Property Owner's Name

Gino Martinello

Property Owner's Phone Number

[redacted]

Property Owner's Email Address

[redacted]

Property Roll Number

[redacted]

Property Address

4670 Sideroad 10 N
Puslinch, ON
N1H6J3

Are you submitting on behalf of the property owner?

Yes

Contractor Name

Meritech Engineering

Contractor Address

1315 Bishop Street N
Suite 202
Cambridge, ON
N1R6Z2

Contractor Phone Number

+15196231140

Contractor Email Address

briane@meritech.ca

Is any part of the site alteration taking place in a Conservation authority regulated area?

No

What is the zoning of the property?

Agricultural

What is the current use of the property?

Agricultural

What is the size of the property in hectares?

15.2ha

What is the size of the proposed site alteration work area in hectares?

9.9ha

Provide a brief description of the Site Alteration project.

Earthworks to improve the arability and drainage of current attempts to convert former gravel pit to farmland. Import of clean fill and topsoil are proposed to eliminate both steep slopes on sides of the area as well as flat grades at base. Purpose is to add topsoil to improve crop production and yield. Import of clean fill is required since fill of larger depths of topsoil is not feasible due to anaerobic impacts and settlement.

Does any part of the site contain a watercourse?

Yes

Is the proposed site alteration area within 30 metres of a watercourse?

No

Is the site alteration area a minimum of 30 metres from all property boundaries and drainage swales?

No

Are trees being removed as part of the Site Alteration project?

No

Is the Site Alteration Permit associated with a building permit?

No

Is the Site Alteration Permit associated with an approved Site Plan Control Agreement?

No

Is this related to a By-Law Enforcement order?

No

What is the source of fill for this project?

Imported fill (imported from secondary location)

What is the volume of Fill being imported from off-site in cubic metres?

145,000

Has fill already been imported to the property?

Yes

How much Fill has been imported to the site in cubic metres?

This matter was dealt with and settled through separate proceedings.

Is fill being removed from the subject property as part of this permit?

No

Upload site plan of the property showing the septic location.

4076.SiteAlteration.2ndEng.pdf

Will Fill be placed over the septic bed and tank area?

No

Provide documentation to demonstrate that the Site Alteration will not cause an Adverse Effect.

4076.NoAdverseEffects.ToP_.ltr_.pdf

Provide documentation that the Fill complies with the parameters as set out in Section 3.8 of this By-law.

SM-241051-E-Soil-Characterisation-Report-565-Arvin-Avenue-Stoney-Creek.pdf

Soil-Letter-Parkside-Dr-and-Clappison-Ave-Waterdown-21-462-100-2024-10.pdf

Provide documentation pertaining to the collection and laboratory analysis of samples of the Fill.

SM-241051-E-Soil-Characterisation-Report-565-Arvin-Avenue-Stoney-Creek.pdf

Soil-Letter-Parkside-Dr-and-Clappison-Ave-Waterdown-21-462-100-2024-10.pdf

Provide documentation setting out the evaluation of the Fill sample results.

SM-241051-E-Soil-Characterisation-Report-565-Arvin-Avenue-Stoney-Creek.pdf

Soil-Letter-Parkside-Dr-and-Clappison-Ave-Waterdown-21-462-100-2024-10.pdf

Provide documentation of the Quality Control/Quality Assurance Program.

20250210.FE_.F199412006_ESMP_DRAFT_Jan27-25.GEO_.pdf

Provide documentation of the Source Site Confirmation.

SM-241051-E-Soil-Characterisation-Report-565-Arvin-Avenue-Stoney-Creek.pdf

Soil-Letter-Parkside-Dr-and-Clappison-Ave-Waterdown-21-462-100-2024-10.pdf

Provide a justification report prepared by a qualifed person demonstrating the need for the proposed volume of Fill to be imported to the site.

4076.Justification.ToP_.ltr_.pdf

Provide documentation that the proposed Site Alteration meets the definition of Beneficial Purpose.

20250210.FE_.F199412006_ESMP_DRAFT_Jan27-25.GEO_.pdf

What is the largest change in grade associated with this application in metres?

5

Upload a Major Site Alteration Permit Checklist and Control Plan as per Schedule B, or aspects of the Control Plan as determined by the Designated Official.

Major-Site-Alteration-Permit-Requirement-Checklist-and-Process-2025-03-05.pdf

Do you plan to use site specific standards for soil quality for the Fill?

No

Upload a Site Alteration and Fill Management Plan prepared by a Qualified Person

20250210.FE_.F199412006_ESMP_DRAFT_Jan27-25.GEO_.pdf

Upload a document from the Owner and Qualified Person confirming that the Qualified Person will be present at the Property and be responsible for all activities associated with the Site Alteration at all times while activities are taking place.

20250210.FE_.F199412006_ESMP_DRAFT_Jan27-25.GEO_.pdf
4076.OwnerQPconfirmation.pdf

Please provide any permits of approvals received from external agencies for this application to date (ex. Conservation Authority, Source Water Protection, County of Wellington).

GRCA.20220831.APR_.pdf

Upload an approved Haul Route Permit in accordance with the Township's Road Activity By-law.

4076.SiteAlteration.2ndEng.pdf

Upload a schedule and timing of the Site Alteration activities.

4076.Hours-of-Operation-Extension.ToP_.2025-01-09.ltr_.pdf

Upload the Site Alteration Permit Owner Authorization Form if filling out the application on behalf of the property owner.

Permit-Owner-Authorization_Application.pdf

I understand that staff will follow up regarding application fees.

I have read the above and understand this requirement.

Field ID #143

I have read, understood and agree to the Terms and Conditions.

Signature

March 5, 2025

Township of Puslinch
7404 Wellington Road 34
Puslinch, ON N0B 2J0

Attention: Jacob Normore

Dear Mr. Normore,

Re: Justification for Importing Fill
4670 Sideroad 10 N, Puslinch
Site Alteration Permit Application

A site alteration permit application is with the Township of Puslinch for the above address. It is my opinion that the proposed import of soils is required to improve the site. Much of the site is a former gravel pit. The proposed permit is to facilitate improved agricultural use (crop growth and a proposed pole barn) and residential dwelling. The import of topsoil is being proposed to increase the yield of the land. To do this, very flat lands and steep slopes are proposed to be modified with the import of fill and topsoil. Importing only topsoil would create a poor base condition resulting in significant settlement. A pole barn and farm/implement yard are also proposed and requires additional fill to provide a stable base for foundations and the yard.

Yours very truly,

MERITECH ENGINEERING

[redacted]

Brian Enter, P.Eng.
Project Manager, Senior Engineer

[redacted]

BRE/

Meritech Engineering 1315 Bishop St. North Suite 202 Cambridge ON N1R 6Z2 t 519.623.1140
f 519.623.7334

March 5, 2025

Township of Puslinch
7404 Wellington Road 34
Puslinch, ON N0B 2J0

Attention: Jacob Normore

Dear Mr. Normore,

Re: No Adverse Effect
4670 Sideroad 10 N, Puslinch
Site Alteration Permit Application

A site alteration permit application is with the Township of Puslinch for the above address.
It is my opinion that none of the following adverse effects will result from the proposed work:

a. Impairment of the quality of the natural environment for any use that can be made of it;
b. Injury or damage to Property or to plant or animal life;
c. Harm or material discomfort to any person;
d. An adverse effect on the health of any person;
e. Impairment of the safety of any person;
f. Rendering any Property or plant or animal life unfit for human use;
g. Loss of enjoyment of normal use of Property; and
h. Interference with the normal conduct of business.

Yours very truly,

MERITECH ENGINEERING

[redacted]

Brian Enter, P.Eng.
Project Manager, Senior Engineer

BRE/

Meritech Engineering 1315 Bishop St. North Suite 202 Cambridge ON N1R 6Z2 t 519.623.1140
f 519.623.7334

January 9, 2025

Township of Puslinch
7404 Wellington Road 34
Puslinch, ON N0B 2J0

Attention: Jacob Normore
By-law Enforcement, Property Standards and Licensing Officer

Dear Mr. Normore,

Re: Extension of Operating Hours
4670 Sideroad 10 N.
Township of Puslinch

In relation to a site alteration permit application for the above site, this letter is to request an extension in operation of hours beyond the hours stated in the Road Activity By-law, Part 4 – Haul Route, Conditions of Haul Route Permit, Section 18b.

The requested hours of extension are as follows:
Monday to Friday, 7am – 6pm
Saturday, 7:30am – 4:30pm
No work on Sundays or Holidays.

The requested timeline of this extension is valid only as long as the associated site alteration permit for this site is in effect.

Further to the above request, the following conditions are part of the submitted plan per standard conditions in the By-Law:

- During any period in which a wind warning has been issued by Environment Canada;
- During any weather conditions where the ability to mitigate Site Alteration activity impacts is severely compromised (e.g., heavy rain, etc.); and
- □ During any situation where Site Alteration activities can unduly impact adjacent landowners (e.g., brush fires, floods, unsuitable road conditions, etc.).

If you have any questions, please contact the undersigned.

Meritech Engineering 1315 Bishop St. North Suite 202 Cambridge ON N1R 6Z2 t 519.623.1140
f 519.623.7334

Yours very truly,

MERITECH ENGINEERING

[redacted]

Brian Enter, P.Eng.
Project Manager

BE
Enclosures (0)

cc Jerome Nicholls, Nicholls Ventures Inc.
Gino Martinello

Township of Puslinch
7404 Wellington Rd 34
Puslinch, ON N0B 2J0

Attention: Jacob Normore
By-law Enforcement, Property Standards and Licensing Officer

Dear Mr. Normore,

Re: Site Alteration Permit – Retaining of QP
4670 Sideroad 10 N, Puslinch
Township of Puslinch

We, the owners of 4670 Sideroad 10 N, state that we will retain a Qualified Person to be present at the Property and be responsible for all activities associated with the Site Alteration at all times while activities are taking place.

[redacted]

Gino Maktinello

5 MAR/25

Date

Servicing Legend

Ex=Existing	Pr=Proposed
Ex Sanitary/Storm Manhole/CB Manhole	Pr Sanitary/Storm Manhole
Ex Sanitary Sewer (Flow Direction)	Pr Sanitary Sewer (Flow Direction)
Ex Storm Sewer (Flow Direction)	Pr Storm Sewer (Flow Direction)
Ex Water Valve/Curb Stop	Pr Water Valve/Curb Stop/Reducer
Ex Fire Hydrant & Valve Set	Pr Fire Hydrant & Valve Set
	Siamese Connection

Grading Legend

123.45 Original Ground Elevation	123 Draft Plan/R-Plan Lot No.
123.45 / 123.45 Proposed Ground Elevation / Original Ground Elevation	Block 23 Block Number
TFE=123.45 FFE=123.75 BFE=121.10 Top Of Foundation Elevation / First Floor Elevation / Basement Floor Elevation	#12 Municipal Address
TC=123.45 Top Of Casting Elevation	123.45 Ground Elevation At Face Of Building
Retaining Wall	S.F. Denotes Lot Contains Structural Fill
Armour Stone	N Lot Subject To Noise and/or Vibration Measures
Overland Flow Direction	Infil Infiltration Measures Required
2.0% Surface Drainage Direction/Slope	PRV Pressure Reducing Valve Required
Swale Direction at Lot Corner	A, B, C and/or D Lot Grading Type, Per Municipality
Swale Flow Direction	High/Low Point
D Drainage Divide Line	

Utilities Legend

A/G H Above Ground Hydro Lines	Utility Pole & Guy
U/G H Below Ground Hydro Lines	Street Light/Light Pole
TEL Above/Below Ground Telephone Lines	Hydro Transformer/vault
CATV Above/Below Ground Cable TV Lines	Utility Pedestal
GAS Gas Main	T Telephone Manhole
UTI Combined Utility Ducts (Hydro & Telecommunications)	H Hydro Meter
U/G H / U/G W Underground ducts	GV Gas Valve
	G Gas Meter

Misc Features Legend

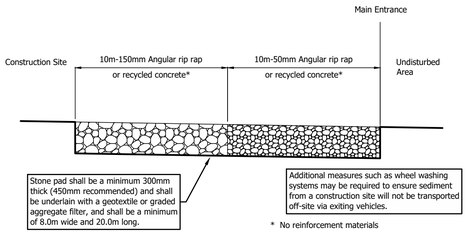
Ex Building	Ponding Areas
Pr Building	On-street Parking Locations Where Lot Frontage Is Less Than 14.0m. Semi-detached Lot Driveway Locations To Be Determined At Time Of Construction.
Site Boundary	Building Entrance (Man Door, Drive-In, Loading Dock)
BM Geodetic/Local Benchmark	Bike Rack
Regulatory Floodline	Downspout Location
Community/Single Mailbox	Sump Pump Location, Outlet Direction
BH# GWT Borehole Locations (ID Number & Elevation)	W Well
TP# GWT Test Pit (ID Number & Groundwater Elevation)	Specified Driveway Location Depressed Curb
Vegetation Line (Dripline or Bush/Shrub)	Signage (Misc & Railway)
Trees (Deciduous/Coniferous)	Railway Tracks
Landscape Rock/Boulder	Embankment
Truncated Dome Plates	Guardrail
Fencelines - Chainlink - Post & Wire - Board on Board - Noise Fence/wall	A Section Arrow

ESC Legend

SF Silt Fence	Rock/Straw Bale Check Dam
TPF Tree Protection Fence	Ex/Pr RipRap
Topsoil/Material Stockpile Location	

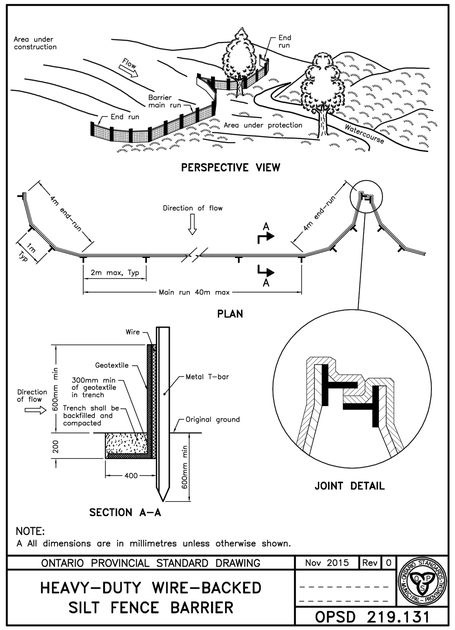
Removals Legend

Concrete Pavement With Bituminous Surface To Be Removed	Area To Be Close Cut Cleared
Bituminous Pavement To Be Removed	Area To Be Cleared
Concrete Pavement To Be Removed	Area To Be Grubbed
Gravel Surface To Be Removed	Area To Be Cleared & Grubbed
	// // or Items To Be Removed



Construction Entrance (Mud Mat) Detail

Not to Scale



NOTE:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev	0
HEAVY–DUTY WIRE–BACKED SILT FENCE BARRIER			
	OPSD 219.131		

Project Notes

1. All dimensions are in metres unless otherwise noted. This drawing shall not be scaled.
2. All work shall be in accordance with the requirements of the local municipality, the latest relevant sections of the OPSS's, OPSD's, and the Ontario Building Code.
3. Soil Management Regulations: All import or export of soil related to this site is to be completed in conformance with Ontario Regulation 406/19: On-site and Excess Soil Management. Per the regulation, it is the responsibility of the owner to retain a Qualified Person (QP) to investigate and/or develop (or supervise the development of) a site-specific excess soil plan.
4. The Contractor shall obtain all necessary locates & permits prior to commencing work.
5. The Contractor shall notify the Engineer 24 hours prior to constructing any works in order to coordinate inspections.
6. The Contractor shall, at their own cost, install and maintain erosion control measures for the duration of construction, in accordance with local and provincial regulations or as directed by the Engineer.
7. Only drawings stamped "Issued for Construction" shall be used for construction.
8. All embankment slopes are at maximum 3:1, unless otherwise shown.
9. Proposed grades are to match existing grades at the perimeter of the work site, unless otherwise shown.

Specifications

OPSS and OPSD refer to Ontario Provincial Standard Specifications and Drawings.

The following minimum specifications shall apply unless otherwise noted:

1. Excavation, Backfilling, Grading and Compaction:
   a. Work shall be completed in accordance with OPSS.MUNI 206, 401 and 501. (Method A); standard proctor maximum dry density (SPMDD) shall apply.
   b. Earth fill placed as "structural fill" shall be compacted to 98% SPMDD. Each lift shall be inspected and approved by the Geotechnical Engineer.
   c. Surplus topsoil and/or earth shall be stockpiled on the work site; all other material shall be removed from the Work site in accordance with OPSS 180.

Erosion and Sediment Control Notes

1. All works to be done in accordance with OPSS 805.
2. All silt fence to be installed prior to commencement of any area grading, excavating or demolition, unless noted otherwise.
3. Erosion control fencing to be placed around the base of all stockpiles. All stockpiles to be kept a minimum of 5m from all property lines. A 5m maintenance strip must be maintained around all stockpiles (between the stockpile and the fencing).
4. Additional erosion control measures may be required as site development progresses. Contractor to provide all additional erosion control structures in accordance with the contingency allowance.
5. The Engineer shall monitor the site development to ensure all erosion controls are installed and maintained to the municipal requirements, and any damage repaired immediately. Contractor to comply with the Engineer's instructions to install, modify, or maintain erosion control works. Sediments to be removed when accumulations reach a maximum of one third (1/3) the height of the silt fence.
6. All erosion control structures to remain in place until all disturbed ground surfaces have been re-stabilized either by paving or restoration of vegetative ground cover.
7. No alternate methods of erosion control protection shall be permitted unless approved by the Engineer and the municipality.
8. The contractor is responsible for removing sediments from the municipal roadway and sidewalks at the end of each work day.
9. Sediment traps to be provided on site at all locations where construction vehicles exit the site. Sediment traps shall be a minimum of 4.0m wide, 10.0m long and 300mm deep and shall consist of 50-150mm angular rip rap material or approved equivalent. Contractor to ensure all vehicles leave the site via the construction access and that the sediment trap is maintained in a manner to maximize its effectiveness at all times.
10. Areas affected by grading activities shall be topsoiled (125mm minimum thickness) and seeded within 30 days of site activity ceasing.
11. Excess fill material shall not be disposed of within environmentally sensitive areas, including wetlands, woodlots, regulated areas, or adjacent properties.
12. The property owner is responsible for restoration of all damaged and/or disturbed property within the municipal right-of-way to the municipal standards.
13. If, for unforeseen reasons the Owner and/or his/her representative must encroach onto private lands to undertake any works, he/she must obtain written permission from the adjacent property owners prior to entering upon the private property to perform any works. Copies of these letters of consent must be submitted to the municipality, prior to any work being performed. Failure to comply with the above is at the owners own risk.
14. Monitoring and weekly inspection reporting per the municipal requirements.
15. Majority of final land use to be agricultural crops. Any lands not used to be hydro seeded.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

LICENSED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO [redacted]

No.	DATE	BY
5.	Jan XX,2025	AWB
4.	Apr 19, 2024	JAS
3.	Mar 21, 2024	JAS
2.	Jan 5,2024	JAS
1.	Aug 23,2022	AWB
	REVISION/ISSUE	

Issued for Site Alteration Permit Application
Issued for Haul Route Permit
Issued for Site Alteration Assessment Application
Issued for Client to Review
Issued for Site Alteration Permit

OWNER: [redacted]

LOCATION: Puslinch, Ontario

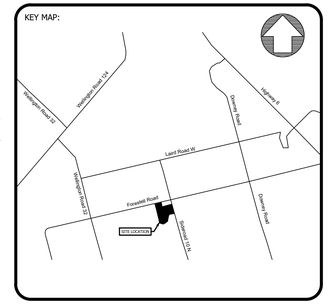
PROJECT: 4670 Sideroad 10 North

DRAWING: Legend, Details & Project Notes

DESIGNED BY: JAS	CHECKED BY: BRE	CONTRACT: CTR-004076	
DRAWN BY: JAS	DATE: Aug 23,2022	FILE NAME: 4076	
DRAWING: 4076 SHEET: 1 of 7	SCALE: Not to Scale		

Filename: 4076-Topsoil.dwg, 4076 -- Plotted: January 8, 2025 3:59 PM, Jashars

KEY MAP:



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

Site Statistics	
GPS Coordinates	43.4717, -80.2536
Total Site Area	15 Ha

Work Detail	
Work Area	9.86Ha
Pr Fill Import Volume	145,000 m³

Schedule		
Equipment	Day	Time
Skidsteer		
Bull Dozer		
Triaxle End Dump Trucks		

Proposed Work	Start Date	Completion day

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

PROFESSIONAL ENGINEER PROVINCE OF ONTARIO LICENCE [redacted]

No.	DATE	BY
5.	Jan XX, 2025	JAS
4.	Apr 19, 2024	JAS
3.	Mar 21, 2024	JAS
2.	Jan 5, 2024	JAS
1.	Aug 23, 2022	AWB

REVISION/ISSUE

5. Issued Site Alteration Permit Application
4. Issued for Haul Route Permit
3. Issued for Site Alteration Assessment Application
2. Issued for Client to Review
1. Issued for Site Alteration Permit

OWNER: [redacted]

