soilmat.ca

Dear Alex Lajkosz:

RE: **MECP FOI A-2022-06843, Your Reference 301011-E – Decision Letter**

This letter is in response to your request made pursuant to the Freedom of Information and Protection of Privacy Act (the Act) relating to 563 Killaly Street East Port Colborne.

After a thorough search through the files of the ministry's Niagara District Office, West Central Region, Environmental Assessment and Permissions Division (EAPD), Environmental Monitoring and Reporting Branch (EMRB), Environmental Investigations and Enforcement Branch (EIEB), and Safe Drinking Water Branch (SDW) no records were located responsive to your request. **This file is now closed.**

You may request a review of my decision within 30 days from the date of this letter by contacting the Information and Privacy Commissioner/Ontario at http://www.ipc.on.ca. Please note there may be a fee associated with submitting the appeal.

If you have any questions, please contact Brandy Booker at, Brandy.Booker@ontario.ca.

Yours truly,

ORIGINAL SIGNED BY

Ryan Gunn
Manager (A), Access and Privacy Office

COMPANY BACKGROUND

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] is a Canadian Consulting Engineering firm owned by its senior staff. Over the past thirty years the principals of SOIL-MAT ENGINEERS have undertaken geotechnical investigations in all areas of Hamilton and surrounding area and are familiar with the distinct geology of the area and therefore well-versed with the various soil, bedrock and groundwater conditions. SOIL-MAT ENGINEERS has a staff of over twenty-five engineers and technical staff who specialize in geotechnical assignments, environmental assessments, hydrogeological investigations and construction quality control/assurance projects. The company commenced operation on June 15, 1992 and has undertaken over 5,000 projects since its inception. The firm and all professional staff are in good standing with Professional Engineers Ontario. The company has maintained a current Certificate of Authorisation since it was granted on April 28, 1992. The firm's office and laboratory facilities are located at 401 Gray Road in Hamilton, Ontario.

REPORT AUTHORS

Alex Lajkosz, B.Sc.

Environmental Technician

Mr. Lajkosz has over three years of experience in conducting Phase I ESA research and Phase II ESA fieldwork, including soil and groundwater sampling. Mr. Lajkosz has also been a key project member on a number of Phase I Environmental Site Assessment projects, including species at risk assessments for numerous construction projects throughout the Greater Toronto Area.

Keith Gleadall, B.A., EA Dipl.

Vice-President [Senior Professional]

Mr. Gleadall has over fourteen years of experience in conducting Phase I, II and III Environmental Site Assessments and has successfully completed the requirements of the Associated Environmental Site Assessors of Canada and a Post Graduate Diploma in Environmental Site Assessment from Niagara College. Mr. Gleadall is responsible for undertaking numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects, together with Phase I, II and III Environmental Site Assessments. Projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes, the decommissioning of a former dry cleaning facility and numerous 'dig and dump' remediation projects.

Stephen R. Sears, B. Eng. Mgmt., P. Eng.

Director [Senior Professional]

Mr. Sears has over twenty-two years of experience in the geotechnical and geo-environmental fields. Mr. Sears holds current Consulting Engineer designations with the Professional Engineers Ontario and the Association of Professional Engineers and Geoscientists of Saskatchewan and has supervised the geotechnical investigations for numerous industrial, commercial and residential development projects in Southern Ontario, slope stability assignments associated with Hamilton Conservation Authority, Conservation Halton and Niagara Peninsula Conservation Authority requirements, and several high rise developments throughout Ontario. Mr. Sears has also been involved in geotechnical and hydrogeological investigations for industrial park developments in the Greater Toronto Area and Niagara Peninsula. Some of Mr. Sears' projects have included the decommissioning and reconstruction of underground and above ground fuel oil storage tanks in Ontario and Saskatchewan, the study of the containment structures at a number of Petroleum Storage Facilities in Ontario and numerous 'dig and dump' remediation projects.

PROJECT NO.: SM 301011-E

JULY 18, 2023

ADDITIONAL SUPPLEMENTAL PHASE TWO ENVIRONMENTAL SITE ASSESSMENT PROPOSED RESIDENTIAL DEVELOPMENT KILLALY PROPERTY PORT COLBORNE, ONTARIO

PREPARED FOR:

AMZ HOLDINGS C/O DESIGN PLAN SERVICES INC.

Soil-Mat

BY

SOIL-MAT ENGINEERS & CONSULTANTS LTD.
401 GRAYS ROAD
HAMILTON, ONTARIO
L8E 2Z3

PROJECT NO.: SM 301011-E

JULY 18, 2023

ADDITIONAL SUPPLEMENTAL PHASE TWO ENVIRONMENTAL SITE ASSESSMENT PROPOSED RESIDENTIAL DEVELOPMENT KILLALY PROPERTY PORT COLBORNE, ONTARIO

PREPARED FOR:

AMZ HOLDINGS C/O DESIGN PLAN SERVICES INC.

BY

SOIL-MAT ENGINEERS & CONSULTANTS LTD.
401 GRAYS ROAD
HAMILTON, ONTARIO
L8E 2Z3

SOIL-MAT ENGINEERS & CONSULTANTS LTD.

401 Grays Road · Hamilton, ON · L8E 2Z3

www.soil-mat.ca info@soil-mat.ca 905.318.7440 / 800.243.1922 (*toll free*) 905.318.7455

PROJECT NO.: SM 301011-E JULY 18, 2023

AMZ HOLDINGS
C/O DESIGN PLAN SERVICES INC.
900 THE EAST MALL, SUITE 300
TORONTO, ONTARIO
M9B 6K2

Attention: Kimberly Harrison-McMillan

ADDITIONAL SUPPLEMENTAL PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED RESIDENTIAL DEVELOPMENT
KILLALY PROPERTY
PORT COLBORNE, ONTARIO

Dear Ms. Harrison-McMillan,

Further to our previous Phase Two Environmental Site Assessment [ESA] activities in connection with the above noted property, SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] were retained by AMZ HOLDINGS to undertake additional Supplemental Phase Two activites for the 'additional lands' that have been added to the proposed Killaly Street residential development. Of note, our Phase Two activities were undertaken in general accordance with our Proposal No.: SM 301011-P, dated January 13, 2023.

Our fieldwork, laboratory testing and interpretation in connection with the assessment activities has been finalised and our comments and recommendations, based on our findings, are presented in the following paragraphs.

For the purpose of this report, the lands subject to the Phase Two activities are hereinafter referred to as the 'additional lands' and or the "Site". Of note, it is recognised that the 'additional lands' are comprised of a roughly u-shaped parcel of land that has been added to the adjoining development lands to the immediate south.

1.0 BACKGROUND INFORMATION

1.1 PREVIOUS INVESTIGATIONS

A Phase One Environmental Site Assessment was previously prepared by SOIL-MAT ENGINEERS under our Project No.: SM 200232-E, dated June 30, 2020. Of note, the Phase One ESA was prepared for the adjoining development lands to the immediate south.

Upon completion of the Phase One ESA Report the following PCAs were identified in connection with the development lands:

PCA Number	PCA Description
30	Importation of Fill Material of Unknown Quality
30	Importation of Fill Material of Unknown Quality
40	Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications
28	Gasoline and Associated Products Storage in Fixed Tanks
28	Gasoline and Associated Products Storage in Fixed Tanks
48	Salt Manufacturing, Processing and Bulk Storage
35	Mining, Smelting and Refining; Ore Processing; Tailings Storage
30	Importation of Fill Material of Unknown Quality

In response to the potential environmental liabilities identified in our 2020 Phase One Environmental Site Assessment, SOIL-MAT ENGINEERS were retained to conducted a Preliminary Phase Two Environmental Site Assessment of the development lands. The results of the initial Phase Two ESA investigation are detailed in our report of Project No. SM 200342-E, dated August 31, 2020, which noted the following:

> *'Given the proposed future use of the Site [residential], the Site will be subject to a mandatory Record of Site Condition [RSC] filing. In order to complete and file an RSC the properties will either need to meet the applicable Ontario Regulation 153/04 [as amended] soil and groundwater standards or be subjected to some level of Risk Assessment Activities. In either scenario, additional intrusive sampling is recommended to complete the following:*

- *'The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically Cobalt, Arsenic Nickel, Copper, Free Cyanide, and Selenium] across the Site in the upper shallow soils, however, vertical delineation was not achieved across the Site during these assessment activities;*
- *The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed exceedances for select metal parameters [specifically EC, Cobalt and Nickel] within existing stockpiled material located at the northeast corner of the Site, and;*
- *The Phase Two ESA activities carried out by SOIL-MAT ENGINEERS did not reveal any elevated levels Petroleum Hydrocarbons [PHCs], Polycyclic Aromatic Hydrocarbons [PAHs], Organochlorine Pesticides [OCs], or Benzene, Toluene, Ethylbenzene, and Xylene Mixture [BTEX] above the applicable site condition standards on the Site.'*

> *'The samples secured for analytical testing are believed to be representative of the conditions at the sample locations only. If any significant changes are noted, i.e., odours, staining etc., SOIL-MAT ENGINEERS should be contacted to reassess the environmental characteristics of the Site.'*

> *'As noted above, soil with elevated levels of select Metal parameters was identified within the soil medium across the entire Site. The specific contaminants of concerns [COCs] include Electrical Conductivity [EC], Cobalt, Arsenic, Nickel, Copper, Free Cyanide and Selenium. The elevated levels of these select Metals were documented within the upper approximate 0.6 metres of the Site. However, it is noted that additional intrusive sampling is recommended to further delineate that lateral and vertical limits of the are(s) of specific*

concern. Based on the present information, a Record of Site Condition [RSC] cannot be filed for the Site at this time.'

'It is noted that, further to the request of the client at this stage, groundwater sampling was not conducted as part of the Phase Two ESA activities. Groundwater sampling will need to be conducted in order fully address the PCAs listed in SOIL-MAT ENGINEERS' June 2020 Phase One ESA.'

Further to the above, SOIL-MAT ENGINEERS were retained to undertake additional Phase Two activities on the development lands to provide additional soil analytical data as well as to undertake groundwater sampling and laboratory analytical testing. The results of which were reported under our Project No.: SM 301011-E, dated April 26, 2021 and revealed the following:

"The supplemental Phase Two ESA fieldwork included the advancement of fourteen [14] boreholes on the property to facilitate the collection and submission of select soil and groundwater samples for laboratory analytical testing.

Based on SOIL-MAT ENGINEERS' field observations and the laboratory analytical test results received in its office, SOIL-MAT ENGINEERS offered the following:

- *An isolated area of PHC exceedance as well as a wide spread area of elevated levels of select Metal parameters have been identified in the soil medium. The elevated levels of select PHC parameters, identified in Test Pit No. S1-Dec 10, were found in the near surface topsoil [approximately 0.05 to 0.1 m bgs] in the proximity of an existing aboveground fuel storage tank [AST]. This isolated area of impacted soil would be readily remediated through a traditional 'dig and dump' program to remove the relatively small volume of affected soil.*

- *The elevated levels of select Metal parameters are reasonably confined to the upper 0.05 to 0.6 metres of soil across the Site, with the exception of the elevated levels of EC which was found in the overburden soils down to the underlying bedrock in Borehole No. 102. Based on these results and our previous Phase Two activities, there are elevated levels of select metal parameters within the upper approximately 0.05 to 0.6 metres in various areas across the Site.*

- *The present data does provide for a discrete vertical delineation across the Site, suggesting that select metals exceedances are reasonably confined to the surficial soils across the Site, specifically in the upper 0.6 metres of the overburden soils. Based on the wide extent of select metal exceedances across the site, lateral delineation essentially encompasses the entirety of site, from east property line to west property line.*

- *The supplemental Phase Two ESA activities did not reveal any elevated levels of select Metal, Petroleum Hydrocarbons [PHCs], or Benzene, Toluene, Ethylbenzene and Xylene Mixture [BTEX] parameters above the applicable site condition standards on the Site for the secured groundwater samples.*

Further to the above, SOIL-MAT ENGINEERS were retained to undertake a Phase One ESA Update to include the 'additional lands' as part of the proposed actual residential development lands. The results of which were reported under our Project No.: SM 301011-E, dated November 30, 2022 and revealed the following:

"The Phase One ESA Update research revealed five [5] PCAs on the 'additional lands', including the following:

- *Our visual observations recorded during the reconnaissance of the 'additional lands' revealed that 'hobby' automotive repairs are conducted in one of the units.*
- *An AST was observed to southeast of the existing building on the 'additional lands';*
- *An AST was observed to the southwest of the existing building on the 'additional lands';*
- *A waste oil AST was observed to the southeast of the existing building on the 'additional lands'; and*
- *An oil collection pit was observed in the unit where 'hobby' automotive repairs are conducted.*

The lands in the general vicinity of the 'additional lands' are comprised of a mixture of industrial, institutional and residential lands. With the exception of the regional PCA with respect to Vale (formerly INCO Limited) approximately 1.4 km southwest of the Site, the Phase One ESA research did not reveal any current or historical PCAs on lands in the Phase One Study Area that are considered likely to cause an area of potential environmental concern [APEC] on the Phase One Property.

The specific PCAs, and associated areas of potential environmental concern, include the following:

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #1	The southeast portion of the existing building.	Other.: Hobby Autobody Shop [PCA A]	On-Site	Metals, PHCs, VOCs, PAHs, and BTEX	Soil
APEC #2	Southeast of the existing building.	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA B]	On-Site	PHCs, VOCs, and BTEX	Soil
APEC #3	Southwest of the existing building.	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA C]	On-Site	PHCs, VOCs, and BTEX	Soil

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Locations of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC #4	Southeast of the existing building.	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA D]	On-Site	PHCs, VOCs, and BTEX	Soil
APEC #5	The 'pit' area observed in the unit utilised for 'hobby' automotive repairs	28. Gasoline and Associated Products Storage in Fixed Tanks [PCA E]	On-Site	PHCs, VOCs, and BTEX	Soil
APEC #6	Approximately 1.4 km southwest of the Site.	35. Mining, Smelting and Refining; Ore Processing; Tailings Storage [PCA F]	Off-Site	Metals and PAHs	Soil and groundwater

Of note, this Supplemental Phase Two ESA Report should be read in conjunction with the previous Phase One and Two ESA reports noted above.

1.2 VISUAL OBSERVATIONS OF THE SITE

The additional lands are comprised of an irregularly shaped parcel of mixed undeveloped and developed land located on the south side of Killaly Street between James Street and Snider Road in the City of Port Colborne, Ontario.

At the time of this Report, the Site was comprised of an irregularly U-shaped parcel of land with a one and a half-storey residential and commercial building with no basement level. The northern and western units were used for residential purposes, the south-central unit was used for storage, the southeast unit was used as a 'hobby' automotive repair facility, and the northeast unit was used for a catering company [Port Colborne Catering and Vending]. In addition, multiple trailers occupied the southeastern portion of the property while the remainder of the Site was composed of undeveloped, grass-covered lands.

The Site was bounded to the north by residential and commercial lands, to the east by undeveloped lands, to the south by vacant undeveloped lands and to the west by residential lands.

For descriptive purposes Killaly Street has been designated as having an east-west alignment.

2.0 METHODOLOGY

2.1 PHASE TWO ESA SCOPE OF WORK

The purpose of the Supplementary Phase Two activities was to undertake intrusive soil and groundwater sampling to assess the PCAs that were identified on the 'additional lands', in our 2022 Phase One ESA Update, that were not previously assessed during our initial Phase Two and Supplemental Phase Two activities; as these lands were not part of the proposed development lands at that time. Specifically, the Supplementary Phase Two activities were planned to address the following:

- Our visual observations recorded during the reconnaissance of the 'additional lands' revealed that 'hobby' automotive repairs are conducted in one of the units.
- An AST was observed to southeast of the existing building on the 'additional lands';
- An AST was observed to the southwest of the existing building on the 'additional lands';
- A waste oil AST was observed to the southeast of the existing building on the 'additional lands';
- An oil collection pit was observed in the unit where 'hobby' automotive repairs are conducted, and;
- There is a regional PCA with respect to Vale property (formerly INCO Limited) approximately 1.4 km southwest of the Site.

Based on the above, it is proposed that the supplemental Phase Two activities include the advancement of up to four [4] sampled boreholes to a depth of approximately 6.1 metres below ground surface, or auger refusal, as well as advancement of ten [10] to twelve [12] hand dug test pits. In addition, a groundwater monitoring well was proposed to be installed on the 'additional lands' to address the off-site PCA associated with the nearby "Vale Property".

2.2 PROCEDURE

The supplemental Phase Two ESA fieldwork programme was carried out on May 24, 2023 and June 28, 2023.

The physical drilling being performed by Elements Geo Drilling Ltd. under the direction of SOIL-MAT ENGINEERS. A total of two [2] sampled boreholes and ten [10] hand-dug test pits were advanced at the locations illustrated on the enclosed Drawing No. 2, Borehole Location Plan. The borings were advanced using direct solid stem continuous flight auger equipment to depths of approximately 2.6 to 3.5 metres below existing ground surface with one of the boreholes being advanced through the limestone bedrock at a depth of 3.5 to 73 metres below ground surface.

Upon completion of drilling activities, a groundwater monitoring well was installed in Borehole No.: BH201 at a depth of 7.3 m bgs. The groundwater monitoring well consisted of 50 millimetre PVC pipe, screened in the lower 3 metres, filled with well sand to approximately 0.3 metres above the screen then filled with bentonite 'hole plug'. The groundwater monitoring wells were fitted with a flush-mount casing upon completion.

In addition, ten [10] sampled hand dug test pits were advanced throughout the exterior grounds of the additional lands, to depths of approximately 0.3 to 0.6 metres below ground surface, and two [2] hand-dug test pits were advanced in the interior of the structure utilised for 'hobby' automotive repairs.

The ground surface elevation at the borehole locations was referenced to a site specific geodetic benchmark, described as the top of the manhole cover located at eastern edge of Christmas Street, as illustrated in the Borehole Location Plan. This benchmark was noted to have an elevation of 178.01 metres, as indicated in the topo survey map prepared by IBI Group, provided to our office.

The borehole locations are identified on Drawing No.: 1, Appendix 'A' for reference.

2.3 LABORATORY ANALYTICAL TESTING

All laboratory analytical work was performed by AGAT Laboratories [AGAT] in Mississauga, Ontario. AGAT is a member of the Canadian Association for Laboratory Accreditation [CALA] and meets the requirements of Section 47 of the RSC Regulation.

2.4 SOIL SAMPLES

Soil samples were examined in the field for visual and olfactory evidence of potential impacts such as unusual staining and/or odours, etc., and were split into two [2] separate samples, including the following:

- One half of the sample was sealed in sampling jars for submission to AGAT for analytical testing, and;
- One half of the sample was sealed in a plastic sampling bag for further characterisation in SOIL-MAT ENGINEERS' in-house soils laboratory.

The soil samples that were delivered to AGAT were sealed with no head space in pre-cleaned wide mouth, amber glass sample jars, as provided by the laboratory. The samples were stored and transported in a cooler and kept under ice packs to minimise potential volatilisation of select

parameters. New disposable sampling gloves were used for the collection of each soil sample with care given to limit contact between the samples and gloves. Dedicated sample retrieval equipment, including a stainless steel split-spoon, was used to retrieve each sample and before depositing it directly it into the AGAT Laboratories sample jar.

The samples were delivered to AGAT's depot location in Stoney Creek, Ontario in coolers equipped with ice packs to help maintain a temperature range between the applicable 0°C to 10°C. As reported on the chain of custody for the soil samples, the samples were delivered to AGAT with an average temperature of 8.3°C and 7.4°C.

2.5 GROUNDWATER SAMPLES

Three [3] well volumes were purged from the groundwater monitoring well prior to the collection of the groundwater samples. The monitoring well were then allowed to recharge back to recorded static groundwater level prior to the physical sample collection.

The monitoring well installed on the Site during this supplemental Phase Two activities was equipped with dedicated sampling equipment, including a 25 millimetre water bailer for sample collection for the PHC and BTEX parameters.

A low flow bladder pump was utilised for the collection of groundwater samples for the remaining COPC groupings as the samples were subjected to laboratory analytical testing for VOCs.

2.6 SAMPLE MANAGEMENT AND FIELD OBSERVATIONS

Professional care was exercised during the retrieval of each sample, the placement of each sample in the appropriate sample jar or bottle, the labeling of the field samples and associated chain of custody and in the delivery of the samples to the testing laboratory.

As our standard operating procedures dictate unusual field observations, such as visual or olfactory evidence of a suspected impact, a deviation from SOIL-MAT ENGINEERS' field sampling and handling protocols or incident on the testing laboratories' side was documented either on our field borehole logs or in-house copy of the sample certificate of analysis. There were no deviations recorded during this supplemental Phase Two ESA.

3.0 GEOLOGICAL SETTING

A copy of SOIL-MAT ENGINEERS' borehole logs are presented in Appendix 'B' for reference.

In summary, the supplemental Phase Two ESA revealed the following Site stratigraphy:

GRANULAR FILL

All Boreholes were advanced through a surficial layer of granular fill material. The granular fill was approximately 250 millimetres in thickness. It is noted that the depth of granular fill may vary across the site and from the borehole locations.

SILTY CLAY/CLAYEY SILT

A native silty clay/clayey silt was encountered beneath the granular fill in all boreholes. The silty clay/clayey silt was brown in colour with trace staining and gravel, and was generally found to be firm in consistency. The silty clay/clayey silt was proven to auger refusal on assumed bedrock at a depth of 2.6 metres in Borehole No. 202 and at bedrock in Borehole No. 201 at a depth of 3.5 metres.

BEDROCK

Limestone bedrock was encountered in Borehole No. 201. The bedrock was grey in colour and was fractured and weathered in the upper levels. The bedrock was advanced to termination at a depth of 7.3 metres.

Based on a review of available published information, as well as our experience in the area, the bedrock consists of limestone, of the Onondaga formation. The upper levels of the bedrock are generally weathered and fractured, becoming more sound with depth, and has been known to contain harder 'chert' deposits. The bedrock is generally considered very competent in terms of the excavation and foundation requirements of the proposed project. The bedrock was not cored as part of this investigation.

GROUNDWATER OBSERVATIONS

All boreholes were recorded as 'dry' upon completion with the exception of Borehole No.: 201 which was wet at a depth of 6.7 metres upon completion. It is noted that insufficient time would have passed for the static groundwater level to stabilize in the open boreholes.

A groundwater monitoring well was installed in Borehole No.: 201 for future monitoring of the static groundwater level and environmental sampling of the on-site groundwater. The groundwater monitoring well installation details are summarized in the table below.

TABLE A
SUMMARY OF GROUNDWATER LEVELS

Borehole No.	Surface Elevation (m)	June 14, 2023		June 28, 2023	
		Depth [m]	Elev. [m]	Depth [m]	Elev. [m]
BH/MW 201	177.58	1.64	175.94	1.61	175.97

Groundwater readings were secured at the groundwater monitoring well location and the static groundwater level was observed to be situated at a depth of approximately 1.6 m bgs. However, it is noted that these groundwater monitoring wells were installed into the existing bedrock groundwater aquifer and are exhibiting artesian groundwater conditions.

Based on the groundwater contours extrapolated from the recorded static groundwater levels from the initial Phase Two ESA, the groundwater flow direction through the Site is to the south/southeast.

The groundwater monitoring well location is illustrated on Drawing No. 1, and 3 A-D in Appendix 'A'.

4.0 ONTARIO REGULATION 153/04 [AS AMENDED] SITE CLASSIFICATION AND SELECTION CRITERIA

The following criteria was utilised to determine the appropriate site classification and Ontario Regulation 153/04 [as amended] soil and groundwater standards.

- Current land use: Agricultural or Other and Commercial;
- Intended land use: Residential;
- Drinking Water Supply: Non-Potable Ground Water;
- On-site Soil Texture: Medium to Fine Grained Soils;
- Depth to Bedrock: 0.9 to 2.8 metres;
- pH of soils on the Site: Within the Applicable Generic Site Condition Standards Range;
- Surface Water Body: Not observed on-Site or within 30 metres of the Site.

Based on the above, all soil and groundwater laboratory analytical test results were compared to the Table 7 for Soil and Ground Water Standards for a Residential/Parkland/Institutional Property Use [RPI] with shallow, medium to fine textured soils in a non-potable groundwater condition from the Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environment Protection Act, [2011], hereinafter referred to as the 'Table 7 RPI Standards'.

5.0 ADDITIONAL SUPPLEMENTAL PHASE TWO ESA ANALYTICAL TEST RESULTS

5.1 SOIL SAMPLES SELECTED FOR LABORATORY ANALYTICAL TESTING

In total, fourteen [14] discrete soil samples were secured from the Site to assess potential adverse environmental impacts on the Site. The secured soil samples were submitted to AGAT for laboratory analytical testing as described in the summary table below:

TABLE B: SUMMARY OF SOIL SAMPLE TEST RESULTS

Sample ID [PCA/APEC]	Depth [m bgs]	Laboratory Analysis	Soil Description	Table 7 RPI Exceedances
BH201 SS2 [APEC #1 / PCA Other]	0.8-1.4	Metals, PHCs, BTEX, PAHs, VOCs	Brown silty clay/ clayey silt	None reported
BH201 SS5 [APEC #1 / PCA Other]	3.0-3.6	Metals, PHCs, BTEX, PAHs, VOCs	Brown silty clay/ clayey silt	None reported
BH202 SS2 [APEC #6 / PCA #35]	0.8-1.4	Metals, PAHs	Brown silty clay/ clayey silt	Exceeds the Table 7 RPI MFT standard for: EC [0.792 mS/cm reported vs 0.7 standard]
BH202 SS4 [APEC #6 / PCA #35]	2.3-2.9	Metals, PAHs	Brown silty clay/ clayey silt	None reported
TP201 [APEC #4 / PCA #28]	0.3	PHCs, BTEX, VOCs	Brown silty clay/ clayey silt with gravel	None reported
TP202 [APEC #4 / PCA #28]	0.3	PHCs, BTEX, VOCs	Brown silty clay/ clayey silt with gravel	None reported
TP203 [APEC #3 / PCA #28]	0.3	PHCs, BTEX, VOCs	Brown silty clay/ clayey silt with gravel	None reported
TP204 [APEC #2 / PCA #28]	0.3	PHCs, BTEX, VOCs	Brown silty clay/ clayey silt with gravel	None reported
TP205 [APEC #6 / PCA #35]	0.3	Metals, PAHs	Brown silty clay/ clayey silt	None reported
TP206 [APEC #6 / PCA #35]	0.3	Metals, PAHs	Brown silty clay/ clayey silt	Exceeds the Table 7 RPI MFT standard for: Cobalt [30.6 µg/g reported vs 22 µg/g standard] Copper [234 µg/g reported vs 180 µg/g standard] Nickel [2160 µg/g reported vs 130 µg/g standard] Selenium [3.1 µg/g reported vs 2.4 µg/g standard]
TP207 [APEC #6 / PCA #35]	0.3	Metals, PAHs	Brown silty clay/ clayey silt	Exceeds the Table 7 RPI MFT standard for: Nickel [848 µg/g reported vs 130 µg/g standard]

Sample ID [PCA/APEC]	Depth [m bgs]	Laboratory Analysis	Soil Description	Table 7 RPI Exceedances
TP208 [APEC #6 / PCA #35]	0.3	Metals, PAHs	Brown silty clay/ clayey silt	Exceeds the Table 7 RPI MFT standard for: Cobalt [23.5 µg/g reported vs 22 µg/g standard] Nickel [1700 µg/g reported vs 130 µg/g standard] Selenium [2.7 µg/g reported vs 2.4 µg/g standard]
TP209 [APEC #6 / PCA #35]	0.3	Metals, PAHs	Brown silty clay/ clayey silt	Exceeds the Table 7 RPI MFT standard for: Nickel [848 µg/g reported vs 130 µg/g standard]
TP210 [APEC #6 / PCA #35]	0.3	Metals, PAHs	Brown silty clay/ clayey silt	Exceeds the Table 7 RPI MFT standard for: Cobalt [30.5 µg/g reported vs 22 µg/g standard] Copper [194 µg/g reported vs 180 µg/g standard] Nickel [1640 µg/g reported vs 130 µg/g standard]
TP211 [APEC #1 & #5 / PCA #28 & Other]	0.1	Metals, PHCs, BTEX, VOCs, PAHs	Brown silty sand with gravel	Exceeds the Table 7 RPI MFT standard for: Nickel 285 µg/g reported vs 130 µg/g standard] EC [3.51 mS/cm reported vs 0.7 standard]
TP212 [APEC #1 & #5 / PCA #28 & Other]	0.1	Metals, PHCs, BTEX, VOCs, PAHs	Brown silty sand with gravel	EC [3.00 mS/cm reported vs 0.7 standard]
Dup 1 [TP 211] [APEC #1 & #5 / PCA #28 & Other]	0.1	Metals, PHCs, BTEX, VOCs, PAHs	Brown silty sand with gravel	Exceeds the Table 7 RPI MFT standard for: Nickel 327 µg/g reported vs 130 µg/g standard] EC [2.99 mS/cm reported vs 0.7 standard]
Dup 2 [TP 212] [APEC #1 & #5 / PCA #28 & Other]	0.1	Metals, PHCs, BTEX, VOCs, PAHs	Brown silty sand with gravel	EC [2.66 mS/cm reported vs 0.7 standard]
Notes: Metals = Metals, Arsenic [As], Antimony [Sb], Selenium [Se], BHWS, CN, Electrical Conductivity [EC], Cr (VI), Mercury [Hg] and Sodium Adsorption Ratio [SAR] PHCs = Petroleum Hydrocarbons, PAHs = Polycyclic Aromatic Hydrocarbons, BTEX = Benzene, Toluene, Ethylbenzene, Xylene mixture VOCs = Volatile Organic Compounds PAHs = Polycyclic Aromatic Hydrocarbons				

The laboratory analytical test results for the submitted soil samples revealed the following Table 7 RPI exceedances:

1. Elevated levels of select Metal parameters were reported Borehole No.: BH202 and Test Pit Nos. TP206 to TP212

The AGAT Certificate of Analysis for soil is included in Appendix 'C' for reference.

5.2 GROUNDWATER SAMPLES SELECTED FOR LABORATORY ANALYTICAL TESTING

In total, one discrete groundwater sample was secured from the additional lands to assess potential adverse environmental impacts on the Site.

The secured groundwater sample was submitted to AGAT for laboratory analytical testing as described in the summary table below:

TABLE C: SUMMARY OF GROUNDWATER SAMPLE TEST RESULTS

Sample ID [APEC/PCA]	Laboratory Analysis	Table 7 RPI MFT Exceedances
MW201 [APEC #1 / PCA Other]	Metals, PAHs	Exceeds the Table 7 SCS for Dissolved Cobalt [113µg/L reported vs 52µg/L standard]
Notes: Metals = Metals, As, Sb, Se, BHWS, CN, Electrical Conductivity [EC], Cr (VI), Hg and SAR PHCs = Petroleum Hydrocarbons, BTEX = Benzene, Toluene, Ethylbenzene, and Xylene Mixture PAHs = Polycyclic Aromatic Hydrocarbons		

The laboratory analytical test results, for the submitted groundwater sample, did not reveal any elevated levels of the select tested COC groupings above the applicable Table 7 groundwater site condition standards.

The AGAT Certificate of Analysis for groundwater is included in Appendix 'D' for reference.

6.0 SUMMARY AND GENERAL COMMENTS

Based on SOIL-MAT ENGINEERS' field observations and the analytical test results received in its office, SOIL-MAT ENGINEERS offers the following:

SOIL SAMPLES - METALS

The supplemental Phase Two ESA activities carried out by SOIL-MAT ENGINEERS revealed elevated levels of select metal parameters in the soil medium throughout the site. The exceedances were reported in the upper approximately 0.1 to 1.4 metres which is consistent with the findings on the development lands to the south.

With the exception of the above, our supplemental Phase Two activities did not reveal any elevated levels of the other select tested COPC groupings.

Drawing No. 2A, Appendix 'A', illustrates the metal exceedances on the Site.

GROUNDWATER SAMPLES – METALS, PHCS & BTEX

The supplemental Phase Two ESA activities revealed an elevated level of a select Metal parameter, specifically Cobalt, above the applicable site condition standards on the Site [113ppm vs the Table 7 SCS of 52ppm].

7.0 RECOMMENDATIONS

With the exception of the elevated level of Cobalt, in the groundwater medium on the additional lands, the results of the supplemental Phase Two activities are relatively consistent with the findings previously reported in our Phase Two ESA and Supplemental Phase Two ESA for the adjoining development lands to the south. With respect to the isolated elevated level of Cobalt, it is recommended that the groundwater monitoring well be purged and resampled to determine if the initial result is anomalous or is representative of the actual groundwater conditions at this location as this single test result is not consistent with the previous Phase Two ESA activities on the adjoining development lands to the south.

Further to the above, it is noted that the process of a Modified Generic Risk Assessment has commenced for the adjoining development lands to the south. As such, it is recommended that the boundaries of the Phase One, Phase Two and eventual RSC Property be re-established to include the original development lands and the 'additional lands' as one development property. In this scenario, our Office will produce a master Phase One and Phase Two Report which will combine the results of the various ESA activities together for one combined property.

It is noted that subsurface soil conditions may be present on-site that are not typical of those presented in this Report. If future activities reveal such soils, SOIL-MAT ENGINEERS should be contacted to assess the soil conditions with respect to the proposed activity.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of AMZ HOLDINGS C/O DESIGN PLAN SERVICES INC. The material in it reflects SOIL-MAT ENGINEERS' best judgement in light of the information available to it at the time of preparation. 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-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.

We trust this Report is satisfactory for your purposes. Please feel free to contact our Office if you have any questions, or we may be of further service to you.

Yours very truly,
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

For Shaalin Dlaymi, B.Sc.
Environmental Technician

Keith Gleadall, B.A., EA Dipl.
Environmental Manager

Ian Shaw, P. Eng., QP_{ESA}
Review Engineer

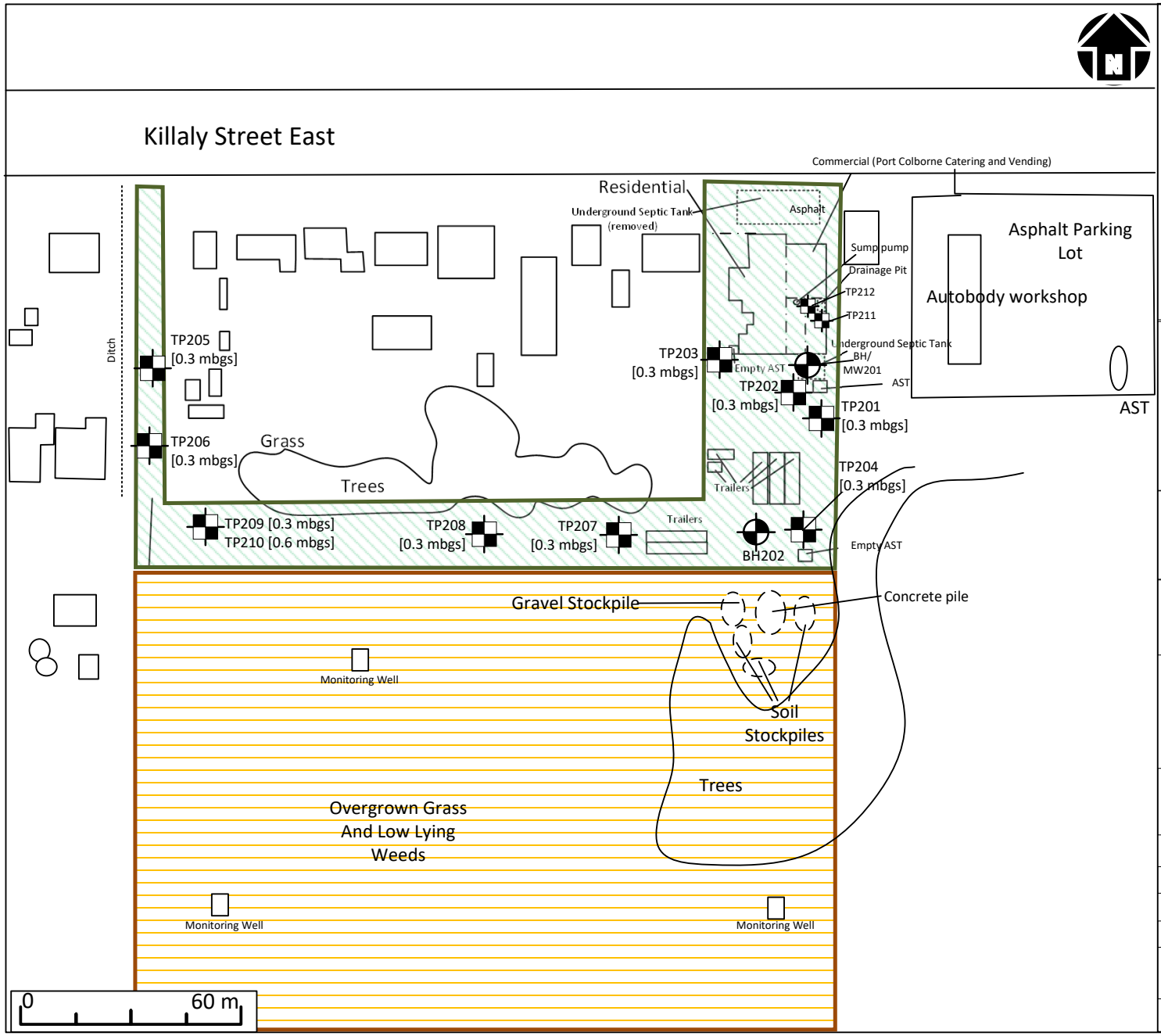
Distribution: AMZ HOLDINGS C/O DESIGN PLAN SERVICES INC. [1]

Enclosures:

Appendix 'A':	Site Plan Drawings, Analytical Data Summary and Borehole Logs;
Appendix 'B'	AGAT Soil Analytical Test Results;
Appendix 'C'	AGAT Groundwater Analytical Test Results
Appendix 'D'	Qualifications of Assessors;
Appendix 'E'	Statement of Limitations.