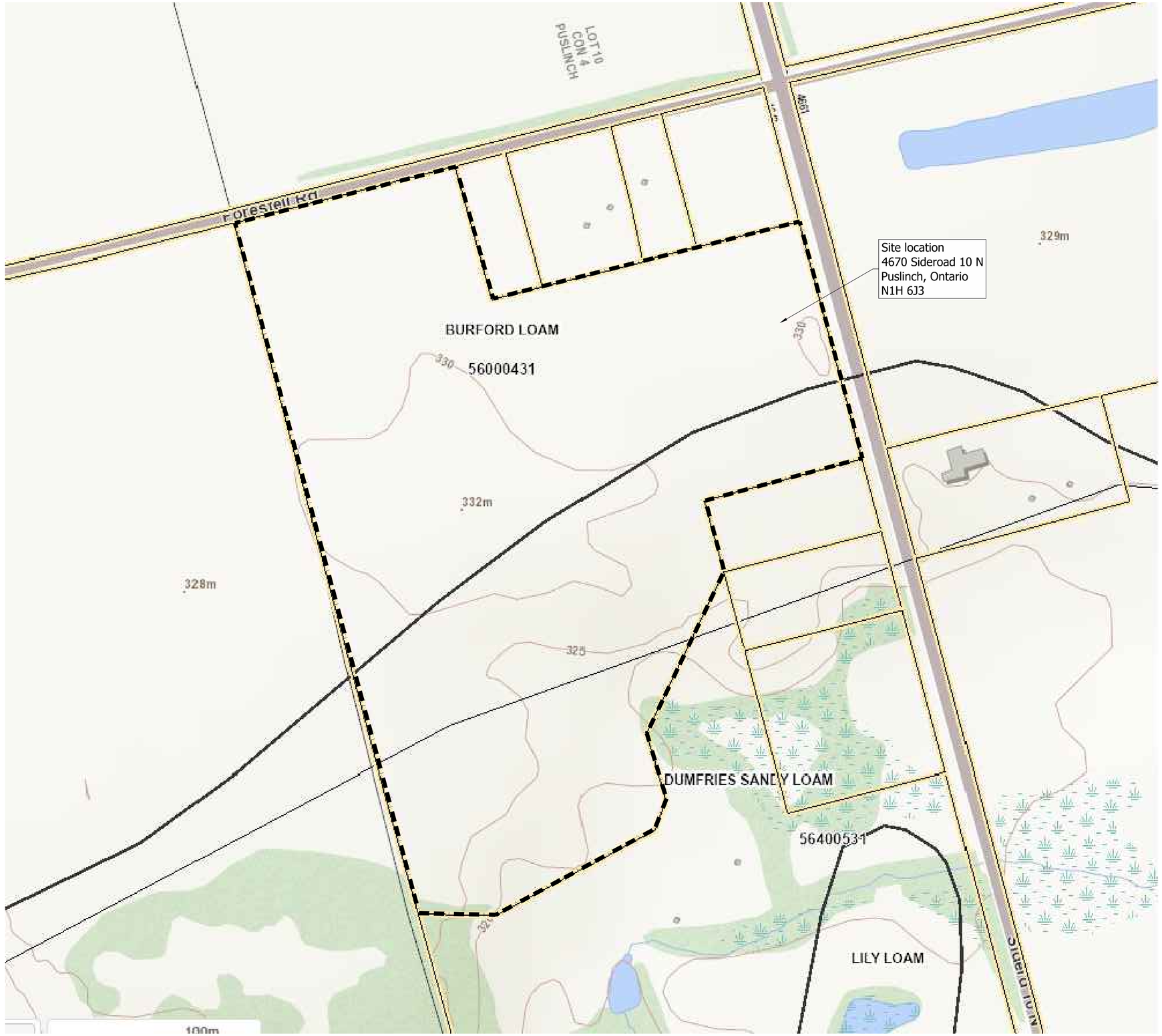
LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

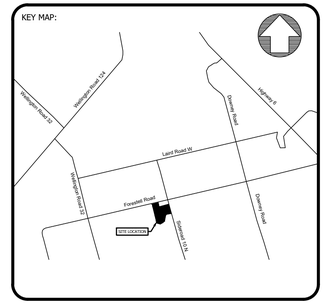
DRAWING: Original Conditions and ESC Plan

DESIGNED BY: JAS | CHECKED BY: BRE | CONTRACT: CTR-004076
DRAWN BY: JAS | DATE: Aug 23,2022 | FILE NAME: 4076-Topsoil
DRAWING: 4076 | SCALE: 1:1000 | 0 5 10 20 30 50 1:1000
SHEET: 2 of 7

Filename: 4076-Topsoil.dwg, 4076 -- Plotted: January 8, 2025 3:51 PM, Jauhars



KEY MAP:



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

PROFESSIONAL ENGINEER PROVINCE OF ONTARIO

No.	DATE	BY
5.	Jan XX, 2025	JAS
4.	Apr 19, 2024	JAS
3.	Mar 21, 2024	JAS
2.	Jan 5, 2024	JAS
1.	Aug 23, 2022	AWB

Issued Site Alteration Permit Application
Issued for Haul Route Permit
Issued for Site Alteration Assessment Application
Issued for Client to Review
Issued for Site Alteration Permit

REVISION/ISSUE

OWNER:

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

DRAWING: Predominant Soil Type

DESIGNED BY:	JAS	CHECKED BY:	BRE
DRAWN BY:	JAS	DATE:	Aug 23,2022
DRAWING: 4076 SHEET: 3 of 7		SCALE:	Not to Scale
CONTRACT:	CTR-004076		
FILE NAME:	4076 Topsoil		

Filename: 4076 Topsoil.dwg, 4076 -- Plotted: January 8, 2025 3:51 PM, Jauhars

Sideroad 10 N

Forestell Road

Limit of Construction

Ex ROW

Ex EOP

Ex Unvegetated Area

Ex Former Gravel Pit

Ex Constructed Pond

Ex Gravel Driveway

Pr Gravel Driveway

Pr Pole Barn Approx (25.9mX18.3m) FFE=329.00

Pole Barn Under Separate Application

Ex Garage

Ex Trees

Fill Area

Approximate location of GRCA Regulatory Limits

6745

6743

6737

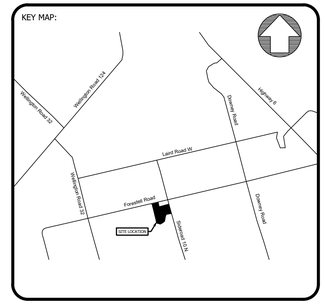
6733

4658

4660

Agricultural Improvement
Topsoil to be imported to improve/re-establish arability of lands for agricultural use.

KEY MAP:



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

Site Statistics	
GPS Coordinates	43.4717, -80.2536
Total Site Area	15 Ha

Work Detail	
Work Area	9.86 Ha
Pr Fill Import Volume	145,000 m³

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T: 519.623.1140 F: 519.623.7334 www.meritech.ca

LICENCE OF PROFESSIONAL ENGINEER
PROVINCE OF ONTARIO
[redacted]

No.	DATE	BY
5.	Jan. 9, 2025	JAS
4.	Apr 19, 2024	JAS
3.	Mar 21, 2024	JAS
2.	Jan 5, 2024	JAS
1.	Aug 23, 2022	AWB

REVISION/ISSUE

- Issued Site Alteration Permit Application
- Issued for Haul Route Permit
- Issued for Site Alteration Assessment Application
- Issued for Client to Review
- Issued for Site Alteration Permit

OWNER: [redacted]

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

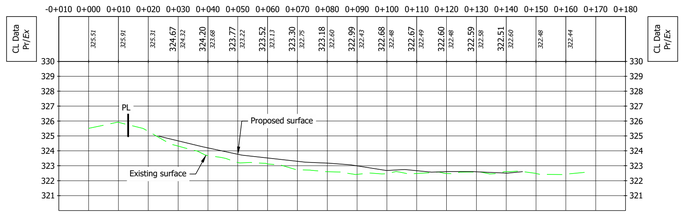
DRAWING: Grading Plan

DESIGNED BY:	JAS	CHECKED BY:	BRE
DRAWN BY:	JAS	DATE:	Aug 23,2022
DRAWING:	4076	SCALE:	1:1000
SHEET:	4 of 7		

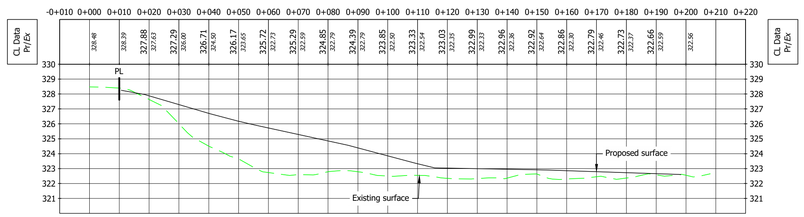
CONTRACT: CTR-004076
FILE NAME: 4076 Topsoil
0 5 10 20 30 40
1:1000

Filename: 4076 Topsoil.dwg, 4076 -- Plotted: January 8, 2025 3:52 PM, Jauhars

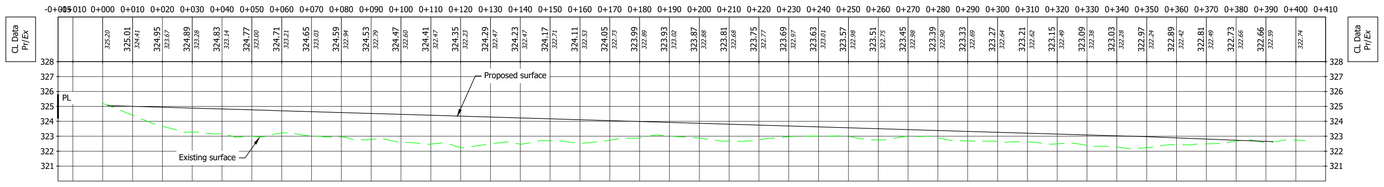
A-A



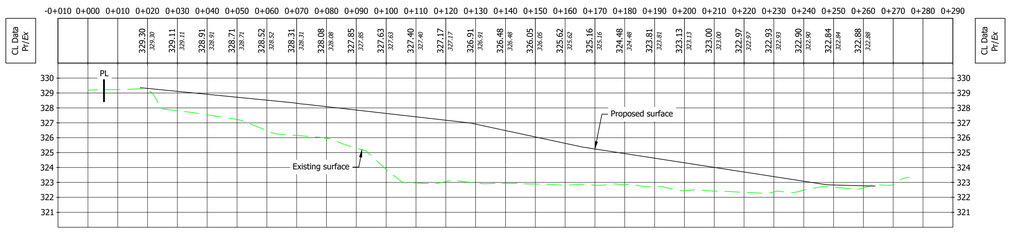
B-B



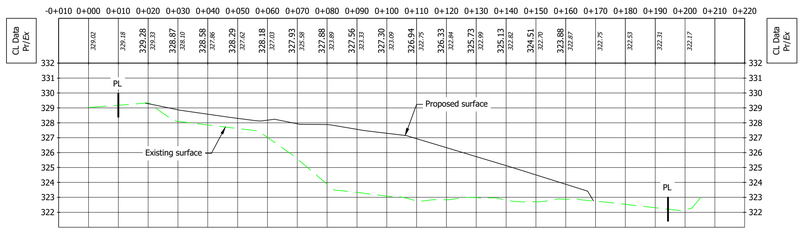
C-C



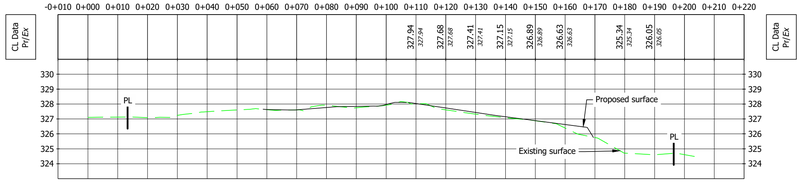
D-D



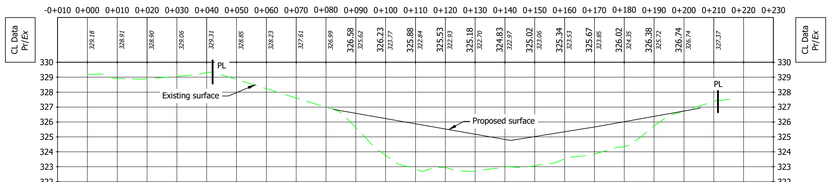
E-E



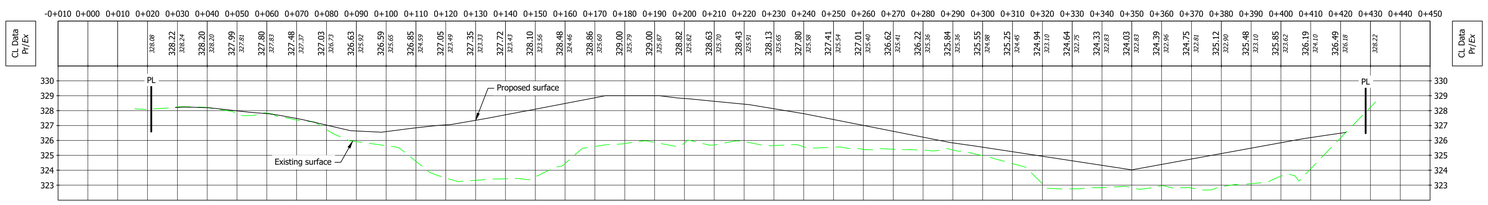
F-F



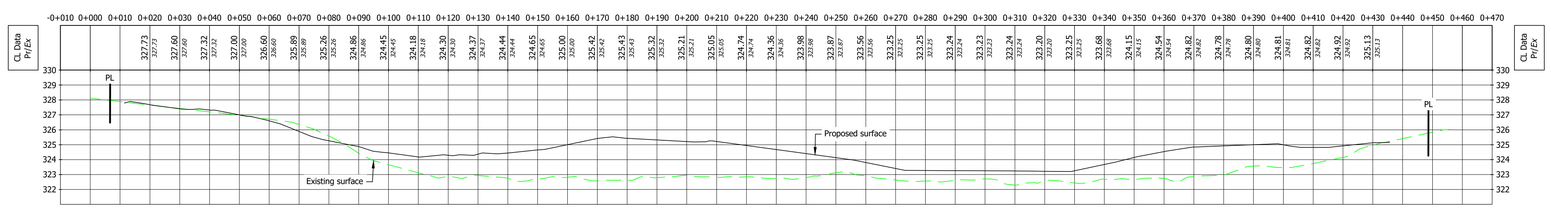
G-G

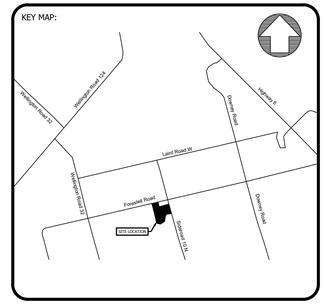


H-H



I-I





1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T: 519.623.1140 F: 519.623.7334 www.meritech.ca

PROFESSIONAL ENGINEER [redacted] PROVINCE OF ONTARIO LICENCE

No.	DATE	BY
5.	Jan XX, 2025	JAS
4.	Apr 19, 2024	JAS
3.	Issued for Site Alteration Assessment Application Mar 21, 2024	JAS
2.	Issued for Client to Review Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit Aug 23, 2022	AWB
No.	REVISION/ISSUE	DATE

OWNER: [redacted]

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

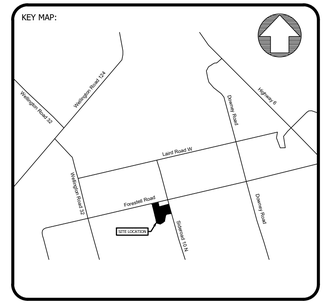
DRAWING: Section View

DESIGNED BY:	JAS	CHECKED BY:	BRE
DRAWN BY:	JAS	DATE:	Aug 23,2022
DRAWING: 4076 SHEET: 5 of 7		SCALE:	1:1000

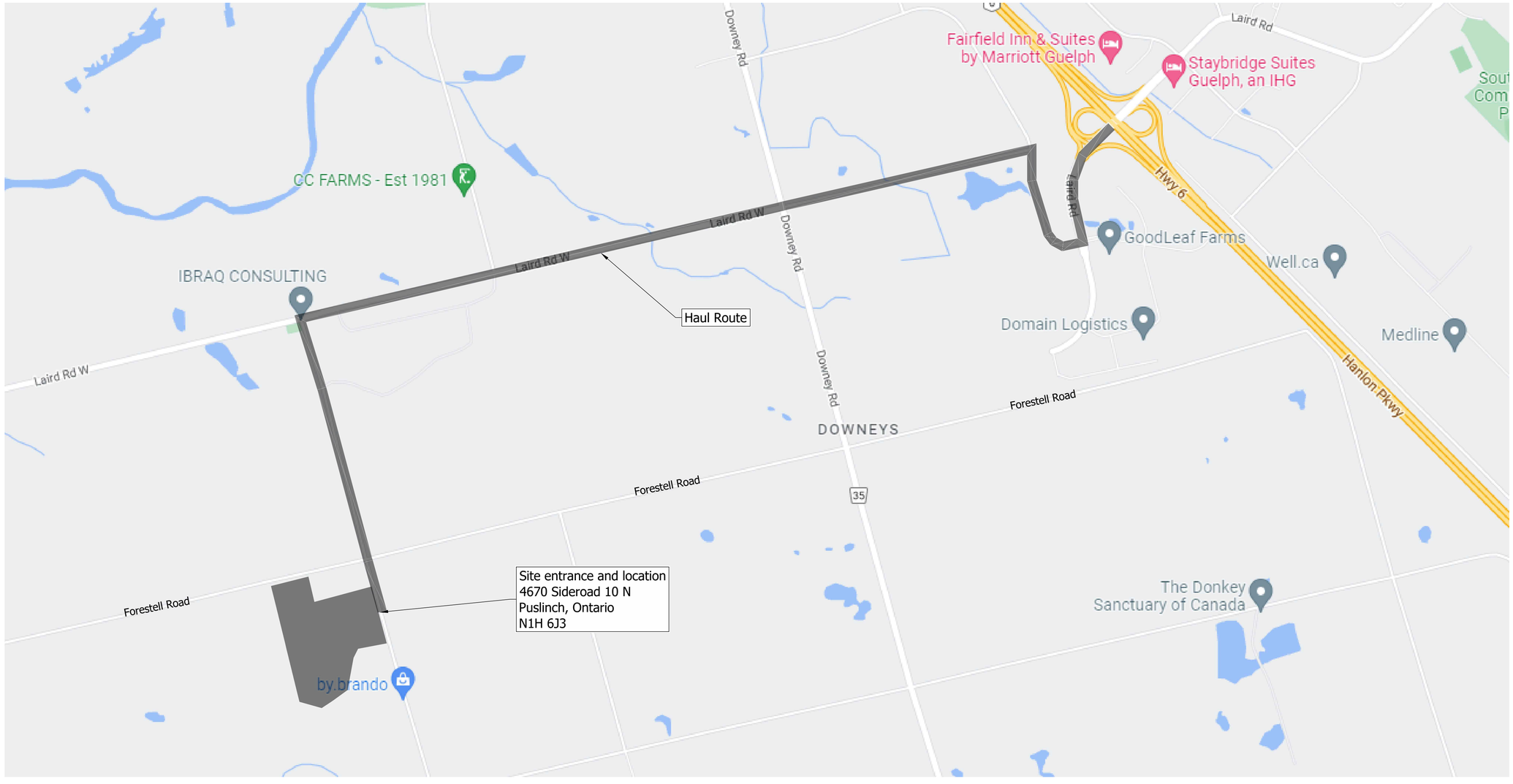
CONTRACT: CTR-004076
FILE NAME: 4076.Topsoil
0 5 10 20 30 40
1:1000

Filename: 4076.Topsoil.dwg, 4076 -- Plotted: January 9, 2025 3:52 PM, Jauhars

KEY MAP:



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.



Proposed Haul Route

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

LICENSED PROFESSIONAL ENGINEER
B. R. ENTER
2025-01-09
PROVINCE OF ONTARIO

No.	DATE	BY
5.	Jan XX, 2025	JAS
4.	Apr 19, 2024	JAS
3.	Mar 21, 2024	JAS
2.	Jan 5, 2024	JAS
1.	Aug 23, 2022	AWB

REVISION/ISSUE
5. Issued Site Alteration Permit Application
4. Issued for Haul Route Permit
3. Issued for Site Alteration Assessment Application
2. Issued for Client to Review
1. Issued for Site Alteration Permit

OWNER: [redacted]

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

DRAWING:

DESIGNED BY: JAS
DRAWN BY: JAS
DRAWING: 4076
SHEET: 6 of 7

CHECKED BY: BRE
DATE: Aug 23,2022
SCALE: Not to Scale

CONTRACT: CTR-004076
FILE NAME: 4076.Topsoil

Filename: 4076.Topsoil.dwg, 4076 - Plotted: January 8, 2025 3:52 PM, Jashars

Sideroad 10 N

Forestell Road

Limit of Construction

Ex ROW

Ex EOP

Ex Trees

SIB

A/G H

Pr Gravel Driveway

Pole Barn Under Separate Application

Pr Pole Barn
Approx (25.9mX18.3m)
FFE=329.00

Fill Area

Ex Constructed Pond

Approximate location of GRCA Regulatory Limits

6745

6743

6737

6733

4658

4660

Agricultural Improvement
Topsoil to be imported to improve/re-establish arability of lands for agricultural use.