Appendix 'A'

1. Drawing No.: 1: Site Plan;
2. Drawing No.: 1A: APECs;
3. Drawing No.: 2A: Analytical Data Summary [Soil] Metals;
4. Drawing No.: 2B: Analytical Data Summary [Soil] PHCs;
5. Drawing No.: 2C: Analytical Data Summary [Soil] BTEX;
6. Drawing No.: 2D: Analytical Data Summary [Soil] PAHs;
7. Drawing No.: 2E: Analytical Data Summary [Soil] VOCs;
8. Drawing No.: 3A: Analytical Data Summary [Water] Metals;
9. Drawing No.: 3B: Analytical Data Summary [Water] PHCs;
10. Drawing No.: 3C: Analytical Data Summary [Water] BTEX;
11. Drawing No.: 3D: Analytical Data Summary [Water] PAHs;
12. Borehole Logs



LEGEND

= 2022 Additional Lands

= 2020 Phase One Site Boundary

TP# = Test Pit Location

BH/ MW# = Borehole/Monitoring Well Location

[#.## - #.##] = Sample Depth (m)

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

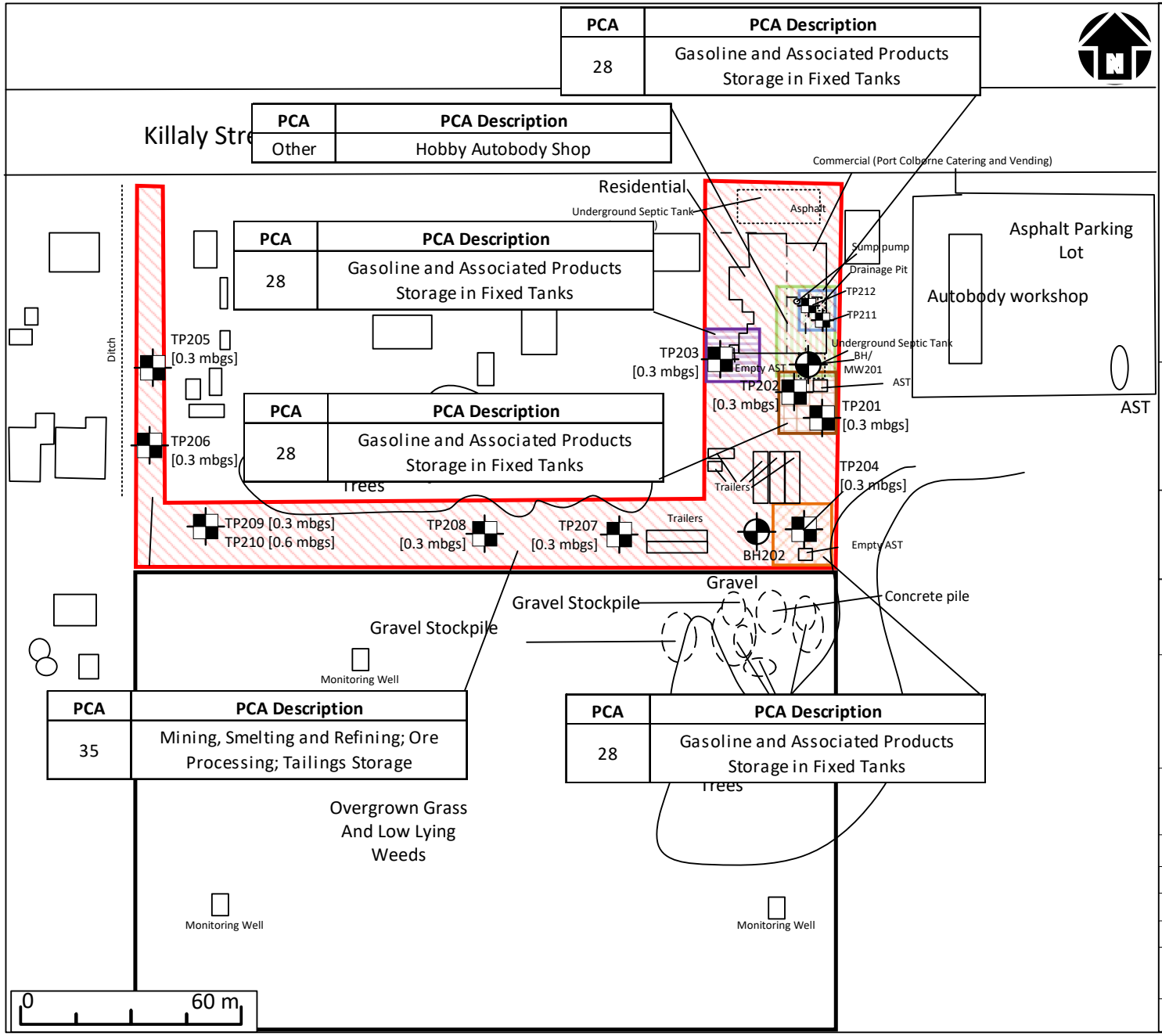
Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

PROJECT TITLE
Additional Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Site Plan Drawing

PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD
FILE NAME	301011 Drawings.vsd
DRAWING No.	1



LEGEND

- = Site Boundary
- = APEC #1
- = APEC #2
- = APEC #3
- = APEC #4
- = APEC #5
- = APEC #6
- TP# = Test Pit Location
- BH/ MW# = Borehole/Monitoring Well Location

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

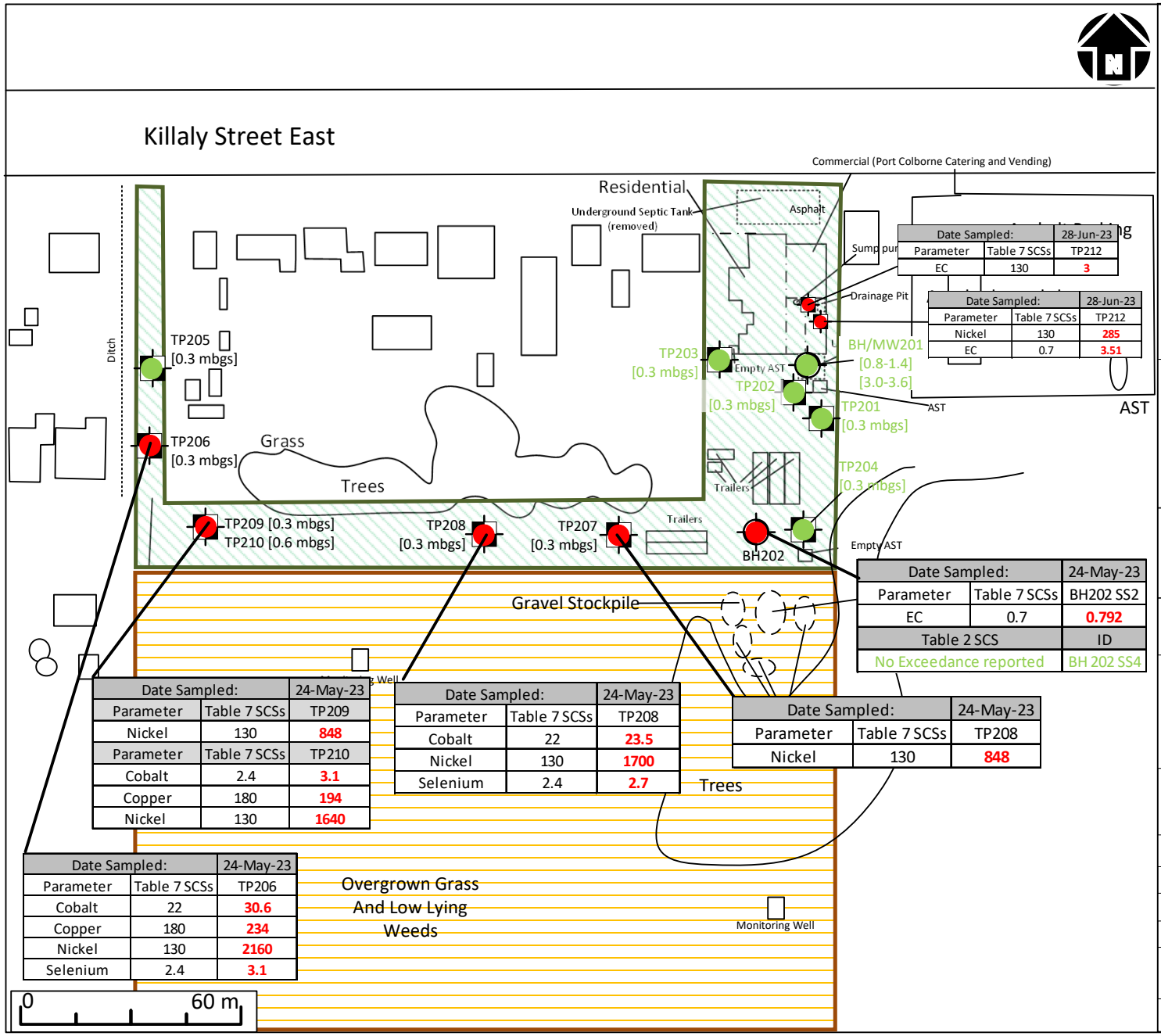
Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

PROJECT TITLE
Additional Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
APECs

PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD
FILE NAME	301011 Drawings.vsd
DRAWING No.	1A



Date Sampled:		28-Jun-23
Parameter	Table 7 SCSs	TP212
EC	130	3

Date Sampled:		28-Jun-23
Parameter	Table 7 SCSs	TP212
Nickel	130	285
EC	0.7	3.51

Date Sampled:		24-May-23
Parameter	Table 7 SCSs	BH202 SS2
EC	0.7	0.792
Table 2 SCS		ID
No Exceedance reported		BH 202 SS4

Date Sampled:		24-May-23
Parameter	Table 7 SCSs	TP209
Nickel	130	848
Parameter	Table 7 SCSs	TP210
Cobalt	2.4	3.1
Copper	180	194
Nickel	130	1640

Date Sampled:		24-May-23
Parameter	Table 7 SCSs	TP208
Cobalt	22	23.5
Nickel	130	1700
Selenium	2.4	2.7

Date Sampled:		24-May-23
Parameter	Table 7 SCSs	TP208
Nickel	130	848

Date Sampled:		24-May-23
Parameter	Table 7 SCSs	TP206
Cobalt	22	30.6
Copper	180	234
Nickel	130	2160
Selenium	2.4	3.1

LEGEND

= 2022 Additional Lands

= 2020 Phase One Site Boundary

TP# = Test Pit Location

BH/MW# = Borehole/Monitoring Well Location

[#.## - #.##] = Sample Depth (m)

Samples meeting the Table 7 RPI SCSs

Samples exceeding the Table 7 RPI SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

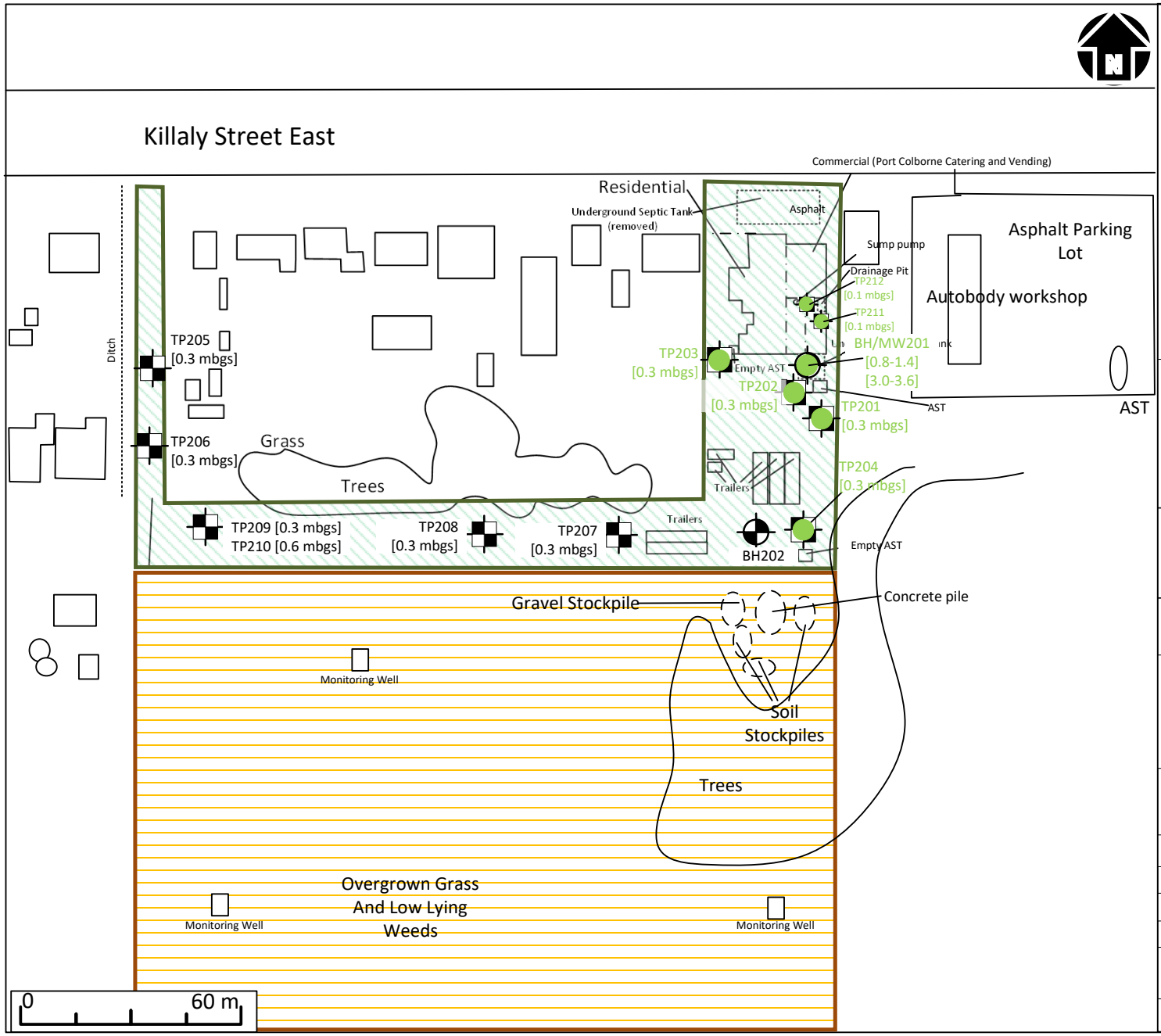
Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

PROJECT TITLE
Additional Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Soil Sampling Results – Metals

PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD
FILE NAME	301011 Drawings.vsd
DRAWING No.	2A



LEGEND

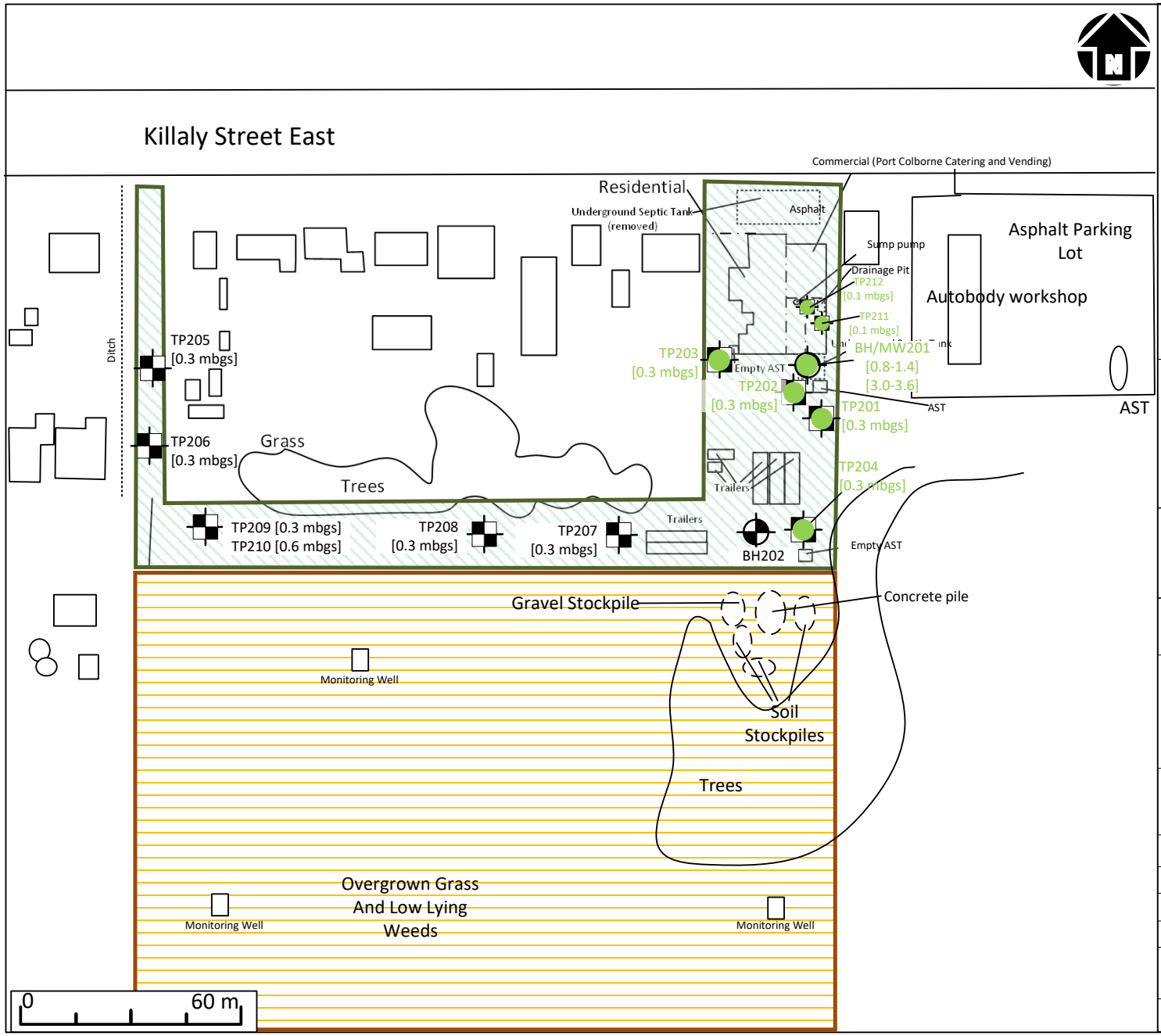
- = 2022 Additional Lands
- = 2020 Phase One Site Boundary
- TP# = Test Pit Location
- BH/MW# = Borehole/Monitoring Well Location
- [#.## - #.##] = Sample Depth (m)
- Samples meeting the Table 7 RPI SCSs
- Samples exceeding the Table 7 RPI SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	AMZ HOLDINGS
PROJECT TITLE	Additional Supplemental Phase Two Environmental Site Assessment Killaly Property Port Colborne, Ontario
DRAWING TITLE	Soil Sampling Results – PHCs
PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD
FILE NAME	301011 Drawings.vsd
DRAWING No.	2B



LEGEND

= 2022 Additional Lands

= 2020 Phase One Site Boundary

TP# = Test Pit Location

BH/MW# = Borehole/Monitoring Well Location

[#.## - #.##] = Sample Depth (m)

Samples meeting the Table 7 RPI SCSs

Samples exceeding the Table 7 RPI SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

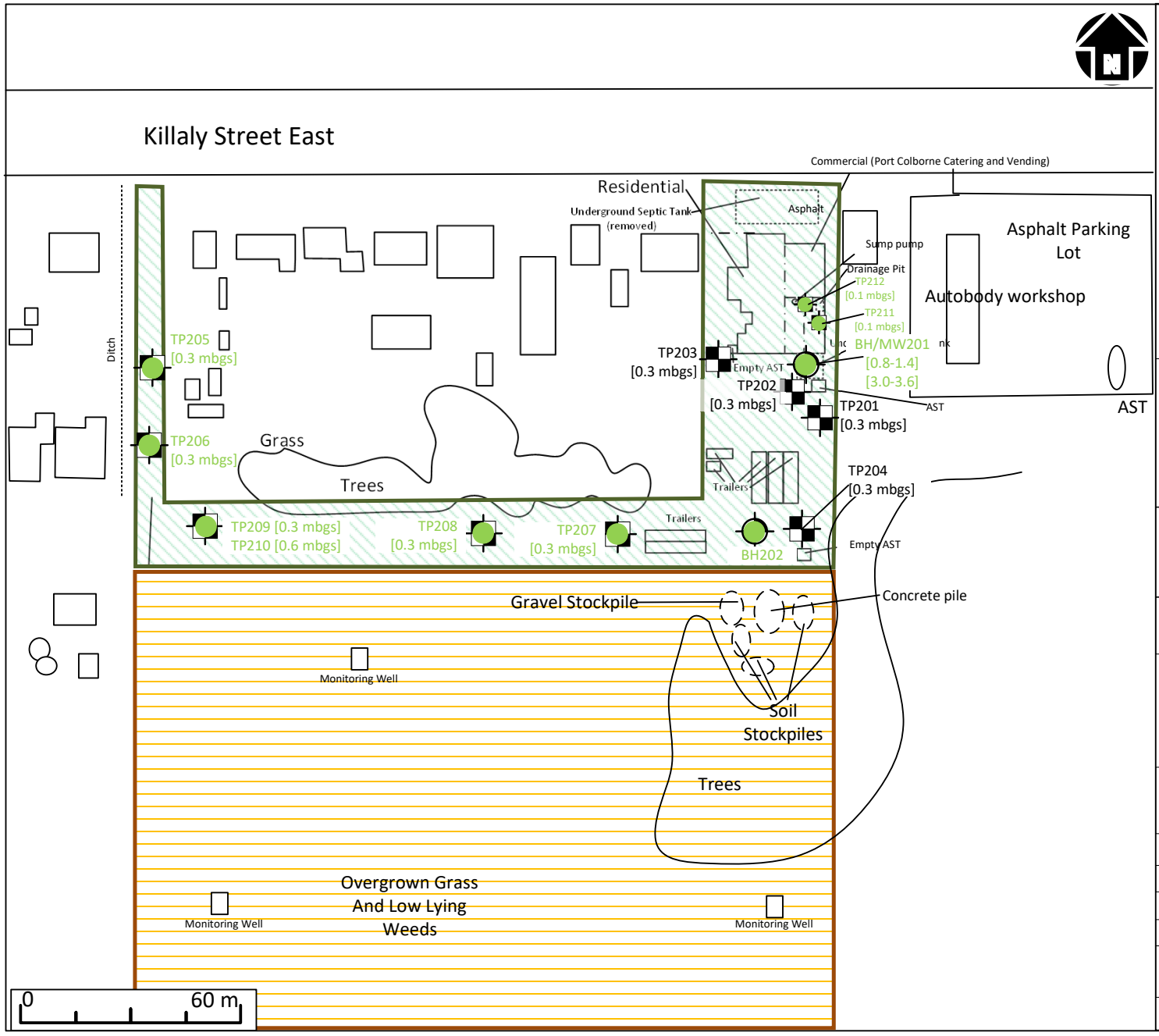
PROJECT TITLE
Additional Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Soil Sampling Results – PHCs

PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD

FILE NAME
301011 Drawings.vsd

DRAWING No. 2C



LEGEND

- = 2022 Additional Lands
- = 2020 Phase One Site Boundary
- TP# = Test Pit Location
- BH/MW# = Borehole/Monitoring Well Location
- [#.## - #.##] = Sample Depth (m)
- Samples meeting the Table 7 RPI SCSs
- Samples exceeding the Table 7 RPI SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