KEY MAP:

1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

Site Statistics	
GPS Coordinates	43.4717, -80.2536
Total Site Area	15 Ha

Work Detail	
Work Area	9.86 Ha
Pr Fill Import Volume	145,000 m³

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T: 519.623.1140 F: 519.623.7334 www.meritech.ca

No.	REVISION/ISSUE	DATE	BY
5.	Issued Site Alteration Permit Application	Jan XX, 2025	JAS
4.	Issued for Haul Route	Apr 19, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

DRAWING: General Cut/Fill Plan

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

CONTRACT: CTR-004076

FILE NAME: 4076.Topsoil

DESIGNED BY: JAS | CHECKED BY: BRE

DRAWN BY: JAS | DATE: Aug 23,2022

DRAWING: 4076 | SCALE: 1:1000

SHEET: 7 of 7

0 5 10 20 30 40
1:1000

Filename: 4076.Topsoil.dwg, 4076 – Plotted: January 8, 2025 3:52 PM, Jauhars

TOWNSHIP OF
PUSLINCH
EST. 1850

January 17, 2025

Mr. Gino Martinello
4670 Sideroad 10 N
Guelph, ON
N1H 6J3

Re: Haul Route Permit for 4670 Sideroad 10 N (Roll # 2301000001015000000)

Your application for a Haul Route Permit at the property municipally known as 4670 Sideroad 10 N has been approved. The requirements for your Haul Route Permit are as follows:

Conditions:

1. **Conditional upon obtaining a Site Alteration Permit**
2. **Must provide an insurance document that indicates that the Township is an additional insured party and indemnified against any claims/action arising out the Highway activity (collisions, vehicle damage or accidents as a result of uncleared debris, lack of maintenance/repair, etc.). If the document does not contain this, we will require a letter from your insurer confirming that the policy covers the above. The Insurance document is subject to Township approval and would be required to be provided a minimum of 2 business days prior to the commencement of hauling activities.**
3. **It is the applicant's responsibility to notify the Township if the Haul Route is altered due to changes in the approved source site location.**

Haul Route permits will expire at the completion of your Site Alteration Permit.

The applicant or their contractor shall notify the Township Administration Department at least two business days prior to commencement of hauling.

The applicant or their contractor shall schedule a final inspection of the Haul Route once Site Alteration work is complete.

In accordance with Sections 32 and 33 of the Road Activity By-law 2023-058, Failure to pay any invoice associated with Haul Route repair or housekeeping maintenance within 30 days, the costs may be drawn from Securities held by the Township and/or collected in a like manner as municipal taxes. The Township has priority lien status in accordance with section 1(3) of the

Municipal Act, 2001, S.O. 2001, c.25, on the Property for the amount spent to do the work (and administrative fees).

This is **not** a Site Alteration Permit.

Thank you,

[redacted]

Mike Fowler
Director of Public Works and Parks
mfowler@puslinch.ca
519-763-1226 extension 220

TOWNSHIP OF
PUSLINCH
EST. 1850

HAUL ROUTE PERMIT GUIDELINES

In addition to any other Conditions that the Director of Public Works may deem appropriate, all Highway activity associated with the Haul Rout Permit shall be subject to the following conditions in accordance with the Road Activity By-law 2023-058:

a. The Permit Holder shall comply with all Applicable Laws.

b. Only the approved Haul Route as provided by the applicant may be used for hauling activities.

c. This permit is applicable to Township of Puslinch roads only. Applicant is responsible to satisfy requirements for any highways/roads outside of the Township of Puslinch jurisdiction.

d. Highway activity associated with a Haul Route Permit shall only occur during the hours of 8:30am to 5:00pm Monday-Friday excluding weekends and statutory holidays.

e. The approved Haul Route shall at all times be maintained by the Permit Holder in a dust/silt/mud/rock free condition, to the satisfaction of the Director of Public Works.

f. The Permit Holder shall ensure that a street-sweeper or equivalent is utilized on a daily basis to clean the Haul Route of any tracked debris and shall regularly monitor for any larger foreign objects.

g. The Permit Holder shall be required to maintain the Haul Route in a good state of repair, free from ruts/potholes, etc., to the satisfaction of the Director of Public Works,

h. The Permit Holder shall be responsible for the cost associated to undertake such repairs/maintenance as the Director of Public Works may direct, within such time frame as the Township may specify, acting reasonably.

i. The Applicant shall provide the Township with a 24/7 accessible phone number where Township staff can directly reach the Applicant to address any Highway activity concerns.

TOWNSHIP OF
PUSLINCH
EST. 1850

POWER OF THE TOWNSHIP TO REPAIR OR DEMOLISH

Where the Township has issued an Order for non-compliance with any of the standards or requirements of the Road Activity By-law, the Township has priority lien status in accordance with Section 1 of the Municipal Act, 2001, as amended, on the property for the amount spent on the repair or restoration and the amount may be added to the tax roll by the Treasurer of the Township and may be collected in the same manner as taxes on the property.

7404 Wellington Road 34, Puslinch, ON N0B 2J0
Tel: (519) 763-1226 Fax: (519) 763-5846 admin@puslinch.ca

FORTIS ENVIRONMENTAL

Excess Soil Management Plan (ESMP) – Beneficial Reuse Site

4670 Sideroad 10 North
Puslinch, Ontario

Job No.
F199412006-000
(Initial Submission)

Client:
Nicholls Ventures Inc.

Report Date:
January 27, 2025

Fortis Environmental Inc.
942 Yonge Street Suite 324
Toronto / ON
M4W 3S8
T: 416-452-6965
F: 647-417-7192
E: info@fortisenv.ca
www.fortisenv.ca

FORTIS ENVIRONMENTAL

Excess Soil Management Plan (ESMP) – Beneficial Reuse Site
4670 Sideroad 10 North
Puslinch / ON

To Whom It May Concern,

Please find enclosed an Excess Soil Management Plan (ESMP) conducted on your behalf. Please feel free to contact us at info@fortisenv.ca if you require any further information.

x_____

Andrew Topp, President
P.Geo. Q.P.ESA.
Master of Environmental Science
Bachelor of Science – Biology, Geology

Contents

List of Figures and Appendices

1 Introduction

Nicholls Ventures Inc. in conjunction with Fortis Environmental Inc. are pleased to provide this Excess Soil Management Plan (ESMP) for the Importation of Excess Soils for the purpose of beneficial reuse to the property located at 4670 Sideroad 10 North in Puslinch, Ontario (hereby referred to as “The Reuse Site” or “The Subject Property”).

1.2 O.Reg 406 / 19 – Excess Soils Management

Soil is an important resource. The protection and conservation of soil in Ontario is a valuable component of maintaining the environment for present and future generations. The Ministry of the Environment, Conservation and Parks (MECP) encourages the beneficial reuse of excess soil in a manner promoting sustainability and protection of the ecological, human, and natural environment.

An estimated 25 million cubic metres of excess soil is generated in Ontario every year. While most excess soils can be reused safely, some excess soil may have limited levels of contaminants and care must be taken when determining where it may be reused. This is a significant concern in urban centres and surrounding communities (including suburban municipalities, rural areas and Indigenous communities).

Improper management of excess soil can negatively affect ground or surface water quality and/or quantity in natural areas and agricultural lands. It is also associated with local issues like noise, dust, truck traffic, road damage, erosion, drainage and other social, economic, health and environmental concerns.

Local reuse, proper management and tracking of excess soil have many benefits including but not limited to the following:

- Significantly reducing greenhouse gas emissions from transport
- Reduction of illegal dumping and inappropriate / unnecessary relocation
- Decreasing road damage
- Decreasing amount of reusable, clean soil filling up landfills
- Project cost savings associated with decreases in transportation and landfilling of excess soil

The best practices described within this document are intended to assist those managing excess soil, particularly when the soil may be affected by contamination, in preventing and mitigating the potential for adverse effects to site stakeholders and local receptors.

2 Objective

The present report was prepared on behalf of Nicholls Ventures Inc. (The Property Representative or the Client) In order to provide a Standard Operating Procedure (SOP) as part of an overall compliance program for the importation of excess soil to the Subject Property / Reuse Site.

The current report has been designed in order to ensure overall general health and safety during the importation of materials, environmental protection and compliance with O.Reg 406/19 – On-Site and Excess Soil Management.

3 Site Location and Property Description

The site is presently developed under mixed residential and agricultural land use. The surface area of The Site contains primarily an agricultural tract adjacent to residential dwellings and other minor site structures. The majority of the site is consists of a low-lying rehabilitated aggregate pit which presently is occupied by low-intensive farmland, and due to sloped and uneven topography of the lands it anticipated that the Property shall be in-filled to improve the workability of the property.

The portion of the property which is the subject of the current excess soil re-use operation has a present surface area of ~9.86 ha.

Due to the present grades of the Project Area, the property owner has proposed the importation of excess soils in order to develop a flat and even surface for the proposed future land uses including the development of a pole barn on the northwestern quadrant of the site.

Surrounding Land Uses are as follows:

North: Aggregate Extraction Pit (Active)
East: Residential, Former Aggregate Extraction Pit (Non-Active)
South: Vacant Woodlot, Residential
West: Agricultural

Please refer to Appendix A for a copy of the Proposed Grading Plan.

3.1 Physical Setting

The Natural Resource Canada Topographic Map review and site reconnaissance are summarized as follows. The Subject Property has an undulating dipping topography in all directions. As previously mentioned, the area where the filling is to take place ranges from ~ 325 masl to ~ 326 masl.

The bedrock geology map containing information about the solid rock underlying the Province of Ontario was reviewed. The information reveals that the Site is underlain by Paleozoic – Sandstone, shale, dolostone and siltstone of the Guelph Formation.

The Quaternary geology map containing information about the Overburden deposits located at the subject property were reviewed. The information reveals that the Site is underlain by Glaciofluvial Outwash Deposits: Gravel and Sand, includes proglacial river and deltaic deposits.

3.1.1 Surface water, Groundwater, Hydrology, Well Records

MECP well records were reviewed for the site and study area. Multiple potable well records were identified within the study area, outlining the historic and present use of privately drilled wells within the Study Area.

The overburden bedrock interface was identified to exist at approximately 35 mbgl (Well ID 7374518) Indicating that the site is not considered a shallow soil property.

4 Proposed Operational Concept

The property owner is proposing the importation of excess soils to the Subject Property for the purpose of site improvement and the eventual development of a proposed pole barn on the north, western quadrant of the site. The location of the proposed location as to where excess soil is to be finally places is provided in the attached grading plan in Appendix A. Approximately a maximum of 145,000 cubic meters of excess soil and topsoil will be imported over a period of 2-3 years.

All proposed grading plans including quantities are provided in Appendix A.

5 Importation of Excess Soils

In December 2020, Ontario amended O. Reg. 406/19, the On-Site and Excess Soil Management Regulation, to require that the Registry to be used for filing of notices under the Excess Soil Use Regulation is the Registry operated by the Resource Productivity and Recovery Authority (the Authority) under section 50 of the Resource Recovery and Circular Economy Act, 2016 (RRCEA). When the MECP regulated registry is operational, sites generating excess soil and reuse sites accepting more than 10,000 m^3 of excess soil will need to comply with the registration requirements.

Simply, the Excess Soil Reuse Regulation applies to excess soil, including soil mixed with rock, which is excavated at a project area and leaves the project area. All excess soils are considered to be a waste unless the following are satisfied:

- The excess soil is transported directly to a Reuse Site, Class 1 Site, Class 2 Site, or local waste transfer facility;
- The Owner or Operator of the re-use site or receiving site consents in writing;
- The excess soil is dry, or if not dry, there is an instrument that authorizes placement of liquid soil;
- The Reuse Site is governed by an instrument such as municipal bylaws/permits/or other approvals, licence or permit issued under the Aggregate Resources Act, Certificate of Property Use under the Brownfield legislation or other that has quality and quantity requirements stipulated in the instrument; and
- If the Reuse Site is not governed by a site-specific instrument or by-law, the following are met.
  - The soil quality must not exceed the applicable Excess Soil Standards or the site-specific soil quality standards developed by a Qualified Person (QP);
  - If applicable, leachate analysis confirms that the potential for compounds to leach from the soil meet the Leachate Screening Levels that are associated with the Excess Soil Standards
  - The soil is used for a beneficial purpose;
  - The quantity of soil must not exceed the quantity required for beneficial use;
  - The Reuse Site is not being used solely or primarily for the purpose of depositing excess soil; and
  - The soil is finally placed at the Reuse Site within two years of its initial deposit.

5.1 General Overview

The main requirements of the Excess Soil Reuse Regulation can be grouped as follows:

1. Registry;

2. Planning Documentation for Source Site prepared by a 3rd party QP;
   - Assessment of Past Uses;
   - Sampling and Analysis Plan;
   - Soil Characterization Report; and
   - Excess Soil Destination Assessment.

3. Tracking; and

4. Record Keeping.

The following sections of this ESMP Report will outline the procedures implemented by The Client to comply with the aforementioned sections within O.Reg 406/19.

5.2 Registry

The Registry is intended as a tracking device / information repository for the movement of excess soil from a Source Site to the reuse location. The link to the Registry can be found below:

https://rpra.ca/excess-soil-registry/

The Project Area(s) generating the excess soil is required to file in the Registry Notice unless they are exempt. As the Subject Property is classified as a Re-Use Site (alternatively to a Project Area) All of the SOPs for The Subject Property will follow the prescribed practices outlined in the Reg.

The draft RPRA filing for the Reuse Site was completed and will be finalized upon initiation of the Project in an amendment to this current report:

- N00001948 – January 27, 2025

Please refer to Appendix B for a copy of the Registry Filing(s) Submitted for the Subject Property.

5.2.1 Property Owner

The following information was uploaded to the registry with regards to the Project Leader (Contractor):

Owner
Gino Martinello
4670 Sideroad 10 N
Puslinch / ON
[redacted]

Contractor
Jerome Nicholls
Nicholls Ventures Inc.
91 Norton Drive
Guelph / ON
N1E 7L3
Nventuresinc@gmail.com
905-802-1189

5.2.2 Qualified Person

The following information was uploaded to the registry with regards to the Qualified Person:

Andrew Topp
Fortis Environmental Inc.
942 Yonge Street, Unit 324
Toronto / ON
M4W 3S8
atopp@fortisenv.ca
416-452-6965

5.2.3 Site Instrument

MECP:

Fortis personnel has not corresponded with the MECP; however, it was instructed to Fortis that all on-site work must be carried out in accordance with O.Reg 406/19 and that periodic inspections will be conducted by local MECP personnel as the project progresses.

Municipality:

The Property Owner is presently applying for a Major Site Alteration Permit with the Municipality of Puslinch. At this time, the instrument has not been issued for the Reuse site, however once / if this is completed, the RPRA filing and this ESMP shall be updated accordingly.

MNRF:

No MNRF aggregate license was identified on the Subject Property. Therefore, correspondence with the MNRF shall not be required as part of this Soil Management Plan.

Conclusions:

This section of the ESMP should be updated to include the applicable site alteration permit instrument details once acquired from the governing municipality.

5.2.4 Beneficial Use of Soils On-Site

The current beneficial use of the Soil to be imported to the site is for the following purposes (As filed on the registry):

“Grading of the present site topography in order to improve the workability of the lands for residential purposes.”

5.2.5 Approximate Quantity of Soils to be brought to the Site & Timeline

As is currently filed on the Registry, The Property Owner has registered approximately 145,000 cubic meters of excess soils to be brought to the site as of the proposed plan. If the actual soil brought to the site exceeds this number, then the total amount shall be updated on the Registry. The expected timeline for soil to be imported to the Subject Property is between: January 31, 2025 – December 31, 2028.

5.2.6 Excess Soil Quality Standards

Under O.Reg 406/19, in order for excess soil not to be designated a waste when deposited at a reuse site, one of the conditions that must be satisfied is that the excess soil must meet the applicable excess soil quality standards.

To determine which table of excess soil quality standards apply to the deposit of excess soil at a reuse site in a particular case requires the consideration of several factors.

- property use for the reuse site (e.g., residential).

- the volume of excess soil that will be finally placed at the reuse site in respect of the undertaking (e.g., the amount of soil required for final grading for a planned development), the reuse site characteristics (e.g., is it a shallow soil site), if the site is within thirty metres of a water body, and whether the reuse site is in an area serviced by a municipal drinking water system then there may be the option of applying non-potable standards if particular requirements are met.

- Tables 2 to 9.1 provide excess soil quality standards in respect of two different volume classes of excess soil that may be deposited at a reuse site for final placement. In relation to each volume class, eight tables are provided for different location placement conditions, including: full-depth placement, stratified placement, potability of ground water, shallow overburden thickness and proximity to a nearby water body.

- The tables of standards for small volumes of excess soil may be used for excess soil volumes up to 350 cubic metres. The tables of standards for small volumes of excess soil are the coarse textured soil standards in Tables 2 to 9.

- The tables for volume independent excess soil quality standards must be used where Tables 2 to 9 (the small volume tables) cannot be used, given the total volume of excess soil that will be finally placed at a reuse site. For ease of reference, these tables have been presented in the same order with the same placement site conditions as the tables for small volume excess soil quality standards.

General

In order to generally assess materials on-site and to determine their re-use at The Project or at an applicable fill site / receiver site, The QP will follow the guidelines in the following Table:

Table Description	Small Volume (up to 350 m^3)[1]	Volume Independent
Full Depth, Background	Table 1	Table 1
Full Depth, Potable	Table 2	Table 2.1
Full Depth, Non-Potable	Table 3	Table 3.1
Stratified, Potable	Table 4	Table 4.1
Stratified, Non-Potable	Table 5	Table 5.1
Full Depth, Shallow Soil, Potable	Table 6	Table 6.1
Full Depth, Shallow Soil, Non-Potable	Table 7	Table 7.1
Full Depth, Within 30 m of a Water Body, Potable	Table 8	Table 8.1
Full Depth, Within 30 m of a Water body, Non-Potable	Table 9	Table 9.1

According to the “Rules for Soil Management and Excess Soil Quality Standards” it has been determined that the following standards shall be applied to the subject property and that all imported material is to meet the applicable criteria:

Table 2.1 – Full Depth Excess Soil Quality Standards in a Potable Groundwater Condition – Residential / Parkland / Institutional Property Use.

As the site is not to be utilized for agricultural purposes, EC/SAR thresholds can be determined by the QP and Owner of the property however, it is anticipated that imported material will have exceedances for the ESQS for EC and SAR and such material should be placed at a minimum of 1.5 m below the soil surface and in accordance with the soil rules.

The recommended quality standards are provided in Appendix C of this report and can be found on pages 61 – 64 in the Rules for Soil Management and Excess Soil Quality Standards Document.

5.2.7 Registry Conclusions

No further filings on the registry are required for the Subject Site as of present date with the exception of amending the “Total amount of excess soil to be imported (Presently: 145,000 m^3) in the event that it is found that additional material is required.

5.3 Planning Documentation for Source Site (Project Area) QP

If you are required to file a Notice on the Registry for the movement of excess soils from your site (Source Site), then the preparation of planning documentation is required by the Source Site. For Reuse Sites, the review of the planning documents from the Source Site is required prior to soils coming to your site. The planning documents are described in Sections 11 to 13 of the Excess Soil Reuse Regulation. Before soil is removed from the Source Site, the reports discussed in the following sections are required to be prepared by or overseen by a QP.

The planning documentation described below is not required if:

- Soil is from a site characterized as agricultural land use (only) (i.e. no other Potentially Contaminating Activity (PCA)/Areas of Potential Environmental Concern (APEC)s have been determined by QP at the Source Site); or

- Soil is from a site characterized as parkland, residential or institutional use or a combination thereof and soil will not be transported to a site that is used for agricultural land (i.e. no other PCA/APECs as determined by QP at the Source Site).

The following sections will outline the required documentation that will be obtained and reviewed prior to the importation of any material to the Subject Property for beneficial Re-Use.

5.3.1 Pre-Approval

The following package of a four (4) documents will be submitted to the Site Owner, and be reviewed by a Q.P. before any material is imported to the Site. After review, if all documentation is sufficient, a project number will be created for the Site and the importation of material can begin.

5.3.2 Excess Soil Profile Sheet (ESPS)

Any potential Project Site (and therefore Project Leader must initially complete an “excess soil profile sheet” (ESPS) which will act as the Project Area Representative Declaration of the quality of the material. The aim therefore of the ESPS is to provide all the required information (in a generic template) as to the nature of the material so it can be reviewed and approved / declined by personnel at the Re-Use Site.

Additionally, the ESPS is specific to the fill site so therefore it provides an onus of accountability (declaration) to the source in the event that all materials cannot be inspected by the receiver and improper material is mistakenly shipped to an improper location. Additionally, it provides context to the material being transported, including estimated dates of import, quantities, land-use of the source site and reasoning for disposal.

All ESPS’s and associated laboratory analyses are stored in a centralized on-site location, physically or digitally, in order to provide for ease of access if required. Therefore in the event that a retained QP or regulator is to conduct an audit of the site, all information is readily available for review.

Please refer to Appendix D for an example of the ESPS which is utilized for the current operations.

5.3.3 Assessment of Past Uses and Soil Sampling Plan

Accompanying the ESPS (provided for the purpose of context) an assessment of past uses report (APUR) will be required to be submitted to the Site owner for pre-approval. The objective of the APUR is as follows:

- To develop a preliminary determination of the likelihood that one or more contaminants have affected soil or rock in a location where soil or crushed rock is to be excavated within the project area.

- To identify any areas of potential environmental concern (APECs) within the project area and to determine if any location where soil or crushed rock is to be excavated could have been affected by a potentially contaminating activity (PCA).

- To identify the contaminants of potential concern (COPCs) to determine the focus of the sampling and analysis plan, if any areas of potential environmental concern (APECs) are identified.

The APUR will contain the following components at a minimum:

- Historical Records Review (including but not limited to: FIPs, Aerials, Title Search, ERIS, TSSA FOI, MECP FOI);

  - The specific objective of the records review is to obtain and review records that relate to the assessment of past uses study area, including both the current and past uses of the project area and the potentially contaminating activities (PCAs) at or affecting the project area, in order to determine if an area of potential environmental concern (APEC) exists within the project area. The records review component must comply, with necessary modifications, with all of the requirements of O. Reg. 153/04, unless the qualified person, having regard to the specific objective of this component and the general objectives of the assessment of past uses, is of the opinion that it is not necessary to comply with one or more of these requirements.

- Interviews, if necessary, having regard to the general objectives of the assessment of past uses;

  - The specific objectives of the interview component of the assessment of past uses are to obtain information to assist in determining if an area of potential environmental concern (APEC) exists within the project area and identify details of potentially contaminating activities (PCAs) or potential contaminant pathways that could result in the presence of contaminants in soil or crushed rock that is to be excavated within the project area.

- Site reconnaissance / Inspection;

  - The specific objectives of the site reconnaissance component of the assessment of past uses are to determine if any areas of potential environmental concern (APECs) exist within the project area, through observations about current and past uses and potentially contaminating activities (PCAs).

  - Potential contaminant pathways that could result in the presence of contaminants in soil to be excavated within the project area;

- Every area of potential environmental concern (APEC) and the contaminant of potential concern (COPC) within the project area where soil will be excavated.

- A review and evaluation of the information gathered from the records review, interviews and site reconnaissance including the preparation of a conceptual site model, and preparation of the Assessment Report.

- It should be noted that low-risk Project Areas may be exempt from this requirement.

5.3.4 Soil Characterization Report

Accompanying the ESPS (provided for the purpose of context) a Soil Characterization Report in including a CALA certified (or equivalent) analytical report will be required to be submitted to the Site owner for pre-approval.

There are specific minimum requirements for sampling provided in the Excess Soil Reuse Rules that is to include, at a minimum:

- pH (must be a sufficient number of soil samples)
- Petroleum Hydrocarbons (PHCs)/ Benzene, Toluene, Ethylbenzene and Xylenes (BTEX)
- Metals and hydride-forming metals (including arsenic) (refer to O.Reg. 153/04 standards)
- Sodium Adsorption Ratio (SAR)/Electrical Conductance (EC)
- Other required COPC identified in the Assessment of Past Land Uses Report
- Leachate analysis for COPCs identified in the Assessment of Past Uses Report (leaching potential of COPCs)

General in situ sampling frequency can be found in the table below:

VOLUME THRESHOLD	MINIMUM # OF SAMPLES FOR BULK SOIL ANALYSIS		MINIMUM # OF SAMPLES FOR LEACHATE ANALYSIS
	SMALL VOLUME PROJECTS	VOLUME INDEPENDENT PROJECTS	
≤350 m^3	≥ 3 samples	-	-
≤350 m^3 to <600 m^3	-	≥ 3 samples	≥ 3 samples
>600 m^3 to <10,000 m^3		≥1 sample for each additional 200 m^3 within threshold limits	3 samples + **10% of Bulk Soil samples collected**
>10,000 m^3 to <40,000 m^3		≥1 sample for each additional 450 m^3 within threshold limits	
>40,000 m^3		≥1 sample for each additional 2,000 m^3 beyond threshold limit	

General Stockpile sampling frequency can be found in the table below:

Item	Stockpile Volume (m3)	Minimum Number of Samples
1	≤130	3
2	>130 to 220	4
3	>220 to 320	5
4	>320 to 430	6
5	>430 to 550	7
6	>550 to 670	8
7	>670 to 800	9
8	>800 to 950	10
9	>950 to 1100	11
10	>1100 to 1250	12
11	>1250 to 1400	13
12	>1400 to 1550	14
13	>1550 to 1700	15
14	>1700 to 1850	16
15	>1850 to 2050	17
16	>2050 to 2200	18
17	>2200 to 2350	19
18	>2350 to 2500	20
19	>2500 to 2700	21
20	>2700 to 2900	22
21	>2900 to 3100	23
22	>3100 to 3300	24
23	>3300 to 3500	25
24	>3501 to 3700	26
25	>3700 to 3900	27
26	>3900 to 4100	28
27	>4100 to 4300	29
28	>4300 to 4500	30
29	>4500 to 4700	31
30	>4700 to 5000	32
31	>5000	N=32+(V−5000)÷300

The report will strive to include the following:

- Each area of potential environmental concern (APEC) within the project area;
- Each part of the project area that was subject to sampling;
- Each area of excavation and their approximate dimensions (volumes);

- Investigation methods including drilling and excavating test pits, soil sampling, sediment sampling, field screening measurements, analytical testing,
- Stratigraphy from ground surface to the depth of the deepest planned excavation;
- Approximate depth to water table, including whether the depths of excavation for each area where soil excavation is planned are below the water table;
- minimum number of samples required, and total number of samples collected;
- the locations and depths of samples, and a rationale for the selection of sampling locations;
- If an in-situ sampling approach was used, an explanation and rationale of how the delineation of the APECs was determined;
- The parameter groups (As per O.Reg 153/04) for analysis, including a rationale for the choice of parameter groups, where additional parameter groups were added;
- the date of sample collection and date of analysis;
- Tables summarizing results;
- Test Pit / Borehole logs if necessary;
- Laboratory Certificates of Analyses (COA) in the Appendices;
- Notable chemical results (parameters with non-detect, measurable and exceeding results);
- Conclusion / discussion of any soil field screening results along with a discussion and analysis of the laboratory analytical results;
- QP Authentication.

5.3.5 Additional Documentation

Any additional, pertinent supporting documentation such as any Phase II ESA, Soil sampling program, Record of Site Condition Report etc. can also be included with the submission for pre-approval for review by the property owner or on-site agents.

5.3.6 QP Declaration

A QP involved in the preparation of the above referenced documentation is required to sign a declaration indicating that the documents have been prepared in accordance with the Regulation and Rules and are complete and accurate. The QP declaration is covered in Section 5.3.2 – ESPS.

5.4 Acceptance / Rejection of Pre-Approval Documentation

Upon review of the provided documentation by a Site Representative or retained QP, the proposed project may be accepted or rejected. If rejected, the pre-approval submission package will still be stored in an on-site centralized location for the purpose of potential audit. If the material is accepted the following steps will be completed.

Please refer to Appendix E and F for general checklists pertaining to the acceptance criteria of material to the Subject Site.

5.4.1 Assignment of Project Number / ESD- Slips

Each completed ESPS will constitute a “Project”. Once a project is accepted, then a unique project number will be assigned. As expected, quantities are to be provided in the ESPS; “Excess Soil Deposit Slips” (ESD-Slips) can be sold at an agreed upon rate to the source site each containing a unique project number.

All excess soil deposit slips will contain the following information:

- The owner of the Source site location and name of person at the Source site responsible for overseeing the loading of the excess soil for transportation;
- Source Site location;
- The quality and quantity of the load of excess soil being removed from the project area;
- The name of the hauling company;
- License plate number and truck identifier of the hauler (if one exists);
- The date and time of the soil leaving the source location and date and time of arrival at the Re-use site;
- The name, contact information and signature of an authorized representative of the site receiving the excess soil; and
- Confirmation that the excess soil and the volume of soil received at the site where the excess soil was deposited is the same vehicle as that which left the Source Site area.

5.5 Importation of Material

When a hauler carrying material arrives at the site, the operator of the scale house can review the ESD-Slips and keep them in the assigned project folder with all other documentation.

General Guidelines - When receiving soils, a bill of lading or electronic verification should be provided prior to any truck(s) entering your site. The gatekeeper should cross-reference the information on the bill of lading or electronic documentation with the master list that should include truck ticket numbers issued according to the Source Site). Untested and/or undocumented loads or loads without a bill of lading or electronic verification should not be accepted under any circumstances. Paper backup may be required if electronic verification/documentation is not available.

If the Source Site implements a tracking system and maintains the hauling records, then the receiving site should request copies of the hauling records from the Source Site in advance of any soils being brought to the receiving property.

5.6 Daily Summary Log

A daily summary log should be maintained at the site by operator and/or representative of the QP that should include:

- Date;
- Total number of trucks entering the property
- Total number of trucks accepted;
- Total number of trucks rejected (and reasons for rejection); and
- For each Source Location:
  - Project number for each ESD-Slip received on that date.
  - Location of where soil was placed on your site or GPS coordinates / drone photography of fill placed.

5.7 Record Keeping

There is a requirement in the Excess Soil Reuse Regulation to retain all records for seven (7) years for the Project Leader of the Source Site and for the Operator of a temporary soil storage site, a soil bank storage site, a soil processing site, or a landfill or a Reuse Site (including any contracts for management of excess soil).

There is also a seven (7) year requirement for record retention for the hauler transporting excess soil.

5.8 On-Site Quality Control (Audit / Validation Sampling)

For every 1500 m^3- 3000 m^3 (~150-300 loads) of material imported the Site owner will conduct random validation sampling to ensure that all quality objectives are met. A sampling and analyses report will be prepared by a retained QP and kept under a different project class for the purpose of any potential audit. It is recommended that one to two (1-2) sample(s) for the following parameters will be conducted upon importation of such quantities of materials. The following Contaminants of Concern will be utilized by Fortis for the majority of the duration of The Project:

Item	Type
VOCs – Volatile Organic Compounds BTEX – Benzene, Toluene, Ethylbenzene, Xylenes PHCs – Petroleum Hydrocarbons	Bulk - Chemical
Metals – General Regulated Metals Inorganics – Chromium 6, Mercury, Cyanide, EC, SAR, Boron, Hot Water Soluble	
PAHs – Polycyclic Aromatic Hydrocarbons	
PCBs – Polychlorinated Biphenyls	
OCP – Organochlorine Pesticides	
VOCs – Volatile Organic Compounds	TCLP - Chemical
Metals – General Regulated Metals Inorganics – Chromium 6, Mercury, Cyanide, EC, SAR, Boron, Hot Water Soluble	
PAHs – Polycyclic Aromatic Hydrocarbons	
PCBs – Polychlorinated Biphenyls	
VOCs – Volatile Organic Compounds BTEX – Benzene, Toluene, Ethylbenzene, Xylenes PHCs – Petroleum Hydrocarbons	mSPLP, SPLP - Chemical
Metals – General Regulated Metals Inorganics – Chromium 6, Mercury, Cyanide, EC, SAR, Boron, Hot Water Soluble	
pH Grain Size, Sieve Salinity Moisture	Bulk - Physical

Validation Soil Chemical analyses shall be conducted by the following, third party laboratory which is listed below:

ALS Environmental
Analyses Conducted in Waterloo
CALA Client ID: 1003149

ALS laboratories is fully accredited under the CALA (Canadian Association for Laboratory Accreditation) for environmental testing and can be found in the up-to-date directory on the following link: https://directory.cala.ca/directory-search

ALS will be utilized throughout the duration of The Project and shall be assessed periodically based on projected turnaround times, quality of results and overall efficiency, based on the Judgement of the QP and Contractor.

It should be noted that Fortis does not have any vested interest in either lab thereby relegating any potential conflict of interest in the analyses procedures or results.

Representative soil samples will be collected in containers supplied by the CALA-accredited laboratory. The field technician will identify a unique sample ID for each sample collected. Samples collected must be placed in coolers and on ice to preserve sample integrity for shipment to the laboratory. Samples to be shipped for chemical analysis will be packaged in coolers and on ice, with sufficient packing material to ensure the safe shipment of samples. All field and supervisory personnel should be instructed in proper sampling handling, documentation, and chain-of-custody procedures before beginning field activities. Clean nitrile gloves and appropriate decontamination procedures should be used for sampling to eliminate cross-contamination between sampling points.

5.9 Importation of Soils Exceeding SAR and EC Criteria

A soil that is shown to exceed criteria for sodium adsorption ratio and electrical conductivity is generally referred to as a “salt impacted soil”.

The Excess Soil Reuse Rules [Section D (3)] also indicate exceptions for placement of salt impacted soils at Reuse Sites. Salt impacted soils may be placed at a Reuse Site:

- Where soil will be similarly impacted as a result of continued application of a substance for the safety of vehicular or pedestrian traffic under conditions of snow or ice (eg. road salt); or
- The re-use site is an industrial or commercial property to which non-potable standards apply; or
- The soils are to be placed at least 1.5 metres below the surface of the soil.

Regardless of the above exemptions, salt impacted excess soils cannot be placed:

- Within 30 metres of a waterbody;
- Within 100 metres of a potable water well; or
- On property that will be used for growing crops or pasturing livestock unless placed 1.5 metres below the soil surface.

5.10 Accidental Importation of Unacceptable Materials

Should excess soil of unacceptable quality be discovered at your site (either at the gate, during or after placement), the following actions or best management practices will be followed:

- All unacceptable excess soil should be located, recovered, and stockpiled separately for further inspection, sample collection and laboratory analysis under the oversight of the Excess Soil Committee or Lead.

- Based on the inspection and analytical results:

- If the quantity of unacceptable excess soil is minimal (e.g., <10% of load) it could be hand sorted and disposed of off-Site.

- If the quantity is excessive, the entire load should be isolated and removed from site.

- The rejected excess soil should be returned to either the Source Site or disposed of at an MECP approved waste disposal site. If the excess soil is transported to an approved waste disposal site, then further characterization and Notice on Registry may be required. Also, it is suggested that you obtain documentation from the MECP approved facility indicating name and location of receiving site, copy of Environmental Compliance Approval, and confirmation that the facility has reviewed and accepted the excess soil. An agreement may be required with each Source Site that includes a clause that any rejected loads (at the sole discretion of the Owner) will be removed from the Reuse Site at their cost.

- Importation of the excess soil from the Source Site should cease until it has been confirmed that the excess soil is acceptable for receipt at the Site. The QP should review the analytical results of the imported fill on a more frequent basis to determine if there is an issue with the excess soil from a particular Source Site/project or it is an isolated occurrence (i.e., an individual load that is not representative of the larger soil volume). The on-site representative can employ policies such as a standard “three strike” rule or equivalent) to address these situations. At each non-compliance stage increased scrutiny could be imposed until the site representative is convinced that the issue was isolated and not a reoccurring trend.

6 On-Site Operational Best Management Practices (BMPs)

6.1 Silt Fence and Soil Bank Inspections

As part of on-going compliance, Property Boundary inspections shall be conducted, and summaries (including photographs) should be conducted on a monthly basis or after a storm event as to ensure on-going public safety for neighbouring lands. The proposed locations of on-site silt fences are provided in the grading plan.

6.2 Proposed Operations

The Receiving Site will be fenced and gated to prevent unauthorized access to the Site. The Site will be manned by a trained gate keeper during the times that off-site material is to be received at Site.

The trained gatekeeper will have a written record of information relating to the materials approved for acceptance at the Site, including name of the Source site and authorized representative, the type of materials to be shipped and the approximate times of delivery to the Site and the name of the hauler.

Each load to the Receiving Site will be accompanied by a completed bill of lading indicating the name of the Source site, the name of the hauler, the name of the driver, the date and time of shipment, and each bill of lading will be signed by an authorized representative of the Source Site.

No load of material will be permitted access to the Site unless the material has been approved through the application process and is accompanied by a Bill of Lading completed in accordance with the Protocol. The bill of lading is to be presented to the gatekeeper on arrival at the Site.

The gatekeeper will compare the Bill of Lading presented to him with his record of material approved for acceptance at the Site to ensure the materials has been approved through the application process.

The gatekeeper will complete a visual inspection of each load prior to permitting access to the Receiving Site. Loads containing material not approved for acceptance or exhibiting evidence of possible chemical impact (e.g., unusual odors or staining) will not be permitted access to the Site.

Once the gatekeeper approves the load of acceptance at the Site, he/ she will sign the Bill of Lading and direct the driver to a specific dumping location at the Site. The assigned location will be noted on the manifest and in the log which shall be maintained of each shipment of material to the Site.

A log will be maintained of each load shipped to the Site including rejected loads. The log entry for each load will include the Source Site location the name of the hauler and driver, the license plate of the transporting vehicle, the time and date of arrivals of the load at the Site where the material was deposited and/ or the reasons for rejections of the load if applicable.

All applications and related reports, manifests, logs of materials accepted at the Site, records of material approved for acceptance at the Site will be retained by the Site Owner and/ or the licensee for a minimum of seven years.

Each load of material deposited on the Site will be graded and compacted as required by the Grading Plan.

Each incoming load is to be visually inspected and screened for odors, staining, debris or other forms of contamination whether known or suspected. The use of photo ionization detector (PID) or flame ionization detector (FID) should be used to screen for VOC's. The daily shipments are to be reviewed by the Receiving Site QP or QP Designate to ensure each load is coming from an approved Source Site.

Fill that is observed to contain unacceptable materials, odors, staining or elevated headspace vapors as determined using a PID or FID, must be returned to the Source Site . The bill of lading is forfeited under

the circumstances. Should the Source Site refuses to take back the unacceptable load (s), the Owner is responsible for ensuring such loads are removed and brought to a facility approved to accept such loads. Staff at the Receiving Site shall record the rejected load in a daily log. The Receiving Site QP will also keep a record of the contaminated load and its fate.

Any further soils from the Source Site will not be permitted to be shipped to the Receiving Site until the unacceptable materials is removed to an appropriate facility or returned to the Source Site and until it can be demonstrated that the remaining soil at the Source Site that are destined to be shipped to the Receiving Site meets the appropriate standard for the Receiving Site. This will be carried out through confirmatory sampling of stockpiles or excavations at the frequencies required by O.Reg. 153/04, as amended - See Tables 2 and 3 in Schedule E of Part 12 of 0. Reg. 153/04, as amended.

The QP at the Receiving Site shall record, in a log kept at the Receiving Site, any instances when fill is returned under these circumstances, recording the Source Site, hauler, date of the incident and any and all information pertaining to the unacceptable fill.

Soils from each Source Site shall be deposited in segregated areas within the approved fill area of the Receiving Site so that they can be assessed via the audit testing described below and returned to the Source Site if necessary.

7 Conclusion

Nicholls Ventures Inc. and Fortis Environmental strive to provide a safe and productive re-use site in compliance with all applicable regulations governed under O.Reg 406/19 for Excess Soil Management, setting an example for future projects in the Region.

Respectfully Submitted
Fortis Environmental Inc.

X_____

Andrew Topp, President, P.Geo. Q.P.ESA.
Master of Environmental Science
Bachelor of Science – Biology, Geology
atopp@fortisenv.ca

In Conjunction with,

X_____

Jerome Nicholls
Nicholls Ventures Inc.

8 Definitions

Class 1 soil management site means a soil bank storage site or a soil processing site

Class 2 soil management site means a waste disposal site, other than a Class 1 soil management site, at which excess soil is managed on a temporary basis and that is,

(a) Located on a property owned by a public body or by the project leader for the project from which the excess soil was excavated, or

(b) Operated by the project leader for the project from which the excess soil was excavated;

Dry soil means soil that is not liquid soil;

Dump has the same meaning as in Regulation 347;

Enhanced investigation project area means a project area used,

(a) For an industrial use,

(b) As a garage,

(c) As a bulk liquid dispensing facility, including a gasoline outlet, or

(d) For the operation of dry cleaning equipment;

Excess soil means soil, or soil mixed with rock, that has been excavated as part of a project and removed from the project area for the project;

Excess Soil Standards means the document entitled “Part II: Excess Soil Quality Standards”, published by the Ministry and dated November 19, 2019, available on a website of the Government of Ontario as Part II of the document entitled “Rules for Soil Management and Excess Soil Quality Standards”;

Infrastructure means all physical structures, facilities and corridors relating to,

(a) Public highways,

(b) Transit lines and railways,

(c) Gas and oil pipelines,

(d) Sewage collection systems and water distribution systems,

(e) Storm water management systems,

(f) Electricity transmission and distribution systems,

(g) Telecommunications lines and facilities, including broadcasting towers,

(h) Bridges, interchanges, stations and other structures, above and below ground, that are required for the construction, operation or use of the items listed in clauses (a) to (g), or

(i) Rights of way required in respect of existing or proposed infrastructure listed in clauses (a) to (h); ("infrastructure")

Landfilling has the same meaning as in Regulation 347;

Liquid soil means soil that has a slump of more than 150 millimetres using the Test Method for the Determination of "Liquid Waste" (slump test) set out in Schedule 9 to Regulation 347;

Local waste transfer facility has the same meaning as in Regulation 347;

Ontario Regulation 153/04 means Ontario Regulation 153/04 (Records of Site Condition — Part XV.1 of the Act) made under the Act;

Project means any project that involves the excavation of soil and includes,

(a) any form of development or site alteration,
(b) the construction, reconstruction, erecting or placing of a building or structure of any kind,
(c) the establishment, replacement, alteration or extension of infrastructure, or
(d) any removal of liquid soil or sediment from a surface water body;

Project area means, in respect of a project, a single property or adjoining properties on which the project is carried out;

Project leader means, in respect of a project, the person or persons who are ultimately responsible for making decisions relating to the planning and implementation of the project;

Public body means,

(a) A municipality, local board or conservation authority,

(b) A ministry, board, commission, agency or official of the Government of Ontario or the Government of Canada,

(c) A port authority under the *Canada Marine Act*, or

(d) The Toronto Waterfront Revitalization Corporation under the *Toronto Waterfront Revitalization Corporation Act, 2002*;

Qualified Person means,

(a) Subject to clause (b), a qualified person within the meaning of section 5 of Ontario Regulation 153/04, and

(b) For the purposes of subsections 5 (2) to (5), 6 (4), paragraph 7 of subsection 19 (4), section 20 and section 13 of Schedule 1, a qualified person within the meaning of section 5 or 6 of Ontario Regulation 153/04;

Registry has the same meaning as in Part XV.1 of the Act;

Regulation 347 means Regulation 347 of the Revised Regulations of Ontario, 1990 (General — Waste Management) made under the Act;

Reuse site means a site at which excess soil is used for a beneficial purpose and does not include a waste disposal site;

Rock means a naturally occurring aggregation of one or more naturally occurring minerals that is 2 millimetres or larger in size or that does not pass the US #10 sieve;

Soil means unconsolidated naturally occurring mineral particles and other naturally occurring materials resulting from the natural breakdown of rock or organic matter by physical, chemical or biological processes that are smaller than 2 millimetres in size or that pass the US #10 sieve;

Soil bank storage site means a waste disposal site at which excess soil is managed on a temporary basis and that is operated, by a person who is not the project leader for all of the projects from which the excess soil was excavated, for the primary purpose of storing the excess soil from one or more projects until the soil can be transported to a site for final placement or disposal;

Soil processing site means a waste disposal site at which excess soil is managed on a temporary basis, that is operated for the primary purpose of processing excess soil in order to reduce contaminants in the excess soil.