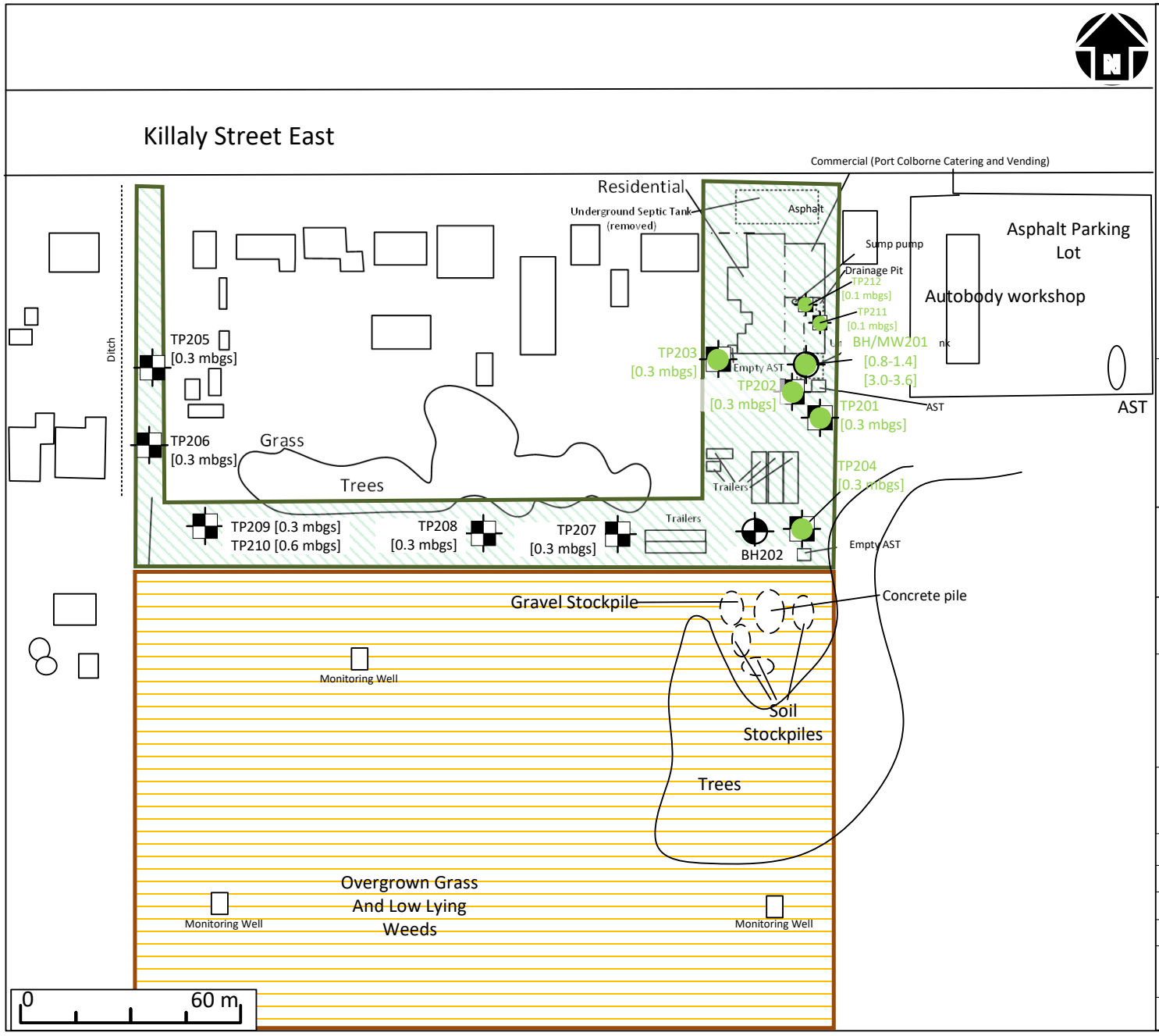
Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

PROJECT TITLE
Additional Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Soil Sampling Results – PAHs

PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD
FILE NAME	301011 Drawings.vsd
DRAWING No.	2D



LEGEND

= 2022 Additional Lands

= 2020 Phase One Site Boundary

TP# = Test Pit Location

BH/MW# = Borehole/Monitoring Well Location

[#.## - #.##] = Sample Depth (m)

Samples meeting the Table 7 RPI SCSs

Samples exceeding the Table 7 RPI SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

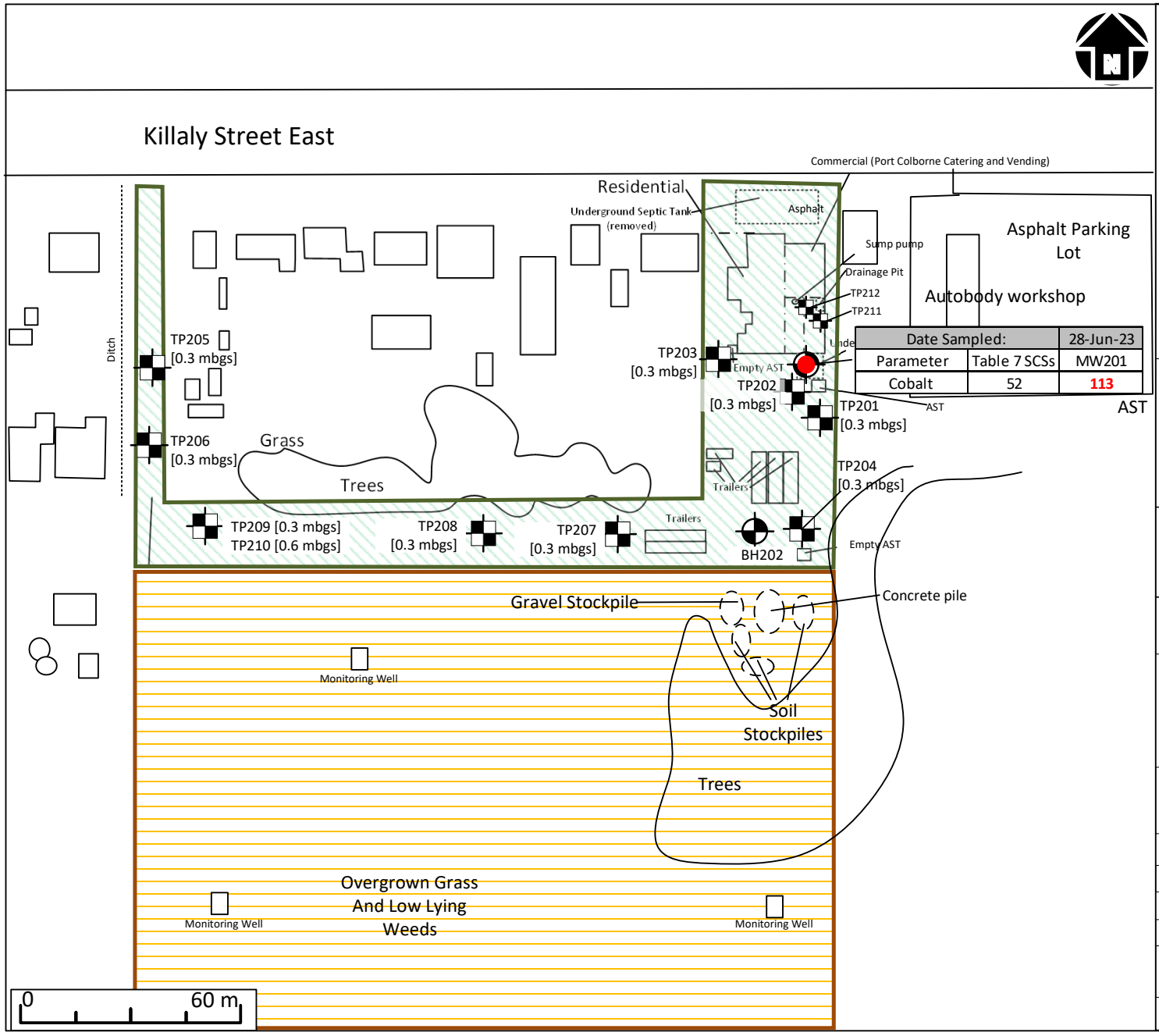
Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

PROJECT TITLE
Additional Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Soil Sampling Results – VOCs

PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD
FILE NAME	301011 Drawings.vsd
DRAWING No.	2E



Date Sampled:		28-Jun-23
Parameter	Table 7 SCSs	MW201
Cobalt	52	113

LEGEND

= 2022 Additional Lands

= 2020 Phase One Site Boundary

TP# = Test Pit Location

BH/MW# = Borehole/Monitoring Well Location

[#.## - #.##] = Sample Depth (m)

Samples meeting the Table 7 RPI SCSs

Samples exceeding the Table 7 RPI SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

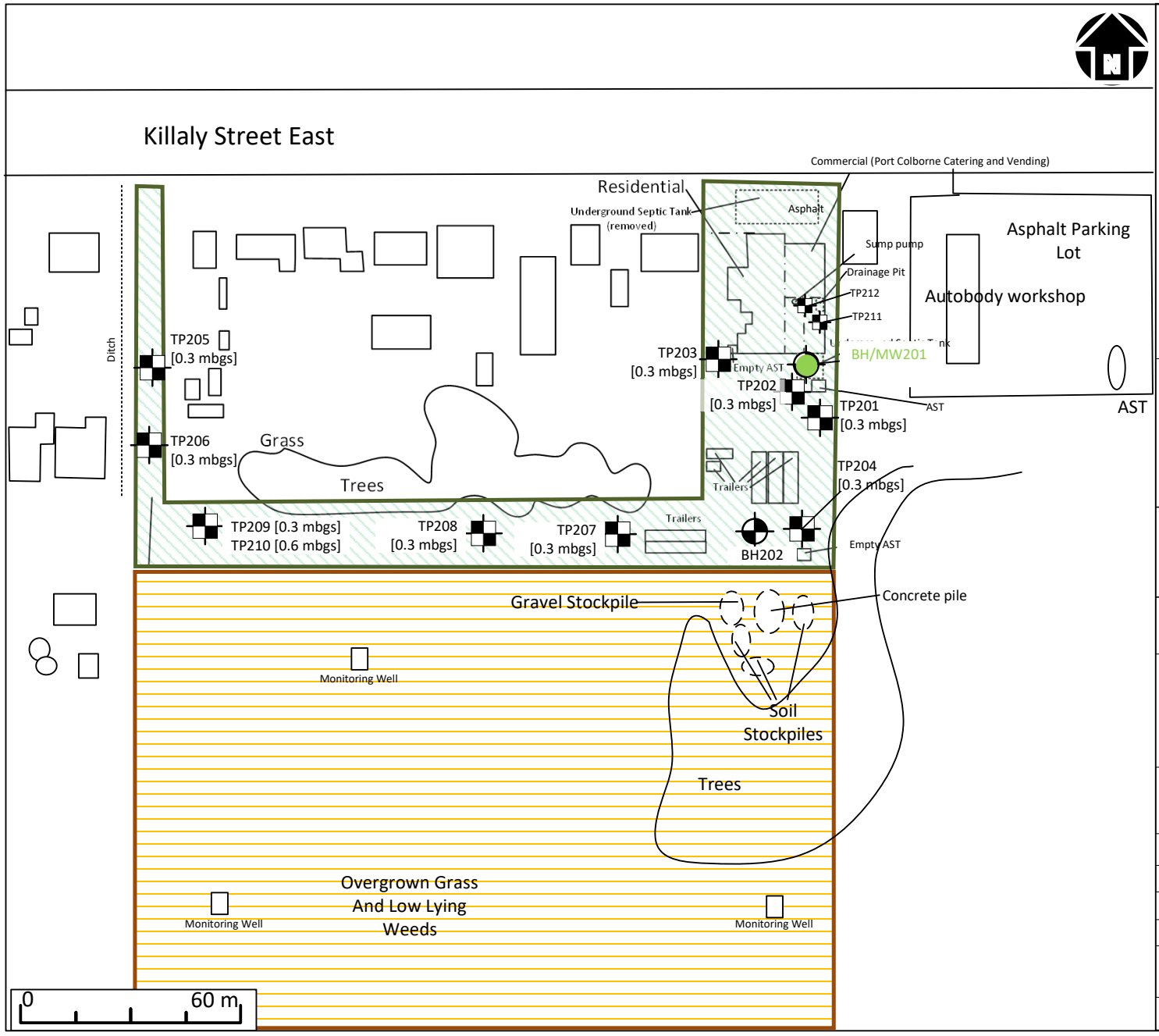
Soil-Mat
Engineers & Consultants Ltd.

CLIENT
AMZ HOLDINGS

PROJECT TITLE
Additional Supplemental Phase Two Environmental Site Assessment
Killaly Property
Port Colborne, Ontario

DRAWING TITLE
Ground Water Sampling Results – Metals

PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD
FILE NAME	301011 Drawings.vsd
DRAWING No.	3A



LEGEND

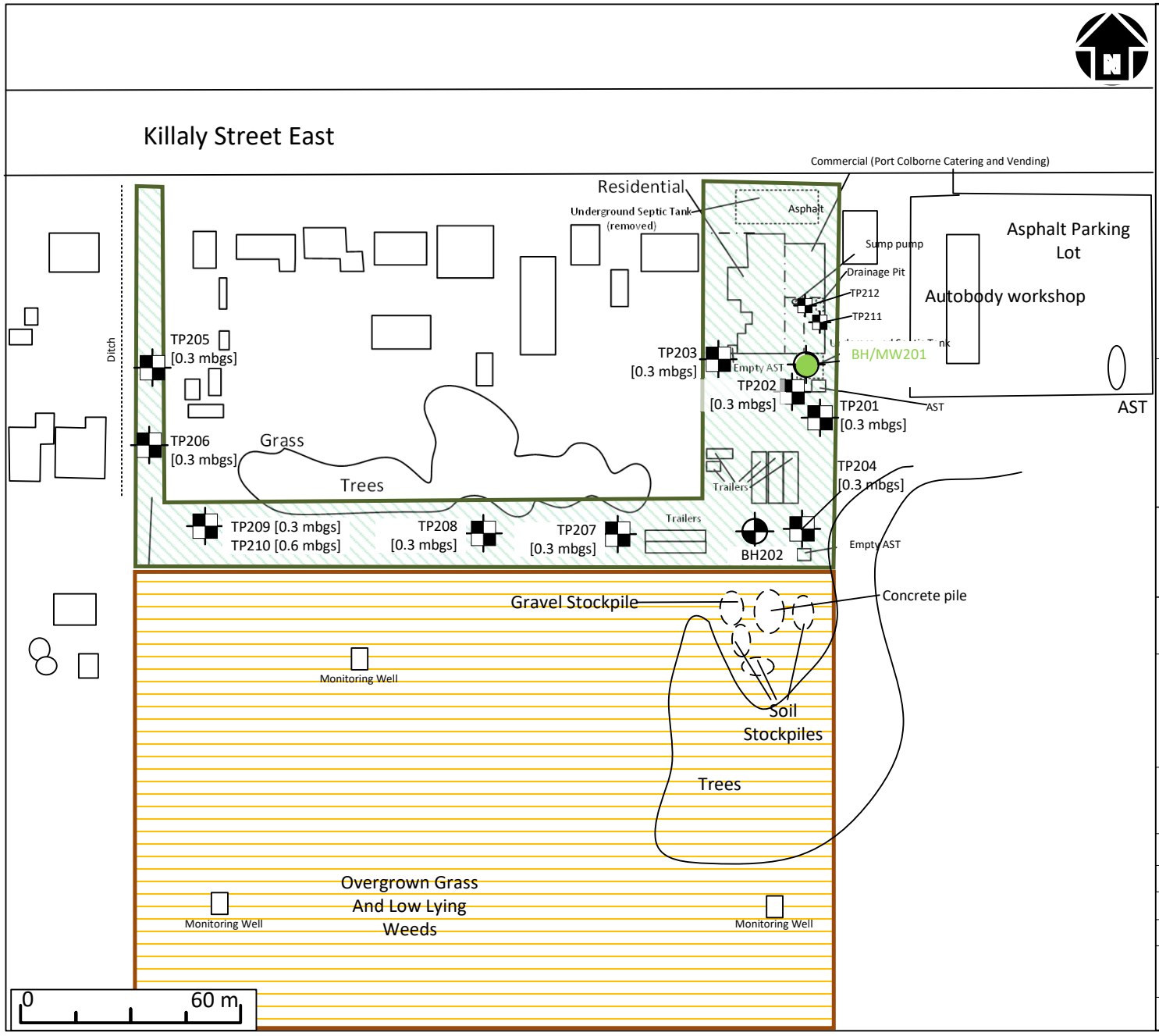
- = 2022 Additional Lands
- = 2020 Phase One Site Boundary
- TP# = Test Pit Location
- BH/MW# = Borehole/Monitoring Well Location
- [#.## - #.##] = Sample Depth (m)
- Samples meeting the Table 7 RPI SCSs
- Samples exceeding the Table 7 RPI SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	AMZ HOLDINGS
PROJECT TITLE	Additional Supplemental Phase Two Environmental Site Assessment Killaly Property Port Colborne, Ontario
DRAWING TITLE	Ground Water Sampling Results – PHCs
PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD
FILE NAME	301011 Drawings.vsd
DRAWING No.	3B



LEGEND

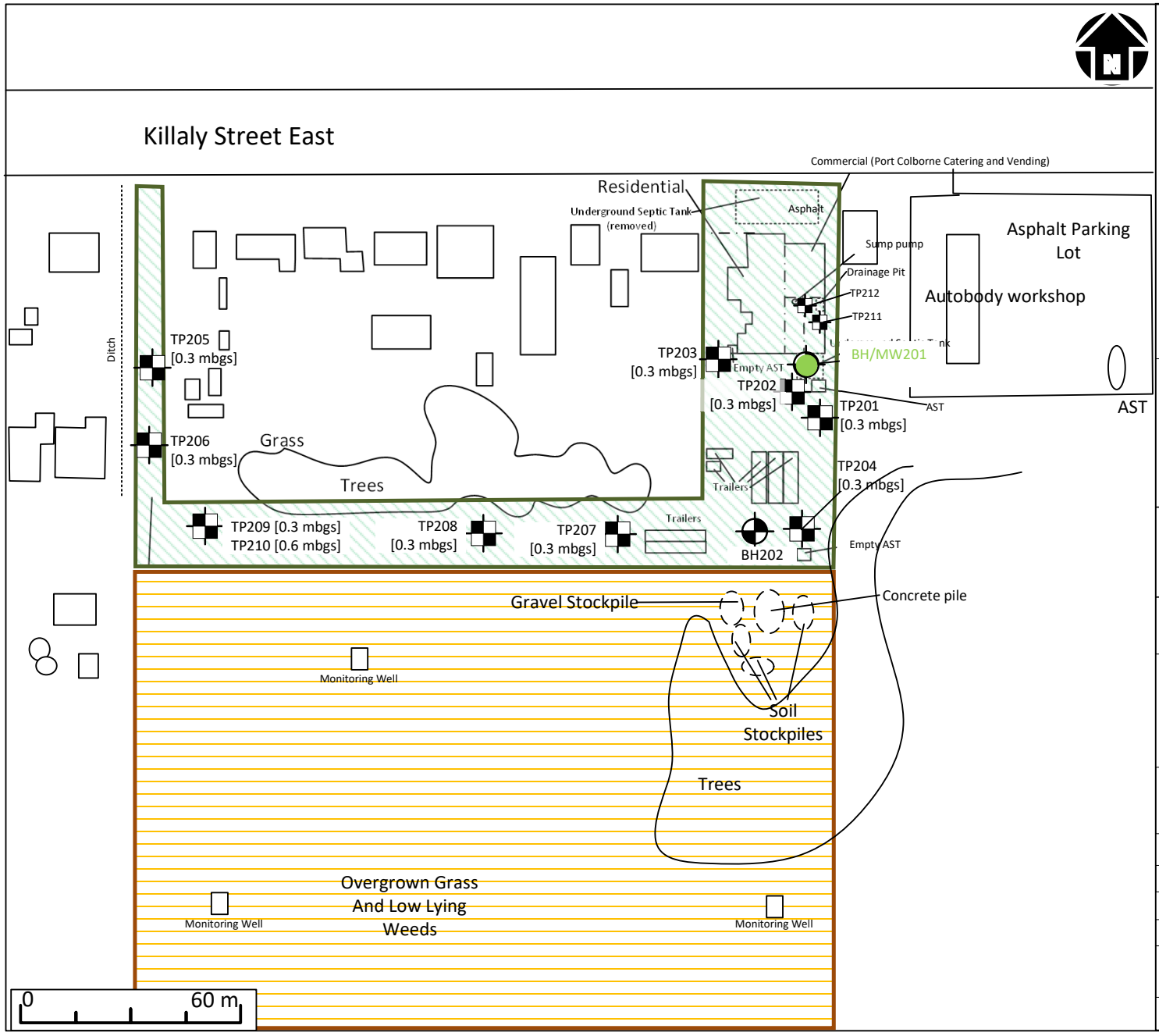
- = 2022 Additional Lands
- = 2020 Phase One Site Boundary
- TP# = Test Pit Location
- BH/MW# = Borehole/Monitoring Well Location
- [#.## - #.##] = Sample Depth (m)
- Samples meeting the Table 7 RPI SCSs
- Samples exceeding the Table 7 RPI SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	AMZ HOLDINGS
PROJECT TITLE	Additional Supplemental Phase Two Environmental Site Assessment Killaly Property Port Colborne, Ontario
DRAWING TITLE	Ground Water Sampling Results – BTEX
PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD
FILE NAME	301011 Drawings.vsd
DRAWING No.	3C



LEGEND

- = 2022 Additional Lands
- = 2020 Phase One Site Boundary
- TP# = Test Pit Location
- BH/MW# = Borehole/Monitoring Well Location
- [#.## - #.##] = Sample Depth (m)
- Samples meeting the Table 7 RPI SCSs
- Samples exceeding the Table 7 RPI SCSs

NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 301011-E

Soil-Mat
Engineers & Consultants Ltd.

CLIENT	AMZ HOLDINGS
PROJECT TITLE	Additional Supplemental Phase Two Environmental Site Assessment Killaly Property Port Colborne, Ontario
DRAWING TITLE	Ground Water Sampling Results – PAHs
PROJECT No.	SM 301011-E
DATE	June 2023
CHECKED	PM
DRAWN	SD
FILE NAME	301011 Drawings.vsd
DRAWING No.	3D

Log of Borehole No. 201/MW

Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: 563 Killaly Street East, Port Colborne
Client: AMZ Holdings

Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No.1
UTM Coordinates - N: 4750253
E: 644740

Depth (ft / m)	Elevation (m)	Description	Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	178.30	Ground Surface							
0 / 0	178.05	**Granular Fill** Approximately 250 millimetres of compact granular fill.							
1 / 0		**Silty Clay/Clayey Silt** Brown, trace sand and gravel, staining in the upper levels, reworked in the upper levels, soft to very stiff.	SS	1	9,9,14,24	23			
2 / 1			SS	2	2,2,1,3	3			
5 / 2			SS	3	5,6,8,11	14			
8 / 3			SS	4	5,6,7,7	13			
10 / 3			SS	5	3,5,14,50/1"	19			
11 / 3	174.80	**Limestone** Grey, fractured and weathered in upper levels.							
23 / 7	171.00	End of Borehole							

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)

NOTES:

1. Borehole was advanced using solid stem auger equipment on May 24, 2023 to termination at a depth of 7.6 metres.

2. Borehole was recorded as open and 'wet' at a depth of 6.7 metres upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

4. A monitoring well was installed. The following free groundwater level readings have been measured:

June 14, 2023 - 1.64 metres below the existing ground surface
June 28, 2023 - 1.61 metres below the existing ground surface

Drill Method: Solid Stem Augers/AR
Drill Date: May 24, 2023
Hole Size: 150 Millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
401 Grays Road · Hamilton, Ontario · L8E 2Z3
T: 905.318.7440 · TF: 800.243.1922 · F: 905.318.7455
www.soil-mat.ca · E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: NS
Checked by: PM
Sheet: 1 of 1

Log of Borehole No. 202

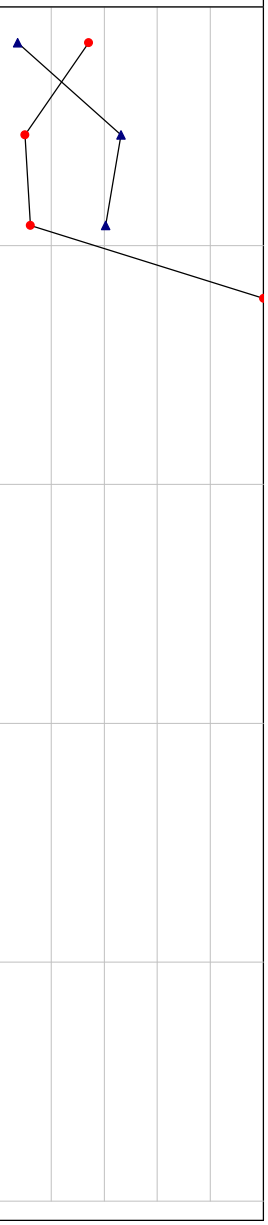
Project No: SM 301011-E
Project: Supplemental Phase Two ESA
Location: 563 Killaly Street East, Port Colborne
Client: AMZ Holdings

Project Manager: Peter Markesic, B.Sc.
Borehole Location: See Drawing No.1
UTM Coordinates - N: 4750198
E: 644725

Depth (ft / m)	Elevation (m)	Description	Well Data	SAMPLE Type	Number	Blow Counts	Blows/300mm	Recovery	PP (kgf/cm2)	U.Wt.(kN/m3)
0 / 0	178.30	Ground Surface								
0 / 0	178.05	**Granular Fill** Approximately 250 millimetres of compact granular fill.		SS	1	40,28,6,3	34			
3 / 1		**Silty Clay/Clayey Silt** Brown, trace sand and gravel, staining in the upper levels, reworked in the upper levels, soft to very stiff.		SS	2	3,4,6,8	10		>4.5	
6 / 2				SS	3	3,5,7,8	12		>4.5	
8 / 2	175.70			SS	4	50/6"	100			
9 / 3		End of Borehole								

Moisture Content w% (10 20 30 40)

Standard Penetration Test blows/300mm (20 40 60 80)



NOTES:

1. Borehole was advanced using solid stem auger equipment on May 24, 2023 to auger refusal at a depth of 2.4 metres.

2. Borehole was recorded as open and 'dry' upon completion and backfilled as per Ontario Regulation 903.

3. Soil samples will be discarded after 3 months unless otherwise directed by our client.

Drill Method: Solid Stem Augers
Drill Date: May 24, 2023
Hole Size: 150 Millimetres
Drilling Contractor: Elements GEO

Soil-Mat Engineers & Consultants Ltd.
401 Grays Road · Hamilton, Ontario · L8E 2Z3
T: 905.318.7440 · TF: 800.243.1922 · F: 905.318.7455
www.soil-mat.ca · E: info@soil-mat.ca

Datum: Geodetic
Field Logged by: NS
Checked by: PM
Sheet: 1 of 1

Appendix 'B'

1. AGAT Certificate of Analysis – Soil

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
401 GRAYS ROAD
HAMILTON, ON L8E 2Z3
(905) 318-7440

ATTENTION TO: Peter Markesic

PROJECT: 301011

AGAT WORK ORDER: 23T028458

SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganics Report Writer

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: May 31, 2023

PAGES (INCLUDING COVER): 20

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*Notes

Disclaimer:

- *All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.*
- *All samples will be disposed of within 30 days following analysis, unless expressly agreed otherwise in writing. Please contact your Client Project Manager if you require additional sample storage time.*
- *AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.*
- *This report shall not be reproduced or distributed, in whole or in part, without the prior written consent of AGAT Laboratories.*
- *The test results reported herewith relate only to the samples as received by the laboratory.*
- *Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the information contained in this document.*
- *All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.*

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T028458

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2023-05-25

DATE REPORTED: 2023-05-31

		SAMPLE DESCRIPTION:		BH201 SS2	BH201 SS5	BH202 SS2	BH202 SS4	TP205	TP206	TP207	TP208
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24
Parameter	Unit	G / S	RDL	5015143	5015163	5015165	5015166	5015177	5015178	5015179	5015180
Antimony	µg/g	7.5	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	6	3	7	5	7	13	5	11
Barium	µg/g	390	2.0	164	105	211	244	100	169	190	183
Beryllium	µg/g	5	0.5	1.4	0.6	1.2	0.9	0.8	1.4	1.4	1.3
Boron	µg/g	120	5	20	18	19	25	9	13	14	16
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.18	0.21	0.26	0.34	0.30	0.64	0.49	0.55
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	5	35	16	31	24	26	33	39	40
Cobalt	µg/g	22	0.8	14.6	7.1	15.0	11.3	12.4	30.6	19.3	23.5
Copper	µg/g	180	1.0	26.4	20.0	24.0	26.6	13.5	234	91.3	174
Lead	µg/g	120	1	13	13	12	21	17	35	22	27
Molybdenum	µg/g	6.9	0.5	0.7	0.8	0.9	1.2	1.6	0.9	0.5	1.1
Nickel	µg/g	130	1	44	15	32	27	51	2160	848	1700
Selenium	µg/g	2.4	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	3.1	1.8	2.7
Silver	µg/g	25	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<0.5
Thallium	µg/g	1	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Uranium	µg/g	23	0.50	0.74	0.73	0.95	1.09	0.68	1.27	1.26	1.26
Vanadium	µg/g	86	2.0	49.7	23.3	44.5	31.2	51.4	44.2	49.4	53.8
Zinc	µg/g	340	5	77	59	69	83	72	132	111	117
Chromium, Hexavalent	µg/g	10	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide, WAD	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	1.8	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	0.11	<0.10
Electrical Conductivity (2:1)	mS/cm	0.7	0.005	0.550	0.228	0.792	0.692	0.215	0.146	0.097	0.140
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	1.22	0.306	0.418	0.505	0.240	0.143	0.151	0.195
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.31	7.44	7.45	7.48	6.62	6.41	6.34	6.36

Certified By:

NIVINE BASILY
CHEMIST
CHARTERED

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T028458

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2023-05-25

DATE REPORTED: 2023-05-31

		SAMPLE DESCRIPTION:		TP209	TP210
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2023-05-24	2023-05-24
Parameter	Unit	G / S	RDL	5015181	5015182
Antimony	µg/g	7.5	0.8	<0.8	<0.8
Arsenic	µg/g	18	1	6	10
Barium	µg/g	390	2.0	191	78.9
Beryllium	µg/g	5	0.5	1.4	0.6
Boron	µg/g	120	5	14	12
Boron (Hot Water Soluble)	µg/g	1.5	0.10	0.39	0.61
Cadmium	µg/g	1.2	0.5	<0.5	<0.5
Chromium	µg/g	160	5	40	19
Cobalt	µg/g	22	0.8	13.5	30.5
Copper	µg/g	180	1.0	43.3	194
Lead	µg/g	120	1	17	62
Molybdenum	µg/g	6.9	0.5	1.1	0.7
Nickel	µg/g	130	1	395	1640
Selenium	µg/g	2.4	0.8	1.0	1.7
Silver	µg/g	25	0.5	<0.5	0.6
Thallium	µg/g	1	0.5	<0.5	<0.5
Uranium	µg/g	23	0.50	1.16	0.71
Vanadium	µg/g	86	2.0	55.2	27.4
Zinc	µg/g	340	5	85	238
Chromium, Hexavalent	µg/g	10	0.2	<0.2	<0.2
Cyanide, WAD	µg/g	0.051	0.040	<0.040	<0.040
Mercury	µg/g	1.8	0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.7	0.005	0.079	0.240
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	5	N/A	0.183	0.186
pH, 2:1 CaCl2 Extraction	pH Units		NA	6.45	6.71

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T028458

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2023-05-25

DATE REPORTED: 2023-05-31

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 S RPI MFT
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.

5015143-5015182 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T028458

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2023-05-25

DATE REPORTED: 2023-05-31

		SAMPLE DESCRIPTION:		BH201 SS2	BH201 SS5	BH202 SS2	BH202 SS4	TP205	TP206	TP207	TP208
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24
Parameter	Unit	G / S	RDL	5015143	5015163	5015165	5015166	5015177	5015178	5015179	5015180
Naphthalene	µg/g	0.75	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.17	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	58	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	7.8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.74	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.63	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	7.8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.48	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<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	7.8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1 and 2 Methlynaphthalene	µg/g	3.4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	25.4	18.4	22.1	17.6	17.1	32.2	27.4	31.6
Surrogate	Unit	Acceptable Limits									
Naphthalene-d8	%	50-140		98	98	105	86	74	82	98	98
Acridine-d9	%	50-140		80	85	98	90	104	93	78	85
Terphenyl-d14	%	50-140		95	79	89	88	78	95	105	77

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T028458

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2023-05-25

DATE REPORTED: 2023-05-31

		SAMPLE DESCRIPTION:		TP209	TP210
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2023-05-24	2023-05-24
Parameter	Unit	G / S	RDL	5015181	5015182
Naphthalene	µg/g	0.75	0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.17	0.05	<0.05	<0.05
Acenaphthene	µg/g	58	0.05	<0.05	<0.05
Fluorene	µg/g	69	0.05	<0.05	<0.05
Phenanthrene	µg/g	7.8	0.05	<0.05	0.34
Anthracene	µg/g	0.74	0.05	<0.05	0.06
Fluoranthene	µg/g	0.69	0.05	<0.05	0.45
Pyrene	µg/g	78	0.05	<0.05	0.41
Benz(a)anthracene	µg/g	0.63	0.05	<0.05	0.18
Chrysene	µg/g	7.8	0.05	<0.05	0.25
Benzo(b)fluoranthene	µg/g	0.78	0.05	<0.05	0.08
Benzo(k)fluoranthene	µg/g	0.78	0.05	<0.05	0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.48	0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	7.8	0.05	<0.05	<0.05
1 and 2 Methlynaphthalene	µg/g	3.4	0.05	<0.05	<0.05
Moisture Content	%		0.1	32.0	15.0
Surrogate	Unit	Acceptable Limits			
Naphthalene-d8	%	50-140		74	98
Acridine-d9	%	50-140		93	80
Terphenyl-d14	%	50-140		99	77

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 S RPI MFT
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.

5015143-5015182 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

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T028458

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2023-05-25

DATE REPORTED: 2023-05-31

		SAMPLE DESCRIPTION:		BH201 SS2	BH201 SS5
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2023-05-24	2023-05-24
Parameter	Unit	G / S	RDL	5015143	5015163
F1 (C6 - C10)	µg/g		5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	65	5	<5	<5
F2 (C10 to C16)	µg/g	150	10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10
F3 (C16 to C34)	µg/g	1300	50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50
F4 (C34 to C50)	µg/g	5600	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	5600	50	NA	NA
Moisture Content	%		0.1	25.4	18.4
Surrogate	Unit	Acceptable Limits			
Toluene-d8	%	50-140		105	104
Terphenyl	%	60-140		83	93

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 S RPI MFT
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.

5015143-5015163 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowich

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T028458

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

O. Reg. 153(511) - PHCs F1 - F4 (with VOC) (Soil)

DATE RECEIVED: 2023-05-25

DATE REPORTED: 2023-05-31

		SAMPLE DESCRIPTION:		TP201	TP202	TP203	TP204
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-05-24	2023-05-24	2023-05-24	2023-05-24
Parameter	Unit	G / S	RDL	5015167	5015174	5015175	5015176
F1 (C6 - C10)	µg/g		5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	65	5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	150	10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	1300	50	<50	212	<50	<50
F4 (C34 to C50)	µg/g	5600	50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	5600	50	NA	NA	NA	NA
Moisture Content	%		0.1	13.5	17.8	6.6	17.4
Surrogate	Unit	Acceptable Limits					
Toluene-d8	%	50-140		104	102	102	103
Terphenyl	%	60-140		81	78	83	96

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 S RPI MFT
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.

5015167-5015176 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

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

Certificate of Analysis

AGAT WORK ORDER: 23T028458

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

O. Reg. 153(511) - VOCs (with PHC) (Soil)

DATE RECEIVED: 2023-05-25

DATE REPORTED: 2023-05-31

		SAMPLE DESCRIPTION:		BH201 SS2	BH201 SS5	TP201	TP202	TP203	TP204
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24
Parameter	Unit	G / S	RDL	5015143	5015163	5015167	5015174	5015175	5015176
Dichlorodifluoromethane	µg/g	25	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.022	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	5.8	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acetone	ug/g	28	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.96	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.75	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	1.4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	11	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	44	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	30	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.18	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	3.4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.12	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.17	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.085	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.52	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	13	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	4.3	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Toluene	ug/g	6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	9.4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	2.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	2.7	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	15	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

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

Certificate of Analysis

AGAT WORK ORDER: 23T028458

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

O. Reg. 153(511) - VOCs (with PHC) (Soil)

DATE RECEIVED: 2023-05-25

DATE REPORTED: 2023-05-31

		SAMPLE DESCRIPTION:		BH201 SS2	BH201 SS5	TP201	TP202	TP203	TP204
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24	2023-05-24
Parameter	Unit	G / S	RDL	5015143	5015163	5015167	5015174	5015175	5015176
Bromoform	ug/g	0.26	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Styrene	ug/g	2.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.097	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	4.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	ug/g	25	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g	0.083	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
n-Hexane	µg/g	34	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	25.4	18.4	13.5	17.8	6.6	17.4
Surrogate	Unit	Acceptable Limits							
Toluene-d8	% Recovery	50-140		105	104	104	102	102	103
4-Bromofluorobenzene	% Recovery	50-140		96	95	98	97	101	94

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 S RPI MFT
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.

5015143-5015176 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

Guideline Violation

AGAT WORK ORDER: 23T028458

PROJECT: 301011

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
5015165	BH202 SS2	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.7	0.792
5015178	TP206	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	22	30.6
5015178	TP206	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	180	234
5015178	TP206	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	130	2160
5015178	TP206	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	2.4	3.1
5015179	TP207	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	130	848
5015180	TP208	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	22	23.5
5015180	TP208	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	130	1700
5015180	TP208	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Selenium	µg/g	2.4	2.7
5015181	TP209	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	130	395
5015182	TP210	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Cobalt	µg/g	22	30.5
5015182	TP210	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Copper	µg/g	180	194
5015182	TP210	ON T7 S RPI MFT	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	130	1640

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T028458

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

Soil Analysis

RPT Date: May 31, 2023			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) - Metals & Inorganics (Soil)															
Antimony	5015143	5015143	<0.8	<0.8	NA	< 0.8	122%	70%	130%	101%	80%	120%	76%	70%	130%
Arsenic	5015143	5015143	6	7	15.4%	< 1	117%	70%	130%	94%	80%	120%	102%	70%	130%
Barium	5015143	5015143	164	171	4.2%	< 2.0	100%	70%	130%	98%	80%	120%	104%	70%	130%
Beryllium	5015143	5015143	1.4	1.4	NA	< 0.5	112%	70%	130%	100%	80%	120%	112%	70%	130%
Boron	5015143	5015143	20	20	NA	< 5	87%	70%	130%	98%	80%	120%	97%	70%	130%
Boron (Hot Water Soluble)	5018264		0.20	0.20	NA	< 0.10	89%	60%	140%	102%	70%	130%	103%	60%	140%
Cadmium	5015143	5015143	<0.5	<0.5	NA	< 0.5	74%	70%	130%	97%	80%	120%	100%	70%	130%
Chromium	5015143	5015143	35	37	5.6%	< 5	111%	70%	130%	96%	80%	120%	119%	70%	130%
Cobalt	5015143	5015143	14.6	15.0	2.7%	< 0.8	101%	70%	130%	100%	80%	120%	102%	70%	130%
Copper	5015143	5015143	26.4	27.8	5.2%	< 1.0	100%	70%	130%	97%	80%	120%	97%	70%	130%
Lead	5015143	5015143	13	14	7.4%	< 1	107%	70%	130%	100%	80%	120%	98%	70%	130%
Molybdenum	5015143	5015143	0.7	0.7	NA	< 0.5	109%	70%	130%	99%	80%	120%	104%	70%	130%
Nickel	5015143	5015143	44	45	2.2%	< 1	99%	70%	130%	92%	80%	120%	97%	70%	130%
Selenium	5015143	5015143	<0.8	<0.8	NA	< 0.8	100%	70%	130%	96%	80%	120%	102%	70%	130%
Silver	5015143	5015143	<0.5	<0.5	NA	< 0.5	101%	70%	130%	97%	80%	120%	101%	70%	130%
Thallium	5015143	5015143	<0.5	<0.5	NA	< 0.5	104%	70%	130%	105%	80%	120%	101%	70%	130%
Uranium	5015143	5015143	0.74	0.80	NA	< 0.50	97%	70%	130%	105%	80%	120%	107%	70%	130%
Vanadium	5015143	5015143	49.7	51.3	3.2%	< 2.0	123%	70%	130%	96%	80%	120%	113%	70%	130%
Zinc	5015143	5015143	77	78	1.3%	< 5	109%	70%	130%	96%	80%	120%	124%	70%	130%
Chromium, Hexavalent	5015188		<0.2	<0.2	NA	< 0.2	96%	70%	130%	100%	80%	120%	85%	70%	130%
Cyanide, WAD	5015143	5015143	<0.040	<0.040	NA	< 0.040	90%	70%	130%	104%	80%	120%	102%	70%	130%
Mercury	5015143	5015143	<0.10	<0.10	NA	< 0.10	103%	70%	130%	96%	80%	120%	104%	70%	130%
Electrical Conductivity (2:1)	5017118		0.342	0.293	15.4%	< 0.005	91%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	5011906		0.503	0.513	2.0%	NA									
pH, 2:1 CaCl2 Extraction	5015188		6.56	6.77	3.2%	NA	91%	80%	120%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
Duplicate NA: results are under 5X the RDL and will not be calculated.