Soil Rules means the document entitled “Part I: Rules for Soil Management”, published by the Ministry and as amended from time to time, available on a website of the Government of Ontario as Part I of the document entitled “Rules for Soil Management and Excess Soil Quality Standards”;

Supervisee means an individual who is supervised by a qualified person;

Vehicle includes a trailer or other equipment attached to the vehicle.

Non-application of Regulation

O.Reg 406/19 does not apply in respect of the following:

- The excavation of soil that is hazardous waste or asbestos waste, both within the meaning of Regulation 347.
- The operation of a pit or quarry from which consolidated or unconsolidated aggregate within the meaning of the Aggregate Resources Act is excavated, including the use and production of recycled aggregate in the pit or quarry.
- The excavation of topsoil in accordance with a permit issued under the Aggregate Resources Act.
- The production of peat from a peat extraction operation.

The final placement of excess soil on the bed of a surface water body.

Appendix A
Proposed Grading Plan

Servicing Legend

- Ex=Existing
- Ex Sanitary/Storm Manhole/CB Manhole
- Ex Sanitary Sewer (Flow Direction)
- Ex Storm Sewer (Flow Direction)
- Ex Water Valve/Curb Stop
- Ex Fire Hydrant & Valve Set
- Pr=Proposed
- Pr Sanitary/Storm Manhole
- Pr Sanitary Sewer (Flow Direction)
- Pr Storm Sewer (Flow Direction)
- Pr Water Valve/Curb Stop/Reducer
- Pr Fire Hydrant & Valve Set
- Siamese Connection

Grading Legend

- 123.45 — Original Ground Elevation
- 123.45 / 123.45 — Proposed Ground Elevation / Original Ground Elevation
- TFE=123.45, FFE=123.75, BFE=121.10 — Top Of Foundation Elevation, First Floor Elevation, Basement Floor Elevation
- TC=123.45 — Top Of Casting Elevation
- Retaining Wall
- Armour Stone
- Overland Flow Direction
- 2.0% — Surface Drainage Direction/Slope
- Swale Direction at Lot Corner
- Swale Flow Direction
- D — Drainage Divide Line
- 123 — Draft Plan/R-Plan Lot No.
- Block 23 — Block Number
- #12 — Municipal Address
- 123.45 — Ground Elevation At Face Of Building
- S.F. — Denotes Lot Contains Structural Fill
- N — Lot Subject To Noise and/or Vibration Measures
- Infil — Infiltration Measures Required
- PRV — Pressure Reducing Valve Required
- A, B, C and/or D — Lot Grading Type, Per Municipality
- High/Low Point

Utilities Legend

- A/G H — Above Ground Hydro Lines
- U/G H — Below Ground Hydro Lines
- TEL — Above/Below Ground Telephone Lines
- CATV — Above/Below Ground Cable TV Lines
- GAS — Gas Main
- UTI — Combined Utility Ducts (Hydro & Telecommunications)
- U/G H / U/G H — Underground ducts
- Utility Pole & Guy
- Street Light/Light Pole
- Hydro Transformer/vault
- Utility Pedestal
- T — Telephone Manhole
- H — Hydro Meter
- GV — Gas Valve
- G — Gas Meter

Misc Features Legend

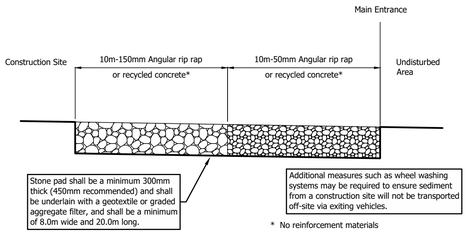
- Ex Building
- Pr Building
- Site Boundary
- BM — Geodetic/Local Benchmark
- Regulatory Floodline
- Community/Single Mailbox
- BH# GWT — Borehole Locations (ID Number & Elevation)
- TP# GWT — Test Pit (ID Number & Groundwater Elevation)
- Vegetation Line (Dripline or Bush/Shrub)
- Trees (Deciduous/Coniferous)
- Landscape Rock/Boulder
- Truncated Dome Plates
- Fencelines: - Chainlink, - Post & Wire, - Board on Board, - Noise Fence/wall
- Ponding Areas
- On-street Parking Locations Where Lot Frontage Is Less Than 14.0m. Semi-detached Lot Driveway Locations To Be Determined At Time Of Construction.
- Building Entrance (Man Door, Drive-In, Loading Dock)
- Bike Rack
- Downspout Location
- Sump Pump Location, Outlet Direction
- W — Well
- Specified Driveway Location Depressed Curb
- Signage (Misc & Railway)
- Railway Tracks
- Embankment
- Guardrail
- A — Section Arrow

ESC Legend

- SF — Silt Fence
- TPF — Tree Protection Fence
- Topsoil/Material Stockpile Location
- Rock/Straw Bale Check Dam
- Ex/Pr RipRap

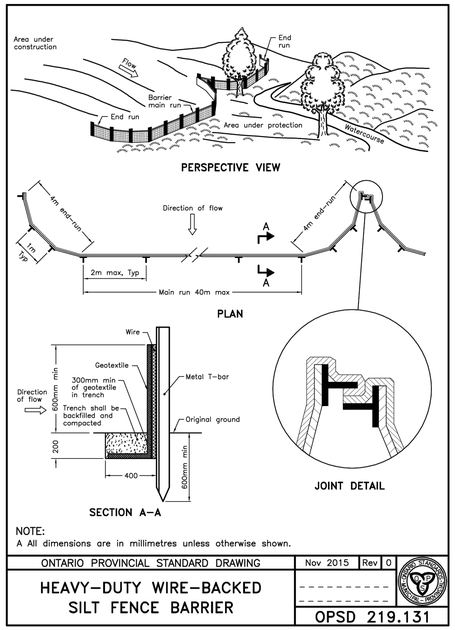
Removals Legend

- Concrete Pavement With Bituminous Surface To Be Removed
- Bituminous Pavement To Be Removed
- Concrete Pavement To Be Removed
- Gravel Surface To Be Removed
- Area To Be Close Cut Cleared
- Area To Be Cleared
- Area To Be Grubbed
- Area To Be Cleared & Grubbed
- or — Items To Be Removed



Construction Entrance (Mud Mat) Detail

Not to Scale



Project Notes

1. All dimensions are in metres unless otherwise noted. This drawing shall not be scaled.
2. All work shall be in accordance with the requirements of the local municipality, the latest relevant sections of the OPSS's, OPSD's, and the Ontario Building Code.
3. Soil Management Regulations: All import or export of soil related to this site is to be completed in conformance with Ontario Regulation 406/19: On-site and Excess Soil Management. Per the regulation, it is the responsibility of the owner to retain a Qualified Person (QP) to investigate and/or develop (or supervise the development of) a site-specific excess soil plan.
4. The Contractor shall obtain all necessary locates & permits prior to commencing work.
5. The Contractor shall notify the Engineer 24 hours prior to constructing any works in order to coordinate inspections.
6. The Contractor shall, at their own cost, install and maintain erosion control measures for the duration of construction, in accordance with local and provincial regulations or as directed by the Engineer.
7. Only drawings stamped "Issued for Construction" shall be used for construction.
8. All embankment slopes are at maximum 3:1, unless otherwise shown.
9. Proposed grades are to match existing grades at the perimeter of the work site, unless otherwise shown.

Specifications

OPSS and OPSD refer to Ontario Provincial Standard Specifications and Drawings.

The following minimum specifications shall apply unless otherwise noted:

1. Excavation, Backfilling, Grading and Compaction:
   a. Work shall be completed in accordance with OPSS.MUNI 206, 401 and 501. (Method A); standard proctor maximum dry density (SPMDD) shall apply.
   b. Earth fill placed as "structural fill" shall be compacted to 98% SPMDD. Each lift shall be inspected and approved by the Geotechnical Engineer.
   c. Surplus topsoil and/or earth shall be stockpiled on the work site; all other material shall be removed from the Work site in accordance with OPSS 180.

Erosion and Sediment Control Notes

1. All works to be done in accordance with OPSS 805.
2. All silt fence to be installed prior to commencement of any area grading, excavating or demolition, unless noted otherwise.
3. Erosion control fencing to be placed around the base of all stockpiles. All stockpiles to be kept a minimum of 5m from all property lines. A 5m maintenance strip must be maintained around all stockpiles (between the stockpile and the fencing).
4. Additional erosion control measures may be required as site development progresses. Contractor to provide all additional erosion control structures in accordance with the contingency allowance.
5. The Engineer shall monitor the site development to ensure all erosion controls are installed and maintained to the municipal requirements, and any damage repaired immediately. Contractor to comply with the Engineer's instructions to install, modify, or maintain erosion control works. Sediments to be removed when accumulations reach a maximum of one third (1/3) the height of the silt fence.
6. All erosion control structures to remain in place until all disturbed ground surfaces have been re-stabilized either by paving or restoration of vegetative ground cover.
7. No alternate methods of erosion control protection shall be permitted unless approved by the Engineer and the municipality.
8. The contractor is responsible for removing sediments from the municipal roadway and sidewalks at the end of each work day.
9. Sediment traps to be provided on site at all locations where construction vehicles exit the site. Sediment traps shall be a minimum of 4.0m wide, 10.0m long and 300mm deep and shall consist of 50-150mm angular rip rap material or approved equivalent. Contractor to ensure all vehicles leave the site via the construction access and that the sediment trap is maintained in a manner to maximize its effectiveness at all times.
10. Areas affected by grading activities shall be topsoiled (125mm minimum thickness) and seeded within 30 days of site activity ceasing.
11. Excess fill material shall not be disposed of within environmentally sensitive areas, including wetlands, woodlots, regulated areas, or adjacent properties.
12. The property owner is responsible for restoration of all damaged and/or disturbed property within the municipal right-of-way to the municipal standards.
13. If, for unforeseen reasons the Owner and/or his/her representative must encroach onto private lands to undertake any works, he/she must obtain written permission from the adjacent property owners prior to entering upon the private property to perform any works. Copies of these letters of consent must be submitted to the municipality, prior to any work being performed. Failure to comply with the above is at the owners own risk.
14. Monitoring and weekly inspection reporting per the municipal requirements.
15. Majority of final land use to be agricultural crops. Any lands not used to be hydro seeded.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

No.	DATE	BY
4.	Dec 5, 2024	JAS
3.	Mar 21, 2024	JAS
2.	Jan 5,2024	JAS
1.	Aug 23,2022	AWB
	Issued Review and Approval	
	Issued for Site Alteration Assessment Application	
	Issued for Client to Review	
	Issued for Site Alteration Permit	
	REVISION/ISSUE	

OWNER: [redacted]

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

DRAWING: Legend, Details & Project Notes

DESIGNED BY: JAS	CHECKED BY: BRE	CONTRACT: CTR-004076	
DRAWN BY: JAS	DATE: Aug 23,2022	FILE NAME: 4076	
DRAWING: 4076	SCALE: Not to Scale		
SHEET: 1 of 5			

Filename: 4076.Topsoil.dwg, 4076 -- Plotted: December 5, 2024 11:55 AM, Jauhars

Install Mudmat at construction entrance, as shown and maintain for the duration of the construction period. Any material tracked onto the street is the responsibility of the contractor, and is to be removed immediately.

Limit of Construction

Temporary delivery stockpile location min 5m from property line.Max 4900m³ and 5m high with 2:1 side slopes..

5m maintenance strip.

Existing septic system relocated through separate permit.

Silt fence to be installed

Silt fence to be installed around perimeter of grading limits.

Sideroad 10 N

Forestell Road

Ex ROW

Ex EOP

Ex Unvegetated Area

Ex Former Gravel Pit

Ex Constructed Pond

Ex Garage

Ex Trees

Approximate location of GRCA Regulatory Limits

6745

6743

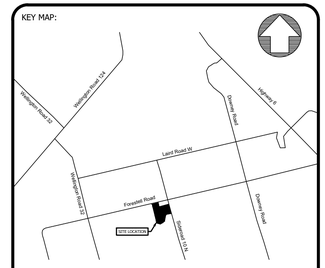
6737

6733

4658

4660

KEY MAP:



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

Site Statistics	
GPS Coordinates	43.4717, -80.2536
Total Site Area	15 Ha

Work Detail	
Work Area	9.86Ha
Pr Fill Import Volume	145,000 m³

Schedule		
Equipment	Day	Time
Skidsteer		
Bull Dozer		
Triaxle End Dump Trucks		

Proposed Work	Start Date	Completion day

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

No.	DATE	BY
4.	Dec. 5, 2024	JAS
3.	Mar 21, 2024	JAS
2.	Jan 5, 2024	JAS
1.	Aug 23, 2022	AWB
	REVISION/ISSUE	
	Issued Review and Approval	
	Issued for Site Alteration Assessment Application	
	Issued for Client to Review	
	Issued for Site Alteration Permit	

OWNER: [redacted]

LOCATION: Puslinch, Ontario

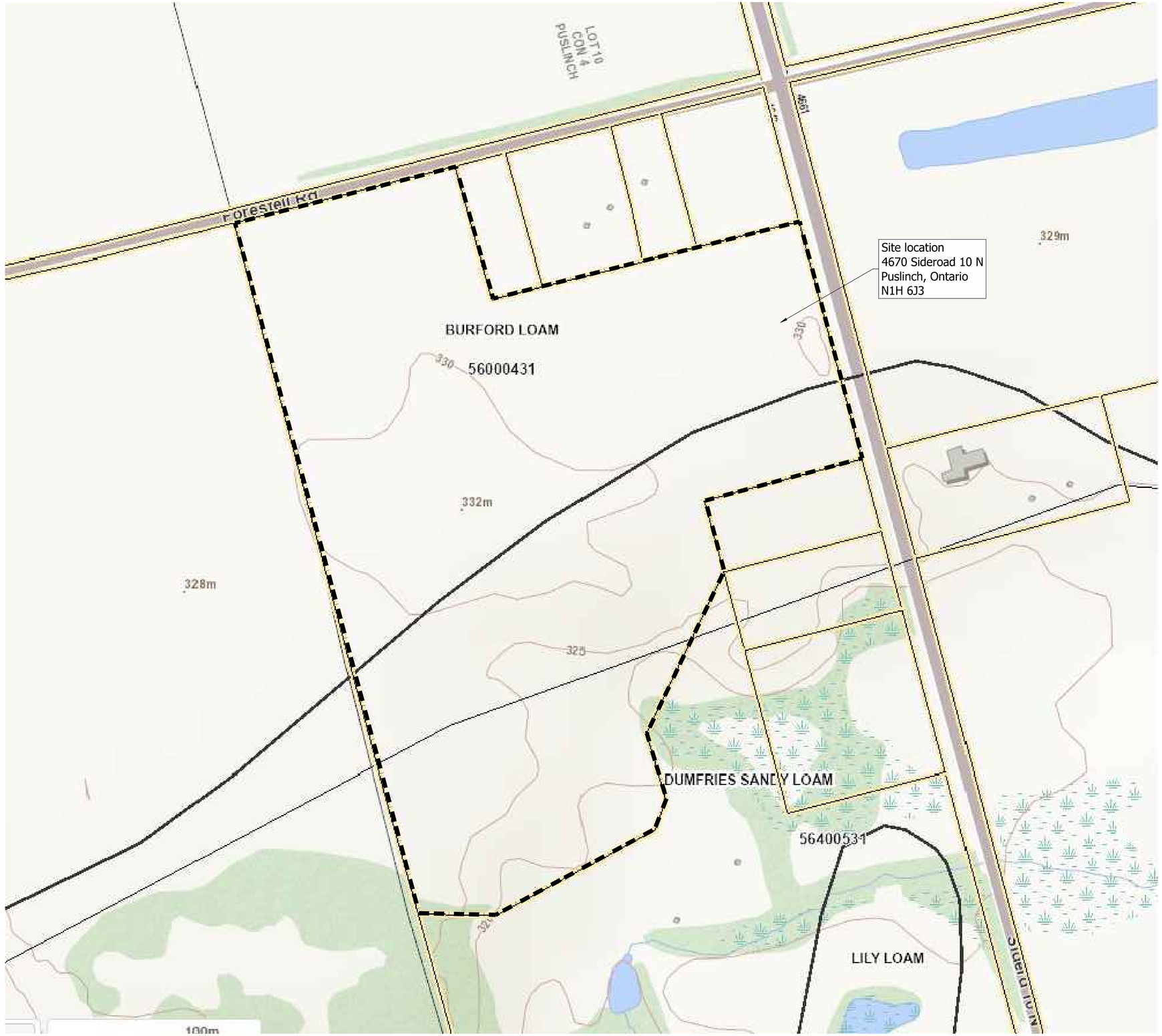
PROJECT: 4670 Sideroad 10 North

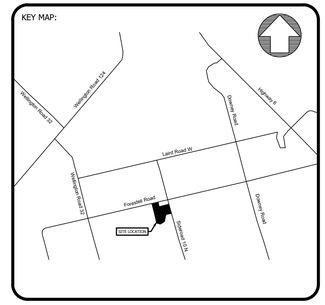
DRAWING: Original Conditions and ESC Plan

DESIGNED BY:	JAS	CHECKED BY:	BRE
DRAWN BY:	JAS	DATE:	Aug 23,2022
DRAWING:	4076	SCALE:	1:1000
SHEET:	2 of 5		

CONTRACT: CTR-004076
FILE NAME: 4076-Topsoil
0 5 10 20 30 50
1:1000

Filename: 4076.Topsoil.dwg, 4076 -- Plotted: December 5, 2024 11:55 AM, Jauhars





1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

No.	DATE	BY
4.	Dec 5, 2024	JAS
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

DRAWING: Predominant Soil Type

OWNER: [redacted]

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

DESIGNED BY:	JAS
DRAWN BY:	JAS
DRAWING: SHEET:	4076 3 of 5
CHECKED BY:	BRE
DATE:	Aug 23,2022
SCALE:	Not to Scale
CONTRACT:	CTR-004076
FILE NAME:	4076 Topsoil

Filename: 4076 Topsoil.dwg, 4076 -- Plotted: December 5, 2024 11:55 AM, Jauhars

Sideroad 10 N

Forestell Road

Limit of Construction

Ex ROW

Ex EOP

Ex Unvegetated Area

Ex Former Gravel Pit

Ex Constructed Pond

Ex Gravel Driveway

Pr Gravel Driveway

Pr Pole Barn Approx (25.9mX18.3m) FFE=329.00

Pole Barn Under Separate Application

Ex Garage

Ex Trees

Fill Area

Approximate location of GRCA Regulatory Limits

6745

6743

6737

6733

4658

4660

Agricultural Improvement
Topsoil to be imported to improve/re-establish arability of lands for agricultural use.