O. Reg. 153(511) - Metals & Inorganics (Soil)															
pH, 2:1 CaCl2 Extraction	5015177	5015177	6.62	6.75	2.0%	NA	101%	80%	120%						

Comments: NA signifies Not Applicable.

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T028458

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

Trace Organics Analysis

RPT Date: May 31, 2023			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) - PHCs F1 - F4 (with PAHs and VOC) (Soil)															
F1 (C6 - C10)	5015235		<5	<5	NA	< 5	93%	60%	140%	73%	60%	140%	67%	60%	140%
F2 (C10 to C16)	5014937		< 10	< 10	NA	< 10	116%	60%	140%	106%	60%	140%	106%	60%	140%
F3 (C16 to C34)	5014937		< 50	< 50	NA	< 50	109%	60%	140%	104%	60%	140%	112%	60%	140%
F4 (C34 to C50)	5014937		< 50	< 50	NA	< 50	91%	60%	140%	107%	60%	140%	101%	60%	140%
O. Reg. 153(511) - VOCs (with PHC) (Soil)															
Dichlorodifluoromethane	5015235		<0.05	<0.05	NA	< 0.05	91%	50%	140%	84%	50%	140%	85%	50%	140%
Vinyl Chloride	5015235		<0.02	<0.02	NA	< 0.02	106%	50%	140%	80%	50%	140%	115%	50%	140%
Bromomethane	5015235		<0.05	<0.05	NA	< 0.05	79%	50%	140%	117%	50%	140%	120%	50%	140%
Trichlorofluoromethane	5015235		<0.05	<0.05	NA	< 0.05	87%	50%	140%	89%	50%	140%	113%	50%	140%
Acetone	5015235		<0.50	<0.50	NA	< 0.50	73%	50%	140%	96%	50%	140%	119%	50%	140%
1,1-Dichloroethylene	5015235		<0.05	<0.05	NA	< 0.05	97%	50%	140%	104%	60%	130%	110%	50%	140%
Methylene Chloride	5015235		<0.05	<0.05	NA	< 0.05	100%	50%	140%	89%	60%	130%	110%	50%	140%
Trans- 1,2-Dichloroethylene	5015235		<0.05	<0.05	NA	< 0.05	86%	50%	140%	113%	60%	130%	75%	50%	140%
Methyl tert-butyl Ether	5015235		<0.05	<0.05	NA	< 0.05	79%	50%	140%	87%	60%	130%	70%	50%	140%
1,1-Dichloroethane	5015235		<0.02	<0.02	NA	< 0.02	101%	50%	140%	92%	60%	130%	117%	50%	140%
Methyl Ethyl Ketone	5015235		<0.50	<0.50	NA	< 0.50	95%	50%	140%	113%	50%	140%	115%	50%	140%
Cis- 1,2-Dichloroethylene	5015235		<0.02	<0.02	NA	< 0.02	87%	50%	140%	79%	60%	130%	90%	50%	140%
Chloroform	5015235		<0.04	<0.04	NA	< 0.04	93%	50%	140%	107%	60%	130%	88%	50%	140%
1,2-Dichloroethane	5015235		<0.03	<0.03	NA	< 0.03	104%	50%	140%	103%	60%	130%	114%	50%	140%
1,1,1-Trichloroethane	5015235		<0.05	<0.05	NA	< 0.05	81%	50%	140%	101%	60%	130%	92%	50%	140%
Carbon Tetrachloride	5015235		<0.05	<0.05	NA	< 0.05	95%	50%	140%	79%	60%	130%	105%	50%	140%
Benzene	5015235		<0.02	<0.02	NA	< 0.02	113%	50%	140%	79%	60%	130%	95%	50%	140%
1,2-Dichloropropane	5015235		<0.03	<0.03	NA	< 0.03	84%	50%	140%	110%	60%	130%	89%	50%	140%
Trichloroethylene	5015235		<0.03	<0.03	NA	< 0.03	96%	50%	140%	107%	60%	130%	85%	50%	140%
Bromodichloromethane	5015235		<0.05	<0.05	NA	< 0.05	81%	50%	140%	88%	60%	130%	89%	50%	140%
Methyl Isobutyl Ketone	5015235		<0.50	<0.50	NA	< 0.50	94%	50%	140%	80%	50%	140%	77%	50%	140%
1,1,2-Trichloroethane	5015235		<0.04	<0.04	NA	< 0.04	110%	50%	140%	104%	60%	130%	92%	50%	140%
Toluene	5015235		<0.05	<0.05	NA	< 0.05	88%	50%	140%	110%	60%	130%	96%	50%	140%
Dibromochloromethane	5015235		<0.05	<0.05	NA	< 0.05	83%	50%	140%	95%	60%	130%	61%	50%	140%
Ethylene Dibromide	5015235		<0.04	<0.04	NA	< 0.04	83%	50%	140%	85%	60%	130%	78%	50%	140%
Tetrachloroethylene	5015235		<0.05	<0.05	NA	< 0.05	84%	50%	140%	96%	60%	130%	101%	50%	140%
1,1,1,2-Tetrachloroethane	5015235		<0.04	<0.04	NA	< 0.04	79%	50%	140%	109%	60%	130%	95%	50%	140%
Chlorobenzene	5015235		<0.05	<0.05	NA	< 0.05	99%	50%	140%	101%	60%	130%	97%	50%	140%
Ethylbenzene	5015235		<0.05	<0.05	NA	< 0.05	105%	50%	140%	119%	60%	130%	87%	50%	140%
m & p-Xylene	5015235		<0.05	<0.05	NA	< 0.05	114%	50%	140%	118%	60%	130%	90%	50%	140%
Bromoform	5015235		<0.05	<0.05	NA	< 0.05	110%	50%	140%	100%	60%	130%	80%	50%	140%
Styrene	5015235		<0.05	<0.05	NA	< 0.05	95%	50%	140%	100%	60%	130%	75%	50%	140%
1,1,2,2-Tetrachloroethane	5015235		<0.05	<0.05	NA	< 0.05	105%	50%	140%	90%	60%	130%	90%	50%	140%
o-Xylene	5015235		<0.05	<0.05	NA	< 0.05	101%	50%	140%	95%	60%	130%	91%	50%	140%

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T028458

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

Trace Organics Analysis (Continued)

RPT Date: May 31, 2023			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
1,3-Dichlorobenzene	5015235		<0.05	<0.05	NA	< 0.05	114%	50%	140%	94%	60%	130%	93%	50%	140%
1,4-Dichlorobenzene	5015235		<0.05	<0.05	NA	< 0.05	103%	50%	140%	118%	60%	130%	96%	50%	140%
1,2-Dichlorobenzene	5015235		<0.05	<0.05	NA	< 0.05	89%	50%	140%	101%	60%	130%	90%	50%	140%
n-Hexane	5015235		<0.05	<0.05	NA	< 0.05	86%	50%	140%	86%	60%	130%	72%	50%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	5012044		<0.05	<0.05	NA	< 0.05	101%	50%	140%	88%	50%	140%	105%	50%	140%
Acenaphthylene	5012044		<0.05	<0.05	NA	< 0.05	104%	50%	140%	100%	50%	140%	100%	50%	140%
Acenaphthene	5012044		<0.05	<0.05	NA	< 0.05	114%	50%	140%	90%	50%	140%	105%	50%	140%
Fluorene	5012044		<0.05	<0.05	NA	< 0.05	114%	50%	140%	98%	50%	140%	100%	50%	140%
Phenanthrene	5012044		<0.05	<0.05	NA	< 0.05	122%	50%	140%	93%	50%	140%	108%	50%	140%
Anthracene	5012044		<0.05	<0.05	NA	< 0.05	113%	50%	140%	98%	50%	140%	95%	50%	140%
Fluoranthene	5012044		<0.05	<0.05	NA	< 0.05	107%	50%	140%	100%	50%	140%	95%	50%	140%
Pyrene	5012044		<0.05	<0.05	NA	< 0.05	114%	50%	140%	100%	50%	140%	95%	50%	140%
Benz(a)anthracene	5012044		<0.05	<0.05	NA	< 0.05	113%	50%	140%	93%	50%	140%	90%	50%	140%
Chrysene	5012044		<0.05	<0.05	NA	< 0.05	107%	50%	140%	75%	50%	140%	80%	50%	140%
Benzo(b)fluoranthene	5012044		<0.05	<0.05	NA	< 0.05	63%	50%	140%	93%	50%	140%	75%	50%	140%
Benzo(k)fluoranthene	5012044		<0.05	<0.05	NA	< 0.05	87%	50%	140%	80%	50%	140%	100%	50%	140%
Benzo(a)pyrene	5012044		<0.05	<0.05	NA	< 0.05	66%	50%	140%	70%	50%	140%	78%	50%	140%
Indeno(1,2,3-cd)pyrene	5012044		<0.05	<0.05	NA	< 0.05	71%	50%	140%	73%	50%	140%	80%	50%	140%
Dibenz(a,h)anthracene	5012044		<0.05	<0.05	NA	< 0.05	62%	50%	140%	85%	50%	140%	103%	50%	140%
Benzo(g,h,i)perylene	5012044		<0.05	<0.05	NA	< 0.05	68%	50%	140%	105%	50%	140%	78%	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:

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T028458

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	modified from EPA 6010D and MSA PART 3, CH 21	ICP/OES
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET 93 -6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium, Hexavalent	INOR-93-6068	modified from EPA 3060 and EPA 7196	SPECTROPHOTOMETER
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Mercury	MET-93-6103	modified from EPA 7471B and SM 3112 B	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6075	modified from MSA PART 3, CH 14 and SM 2510 B	PC TITRATE
Sodium Adsorption Ratio (2:1) (Calc.)	INOR-93-6007	modified from EPA 6010D & Analytical Protocol	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6075	modified from EPA 9045D, MCKEAGUE 3.11 E3137	PC TITRATE

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T028458

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benz(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
1 and 2 Methlynaphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
F1 (C6 - C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T028458

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Dichlorodifluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T028458

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:563 Killaly Street East, Port Colborne

SAMPLED BY:NS

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Ethylbenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene (Cis + Trans)	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	modified from EPA 5035A & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	modified from EPA 5035A & EPA 8260D	(P&T)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 #: 23T028458
Cooler Quantity: four
Arrival Temperatures: 8.9 | 8.3 | 7.8
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes: loose ice

Report Information:
Company: Soil-Mat
Contact:
Address:
Phone: Fax:
Reports to be sent to:
1. Email: Nathan Sears
2. Email: Peter Markesic

Regulatory Requirements:
(Please check all applicable boxes)
☑ Regulation 153/04 — Table 1 (Indicate One) ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine
☐ Excess Soils R406 — Table (Indicate One)
☐ Regulation 558
☐ CCME
☐ Sewer Use ☐ Sanitary ☐ Storm — Region
☐ 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: 301011
Site Location: 563 Killaly Street East, Port Colborne
Sampled By: MS
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, DOC Y/N	O. Reg 153: Metals & Inorganics	Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	BTEX, F1-F4 PHCs	PAHs	PCBs	VOC	Aholons	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Excess Soils SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	Excess Soils Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: Include Moisture ☐ Sulphide ☐	Potentially Hazardous or High Concentration (Y/N)
BH201SS2	May 24	AM/PM	4	S			✓		✓	✓		✓						
BH201SS5		AM/PM	1				✓		✓	✓								
BH202SS2		AM/PM	2				✓		✓	✓								
BH202SS4		AM/PM							✓			✓						
TP201		AM/PM							✓			✓						
TP202		AM/PM							✓			✓						
TP203		AM/PM							✓			✓						
TP204		AM/PM					✓			✓								
TP205		AM/PM					✓			✓								
TP206		AM/PM					✓			✓								
TP207		AM/PM	1															

	Date	Time		Date	Time
Samples Relinquished By (Print Name and Sign):			Samples Received By (Print Name and Sign): Rhiana Clendenning	May 25	410
Samples Relinquished By (Print Name and Sign):			Samples Received By (Print Name and Sign):		
Samples Relinquished By (Print Name and Sign):			Samples Received By (Print Name and Sign):		

Page 1 of 2
N°: T - 141433

Pink Copy - Client | Yellow Copy - AGAT | White Copy- AGAT

AGAT Laboratories

Have feedback? Scan here for a quick survey!

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)

Report Information:
Company: Soil-Mat
Contact:
Address:
Phone: Fax:
Reports to be sent to:
1. Email: Nathan Sears
2. Email: Peter Mentesic

Project Information:
Project: 301011
Site Location: 563 Killaly Street East, Port Colborne
Sampled By: NS
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:

Regulatory Requirements:
(Please check all applicable boxes)

☑ Regulation 153/04 — Table 1 (Indicate One) — ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One) ☐ Coarse ☐ Fine

☐ Regulation 406 — Table (Indicate One)
☐ Regulation 558
☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm — (Region)
☐ 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

Sample Matrix Legend

GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only
Work Order #:
Cooler Quantity: 1 cm
Arrival Temperatures: 7.6 | 7.5 | 7.2
Custody Seal Intact: ☐ Yes ☐ No ☐ N/A
Notes: loose ice

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

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC (Y/N)	O. Reg 153: Metals & Inorganics	Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Aroclors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach	SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. TP208	May 24	AM/PM	2	S			✓				✓								
2. TP209	〃	AM/PM	2	〃			✓				✓								
3. TP210	〃	AM/PM	2	〃	limited sample		✓				✓								
4.		AM/PM																	
5.		AM/PM																	
6.		AM/PM																	
7.		AM/PM																	
8.		AM/PM																	
9.		AM/PM																	
10.		AM/PM																	
11.		AM/PM																	

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
			Rmiana Clendenning	May 25	410
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page ____ of ____

Nº: T - 143873

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
401 GRAYS ROAD
HAMILTON, ON L8E 2Z3
(905) 318-7440

ATTENTION TO: Peter Markesic

PROJECT: 301011

AGAT WORK ORDER: 23T041829

SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganics Report Writer

TRACE ORGANICS REVIEWED BY: Radhika Chakraberty, Trace Organics Lab Manager

DATE REPORTED: Jul 07, 2023

PAGES (INCLUDING COVER): 16

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days after receipt unless a Long Term Storage Agreement is signed and returned. Some specialty analysis may be exempt, please contact your Client Project Manager for details.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the guidelines contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.
- For environmental samples in the Province of Quebec: The analysis is performed on and results apply to samples as received. A temperature above 6°C upon receipt, as indicated in the Sample Reception Notification (SRN), could indicate the integrity of the samples has been compromised if the delay between sampling and submission to the laboratory could not be minimized.

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T041829

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:KILLALY ST. E

SAMPLED BY:SHAA D.

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2023-06-29

DATE REPORTED: 2023-07-07

		SAMPLE DESCRIPTION:		TP211	DUP 1	TP212	DUP 2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-06-28	2023-06-28	2023-06-28	2023-06-28
Parameter	Unit	G / S	RDL	5106992	5107000	5107001	5107002
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	5	4	2	4
Barium	µg/g	220	2.0	122	96.1	99.4	104
Beryllium	µg/g	2.5	0.5	0.7	<0.5	<0.5	<0.5
Boron	µg/g	36	5	10	7	7	8
Boron (Hot Water Soluble)	µg/g	NA	0.10	0.93	0.88	0.21	0.22
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	5	16	11	<5	<5
Cobalt	µg/g	21	0.8	14.2	15	3.2	5.4
Copper	µg/g	92	1.0	35.9	30.1	3.2	4.0
Lead	µg/g	120	1	12	10	4	6
Molybdenum	µg/g	2	0.5	1.4	1.2	1.5	2.0
Nickel	µg/g	82	1	285	327	3	5
Selenium	µg/g	1.5	0.8	<0.8	<0.8	<0.8	<0.8
Silver	µg/g	0.5	0.5	<0.5	<0.5	<0.5	<0.5
Thallium	µg/g	1	0.5	<0.5	<0.5	<0.5	<0.5
Uranium	µg/g	2.5	0.50	1.44	1.04	1.04	1.31
Vanadium	µg/g	86	2.0	19.5	13.7	4.2	4.9
Zinc	µg/g	290	5	67	60	14	14
Chromium, Hexavalent	µg/g	0.66	0.2	<0.2	<0.2	<0.2	<0.2
Cyanide, WAD	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm	0.57	0.005	3.51	2.99	3.00	2.66
Sodium Adsorption Ratio (2:1) (Calc.)	N/A	2.4	N/A	0.400	0.370	0.082	0.082
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.37	7.15	7.55	7.70

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T041829

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:KILLALY ST. E

SAMPLED BY:SHAA D.

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2023-06-29

DATE REPORTED: 2023-07-07

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

5106992-5107002 EC was determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl2 extract prepared at 2:1 ratio. SAR is a calculated parameter.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T041829
PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
SAMPLING SITE:KILLALY ST. E

ATTENTION TO: Peter Markesic
SAMPLED BY:SHAA D.

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2023-06-29

DATE REPORTED: 2023-07-07

		SAMPLE DESCRIPTION:		TP211	DUP 1	TP212	DUP 2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-06-28	2023-06-28	2023-06-28	2023-06-28
Parameter	Unit	G / S	RDL	5106992	5107000	5107001	5107002
Naphthalene	µg/g	0.09	0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	0.12	0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.16	0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.56	0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	1	0.05	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05	<0.05	<0.05	<0.05
1 and 2 Methlynaphthalene	µg/g	0.59	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	22.8	13.9	8.2	6.2
Surrogate	Unit	Acceptable Limits					
Naphthalene-d8	%	50-140		85	85	85	85
Acridine-d9	%	50-140		90	80	90	80
Terphenyl-d14	%	50-140		85	105	85	90

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

5106992-5107002 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: R. Chakraberty

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T041829

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:KILLALY ST. E

SAMPLED BY:SHAA D.

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2023-06-29

DATE REPORTED: 2023-07-07

		SAMPLE DESCRIPTION:		TP211	DUP 1	TP212	DUP 2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-06-28	2023-06-28	2023-06-28	2023-06-28
Parameter	Unit	G / S	RDL	5106992	5107000	5107001	5107002
F1 (C6 - C10)	µg/g	25	5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50	90	62
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA	NA
Moisture Content	%		0.1	22.8	13.9	8.2	6.2
Surrogate	Unit	Acceptable Limits					
Toluene-d8	%	50-140		105	103	108	104
Terphenyl	%	60-140		76	107	92	86

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

5106992-5107002 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX and PAH contributions.
C>10 – C16 (F2- Naphthalene) is a calculated parameter. The calculated value is F2 - Naphthalene.
C>16 - C34 (F3-PAH) is a calculated parameter. The calculated value is F3-PAH (PAH: sum of Phenanthrene, Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-c,d)pyrene and Pyrene).
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: R. Chakraberty

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T041829
PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
SAMPLING SITE:KILLALY ST. E

ATTENTION TO: Peter Markesic
SAMPLED BY:SHAA D.

O. Reg. 153(511) - VOCs (with PHC) (Soil)

DATE RECEIVED: 2023-06-29

DATE REPORTED: 2023-07-07

		SAMPLE DESCRIPTION:		TP211	DUP 1	TP212	DUP 2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-06-28	2023-06-28	2023-06-28	2023-06-28
Parameter	Unit	G / S	RDL	5106992	5107000	5107001	5107002
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05

Certified By: R. Chakraberty

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23T041829

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:KILLALY ST. E

SAMPLED BY:SHAA D.

O. Reg. 153(511) - VOCs (with PHC) (Soil)

DATE RECEIVED: 2023-06-29

DATE REPORTED: 2023-07-07

		SAMPLE DESCRIPTION:		TP211	DUP 1	TP212	DUP 2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2023-06-28	2023-06-28	2023-06-28	2023-06-28
Parameter	Unit	G / S	RDL	5106992	5107000	5107001	5107002
Bromoform	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
n-Hexane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	22.8	13.9	8.2	6.2
Surrogate	Unit	Acceptable Limits					
Toluene-d8	% Recovery	50-140		105	103	108	104
4-Bromofluorobenzene	% Recovery	50-140		85	84	87	85

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
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.

5106992-5107002 The sample was analyzed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: R. Chakraberty

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Exceedance Summary

AGAT WORK ORDER: 23T041829

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
5106992	TP211	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.57	3.51
5106992	TP211	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	285
5107000	DUP 1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.57	2.99
5107000	DUP 1	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Nickel	µg/g	82	327
5107001	TP212	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.57	3.00
5107002	DUP 2	ON T1 S RPI/ICC	O. Reg. 153(511) - Metals & Inorganics (Soil)	Electrical Conductivity (2:1)	mS/cm	0.57	2.66

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T041829

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:KILLALY ST. E

SAMPLED BY:SHAA D.

Soil Analysis

RPT Date: Jul 07, 2023			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) - Metals & Inorganics (Soil)															
Antimony	5105280		<0.8	<0.8	NA	< 0.8	112%	70%	130%	94%	80%	120%	107%	70%	130%
Arsenic	5105280		1	1	NA	< 1	120%	70%	130%	97%	80%	120%	93%	70%	130%
Barium	5105280		65.2	64.6	0.9%	< 2.0	110%	70%	130%	106%	80%	120%	101%	70%	130%
Beryllium	5105280		<0.5	<0.5	NA	< 0.5	114%	70%	130%	108%	80%	120%	100%	70%	130%
Boron	5105280		<5	<5	NA	< 5	91%	70%	130%	108%	80%	120%	93%	70%	130%
Boron (Hot Water Soluble)	5108813		0.28	0.27	NA	< 0.10	99%	60%	140%	100%	70%	130%	99%	60%	140%
Cadmium	5105280		<0.5	<0.5	NA	< 0.5	108%	70%	130%	98%	80%	120%	90%	70%	130%
Chromium	5105280		22	21	NA	< 5	98%	70%	130%	87%	80%	120%	98%	70%	130%
Cobalt	5105280		5.3	5.4	1.9%	< 0.8	96%	70%	130%	98%	80%	120%	96%	70%	130%
Copper	5105280		7.9	7.6	3.9%	< 1.0	104%	70%	130%	91%	80%	120%	82%	70%	130%
Lead	5105280		11	10	9.5%	< 1	105%	70%	130%	88%	80%	120%	81%	70%	130%
Molybdenum	5105280		1.4	0.5	NA	< 0.5	110%	70%	130%	100%	80%	120%	87%	70%	130%
Nickel	5105280		13	12	8.0%	< 1	96%	70%	130%	87%	80%	120%	76%	70%	130%
Selenium	5105280		<0.8	<0.8	NA	< 0.8	99%	70%	130%	99%	80%	120%	94%	70%	130%
Silver	5105280		<0.5	<0.5	NA	< 0.5	98%	70%	130%	93%	80%	120%	79%	70%	130%
Thallium	5105280		<0.5	<0.5	NA	< 0.5	81%	70%	130%	93%	80%	120%	86%	70%	130%
Uranium	5105280		<0.50	<0.50	NA	< 0.50	94%	70%	130%	97%	80%	120%	78%	70%	130%
Vanadium	5105280		27.7	26.5	4.4%	< 2.0	124%	70%	130%	100%	80%	120%	99%	70%	130%
Zinc	5105280		51	49	4.0%	< 5	125%	70%	130%	120%	80%	120%	119%	70%	130%
Chromium, Hexavalent	5106133		<0.2	<0.2	NA	< 0.2	101%	70%	130%	90%	80%	120%	84%	70%	130%
Cyanide, WAD	5104753		<0.040	<0.040	NA	< 0.040	92%	70%	130%	103%	80%	120%	107%	70%	130%
Mercury	5105280		<0.10	<0.10	NA	< 0.10	107%	70%	130%	100%	80%	120%	97%	70%	130%
Electrical Conductivity (2:1)	5106177		0.292	0.255	13.5%	< 0.005	108%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	5106960		0.756	0.759	0.4%	NA									
pH, 2:1 CaCl2 Extraction	5106043		6.68	6.91	3.4%	NA	101%	80%	120%						

Comments: NA signifies Not Applicable.
pH duplicates QA acceptance criteria was met relative as stated in Table 5-15 of Analytical Protocol document.
Duplicate NA: results are under 5X the RDL and will not be calculated.

Certified By:

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 23T041829
PROJECT: 301011
ATTENTION TO: Peter Markesic
SAMPLING SITE:KILLALY ST. E
SAMPLED BY:SHAA D.

Trace Organics Analysis

RPT Date: Jul 07, 2023			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) - PHCs F1 - F4 (with PAHs and VOC) (Soil)															
F1 (C6 - C10)	5109135		<5	<5	NA	< 5	107%	60%	140%	117%	60%	140%	92%	60%	140%
F2 (C10 to C16)	5106133		<10	<10	NA	< 10	108%	60%	140%	92%	60%	140%	87%	60%	140%
F3 (C16 to C34)	5106133		<50	<50	NA	< 50	115%	60%	140%	82%	60%	140%	77%	60%	140%
F4 (C34 to C50)	5106133		<50	<50	NA	< 50	104%	60%	140%	95%	60%	140%	87%	60%	140%
O. Reg. 153(511) - VOCs (with PHC) (Soil)															
Dichlorodifluoromethane	5109135		<0.05	<0.05	NA	< 0.05	66%	50%	140%	63%	50%	140%	99%	50%	140%
Vinyl Chloride	5109135		<0.02	<0.02	NA	< 0.02	99%	50%	140%	101%	50%	140%	99%	50%	140%
Bromomethane	5109135		<0.05	<0.05	NA	< 0.05	82%	50%	140%	86%	50%	140%	118%	50%	140%
Trichlorofluoromethane	5109135		<0.05	<0.05	NA	< 0.05	111%	50%	140%	103%	50%	140%	74%	50%	140%
Acetone	5109135		<0.50	<0.50	NA	< 0.50	79%	50%	140%	86%	50%	140%	89%	50%	140%
1,1-Dichloroethylene	5109135		<0.05	<0.05	NA	< 0.05	90%	50%	140%	88%	60%	130%	75%	50%	140%
Methylene Chloride	5109135		<0.05	<0.05	NA	< 0.05	91%	50%	140%	97%	60%	130%	101%	50%	140%
Trans- 1,2-Dichloroethylene	5109135		<0.05	<0.05	NA	< 0.05	87%	50%	140%	86%	60%	130%	80%	50%	140%
Methyl tert-butyl Ether	5109135		<0.05	<0.05	NA	< 0.05	79%	50%	140%	99%	60%	130%	86%	50%	140%
1,1-Dichloroethane	5109135		<0.02	<0.02	NA	< 0.02	78%	50%	140%	76%	60%	130%	82%	50%	140%
Methyl Ethyl Ketone	5109135		<0.50	<0.50	NA	< 0.50	102%	50%	140%	109%	50%	140%	77%	50%	140%
Cis- 1,2-Dichloroethylene	5109135		<0.02	<0.02	NA	< 0.02	82%	50%	140%	82%	60%	130%	72%	50%	140%
Chloroform	5109135		<0.04	<0.04	NA	< 0.04	76%	50%	140%	74%	60%	130%	76%	50%	140%
1,2-Dichloroethane	5109135		<0.03	<0.03	NA	< 0.03	78%	50%	140%	83%	60%	130%	74%	50%	140%
1,1,1-Trichloroethane	5109135		<0.05	<0.05	NA	< 0.05	97%	50%	140%	97%	60%	130%	97%	50%	140%
Carbon Tetrachloride	5109135		<0.05	<0.05	NA	< 0.05	83%	50%	140%	81%	60%	130%	89%	50%	140%
Benzene	5109135		<0.02	<0.02	NA	< 0.02	81%	50%	140%	81%	60%	130%	77%	50%	140%
1,2-Dichloropropane	5109135		<0.03	<0.03	NA	< 0.03	80%	50%	140%	77%	60%	130%	70%	50%	140%
Trichloroethylene	5109135		<0.03	<0.03	NA	< 0.03	85%	50%	140%	85%	60%	130%	93%	50%	140%
Bromodichloromethane	5109135		<0.05	<0.05	NA	< 0.05	72%	50%	140%	81%	60%	130%	106%	50%	140%
Methyl Isobutyl Ketone	5109135		<0.50	<0.50	NA	< 0.50	87%	50%	140%	88%	50%	140%	82%	50%	140%
1,1,2-Trichloroethane	5109135		<0.04	<0.04	NA	< 0.04	87%	50%	140%	86%	60%	130%	81%	50%	140%
Toluene	5109135		<0.05	<0.05	NA	< 0.05	97%	50%	140%	98%	60%	130%	81%	50%	140%
Dibromochloromethane	5109135		<0.05	<0.05	NA	< 0.05	93%	50%	140%	90%	60%	130%	81%	50%	140%
Ethylene Dibromide	5109135		<0.04	<0.04	NA	< 0.04	90%	50%	140%	88%	60%	130%	83%	50%	140%
Tetrachloroethylene	5109135		<0.05	<0.05	NA	< 0.05	110%	50%	140%	111%	60%	130%	78%	50%	140%
1,1,1,2-Tetrachloroethane	5109135		<0.04	<0.04	NA	< 0.04	89%	50%	140%	86%	60%	130%	74%	50%	140%
Chlorobenzene	5109135		<0.05	<0.05	NA	< 0.05	97%	50%	140%	95%	60%	130%	83%	50%	140%
Ethylbenzene	5109135		<0.05	<0.05	NA	< 0.05	99%	50%	140%	98%	60%	130%	79%	50%	140%
m & p-Xylene	5109135		<0.05	<0.05	NA	< 0.05	95%	50%	140%	96%	60%	130%	57%	50%	140%
Bromoform	5109135		<0.05	<0.05	NA	< 0.05	80%	50%	140%	77%	60%	130%	70%	50%	140%
Styrene	5109135		<0.05	<0.05	NA	< 0.05	101%	50%	140%	97%	60%	130%	82%	50%	140%
1,1,2,2-Tetrachloroethane	5109135		<0.05	<0.05	NA	< 0.05	92%	50%	140%	88%	60%	130%	83%	50%	140%
o-Xylene	5109135		<0.05	<0.05	NA	< 0.05	95%	50%	140%	93%	60%	130%	80%	50%	140%

AGAT Laboratories
5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
AGAT WORK ORDER: 23T041829
PROJECT: 301011
ATTENTION TO: Peter Markesic
SAMPLING SITE:KILLALY ST. E
SAMPLED BY:SHAA D.

Trace Organics Analysis (Continued)

RPT Date: Jul 07, 2023			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
1,3-Dichlorobenzene	5109135		<0.05	<0.05	NA	< 0.05	101%	50%	140%	97%	60%	130%	84%	50%	140%
1,4-Dichlorobenzene	5109135		<0.05	<0.05	NA	< 0.05	107%	50%	140%	103%	60%	130%	91%	50%	140%
1,2-Dichlorobenzene	5109135		<0.05	<0.05	NA	< 0.05	99%	50%	140%	96%	60%	130%	85%	50%	140%
n-Hexane	5109135		<0.05	<0.05	NA	< 0.05	99%	50%	140%	98%	60%	130%	79%	50%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	5066932		<0.05	<0.05	NA	< 0.05	99%	50%	140%	88%	50%	140%	88%	50%	140%
Acenaphthylene	5066932		<0.05	<0.05	NA	< 0.05	105%	50%	140%	85%	50%	140%	83%	50%	140%
Acenaphthene	5066932		<0.05	<0.05	NA	< 0.05	96%	50%	140%	73%	50%	140%	103%	50%	140%
Fluorene	5066932		<0.05	<0.05	NA	< 0.05	117%	50%	140%	83%	50%	140%	85%	50%	140%
Phenanthrene	5066932		<0.05	<0.05	NA	< 0.05	110%	50%	140%	105%	50%	140%	93%	50%	140%
Anthracene	5066932		<0.05	<0.05	NA	< 0.05	100%	50%	140%	80%	50%	140%	95%	50%	140%
Fluoranthene	5066932		<0.05	<0.05	NA	< 0.05	116%	50%	140%	78%	50%	140%	73%	50%	140%
Pyrene	5066932		<0.05	<0.05	NA	< 0.05	112%	50%	140%	85%	50%	140%	75%	50%	140%
Benz(a)anthracene	5066932		<0.05	<0.05	NA	< 0.05	80%	50%	140%	90%	50%	140%	85%	50%	140%
Chrysene	5066932		<0.05	<0.05	NA	< 0.05	110%	50%	140%	103%	50%	140%	83%	50%	140%
Benzo(b)fluoranthene	5066932		<0.05	<0.05	NA	< 0.05	110%	50%	140%	108%	50%	140%	115%	50%	140%
Benzo(k)fluoranthene	5066932		<0.05	<0.05	NA	< 0.05	114%	50%	140%	98%	50%	140%	83%	50%	140%
Benzo(a)pyrene	5066932		<0.05	<0.05	NA	< 0.05	69%	50%	140%	80%	50%	140%	78%	50%	140%
Indeno(1,2,3-cd)pyrene	5066932		<0.05	<0.05	NA	< 0.05	83%	50%	140%	80%	50%	140%	85%	50%	140%
Dibenz(a,h)anthracene	5066932		<0.05	<0.05	NA	< 0.05	75%	50%	140%	73%	50%	140%	98%	50%	140%
Benzo(g,h,i)perylene	5066932		<0.05	<0.05	NA	< 0.05	86%	50%	140%	90%	50%	140%	85%	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: R. Chakraberty

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T041829

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:KILLALY ST. E

SAMPLED BY:SHAA D.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Arsenic	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Barium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Beryllium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	modified from EPA 6010D and MSA PART 3, CH 21	ICP/OES
Cadmium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Cobalt	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Copper	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Lead	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Molybdenum	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Nickel	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Selenium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Silver	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Thallium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Uranium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Vanadium	MET-93-6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Zinc	MET 93 -6103	modified from EPA 3050B and EPA 6020B and ON MOECC	ICP-MS
Chromium, Hexavalent	INOR-93-6068	modified from EPA 3060 and EPA 7196	SPECTROPHOTOMETER
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Mercury	MET-93-6103	modified from EPA 7471B and SM 3112 B	ICP-MS
Electrical Conductivity (2:1)	INOR-93-6075	modified from MSA PART 3, CH 14 and SM 2510 B	PC TITRATE
Sodium Adsorption Ratio (2:1) (Calc.)	INOR-93-6007	modified from EPA 6010D & Analytical Protocol	ICP/OES
pH, 2:1 CaCl2 Extraction	INOR-93-6075	modified from EPA 9045D, MCKEAGUE 3.11 E3137	PC TITRATE

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T041829

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:KILLALY ST. E

SAMPLED BY:SHAA D.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluorene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benz(a)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Chrysene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
1 and 2 Methlynaphthalene	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5106	modified from EPA 3570 and EPA 8270E	GC/MS
Moisture Content	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
F1 (C6 - C10)	VOL-91-5009	modified from CCME Tier 1 Method	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	modified from CCME Tier 1 Method	P&T GC/FID
Toluene-d8	VOL-91- 5001	modified from EPA 5030B & EPA 8260D	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
F4 (C34 to C50)	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	modified from CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009	modified from CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T041829

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:KILLALY ST. E

SAMPLED BY:SHAA D.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Vinyl Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromomethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Acetone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chloroform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Benzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Toluene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23T041829

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:KILLALY ST. E

SAMPLED BY:SHAA D.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
m & p-Xylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Bromoform	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Styrene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
o-Xylene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Xylenes (Total)	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
1,3-Dichloropropene (Cis + Trans)	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
n-Hexane	VOL-91-5002	modified from EPA 5035A and EPA 8260D	(P&T)GC/MS
Toluene-d8	VOL-91-5002	modified from EPA 5035A & EPA 8260D	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	modified from EPA 5035A & EPA 8260D	(P&T)GC/MS

AGAT Laboratories

Have feedback? Scan here for a quick survey!

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)

Report Information:

Company: Soil Mat
Contact: Peter Markosic
Address:
Phone: Fax:
Reports to be sent to:
1. Email: PMarkesic@Soilmat.ca
2. Email: Sdaymi@Soilmatica

Project Information:

Project: 301011
Site Location: Killaly St. E
Sampled By: Shad D.
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:

Regulatory Requirements:

(Please check all applicable boxes)

☒ Regulation 153/04 — Table 1 (Indicate One) — ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One): ☐ Coarse ☐ Fine
☐ Regulation 406 — Table (Indicate One)
☐ Regulation 558
☐ CCME
☐ Sewer Use ☐ Sanitary ☐ Storm — Region
☐ 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

Sample Matrix Legend

GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Laboratory Use Only

Work Order #: 23T041829
Cooler Quantity: 1 Large
Arrival Temperatures: 3.5 | 2.7 | 3.7
Custody Seal Intact: ☐ Yes ☐ No ☒ N/A
Notes: FREE ICE

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

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI, DOC (Y/N)	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	VOC	PAHs	PCBs	PCBs: Arociors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. TP 2 11	June 26	AM/PM	4				X		X	X	X							
2. Dup 1	↓	AM/PM	↓				↓		↓	↓	↓							
3. TP 2 12		AM/PM																
4. Dup 2		AM/PM																
5.		AM/PM																
6.		AM/PM																
7.		AM/PM																
8.		AM/PM																
9.		AM/PM																
10.		AM/PM																
11.		AM/PM																

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Shad D.				06/29/23	4:55PM
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page 1 of 1
N°: T-145246

Pink Copy - Client | Yellow Copy - AGAT | White Copy - AGAT

Appendix 'C'

1. AGAT Certificate of Analysis – Water

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT
401 GRAYS ROAD
HAMILTON, ON L8E 2Z3
(905) 318-7440

ATTENTION TO: Peter Markesic

PROJECT: 301011

AGAT WORK ORDER: 23H041228

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

WATER ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Lab Manager

DATE REPORTED: Jul 05, 2023

PAGES (INCLUDING COVER): 12

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*Notes

Disclaimer:

- All work conducted herein has been done using accepted standard protocols, and generally accepted practices and methods. AGAT test methods may incorporate modifications from the specified reference methods to improve performance.
- All samples will be disposed of within 30 days following analysis, unless expressly agreed otherwise in writing. Please contact your Client Project Manager if you require additional sample storage time.
- AGAT's liability in connection with any delay, performance or non-performance of these services is only to the Client and does not extend to any other third party. Unless expressly agreed otherwise in writing, AGAT's liability is limited to the actual cost of the specific analysis or analyses included in the services.
- This report shall not be reproduced or distributed, in whole or in part, without the prior written consent of AGAT Laboratories.
- The test results reported herewith relate only to the samples as received by the laboratory.
- Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, warranties of merchantability, fitness for a particular purpose, or non-infringement. AGAT assumes no responsibility for any errors or omissions in the information contained in this document.
- All reportable information as specified by ISO/IEC 17025:2017 is available from AGAT Laboratories upon request.

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23H041228

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:Killay St.

SAMPLED BY:Shaa D.

O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2023-06-28

DATE REPORTED: 2023-07-05

		SAMPLE DESCRIPTION:		MW201
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2023-06-28
Parameter	Unit	G / S	RDL	5103606
Naphthalene	µg/L	7	0.20	<0.20
Acenaphthylene	µg/L	1	0.20	<0.20
Acenaphthene	µg/L	17	0.20	<0.20
Fluorene	µg/L	290	0.20	<0.20
Phenanthrene	µg/L	380	0.10	<0.10
Anthracene	µg/L	1	0.10	<0.10
Fluoranthene	µg/L	44	0.20	<0.20
Pyrene	µg/L	5.7	0.20	<0.20
Benzo(a)anthracene	µg/L	1.8	0.20	<0.20
Chrysene	µg/L	0.7	0.10	<0.10
Benzo(b)fluoranthene	µg/L	0.75	0.10	<0.10
Benzo(k)fluoranthene	µg/L	0.4	0.10	<0.10
Benzo(a)pyrene	µg/L	0.81	0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.4	0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	1500	0.20	<0.20
Sediment				3
Surrogate	Unit	Acceptable Limits		
Naphthalene-d8	%	50-140		101
Acridine-d9	%	50-140		87
Terphenyl-d14	%	50-140		98

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 NPGW MFT
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.

5103606 Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amount
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. The calculated parameter is non-accredited. The parameters that are components of the calculation are accredited.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23H041228

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:Killay St.

SAMPLED BY:Shaa D.