KEY MAP:

1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

Site Statistics	
GPS Coordinates	43.4717, -80.2536
Total Site Area	15 Ha

Work Detail	
Work Area	9.86 Ha
Pr Fill Import Volume	145,000 m³

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T 519.623.1140 F 519.623.7334 www.meritech.ca

No.	REVISION/ISSUE	DATE	BY
3.	Issued for Site Alteration Assessment Application	Mar 21, 2024	JAS
2.	Issued for Client to Review	Jan 5, 2024	JAS
1.	Issued for Site Alteration Permit	Aug 23, 2022	AWB

OWNER: [redacted]

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

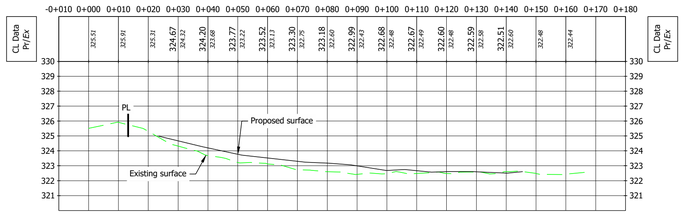
DRAWING: Grading Plan

DESIGNED BY:	JAS	CHECKED BY:	BRE
DRAWN BY:	JAS	DATE:	Aug 23,2022
DRAWING: 4076 SHEET: 4 of 5		SCALE:	1:1000

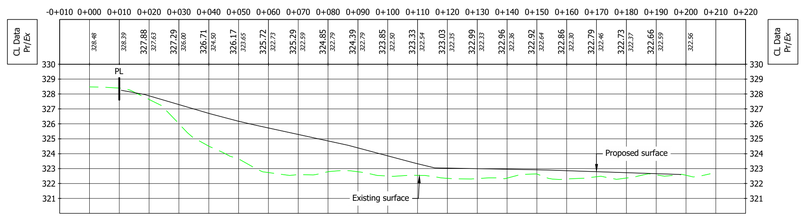
CONTRACT: CTR-004076
FILE NAME: 4076 Topsoil
0 5 10 20 30 40
1:1000

Filename: 4076 Topsoil.dwg, 4076 -- Plotted: December 5, 2024 11:56 AM, Jauhars

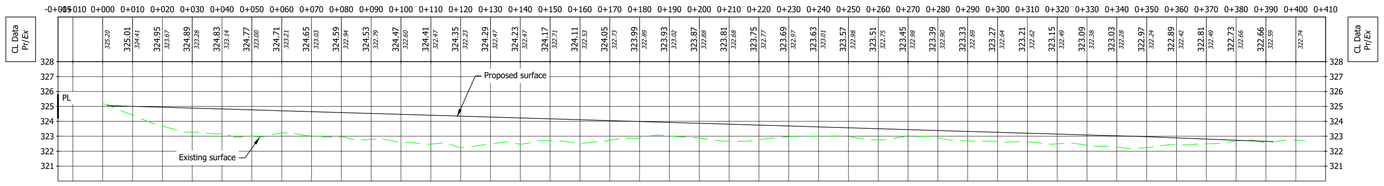
A-A



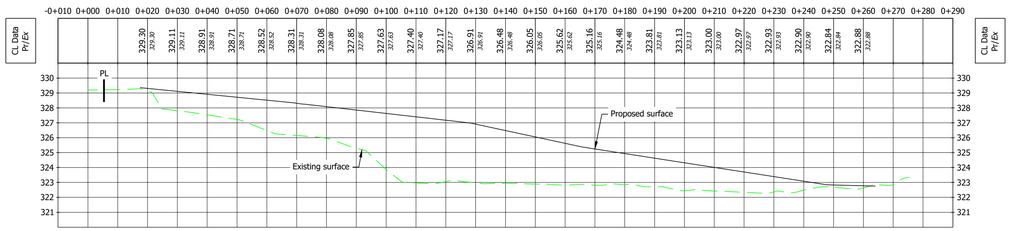
B-B



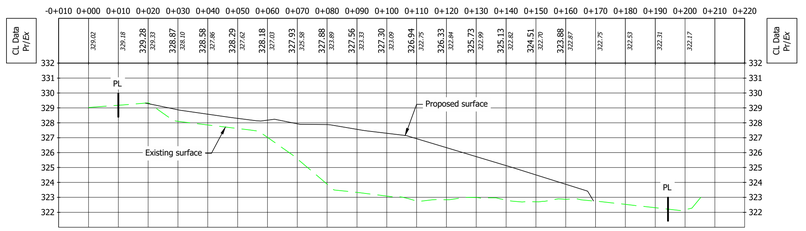
C-C



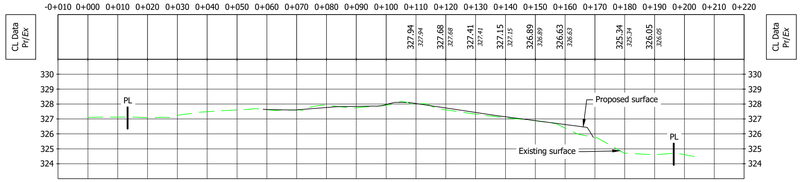
D-D



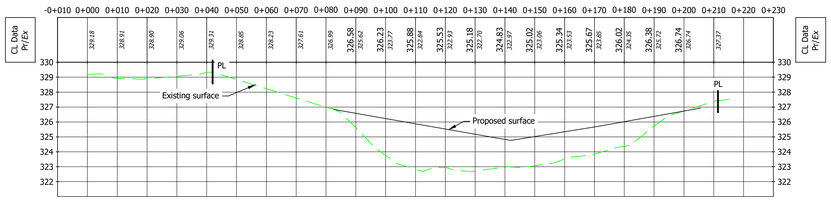
E-E



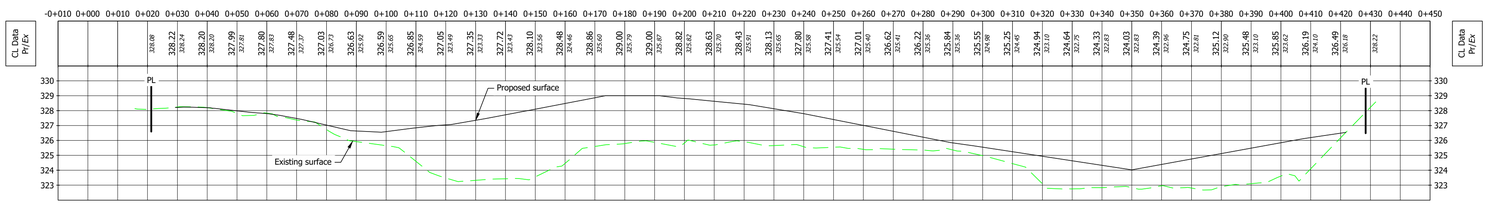
F-F



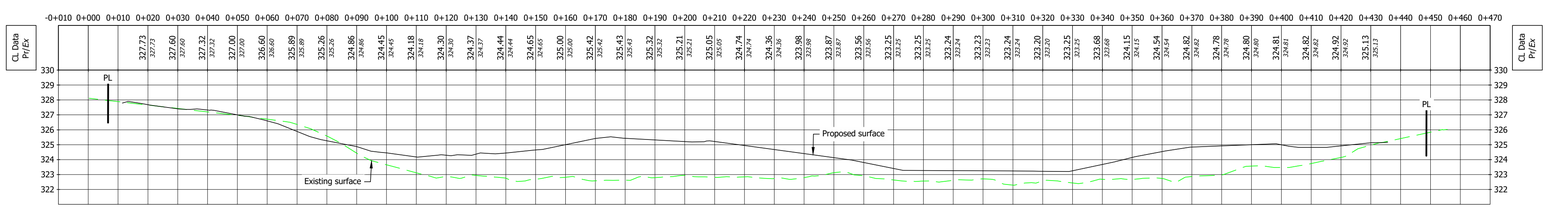
G-G

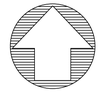


H-H

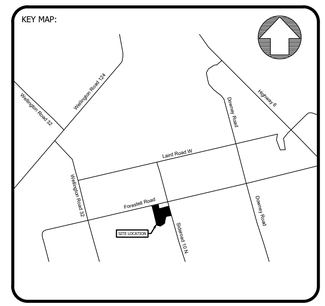


I-I





KEY MAP:



1. This drawing is to be read in conjunction with the standard notes, specifications and details shown on Meritech dwg 4076-1 and the following additional information:
   a. Site Boundary information By Nadeem Nadir on Dwg A1, dated Nov 17, 2023.
2. Survey and elevations:
   a. Topographic survey completed by Automated Engineering Technologies Ltd., dated July 2022.
   b. This base topographic survey was completed in UTM co-ordinates using the NAD 83 zone 17 grid. The co-ordinates and geodetic elevation are referenced from the can-net VRS network.

MERITECH engineering
1315 Bishop Street North, Suite 202 Cambridge
T: 519.623.1140 F: 519.623.7334 www.meritech.ca

Information contained on this drawing is the property of Meritech Engineering and is to be used for the specific purpose for which it was prepared and shall not be loaned, copied or used for any other purpose without the written consent of Meritech Engineering. Meritech Engineering has attempted to verify the accuracy and completeness of the information shown on this drawing but assumes no responsibility for the accuracy or completeness of such information. The Contractor is responsible for reporting any discrepancies to the Engineer prior to commencement of work. Failure to do so shall make the Contractor responsible for any corrections required subsequently.
Copyright © Meritech Services Inc. All rights reserved. No part of this drawing may be reproduced in any form by any means whatsoever without the written permission of Meritech Services Inc.

No.	DATE	BY
4.	Dec 5, 2024	JAS
3.	Mar 21, 2024	JAS
2.	Jan 5, 2024	JAS
1.	Aug 23, 2022	AWB
	Issued Review and Approval	
	Issued for Site Alteration Assessment Application	
	Issued for Client to Review	
	Issued for Site Alteration Permit	
	REVISION/ISSUE	

OWNER: [redacted]

LOCATION: Puslinch, Ontario

PROJECT: 4670 Sideroad 10 North

DRAWING: Section View

DESIGNED BY:	JAS	CHECKED BY:	BRE
DRAWN BY:	JAS	DATE:	Aug 23,2022
DRAWING: 4076 SHEET: 5 of 5		SCALE:	1:1000

CONTRACT: CTR-004076
FILE NAME: 4076.Topsoil
0 5 10 20 30 40
1:1000

Filename: 4076.Topsoil.dwg, 4076 – Plotted: December 5, 2024 11:56 AM, Jauhars

Appendix B
Excess Soil Registry Filing

Notice Details

Company Name	**Fortis Environmental Inc.**
Notice ID	**N00001948**
Filing Type	**Reuse Site Notice**
Submission Status	**In Progress**
Notice last updated by	**Andrew Topp on Jan 27, 2025 02:16 PM**

Pre-Screening Questions

Review the notice filling requirements for a reuse site to ensure you are required to submit a notice before you begin your submission. For more information, visit our Excess Soil Webpage.
If you voluntarily file a reuse notice, you will be required to pay the applicable fees and your notice will be publicly available.
Do you wish to proceed?

Yes

Contact Details

Contact Name	**Jerome Nicholls**
Contact Type	**Owner**
Company Name	**Nicholls Ventures Inc.**
Email	**nventuresinc@gmail.com**
Business Phone Number	**9058021189**
Address	**91 Norton Drive, Guelph, Ontario, N1E 7L3**

Contact Name	**Jerome Nicholls**
Contact Type	**Operator**
Company Name	**Nicholls Ventures Inc.**

Email	**nventuresinc@gmail.com**
Business Phone Number	**9058021189**
Address	**91 Norton Drive, Guelph, Ontario, N1E 7L3**

Site Details

Site Name	**4670 Sideroad 10 North, Puslinch - Residential Alteration**
Description of the Reuse Site	**Import material for the purpose of site alteration to improve the grade and workability of present lands.**
Type of Undertaking	**Other**
Description of the Undertaking	**Grading of the present site topography in order to improve the workability of the lands for residential purposes**

Properties

Property Description	
Primary	✓
Municipality	**Puslinch, Township of**
Municipal Address	**4670 Sideroad 10 North, Puslinch, Ontario, N1H6J3, Canada**
Latitude	**43.47160**
Longitude	**-80.25400**
Legal Description of the Property	

Site Instrument Details

Issuing Type	Issuing Authority ID	Issued To	Issue Date

Property Use

Current Property Uses	**Agricultural,Residential**
Future Property Uses	**Agricultural,Residential**

Soil Details

Excess Soil Quality Standards Applicable to your filing

- [x] From Excess Soil Quality Standard Tables (provide details)
- [ ] Site-specific Excess Soil Quality Standard with BRAT or Risk Assessment (provide details)
- [ ] Site-specific Excess Soil Quality Standard from Site Instrument

Excess Soil Quality Standard Tables

Volume	Applicable Table	Type of Property Use
Volume Independent	Table 2.1 - Full Depth, Potable	Residential/Parkland/Institutional

Additional information

Soil details

Date first load of excess soil was or will be deposited:	**31-Jan-2025**
Estimated date final load of excess soil deposited:	**31-Dec-2028**
Inventory amount of excess Soil (m3):	**0.00**
Total amount of excess Soil to be deposited (m3):	**145000.00**

Appendix C
Excess Soil Quality Standards (Table 2.1)

TABLE 2.1: Full Depth Excess Soil Quality Standards in a Potable Ground Water Condition

Volume Independent (Unit in µg/g)

Contaminant	Agricultural or Other Property Use	Residential/ Parkland/ Institutional Property Use	Industrial/ Commercial/ Community Property Use
Acenaphthene	2.5	2.5	2.5
Acenaphthylene	0.093	0.093	0.093
Acetone	0.5	0.5	0.5
Aldrin	0.05	0.05	0.088
Anthracene	0.058	0.16	0.16
Antimony	7.5 [a]	7.5 [a]	40 [a]
Arsenic	11	18	18
Barium	390 [a]	390 [a]	670 [a]
Benzene	0.02	0.02	0.02
Benz[a]anthracene	0.5	0.5	0.92
Benzo[a]pyrene	0.31	0.31	0.31
Benzo[b]fluoranthene	3.2	3.2	3.2
Benzo[ghi]perylene	6.6	6.6	13
Benzo[k]fluoranthene	3.1	3.1	3.1
Beryllium	4 [a]	4 [a]	8 [a]
Biphenyl 1,1'-	0.05	0.05	0.05
Bis(2-chloroethyl)ether	0.5 [a]	0.5 [a]	0.5 [a]
Bis(2-chloroisopropyl)ether	0.5 [a]	0.5 [a]	0.5 [a]
Bis(2-ethylhexyl)phthalate	5	5	9.9
Boron (Hot Water Soluble)*	1.5	1.5	2
Boron (total)	120 [a]	120 [a]	120 [a]
Bromodichloromethane	0.05	0.05	0.05
Bromoform	0.05	0.05	0.05
Bromomethane	0.05 [a]	0.05 [a]	0.05 [a]
Cadmium	1 [a]	1.2	1.9 [a]
Carbon Tetrachloride	0.05 [a]	0.05 [a]	0.05 [a]
Chlordane	0.05	0.05	0.05
Chloroaniline p-	0.5 [a]	0.5 [a]	0.5 [a]
Chlorobenzene	0.083	0.083	0.083
Chloroform	0.05	0.05	0.05
Chlorophenol, 2-	0.1	0.1	0.1
Chromium Total	160 [a]	160 [a]	160 [a]

Contaminant	Agricultural or Other Property Use	Residential/ Parkland/ Institutional Property Use	Industrial/ Commercial/ Community Property Use
Chromium VI	8	8	8
Chrysene	7	7	9.4
Cobalt	22 [a]	22 [a]	80 [a]
Copper	140 [a]	140 [a]	230 [a]
Cyanide (CN-)	0.051	0.051	0.051
Dibenz[a h]anthracene	0.57	0.57	0.7
Dibromochloromethane	0.05	0.05	0.05
Dichlorobenzene, 1,2-	3.4 [a]	3.4 [a]	6.8 [a]
Dichlorobenzene, 1,3-	0.26	0.26	0.26
Dichlorobenzene, 1,4-	0.05 [a]	0.05 [a]	0.05 [a]
Dichlorobenzidine, 3,3'-	1 [a]	1 [a]	1 [a]
Dichlorodifluoromethane	1.5	1.5	1.5
DDD	3.3	3.3	4.6
DDE	0.26	0.26	0.52
DDT	0.078	1.4	1.4
Dichloroethane, 1,1-	0.05	0.05	0.05
Dichloroethane, 1,2-	0.05 [a]	0.05 [a]	0.05 [a]
Dichloroethylene, 1,1-	0.05 [a]	0.05 [a]	0.05 [a]
Dichloroethylene, 1,2-cis-	0.05 [a]	0.05 [a]	0.05 [a]
Dichloroethylene, 1,2-trans-	0.05 [a]	0.05 [a]	0.05 [a]
Dichlorophenol, 2,4-	0.1	0.1	0.1
Dichloropropane, 1,2-	0.05 [a]	0.05 [a]	0.05 [a]
Dichloropropene,1,3-	0.05	0.05	0.05
Dieldrin	0.05 [a]	0.05 [a]	0.088 [a]
Diethyl Phthalate	0.5 [a]	0.5 [a]	0.5 [a]
Dimethylphthalate	0.5 [a]	0.5 [a]	0.5 [a]
Dimethylphenol, 2,4-	0.43	0.43	0.43
Dinitrophenol, 2,4-	2 [a]	2 [a]	2 [a]
Dinitrotoluene, 2,4 & 2,6-	0.5 [a]	0.5 [a]	0.5 [a]
Dioxane, 1,4	0.2 [a]	0.2 [a]	0.2 [a]
Dioxin/Furan (TEQ)	0.000013	0.000013	0.000022
Endosulfan	0.04	0.04	0.04
Endrin	0.04 [a]	0.04 [a]	0.04 [a]
Ethylbenzene	0.05	0.05	0.05
Ethylene dibromide	0.05 [a]	0.05 [a]	0.05 [a]

Contaminant	Agricultural or Other Property Use	Residential/ Parkland/ Institutional Property Use	Industrial/ Commercial/ Community Property Use
Fluoranthene	0.69	0.69	2.8
Fluorene	6.8	6.8	6.8
Heptachlor	0.072	0.072	0.072
Heptachlor Epoxide	0.05 [a]	0.05 [a]	0.05 [a]
Hexachlorobenzene	0.034	0.034	0.034
Hexachlorobutadiene	0.01	0.01	0.01
Hexachlorocyclohexane Gamma-	0.01	0.01	0.01
Hexachloroethane	0.01	0.01	0.01
Hexane (n)	2.5	2.5	2.5
Indeno[1 2 3-cd]pyrene	0.38	0.38	0.76
Lead	45	120	120
Mercury	0.24	0.27	0.27
Methoxychlor	0.13	0.13	0.19
Methyl Ethyl Ketone	0.5	0.5	0.5
Methyl Isobutyl Ketone	0.5	0.5	0.5
Methyl Mercury **	0.00097	0.00097	0.00097
Methyl tert-Butyl Ether (MTBE)	0.05	0.05	0.05
Methylene Chloride	0.05	0.05	0.05
Methlynaphthalene, 2-(1-) ***	0.096	0.59	0.59
Molybdenum	6.9 [a]	6.9 [a]	40 [a]
Naphthalene	0.2	0.2	0.2
Nickel	100 [a]	100 [a]	270 [a]
Pentachlorophenol	0.1	0.1	0.34
Petroleum Hydrocarbons F1****	17	25	25
Petroleum Hydrocarbons F2	10	10	26
Petroleum Hydrocarbons F3	240	240	240
Petroleum Hydrocarbons F4	2800	2800	3300
Phenanthrene	6.2	6.2	12
Phenol	2.4	2.4	2.4
Polychlorinated Biphenyls	0.35	0.35	0.78
Pyrene	28	28	28
Selenium	2.4 [a]	2.4 [a]	5.5 [a]
Silver	20 [a]	20 [a]	40 [a]
Styrene	0.05	0.05	0.05
Tetrachloroethane, 1,1,1,2-	0.05	0.05	0.05

Contaminant	Agricultural or Other Property Use	Residential/ Parkland/ Institutional Property Use	Industrial/ Commercial/ Community Property Use
Tetrachloroethane, 1,1,2,2-	0.05 [a]	0.05 [a]	0.05 [a]
Tetrachloroethylene	0.05 [a]	0.05 [a]	0.05 [a]
Thallium	1 [a]	1 [a]	3.3 [a]
Toluene	0.2	0.2	0.2
Trichlorobenzene, 1,2,4-	0.17	0.17	0.51
Trichloroethane, 1,1,1-	0.11	0.11	0.12
Trichloroethane, 1,1,2-	0.05	0.05	0.05
Trichloroethylene	0.05 [a]	0.05 [a]	0.05 [a]
Trichlorofluoromethane	0.17	0.25	0.25
Trichlorophenol, 2,4,5-	0.11	0.11	0.11
Trichlorophenol, 2,4,6-	4.4 [a]	4.4 [a]	10 [a]
Uranium	23 [a]	23 [a]	33 [a]
Vanadium	86	86	86
Vinyl Chloride	0.02	0.02	0.02
Xylene Mixture	0.091	0.091	0.091
Zinc	340 [a]	340 [a]	340 [a]
Electrical Conductivity (mS/cm)	0.7	0.7	1.4
Sodium Adsorption Ratio	5	5	12

Notes:

[a]: Leachate analysis is required only for contaminants that are identified as contaminants of potential concern in *excess soil* (as specified in subsection 1 (7) in Section A of PART II of this document).

*: The boron standards are for hot water soluble extract for all *surface soils*. For *subsurface soils* the standards are for total boron (mixed strong acid digest), since plant protection for *soils* below the root zone is not a significant concern.

**: Analysis for methyl mercury only applies when mercury (total) standard is exceeded.

***: The methyl naphthalene standards are applicable to both 1-methyl naphthalene and 2- methyl naphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.

****: F1 fraction does not include benzene, toluene, ethylbenzene and xylene (BTEX); however, the proponent has the choice as to whether or not to subtract BTEX from the analytical result.

Appendix D
Excess Soil Profile Sheet

Excess Soil Profile Sheet

Instructions:

Please complete the following form. This form must be completed as accurately as possible. Material cannot be accepted at The ReUse Site unless this Excess Soil Profile Sheet (ESPS) has been submitted and approved.