O. Reg. 153(511) - PHCs F1 - F4 (Water)

DATE RECEIVED: 2023-06-28

DATE REPORTED: 2023-07-05

		SAMPLE DESCRIPTION:		TP213
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2023-06-28
Parameter	Unit	G / S	RDL	5103608
Benzene	µg/L	0.5	0.20	<0.20
Toluene	µg/L	320	0.20	1.32
Ethylbenzene	µg/L	54	0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20
o-Xylene	µg/L		0.10	<0.10
Xylenes (Total)	µg/L	72	0.20	<0.20
F1 (C6 - C10)	µg/L		25	<25
C6 - C10 (F1 minus BTEX)	µg/L	420	25	<25
F2 (C10 to C16)	µg/L	150	100	<100
F3 (C16 to C34)	µg/L	500	100	<100
F4 (C34 to C50)	µg/L	500	100	<100
Gravimetric Heavy Hydrocarbons	µg/L		500	NA
Sediment				3
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	60-140		80
Terphenyl	% Recovery	60-140		85

Certified By:

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23H041228

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:Killay St.

SAMPLED BY:Shaa D.

O. Reg. 153(511) - PHCs F1 - F4 (Water)

DATE RECEIVED: 2023-06-28

DATE REPORTED: 2023-07-05

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 NPGW MFT
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.

5103608 The C6-C10 fraction is calculated using Toluene response factor.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene and o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The calculated parameters are non-accredited. The parameters that are components of the calculation are accredited.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6-C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153/04, results are considered valid without determining the PAH contribution if not requested by the client.
NA = Not Applicable

Sediment parameter is comment only based on visual inspection of the sample prior to extraction and is not an accredited test.
Legend: 1 = no sediment present; 2 = sediment present; 3 = sediment present in trace amounts

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: 

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23H041228

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:Killay St.

SAMPLED BY:Shaa D.

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2023-06-28

DATE REPORTED: 2023-07-05

		SAMPLE DESCRIPTION:		MW201
		SAMPLE TYPE:		Water
		DATE SAMPLED:		2023-06-28
Parameter	Unit	G / S	RDL	5103606
Dissolved Antimony	µg/L	16000	1.0	<1.0
Dissolved Arsenic	µg/L	1500	1.0	1.3
Dissolved Barium	µg/L	23000	2.0	102
Dissolved Beryllium	µg/L	53	0.50	<0.50
Dissolved Boron	µg/L	36000	10.0	420
Dissolved Cadmium	µg/L	2.1	0.20	<0.20
Dissolved Chromium	µg/L	640	2.0	<2.0
Dissolved Cobalt	µg/L	52	0.50	113
Dissolved Copper	µg/L	69	1.0	<1.0
Dissolved Lead	µg/L	20	0.50	<0.50
Dissolved Molybdenum	µg/L	7300	0.50	12.0
Dissolved Nickel	µg/L	390	1.0	6.5
Dissolved Selenium	µg/L	50	1.0	<1.0
Dissolved Silver	µg/L	1.2	0.20	<0.20
Dissolved Thallium	µg/L	400	0.30	<0.30
Dissolved Uranium	µg/L	330	0.50	1.93
Dissolved Vanadium	µg/L	200	0.40	0.69
Dissolved Zinc	µg/L	890	5.0	<5.0
Mercury	µg/L	0.1	0.02	<0.02
Chromium VI	µg/L	110	2.000	<2.000
Cyanide, WAD	µg/L	52	2	<2
Dissolved Sodium	µg/L	1800000	50	27500
Chloride	µg/L	1800000	100	78500
Electrical Conductivity	uS/cm	NA	2	1260
pH	pH Units		NA	7.63

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
AMANJOT BHELA
CHEMIST

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 23H041228

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLING SITE:Killay St.

SAMPLED BY:Shaa D.

O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2023-06-28

DATE REPORTED: 2023-07-05

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to ON T7 NPGW MFT
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.

5103606 Metals analysis completed on a filtered sample.
pH is a recommended field analysis taken within 15 minutes of sample collection. Due to the potential for rapid change in sample equilibrium chemistry laboratory results may differ from field measured results

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

Amanjot Bhela

ASSOCIATION OF THE CHEMICAL PROFESSION OF ONTARIO
CHARTERED
AMANJOT BHELA
CHEMIST

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Guideline Violation

AGAT WORK ORDER: 23H041228

PROJECT: 301011

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Peter Markesic

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	UNIT	GUIDEVALUE	RESULT
5103606	MW201	ON T7 NPGW MFT	O. Reg. 153(511) - Metals & Inorganics (Water)	Dissolved Cobalt	µg/L	52	113

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23H041228

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:Killay St.

SAMPLED BY:Shaa D.

Trace Organics Analysis

RPT Date: Jul 05, 2023			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 (Water)															
Naphthalene	5104630		<0.20	<0.20	NA	< 0.20	94%	50%	140%	98%	50%	140%	102%	50%	140%
Acenaphthylene	5104630		<0.20	<0.20	NA	< 0.20	115%	50%	140%	87%	50%	140%	86%	50%	140%
Acenaphthene	5104630		<0.20	<0.20	NA	< 0.20	112%	50%	140%	86%	50%	140%	87%	50%	140%
Fluorene	5104630		<0.20	<0.20	NA	< 0.20	115%	50%	140%	103%	50%	140%	104%	50%	140%
Phenanthrene	5104630		<0.10	<0.10	NA	< 0.10	117%	50%	140%	96%	50%	140%	96%	50%	140%
Anthracene	5104630		<0.10	<0.10	NA	< 0.10	104%	50%	140%	100%	50%	140%	101%	50%	140%
Fluoranthene	5104630		<0.20	<0.20	NA	< 0.20	104%	50%	140%	99%	50%	140%	96%	50%	140%
Pyrene	5104630		<0.20	<0.20	NA	< 0.20	117%	50%	140%	88%	50%	140%	85%	50%	140%
Benzo(a)anthracene	5104630		<0.20	<0.20	NA	< 0.20	81%	50%	140%	94%	50%	140%	99%	50%	140%
Chrysene	5104630		<0.10	<0.10	NA	< 0.10	91%	50%	140%	103%	50%	140%	89%	50%	140%
Benzo(b)fluoranthene	5104630		<0.10	<0.10	NA	< 0.10	92%	50%	140%	85%	50%	140%	79%	50%	140%
Benzo(k)fluoranthene	5104630		<0.10	<0.10	NA	< 0.10	103%	50%	140%	96%	50%	140%	84%	50%	140%
Benzo(a)pyrene	5104630		<0.01	<0.01	NA	< 0.01	89%	50%	140%	72%	50%	140%	80%	50%	140%
Indeno(1,2,3-cd)pyrene	5104630		<0.20	<0.20	NA	< 0.20	96%	50%	140%	92%	50%	140%	73%	50%	140%
Dibenz(a,h)anthracene	5104630		<0.20	<0.20	NA	< 0.20	81%	50%	140%	76%	50%	140%	71%	50%	140%
Benzo(g,h,i)perylene	5104630		<0.20	<0.20	NA	< 0.20	74%	50%	140%	100%	50%	140%	99%	50%	140%
O. Reg. 153(511) - PHCs F1 - F4 (Water)															
Benzene	5100739		<0.20	<0.20	NA	< 0.20	91%	60%	140%	102%	60%	140%	89%	60%	140%
Toluene	5100739		<0.20	<0.20	NA	< 0.20	89%	60%	140%	96%	60%	140%	91%	60%	140%
Ethylbenzene	5100739		<0.10	<0.10	NA	< 0.10	86%	60%	140%	105%	60%	140%	88%	60%	140%
m & p-Xylene	5100739		<0.20	<0.20	NA	< 0.20	92%	60%	140%	100%	60%	140%	92%	60%	140%
o-Xylene	5100739		<0.10	<0.10	NA	< 0.10	86%	60%	140%	104%	60%	140%	88%	60%	140%
F1 (C6 - C10)	5100739		<25	<25	NA	< 25	96%	60%	140%	90%	60%	140%	86%	60%	140%
F2 (C10 to C16)	5105352		< 100	< 100	NA	< 100	92%	60%	140%	65%	60%	140%	71%	60%	140%
F3 (C16 to C34)	5105352		< 100	< 100	NA	< 100	101%	60%	140%	80%	60%	140%	91%	60%	140%
F4 (C34 to C50)	5105352		< 100	< 100	NA	< 100	89%	60%	140%	89%	60%	140%	82%	60%	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 Popowkolof

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23H041228

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:Killay St.

SAMPLED BY:Shaa D.

Water Analysis

RPT Date: Jul 05, 2023			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) - Metals & Inorganics (Water)															
Dissolved Antimony	5104591		<1.0	<1.0	NA	< 1.0	102%	70%	130%	104%	80%	120%	107%	70%	130%
Dissolved Arsenic	5104591		<1.0	1.0	NA	< 1.0	101%	70%	130%	105%	80%	120%	111%	70%	130%
Dissolved Barium	5104591		303	305	0.7%	< 2.0	93%	70%	130%	96%	80%	120%	119%	70%	130%
Dissolved Beryllium	5104591		<0.50	<0.50	NA	< 0.50	96%	70%	130%	101%	80%	120%	86%	70%	130%
Dissolved Boron	5104591		381	358	6.2%	< 10.0	93%	70%	130%	100%	80%	120%	84%	70%	130%
Dissolved Cadmium	5104591		<0.20	<0.20	NA	< 0.20	97%	70%	130%	99%	80%	120%	89%	70%	130%
Dissolved Chromium	5104591		<2.0	<2.0	NA	< 2.0	100%	70%	130%	102%	80%	120%	112%	70%	130%
Dissolved Cobalt	5104591		3.25	3.32	2.1%	< 0.50	99%	70%	130%	105%	80%	120%	105%	70%	130%
Dissolved Copper	5104591		2.1	2.3	NA	< 1.0	100%	70%	130%	100%	80%	120%	92%	70%	130%
Dissolved Lead	5104591		<0.50	<0.50	NA	< 0.50	101%	70%	130%	98%	80%	120%	88%	70%	130%
Dissolved Molybdenum	5104591		2.01	1.82	NA	< 0.50	107%	70%	130%	110%	80%	120%	121%	70%	130%
Dissolved Nickel	5104591		9.6	9.0	6.5%	< 1.0	100%	70%	130%	105%	80%	120%	96%	70%	130%
Dissolved Selenium	5104591		3.6	4.9	NA	< 1.0	102%	70%	130%	108%	80%	120%	112%	70%	130%
Dissolved Silver	5104591		<0.20	<0.20	NA	< 0.20	99%	70%	130%	106%	80%	120%	93%	70%	130%
Dissolved Thallium	5104591		<0.30	<0.30	NA	< 0.30	103%	70%	130%	102%	80%	120%	94%	70%	130%
Dissolved Uranium	5104591		4.52	4.33	4.3%	< 0.50	100%	70%	130%	111%	80%	120%	105%	70%	130%
Dissolved Vanadium	5104591		1.19	1.28	NA	< 0.40	102%	70%	130%	109%	80%	120%	125%	70%	130%
Dissolved Zinc	5104591		<5.0	<5.0	NA	< 5.0	100%	70%	130%	105%	80%	120%	83%	70%	130%
Mercury	5101866		<0.02	<0.02	NA	< 0.02	103%	70%	130%	99%	80%	120%	101%	70%	130%
Chromium VI	5103809		<2.000	<2.000	NA	< 2	105%	70%	130%	104%	80%	120%	111%	70%	130%
Cyanide, WAD	5105058		<2	<2	NA	< 2	111%	70%	130%	94%	80%	120%	101%	70%	130%
Dissolved Sodium	5104591		2950000	3050000	3.3%	< 50	105%	70%	130%	104%	80%	120%	NA	70%	130%
Chloride	5101863		149000	150000	0.7%	< 100	98%	70%	130%	102%	80%	120%	105%	70%	130%
Electrical Conductivity	5102967		494	522	5.5%	< 2	100%	90%	110%	NA			NA		
pH	5102967		7.99	8.27	3.4%	NA	100%	90%	110%	NA			NA		

Comments: NA signifies Not Applicable.
Duplicate NA: results are under 5X the RDL and will not be calculated.

Matrix spike NA: Spike level < native concentration. Matrix spike acceptance limits do not apply and are not calculated.

Certified By:

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23H041228

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:Killay St.

SAMPLED BY:Shaa D.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Naphthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acenaphthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluorene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Phenanthrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Chrysene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(a)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Naphthalene-d8	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Acridine-d9	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Terphenyl-d14	ORG-91-5105	modified from EPA 3510C and EPA 8270E	GC/MS
Sediment			N/A
Benzene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Toluene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Ethylbenzene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
m & p-Xylene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
o-Xylene	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
Xylenes (Total)	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
F1 (C6 - C10)	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/FID
C6 - C10 (F1 minus BTEX)	VOL - 5010	MOE E3421	(P&T)GC/MS
Toluene-d8	VOL-91-5010	modified from MOE PHC-E3421	(P&T)GC/MS
F2 (C10 to C16)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	modified from MOE PHC-E3421	GC/FID

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: SOIL MAT ENGINEERS & CONSULTANTS LT

AGAT WORK ORDER: 23H041228

PROJECT: 301011

ATTENTION TO: Peter Markesic

SAMPLING SITE:Killay St.

SAMPLED BY:Shaa D.

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Gravimetric Heavy Hydrocarbons	VOL-91-5010	modified from MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010	modified from MOE PHC-E3421	GC/FID
Water Analysis			
Dissolved Antimony	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Arsenic	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Barium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Beryllium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Boron	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cadmium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Chromium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Cobalt	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Copper	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Lead	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Molybdenum	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Nickel	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Selenium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Silver	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Thallium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Uranium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Vanadium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Dissolved Zinc	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP-MS
Mercury	MET-93-6100	modified from EPA 245.2 and SM 3112 B	CVAAS
Chromium VI	INOR-93-6073	modified from SM 3500-CR B	LACHAT FIA
Cyanide, WAD	INOR-93-6052	modified from ON MOECC E3015, SM 4500-CN- I, G-387	SEGMENTED FLOW ANALYSIS
Dissolved Sodium	MET-93-6103	modified from EPA 200.8 and EPA 3005A	ICP/MS
Chloride	INOR-93-6004	modified from SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	modified from SM 4500-H+ B	PC TITRATE

AGAT Laboratories

Have feedback? Scan here for a quick survey!

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 #: 23H041228

Cooler Quantity: MD COOLER

Arrival Temperatures: 3.3 | 3.5 | 4.0 / 4.0 | 4.5 | 4.9

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: LOOSE ICE

Report Information:

Company: Soil Mat
Contact: Peter Markesic
Address:
Phone: Fax:
Reports to be sent to:
1. Email: Pmarkesic@Soilmat.ca
2. Email: Sdlaymi@Soilmat.ca

Regulatory Requirements:

(Please check all applicable boxes)

☒ Regulation 153/04 — Table 1 (Indicate One) — ☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture (Check One): ☐ Coarse ☐ Fine

☐ Regulation 406 — Table ____ (Indicate One)
☐ Regulation 558
☐ CCME

☐ Sewer Use ☐ Sanitary ☐ Storm — Region
☐ 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: 301011
Site Location: Killaly St.
Sampled By: Shaa D.
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

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, DOC (Y/N)	O. Reg 153: Metals & Inorganics	O. Reg 153: Metals - ☐ CrVI, ☐ Hg, ☐ HWSB	O. Reg 153: BTEX, F1-F4 PHCs	O. Reg 153: VOC	O. Reg 153: PAHs	O. Reg 153: PCBs	O. Reg 153: PCBs: Aroclors ☐	O. Reg 558: Landfill Disposal Characterization TCLP: ☐ TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	O. Reg 406: Regulation 406 SPLP Rainwater Leach SPLP: ☐ Metals ☐ VOCs ☐ SVOCs	O. Reg 406: Regulation 406 Characterization Package pH, ICPMS Metals, BTEX, F1-F4	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. MW 201	June28	AM/PM	8	GW			X				X							
2. TP 213	↑	AM/PM	5	GW					X									
3.	X	AM/PM																
4.		AM/PM																
5.		AM/PM																
6.		AM/PM																
7.		AM/PM																
8.		AM/PM																
9.		AM/PM																
10.		AM/PM																
11.		AM/PM																

	Date	Time		Date	Time
Samples Relinquished By (Print Name and Sign): Shaa D.	June28	2:43	Samples Received By (Print Name and Sign): DTAL	June28/23	2:50pm
Samples Relinquished By (Print Name and Sign): DTAL	June28/23	3pm	Samples Received By (Print Name and Sign):	June28	4:20pm
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page 1 of 1

№: T-143529

Pink Copy - Client | Yellow Copy - AGAT | White Copy: AGAT

Appendix 'D'

1. Qualifications of Assessors

COMPANY BACKGROUND

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] is a Canadian Consulting Engineering firm owned by its senior staff. Over the past thirty years the principals of SOIL-MAT ENGINEERS have undertaken geotechnical investigations in all areas of Hamilton and surrounding area and are familiar with the distinct geology of the area and therefore well-versed with the various soil, bedrock and groundwater conditions. SOIL-MAT ENGINEERS has a staff of over twenty-five engineers and technical staff who specialize in geotechnical assignments, environmental assessments, hydrogeological investigations and construction quality control/assurance projects. The company commenced operation on June 15, 1992 and has undertaken over 5,000 projects since its inception. The firm and all professional staff are in good standing with Professional Engineers Ontario. The company has maintained a current Certificate of Authorisation since it was granted on April 28, 1992. The firm's office and laboratory facilities are located at 130 Lancing Drive in Hamilton, Ontario.

REPORT AUTHORS

Shaalin Dlaymi, B.Sc.
Environmental Technician

Ms. Dlaymi completed her Bachelor of Science in 2021 and has conducted Phase I ESA research and Phase II ESA fieldwork, including soil and groundwater sampling. Ms. Dlaymi has also been a key member on a number of projects including the decommissioning of underground fuel storage tanks as well as the supervision and direction of traditional 'dig and dump' remediation projects.

Ian Shaw, P. Eng.
[Director/ Senior Professional]

Mr. Shaw has over fourteen years of experience in the geotechnical and geo-environmental fields. Mr. Shaw has supervised the geotechnical investigations for the replacement/rehabilitation of bridge/culvert structures located within the Haldimand County, numerous residential and industrial subdivision projects, slope stability assignments associated with Hamilton Conservation Authority and Conservation Halton requirements, and several high rise developments in Hamilton, Burlington, Oakville, Brantford, St. Catharines, and Niagara Falls. Mr. Shaw has also been involved in numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects. Some of Mr. Shaw's projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes and numerous 'dig and dump' remediation projects.

Keith Gleadall, B.A., EA Dipl.

Vice-President [Senior Professional]

Mr. Gleadall has over fourteen years of experience in conducting Phase I, II and III Environmental Site Assessments and has successfully completed the requirements of the Associated Environmental Site Assessors of Canada and a Post Graduate Diploma in Environmental Site Assessment from Niagara College. Mr. Gleadall is responsible for undertaking numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects, together with Phase I, II and III Environmental Site Assessments. Projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes, the decommissioning of a former dry cleaning facility and numerous 'dig and dump' remediation projects.

Appendix 'E'

1. Statement of Limitations

REPORT LIMITATIONS

Achieving the objectives that are stated in this report has required SOIL-MAT ENGINEERS to derive conclusions based upon the best and most recent information currently available to SOIL-MAT ENGINEERS. No investigative method can completely eliminate the possibility of obtaining partially imprecise information. SOIL-MAT ENGINEERS has expressed professional judgement in gathering and analysing the information obtained and in the formulation of its conclusions.

Information in this report was obtained from sources deemed to be reliable, however, no representation or warranty is made as to the accuracy of this information. To the best of SOIL-MAT ENGINEERS' knowledge, the information gathered from outside sources contained in this report on which SOIL-MAT ENGINEERS has formulated its opinions and conclusions, are both true and correct. SOIL-MAT ENGINEERS assumes no responsibility for any misrepresentation of facts gathered from outside sources.

This report was prepared to assess and document evidence of potential environmental contamination, and not to judge the acceptability of the risks associated with such environmental contamination. Much of the information gathered for this report is only accurate at the time of collection and a change in the Site conditions may alter the interpretation of SOIL-MAT ENGINEERS' findings. Furthermore, the reader should note that the Site reconnaissance described in this report was an environmental assessment of the Site, not a regulatory compliance or an environmental audit of the Site.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of the AMZ HOLDINGS C/O DESIGN PLAN SERVICES INC. The material in it reflects SOIL-MAT ENGINEERS best judgement in light of the information available to it at the time of preparation. 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-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.