Source Site Information

Owner's Name: **Contact Person:**

Mailing Address: **Telephone (Cell):**

Source Site Address: **Telephone (Office):**

City / Province: **Email Address:**

Land Use of the Source Site (Agricultural / Residential / Commercial / Industrial / Other:)

Description of the source site:

Describe the nature of the excess material:

***Does the source site retain a Qualified Person (Q.P.) ?** Y ◯ N ◯

If yes please provide the following information

Source Site Information – QP

Name: **Company:**

Address: **Telephone (Cell):**

P.Eng / P.Geo license number: **Telephone (Office):**

City / Province: **Email Address:**

Hauler Information

Company Name: **Contact Person:**

Mailing Address: **Telephone (Cell):**

Source Site Address: **Telephone (Office):**

City / Province: **Email Address:**

MECP License Number:

Excess Material Description

Estimated Quantify of Soil (Truck loads, Trailer Loads, Metric Tonnes or Cubic Meters - please specify):

% of Sand: **% of Silt:** **% of Clay:** **% of Topsoil:** **% of Concrete:** **% of Brick:**
% of metal: **% of wood:** **% of other:** **:**

Has Analytical Testing Been Completed? If Yes, please provide which criteria the material meets (The most stringent):

Table:

Land Use:

Texture:

Sampling Requirements (at least one of each is required)

VOCs, PHCs, PAHs, Metals + Inorganics, TCLP Heavy Metals

If not all analyses were conducted, please provide rational as to why:

Acknowledgment

The Customer acknowledges that the information provided in this profile as well as all other supporting analytical results are a true and accurate representation of the material to be shipped to The REUSE Site The customer understands and acknowledges that the failure to properly describe the material could result in Nicholson Brothers (The owner of the fill site) incurring expenses (administrative, professional, legal, regulatory penalties, fines or orders) in order to properly dispose of the material and to comply with the applicable laws. The Customer agrees to indemnify The Property Owner for all costs that may arise from the misrepresentation of the material.

Authorized Person:

Signature:

Date:

Please fill out this form and email it to: atopp@fortisenv.ca

For Office Use Only:

Date of Receipt:

Is Analyses Included:

Has Analyses been reviewed by a QP:

Criteria:

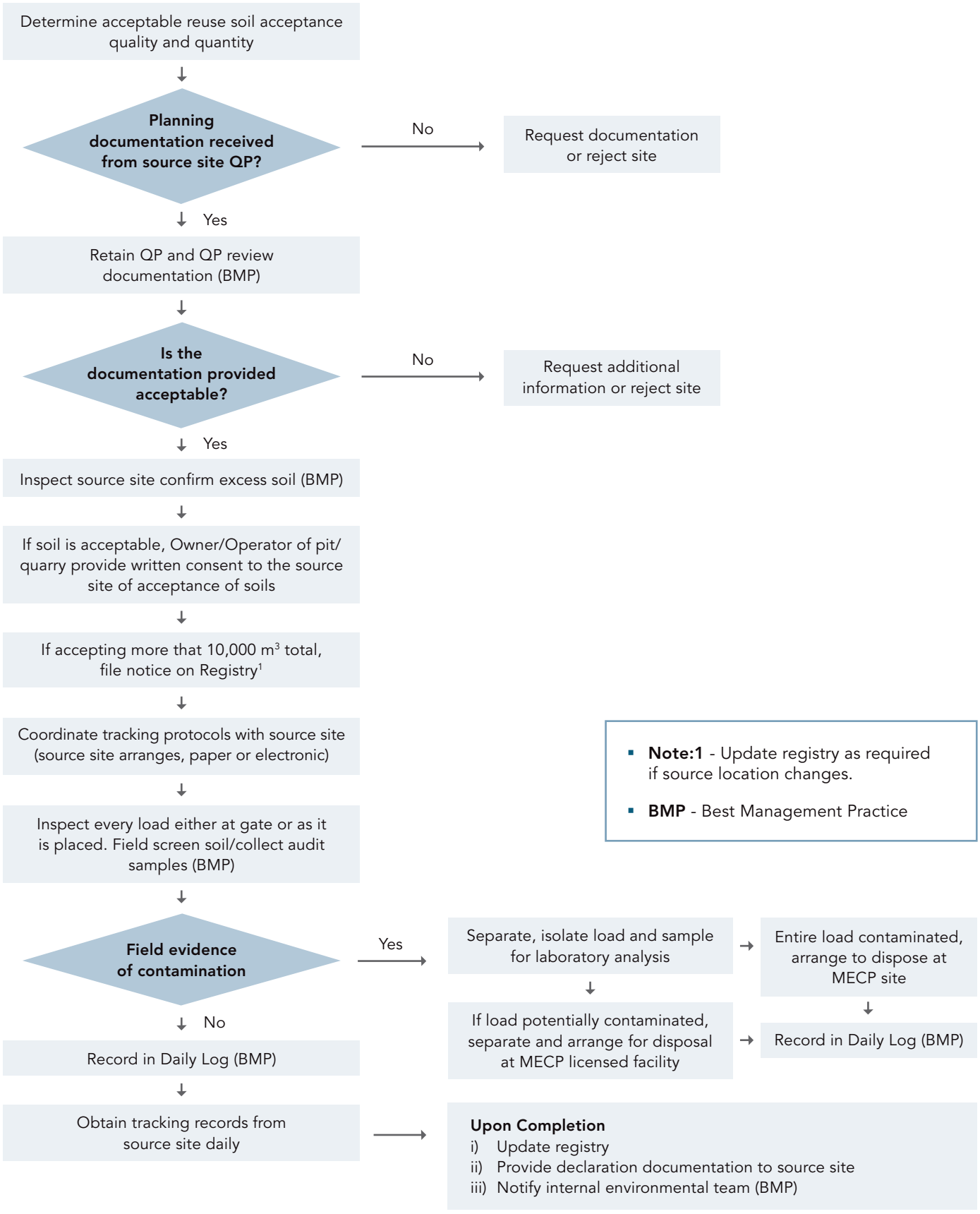
Approved by:

Date:

Assigned Job #:

Appendix E
Receiving Soil Flow Chart

Receiving Excess Soils at Aggregate Operations



Appendix F
Checklist for Each Source Site

Checklist for Importation of Soil for Pit/Quarry Rehabilitation

(to completed for each Source Site)

	Activity	*Yes* [1]	*No*	*Comments*
1.	**Background**			
a.	Has the quality and quantity of soil for acceptance been determined for your site? (this may be indicated on the site plans or licence issued for your site)	☐	☐	
b.	Has a fill committee or environmental coordinator been established?	☐	☐	
c.	Has a Qualified Person (QP) been retained for your site?	☐	☐	
d.	Do you know where excess soil is to be placed at the Site or has a fill management plan been prepared indicating where and how soils are to be placed?	☐	☐	
2.	**Planning (Prior to acceptance of excess soil)**			
	Background Soil Characterization Documentation			
a.	Has there been initial contact and coordination with the Source Site of the excess soils?	☐	☐	
b.	Has background documentation on the excess soils to be imported been provided or requested? If the response is no, please request this information.	☐	☐	
c.	Has the following documentation been provided or requested from the Source Site?:	☐	☐	
	i. Assessment of Past Uses of the Source Site	☐	☐	
	ii. Sampling and Analysis Plan	☐	☐	
	iii. Soil Characterization Report	☐	☐	
	iv. Soil Destination Report	☐	☐	
d.	Has a member of the Fill Committee or QP reviewed the background documentation and provided written acceptance of the excess soil? Some key items that should be reviewed for consistency with the Excess Soil Rules (see Excess Soil Rules for details) include:	☐	☐	
	▪ Does the Assessment of Past Uses provide a determination the one or more contaminants may have affected the excess soil? ▪ Does the Assessment of Past Uses identify areas of potential environmental concern (APECs)? ▪ Is a figure provided showing location and depth of excess soil on the Source Site and the distribution of contaminants? ▪ Have soil samples been collected within the area where excess soil is to be generated? ▪ Frequency of samples analyzed based on volume of soil to be imported consistent with Regulation? ▪ Is the analysis of the samples consistent with the contaminants of concern and areas of environmental concern identified in the Assessment of Past Uses ▪ Have the reports been prepared or overseen by a QP? ▪ Is the sampling plan and characterization of the excess soil consistent with the requirements of the Regulation? ▪ What standards have the soil analytical results been assessed to? Do the results met the quality standards determined for your site? ▪ Characterization of the distribution of contaminants in soil stockpiles? ▪ Does the sampling program satisfy the minimum sampling requirements in the Regulation? ▪ Has mandatory leachate analysis been undertaken?			
e.	Has the Source Site been inspected by someone from the Fill Committee or QP to provide assurance that the requirements are met? *(BMP)*	☐	☐	
f.	Has Fill Committee or environmental coordinator been notified of acceptance excess soil? Have they acknowledged acceptance of soils?	☐	☐	
	Tracking System			
g.	Has a tracking system for the excess soil been coordinated with the Source Site? (i.e., paper or electronic)	☐	☐	
h.	Has the Source Site provided details on implementation of the tracking system?	☐	☐	
i.	Has Source Site provided details on how tracking records will be provided per truck and daily?	☐	☐	
j.	Has the Fill Committee or Environmental Representative or QP reviewed and accepted the proposed tracking system?	☐	☐	
	Documentation Control			
k.	Is a system is place to store and maintain records for the soil importation? *(BMP)*	☐	☐	
3.	**Registry Notice (comes into effect January 2022)**			
a.	If more that 10,000 m^3 in total is to be imported for entire project, has notice been filed on Registry by you or someone from the Fill Committee **prior** to the importation of any soil from each Source Site?	☐	☐	
b.	Have you or someone from the Fill Committee updated the Registry to indicate amount of soil removed and date last load of soil removed? (i.e., must be done within 30 days after soil removed)	☐	☐	
c.	Has the Registry been updated to indicate any changes in the amount of soil recieved and/or the Source Site location? (i.e., must be done within 30 days of change)	☐	☐	
4.	**Acceptance of Excess Soil**			
a.	Has written consent been provided to the Source Site for the acceptance of the excess soil?	☐	☐	
b.	Has the QP for the source site provided written declaration that was involved in the preparation of the planning documentation that the reports prepared are complete and accurate ? Contents of the declaration are discussed in the Excess Soil Reuse Rules (see Section B(6) of the Rules).	☐	☐	
5.	**Importation and Placement of Excess Soil**			
a.[3]	A system must be in place to inspect **each** truck load prior entering the site. Has every truck load been inspected at the gate prior to the truck entering the site? Under any circumstances, excess soil in any truck shall not contain any of the following and shall not be permitted to enter the site:	☐	☐	
	▪ Any putrescible materials except for small amounts of vegetation. ▪ Drums and containers. ▪ Stained or discoloured earth in contrast with adjoining soil. ▪ Excess soil containing debris. ▪ Trash/garbage or waste. ▪ Suspected odours that emanate when the earth is disturbed. ▪ Oily residue intermixed with earth. ▪ Sheens, films or discolorations on soil. ▪ Concrete. Concrete, crushed concrete or concrete product fines/sludges. ▪ Cinders/ash or other combustion by products, like ash. ▪ Free of termites and invasive species. ▪ The excess soil shall be dry and shall pass a slump test as outlined in the General Waste Management Regulation (O. Reg. 347 pursuant to the EPA), as may be amended.			
	Note: If the excess soil contains any of the above, the load should be rejected immediately and the Environmental Committee or representative contacted immediately for guidance.			

b.	For **each** truck load, has the driver provided appropriate copies of the tracking documentation for their vehicle and is this documentation consistent with the records provided by the Source Site?	☐	☐	
d.	For **each** truck load, is the soil being placed in accordance with site plans for rehabilitation?	☐	☐	
e.	Is a daily summary log maintained at the Site during the placement of the fill ? As minimum it should include: ▪ Date. ▪ Total number of trucks entering the property. ▪ Total number of trucks accepted. ▪ Total number of trucks rejected (and reasons for rejection). ▪ For each Source Location: ▪ Identification number for each Bill of Lading received on that date.	☐	☐	
f.	*Best Management Practices (BMP). These are optional*			
i.	Placement of fill in designated areas by Source Site?	☐	☐	
ii.	Collection of audit confirmatory soil samples to confirm soil quality? This should be under the supervision of a QP and typically done at a frequency of one sample per 2,000 m^3.	☐	☐	
iii.(3)	Inspection of fill as it is placed? Under no circumstances shall the soil contain any of the materials indicated in Item 4a. The preference is to inspect the soils both at the gate and as it is being placed.	☐	☐	
iv.	Field screening of soil with a Photoionization detector or similar device as it is being placed?	☐	☐	
	If inspection, field screening and audit sampling results are acceptable, has excess soil for that specific Source Site been graded or moved to final placement location?	☐	☐	
v.	Survey of the final location for the fill from each specific Source Site using GPS?	☐	☐	
6.	**Closeout Documentation and Notification**			
a.	Have you or someone from the Fill Committee provided a declaration to the Source Site, stating that every load of excess soil has been received, inspected and accepted for final placement and if soil is temporarily stored at the site, measures are in placed to ensure it does not cause an adverse effect?.	☐	☐	
b.	Has the Environmental Committee or Environmental manager been notified of the completion of the filling activities from each Source Site?	☐	☐	
c.	Is a system in place to ensure records from Source Site and the trucking company are retained for seven years?	☐	☐	

Notes:

(1) Responses to all of the above should be yes. If there is a no response, contact your environmental manager or committee immediately for guidance on next steps.

(2) *BMP* - Best Management Practice

(3) Should excess soil of unacceptable quality be discovered at the Site (either at the gate or during placement), the following will be undertaken:

i. All unacceptable excess soil shall be located and recovered and stockpiled for further inspection sample collection and laboratory analysis by the Qualified Person.

ii. Based on the inspection and analytical results:

1. If the quantity of unacceptable excess soil is minimal (e.g., <10% of load) it can be hand sorted and disposed of off Site.
2. If the quantity is excessive, the entire load is to be isolated and removed from Site.

iii. The rejected excess soil shall be removed to either the Source Site or disposed of at a MECP approved waste disposal site. If the excess soil is transported to an approved waste disposal site, obtain documentation from the MECP approved facility indicating name and location of receiving site, copy of Environmental Compliance Approval, and confirmation that the facility has reviewed and accepted the excess soil. The cost of the management and disposal of the rejected excess soil shall be at the cost of the Source Site.

iv. Importation of the excess soil from the Source Site shall cease until it has been confirmed that the excess soil is acceptable for receipt at the Site.

Checklist for Excess Soil Leaving a Site that is not within a Pit/Quarry Operation

	Activity	*Yes* [1]	*No*	*Comments*
1.	**Background**			
a.	Has an environmental coordinator been established?	☐	☐	
b.	Has a Qualified Person (QP) been retained for your site to oversee or prepare planning documentation	☐	☐	
c.	Will the excess soil be transported off site?	☐	☐	
d.	Is there a requirement to file notice on Registry? See Schedule 2 of O.Reg 406/19 for exemptions. If the response is yes to both 1b and 1c, then complete 2 to 5 below.	☐	☐	
2.	**Planning (Prior to excess soil leaving site)**			
	Background Soil Characterization Documentation			
a.	Is the soil dry? If the soils are wet, passive dewatering may be able to be undertaken before it leaves the site in accordance with Section 6(3) of O. Reg. 406/19 or it would have to be managed as waste and disposed of at a facilitythat has an Environmental Compliance Approval (ECA)	☐	☐	
b.	Is there field evidence of contamination such as debris present in soil or diesel/gasoline odours or sheen on soil? If the response is yes, then a i) reporting to the MECP may be required under Part X of the EPA and ii) QP would need to be retained to collect samples to characterize or oversee characterization of soils for disposal at facility with ECA.	☐	☐	
c.	If there is no field evidence of contamination, has the following documentation been prepared by or overseen by a QP characterizing the quality and quantity of excess soil ?:	☐	☐	
	i. Assessment of Past Uses of the Source Site	☐	☐	
	ii. Sampling and Analysis Plan	☐	☐	
	iii. Soil Characterization Report	☐	☐	
	iv. Soil Destination Report	☐	☐	
	If the response is no, then these documents need to be prepared.			
d.	Based on the documentation prepared, has a potential Source Site been located for acceptance of soils? This is for both soils acceptable for reuse or soils destined to facilities with ECAs	☐	☐	
e.	Has the documentation above been provided to the Resuse Site or site with ECA? If the soil is going to a site with an ECA, there may be specific requirements in the ECA attached to the site for the documentation required.	☐	☐	
f.	Has Fill Committee or environmental coordinator been notified of acceptance excess soil? Have they acknowledged acceptance of soils for placement at reuse site or disposal at site with ECA?	☐	☐	
	Tracking System			
g.	Has the source site provided written consent for the excess soils to be placed at their site? Consent must be provided by the owner or operator of the site.	☐	☐	
h.	Has a tracking system for the excess soil been established? (i.e., paper or electronic)	☐	☐	
i.	Have the details on implementation of the tracking system been provided to the Reuse Site or site with ECA?	☐	☐	
j.	Have details been provided on how tracking records will be provided per truck and daily to the Reuse Site or site with ECA?	☐	☐	
k.	Has the Environmental Coordinator or QP reviewed and accepted the proposed tracking system?	☐	☐	
	Documentation Control			
l.	Is a system is place to store and maintain records for the soil leaving the site? *(BMP)*	☐	☐	
3.	**Registry Notice (comes into effect January 2022)**			
a.	Has notice been filed on Registry by you or someone from the Environmental Committee**prior** to the soil leaving the site?	☐	☐	
b.	Have you or the Environmental Coordinator updated the Registry to indicate the amount of soil removed and date last load of soil removed? (i.e., must be done within 30 days after soil removed)	☐	☐	
c.	Has the Registry been updated to indicate any changes in the amount of soil leaving the site? (i.e., must be donewithin 30 days of change)	☐	☐	
4.	**Excess Soil leaving the Site**			
a.	Are the soils being inspected as they are excavated. Under any circumstances, excess soil destined for a Reuse Site shall not contain:	☐	☐	
	▪ Any putrescible materials. ▪ Drums and containers. ▪ Stained or discoloured earth in contrast with adjoining soil. ▪ Excess soil material containing debris(2). ▪ Trash/garbage or waste(2). ▪ Suspected odours that emanate when the earth is disturbed. ▪ Oily residue intermixed with earth. ▪ Sheens, films or discolorations on groundwater or soil. ▪ Concrete. Concrete, crushed concrete or concrete product fines/sludges(2). ▪ Cinders/ash or other combustion by products, like ash(2). ▪ Free of termites and invasive species. ▪ The excess soil shall be dry and it shall pass a slump test as outlined in the General Waste Management			
	Note: If the excess soil contains any of the above, it should be managed as waste and disposed of at a site with an Environmental Compliance Approval.			
b.	For **each** truck load, has the driver been provided appropriate copies of the tracking documentation for their vehicle and copies provided to the Reuse Site or site with ECA ?	☐	☐	
e.	Is a daily summary log maintained at the Site documenting soil leaving the site ? As minimum it should include: ▪ Date. ▪ Total number of trucks leaving the property. ▪ Total number of trucks accepted. ▪ Total number of trucks rejected (and reasons for rejection). ▪ For each Source Location, Identification number for each Bill of Lading .	☐	☐	
5.	**Closeout Documentation and Notification**			
a.	Have you or the Environmental Coordinator provided written sign off to the Reuse Site?	☐	☐	
b.	Has the Environmental Coordinator been notified of the completion of the soil removal activities	☐	☐	
c.	Is a system in place to ensure records from your site and the trucking company are retained for seven years?	☐	☐	

Notes: (1) Responses to all of the above should be yes. If there is a no response, contact your environmental manager or committee immediately for guidance on next steps.

(2) Depending on the quantity of material present in the soil, removal of debris in accordance with Section 6(3) of O Reg. 406/19 could be undertaken before moving the soil off-site. NOTE: evidence of significant amounts of waste/debris could also indicate former illegal waste disposal activities which may require approval if the waste is to be left in the ground.

(3) Depending on the circumstances, dewatering in accordance with Section 6(3) of O. Reg. 406/19 could be undertaken before moving the soil off-site.

FORTIS ENVIRONMENTAL

March 14, 2025

Township of Puslinch
7404 Wellington Rd 34
Puslinch / ON
N0B 2J0

Attention: To Whom it May Concern

Re: QP Declaration – Excess Soils Management
4670 Sideroad 10 North
Puslinch, Ontario

Fortis Environmental Inc. (Fortis) is providing this letter on behalf of Nicholls Ventures Inc. as it pertains to the Major Site Alteration Permit Application for the Subject Property located at 4670 Sideroad 10 North in Puslinch / ON.

As is required in the Puslinch Site Alteration By-law, this letter has been authored to provide the Township of Pulinch notice that Andrew Topp ("The QP") of Fortis Environmental Inc. ("The Consultant") has been retained by Nicholls Ventures Inc. ("The Operator) to provide technical and compliance oversight for the Site Alteration which is proposed to take place at The Subject Property.

Fortis completed an Excess Soil Management Plan (ESMP) in support of the Site Alteration Permit Application Dated: February 14, 2025. Fortis is hereby declaring that all activities at The Subject Property involving the management of excess soils will be conducted under the supervision of Fortis personnel as is required under O.Reg 406/19 as well as the aforementioned Excess Soils Management Plan. The supervision will include but not be limited to, assessment of tracking, assessment of the quality of excess soil for which is deposited at the site via pre-screening and on-site validation as well as additional assistance to ensure that regulatory compliance is continually met.

We trust the above reliance meets your current requirements. Should you have any questions, or require additional information, please do not hesitate to contact our office.

Yours very truly,

Fortis Environmental Inc.

[redacted]

Andrew Topp, P.Geo, QP(ESA)
Masters of Environmetal Science
Bachelor of Science – Biology, Geology

[redacted]

Fortis Environmental Inc.
942 Yonge Street, Suite 324
Toronto / ON
T: 416-452-6965
F: 647-417-7192
E: info@fortisenv.ca
www.fortisenv.ca

Sarah Brent

From: Brian Enter
Sent: Wednesday, August 31, 2022 4:28 PM
To: filing@meritech.ca
Subject: FW: 4670 Sideroad 10 N - Site Alteration Application Submission - JQ4076

Categories: Tracked To Dynamics 365

Please file this approval from GRCA.
Thanks,
Brian

Brian Enter, P.Eng.
Senior Engineer

MERITECH engineering

1315 Bishop Street North, Suite 202
Cambridge ON N1R 6Z2

t 519.623.1140 x273
c 905.536.7727
f 519.623.7334
meritech.ca

From: Chris Lorenz <clorenz@grandriver.ca>
Sent: August 31, 2022 4:27 PM
To: Jacob Normore <jnormore@puslinch.ca>
Cc: Brian Enter <briane@meritech.ca>
Subject: RE: 4670 Sideroad 10 N - Site Alteration Application Submission - JQ4076

Hi Jacob,

As there is no proposed work within GRCA regulated areas, we have no objection to this application.

Thank you,

Chris Lorenz, M.Sc.
Resource Planner
Grand River Conservation Authority
519-621-2763 ext. 2236

From: Brian Enter <briane@meritech.ca>
Sent: August 31, 2022 4:12 PM

To: Jacob Normore <jnormore@puslinch.ca>
Cc: Chris Lorenz <clorenz@grandriver.ca>
Subject: RE: 4670 Sideroad 10 N - Site Alteration Application Submission - JQ4076

Hi Jacob,

I just spoke with Chris at GRCA and he has already taken a look at the submission. I'm emailing both of you to connect and he plans to provide his comment.

Thanks!
Brian

Brian Enter, P.Eng.
Senior Engineer

MERITECH engineering

1315 Bishop Street North, Suite 202
Cambridge ON N1R 6Z2

t 519.623.1140 x273
c 905.536.7727
f 519.623.7334
meritech.ca

From: Sarah Brent <sarahb@meritech.ca>
Sent: August 31, 2022 1:54 PM
To: Jacob Normore <jnormore@puslinch.ca>
Cc: Brian Enter <briane@meritech.ca>; filing@meritech.ca; Justine Brotherston <jbrotherston@puslinch.ca>
Subject: RE: 4670 Sideroad 10 N - Site Alteration Application Submission - JQ4076

Hi Jacob,

As per Justine's email below, please see attached Application and supporting documents for review and approval. If you have any questions, please let us know.

Sincerely,
MERITECH ENGINEERING

Sarah Brent
Production Administration Assistant

Meritech Engineering
1315 Bishop Street North, Suite 202
Cambridge ON N1R 6Z2

t 519.623.1140 x206
f 519.623.7334
www.meritech.ca

From: Justine Brotherston <jbrotherston@puslinch.ca>
Sent: Wednesday, August 31, 2022 1:47 PM
To: Sarah Brent <sarahb@meritech.ca>
Cc: Brian Enter <briane@meritech.ca>; filing@meritech.ca; Jacob Normore <jnormore@puslinch.ca>
Subject: RE: 4670 Sideroad 10 N - Site Alteration Application Submission - JQ4076

Hi Sarah,

Jacob Normore has taken over administration of our Site Alteration Permits and I have cc'd him on this email.

If you could please submit, your application through our Site Alteration Permit Application through the link below that would be greatly appreciated. Alternatively, if you could provide them as a pdf attachment to the email that would work too. For security purposes, we typically avoid clicking on links to access applications. https://puslinch.ca/forms/site-alteration-permit-application/

Additionally, there is still an administration fee for applications under Normal Farm Practice which is reduced to $100.00 and then the applicant is still responsible for all third party fees.

Once a complete application has been received a payment link can be provided for the administration fee or a cheque can be provided to the Township. All third party fees will be invoiced as received.

If you have, any questions please reach out to Jacob and he will be able to assist.

Kind regards,

PUSLINCH
Justine Brotherston, AMP
Communications and Committee Coordinator
Township of Puslinch
7404 Wellington Rd 34, Puslinch ON N0B 2J0
P: 519-763-1226 ext. 208 Fax 519-736-5846 www.puslinch.ca

From: Sarah Brent <sarahb@meritech.ca>
Sent: Wednesday, August 31, 2022 1:31 PM
To: Justine Brotherston <jbrotherston@puslinch.ca>
Cc: Brian Enter <briane@meritech.ca>; filing@meritech.ca
Subject: 4670 Sideroad 10 N - Site Alteration Application Submission - JQ4076

Good Afternoon Justine,

On behalf of Brian, please see secure link below to download a copy of the submission for your review and approval. As per our discussion with Township staff the application fee is waived since the application is related to a normal farm practice. We will await direction from the Township for the securities.

We note that, as requested during pre-consultation with GRCA, that we have circulated them on this package.


20220831 - Township - Site Alteration Submission

Please note the link will expire in 30 days. If you have any questions, please do not hesitate to contact us.

Sincerely,
MERITECH ENGINEERING

Sarah Brent
Production Administration Assistant

Meritech Engineering
1315 Bishop Street North, Suite 202
Cambridge ON N1R 6Z2

t 519.623.1140 x206
f 519.623.7334
www.meritech.ca

Township of Puslinch
7404 Wellington Rd 34, Puslinch, ON N0B 2J0
P 519 763-1226 F 519-763-5846
www.puslinch.ca

Township of Puslinch,
7404 Wellington Rd 34
Puslinch ON N0B 2J0
Tel: 519-763-1226
Fax: 519-763-5846

Major Site Alteration Permit Requirement Checklist and Process

Application Requirements

☒ I have used the prescribed Major Site Alteration Permit Application Form.

☒ Sufficient documentation demonstrating that the Site Alteration will not cause an Adverse Effect.

☐ Where the Site Alteration will involve the importation of Fill from off-site, documentation is to be provided to the Township to the satisfaction of the Designated Official including but not limited to:

- ☒ The volume of Fill being imported from off-site in cubic metres.
- ☐ Documentation that the Fill complies with the parameters as set out in Section 3.8 of the Township of Puslinch Site Alteration By-law 2023-058; To be provided when fill selected.
- ☒ Documentation pertaining to the collection and laboratory analysis of samples of the Fill;
- ☒ Documentation setting out the evaluation of the Fill sample results;
- ☒ Quality Control/Quality Assurance Program;
- ☐ Source Site confirmation; As discussed, to be provided when determined.
- ☒ A justification report prepared by a qualified person is required to be submitted demonstrating the need for the proposed volume of Fill being imported to the site;
- ☒ Documentation demonstrating that the proposed Site Alteration meets the definition of Beneficial Purpose;

☐ If Site-specific standards for Soil quality acceptance have been developed using the MECP's BRAT, a copy of the BRAT model input and output and a signed statement by the Qualified Person that prepared the BRAT model must be submitted.

☐ If Site-specific standards for Soil quality acceptance have been developed using a risk assessment pursuant to the requirements in the Rules for Soil Management and Excess Soil Quality Standards, a copy of the risk assessment and a signed statement by the Qualified Person that prepared the risk assessment model must be submitted.

☒ A Site Alteration and Fill Management Plan prepared by a Qualified Person.

☒ Confirmation from the Owner and Qualified Person that the Qualified Person will be present at the Property and be responsible for all activities associated with the Site Alteration at all times while activities are taking place.

☒ An approved **haul route permit** including road maintenance obligations, in accordance with the Township Road Activity By-law for the importation of Fill or for the removal of Fill from the Property.
Provided in Engineering Drawings Set

☒ Submission of an approved schedule and timing of the Site Alteration activities including that no Site Alteration Activities shall occur

- ☒ Between the hours of 5:00 p.m. and 8:30 a.m. Monday to Friday.
- ☐ Anytime on a Saturday, Sunday, or Statutory Holiday; Variance requested in letter
- ☒ During any period in which a wind warning has been issued by Environment Canada;
- ☒ During any weather conditions where the ability to mitigate Site Alteration activity impacts is severely compromised (e.g., heavy rain, etc.); and
- ☒ During any situation where Site Alteration activities can unduly impact adjacent landowners (e.g., brush fires, floods, unsuitable road conditions, etc.).

☒ A Control Plan completed including the requirements listed below in accordance with Schedule B of the Township of Puslinch Site Alteration By-law 2023-058.

☒ I have obtained all required permits or approvals by any external agency having jurisdiction over my property including but not limited to the Conservation Authority, Source Water Protection, and the County of Wellington. Confirmation that no Permits were required was made with GRCA and County of Wellington

☒ I understand that the above-listed Application Requirements must be submitted and shall be reviewed to the satisfaction of the Designated Official. Additional Application Requirements may be required after the application is reviewed by the Designated Official.

☒ I understand that the Permit is subject to additional conditions as determined by the Designated Official.

☒ I understand that the applicant is responsible for the Payment of the prescribed fees as listed in Schedule "C" of the Township of Puslinch Site Alteration By-law 2023-057.

☒ I understand that the applicant shall be responsible for any third-party costs and recoveries if an external review is required as determined by the Designated Official.

Control Plan Requirements

☒ Key map showing the location of the Site.

☒ Global Positioning System (GPS) coordinates of the centroid of the Site in terms of easting and northin.

☒ Site boundaries and number of hectares of the Site

☒ The use of the Site and the location and use of the buildings and other structures adjacent to the Site;

☒ Location, dimensions and use of existing and proposed buildings and other structures existing or proposed to be erected on the Site;

☒ Location of lakes, streams, wetlands, channels, ditches, other watercourses and other bodies of water on the Site and within thirty (30) metres beyond the Site boundary;

☒ Location of the predominant Soil types

☒ Location size, species, and condition of all Trees as define in this By-law, including their dripline, and the composite dripline of all other Vegetation;

(i) the location of driveways on the lands and all easements and rights-of-way over, under, across or through the Site;

☒ Location and dimensions of any existing and proposed stormwater Drainage systems and natural Drainage patterns on the Site and within thirty (30) metres of the Site boundaries

☒ Location and dimensions of utilities, structures, roads, rights-of-ways, easements, highways, and paving;

☒ Existing Site topography at a contour interval not to exceed 0.5 metres and to extend a minimum of thirty (30) metres beyond the Site boundaries;

☒ Proposed Grade(s) and Drainage system(s) to be used upon completion of the work which is the subject of the Permit;

☒ Location and dimensions of all proposed work which is the subject of the Application for a Permit;

☒ Location and dimensions of all proposed temporary Topsoil or Fill stockpiles;

☒ Location, dimensions, design details and specifications of all work which is the subject of the Application including all Site Erosion and Dust Control measures or Retaining Walls necessary to meet

the requirements of this By-law and the estimated cost of the same

☐ Schedule of the anticipated starting and completion dates of all proposed work which is the subject of the Application for a Permit; Due to application process, details unknown at this time. To be coordinated

☐ List of the type of equipment and machinery that will be used during the Site Alteration process including the expected days and times of operation in accordance with this Bylaw;
Details unknown at this time. To be coordinated

☒ Provisions for the maintenance of construction Site Erosion and Dust Control measures during construction and after, as required

☒ Typical notes on the final rehabilitation plan to indicate the final ground cover materials, type and size of Vegetation to be planted, depth of Topsoil, Tree removals or Tree protection measures;
Lands to be farmed.

☒ Proposed Site access location(s) and haul route(s) to and within the Site

☐ Description of the quality and source of the proposed Fill with confirmation that the Fill meets the applicable Excess Soil Quality Standards for the Site; To be provided.

(i) if Site-specific standards for Soil quality acceptance have been developed using the MECP's Excess Soil Beneficial Reuse Assessment Tool (BRAT), a copy of the BRAT model input and output and a signed statement by the Qualified Person preparing the BRAT model;

(ii) If Site-specific standards for Soil quality acceptance have been developed using a risk assessment pursuant to the requirements in the Rules for Soil Management and Excess Soil Quality Standards, a copy of the risk assessment and a signed statement by the Qualified Person that prepared the risk assessment model must be submitted;

☒ Sampling and Analysis Plan for the source of the proposed Fill;

☐ Quality Assurance/Quality Control Program; To be provided.

☒ Scale of drawings, either 1:500 or 1:1000;

☐ Operational procedures manual; In notes and details.

☐ Proof that notice has been filed on the Excess Soil Registry operated by RPRA To be provided.

☒ I understand that I may have to include any other information as deemed necessary or required by the Designated Official into my Control Plan.

☒ I understand that where a permit from the County of Wellington or the Township is required to use any portion of the proposed haul route, the issuance of, and conformity with such permit(s) shall be deemed to be a condition of the issuance of the Permit under this By-law.

☒ I understand that It shall be the responsibility of the Owner to ensure that all Fill which is Placed or Dumped under this By-law shall conform with, and meet, the requirements of this By-law and all conditions of the Permit. At any time during the term of the Permit, an Inspector or the Designated Official may require evidence of such conformity, including without limiting the generality of the foregoing a requirement that the Permit Holder provide evidence to the satisfaction of the Designated Official that each Truckload complies with the requirements of this By-law.

☒ I understand that every control must be stamped by a Qualified Person approved by the Designated Official.

Application Approval / Refusal Process

1. Once a complete application has been received, a Public Information Meeting shall be scheduled

2. All property owners within a 120-metre radius of the subject property shall be notified of the details of the project and notified of the scheduled Public Information Meeting

3. Council approval is required for all Major Site Alteration Applications

4. All Major Site Alteration Applications are subject to a 30-day comment period commencing when neighbour notification takes place;

5. All Major Site Alteration Applications are subject to a staff review of public comments received which may form part of the Site Alteration Agreement and may include conditions not described in this By-law

6. Subject to Council approval, a legal agreement between the Owner and the Township shall be executed and registered on title and released from title upon successful completion of all required work as outlined in the Permit and at the direction of the Designated Official

7. Security shall be provided to the Township in a form and amount to be determined in accordance with Schedule “C” to this By-law

8. The Site Alteration Permit shall be provided to the Owner by the Township’s Designated Official in writing and posted on the Township website

9. A Permit may be refused when the requirements of this By-law have not been met. Where the Designated Official/Council refuses to issue a Site Alteration Permit, the applicant shall be informed in writing of the refusal. The Application may be reconsidered, if additional information or documentation required by the Designated Official is submitted by the applicant.

TOWNSHIP OF
PUSLINCH
EST. 1850

Township of Puslinch
7404 Wellington Road 34
Puslinch, ON, N0B 2J0
T: (519) 763 – 1226
F: (519) 763 – 5846
www.puslinch.ca

Site Alteration ~~Building~~ Permit Owner Authorization

I Gino Martinello, being the owner(s) of property described as Lot 10, Concession or Plan 4, in the Township of Puslinch, located at civic address 4670 Side Road 10 North, and having a tax assessment roll # 23-01-000-001-01500, authorize Meritech Engineering, to make application to the Township of Puslinch for a ~~building~~ Site Alteration permit to authorize the construction of Earth filling operation, at the above noted property.

[redacted]

Signature of Owner — Date: 9 JAN 2025

Signature of Owner — Date

Personal information on this form is collected under the authority of the Building Code Act. The information is used for the purpose of processing this application and administering the building permit program and is maintained in accordance with the Municipal Freedom of Information and Protection of Privacy Act. Questions regarding the collection of this information may be directed to the Township Clerk's office.

The Township of Puslinch is committed to providing accessible formats and communication supports for people with a disability. If another format would work better for you, please contact the Township Clerk's office for assistance.

SOIL-MAT ENGINEERS & CONSULTANTS LTD.

401 Grays Road · Hamilton, ON · L8E 2Z3

www.soil-mat.ca info@soil-mat.ca 905.318.7440 905.318.7455

PROJECT NO.: SM 241051-E November 15, 2024

PRO PAVEMENT SERVICES LTD.
27 Legend Court, Suite 10171
Ancaster, Ontario
L9A 1J0

Attention: John Salvador

SOIL CHARACTERISATION REPORT
PROPOSED PARKING LOT ADDITION
565 ARVIN AVENUE
STONEY CREEK, ONTARIO

Dear Mr. Salvador,

Further to your authorisation, SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] has completed our soil characterisation program for the above noted project site. Our formal comments with respect to the off-site disposal/re-use of surplus material on an off-site property are summarised herein.

BACKGROUND

It is understood that the project will involve the addition of the parking lot located at 565 Arvin Avenue in Stoney Creek, Ontario, which may generate a volume of excess soil on the order of 200 cubic metres that will require off-site disposal. The purpose of this soil characterisation program is to assess the environmental characteristics of the site's subsurface soils, and to provide our preliminary comments and recommendations with respect to the off-site disposal of surplus soils generated during construction in accordance with Regulation 406/19.

ASSESSMENT OF PAST USES

Based on a 'desktop' assessment of the site, including a review of available aerial photos, records, and our past experience on the subject site and other properties in the area, the subject site is located in a predominantly industrial area of Stoney creek, Ontario. A rail line is located north of the site, and an automotive part manufacturer is located east of the site.

Given the anticipated low volume of excess soil expected the subject site would not be subject to the requirement to file a notice in the Registry, and by extension required to prepare a formal Assessment of Past Uses [APU], Sampling and Analysis Plan [SAP], and Excess Soil Destination Assessment Report [ESDAR], as per Section 8, as follows:

Notice to be filed on Registry:

> ***8. (****1) Subject to subsections (2) and (3), the project leader for a project, respecting a project area described in subsection (1.1), shall ensure that, before removing from the project area soil that will become excess soil once removed, a notice is filed in the Registry setting out the information listed in Schedule 1. O. Reg. 406/19, s. 8 (1); O. Reg. 555/22, s. 2 (1).*
>
> *(1.1) A project area to which subsection (1) applies is one that meets any of the following criteria:*
>
> *1. After making reasonable efforts to take into consideration any past reports about past uses and activities respecting the project area, the project leader is of the opinion that the project area is or has ever been, in whole or in part, an enhanced investigation project area, except if,*
>
> *i. a record of site condition has been filed in respect of the enhanced investigation project area under Part XV.1 of the Act and the record of site condition does not contain a certification made under subparagraph 4 ii of subsection 168.4 (1) of the Act in respect of a risk assessment, and*
>
> *ii. no part of the project area has been used as an enhanced investigation project area since the filing of the record of site condition mentioned in subparagraph.*
>
> *2. Any part of the project area is located in an area of settlement within the meaning of the* Planning Act *and the amount of soil to be removed from the project area is 2,000 m^3 or more, unless the whole project area is currently used for, or in the case of an unused area, its most recent use was for, any of the following within the meaning of Ontario Regulation 153/04:*
>
> *i. A residential use.*
> *ii. An institutional use.*
> *iii. A parkland use.*
> *iv. An agricultural or other use.*

Regardless, a brief APU and SAP has been included in preparation of this report.

SAMPLING AND ANALYSIS PLAN

Based on the above noted description of the site including predominately industrial area with a rail line north of the site, an automotive part manufacturer east of the site, the appropriate testing of surplus soil would include a standard panel of Metal and Inorganic [M/I] parameters, Petroleum Hydrocarbons [PHCs], Benzene, Toluene, Ethylbenzene, and Xylenes [BTEX], Polycyclic Aromatic Hydrocarbons [PAHs], and Volatile Organic Compounds [VOCs]. Based on the estimated volume of excess soil to be generated of 200 cubic metres, it is our opinion that three [3] samples are sufficient to characterise the excess soil for the purpose of off-site disposal.

SITE VISIT AND SOIL SAMPLING

A representative of SOIL-MAT ENGINEERS visited the site on November 8, 2024, and recovered a total of three [3] samples at the locations illustrated in the attached Drawing No. 1, Sample Location Plan. The samples were recovered from hand dug test pits at a depth of 0.3 metres below the ground surface and the samples were examined in the field for visual and olfactory evidence of potential impacts such as unusual staining and/or odours, etc. The soil was described as a brown silty clay/clayey silt with some gravel. The soil samples were sealed in pre-cleaned wide mouth, amber glass sample jars and/or vials pre-charged with methanol preservative as supplied by the laboratory. The samples were stored and transported in a cooler and kept under ice packs to minimise potential volatilisation of select parameters.

LABORATORY ANALYTICAL TESTING

The secured soil samples were submitted AGAT Laboratories [AGAT], [an accredited Canadian Environmental Laboratory] for bulk laboratory analytical testing for the specific parameters detailed above, as follows:

Summary of Sample Analyses

Sample ID	Depth	M&I	PHCs	VOCs	PAHs
S1	0.3 m	✓	✓	✓	✓
S2	0.3 m	✓	✓	✓	✓
S3	0.3 m	✓	✓	✓	✓

The laboratory analytical test results received in our Office were compared with the applicable Excess Soil Quality Standards under Ontario Regulation 406/19: On-Site and Excess Soil Management, outlined as follows:

- **ONTARIO REGULATION 406/19 – TABLE 1**: Full Depth Background Site Condition Standards for Agricultural [AG], Residential/Parkland/Institutional and Industrial/Commercial/Community [RPI and ICC] land use.
- **ONTARIO REGULATION 406/19 – TABLE 2.1**: Full Depth Excess Soil Quality Standards for Agricultural [AG], Residential/Parkland/Institutional [RPI] and Industrial/Commercial/Community [ICC] land use in a potable groundwater condition.
- **ONTARIO REGULATION 406/19 – TABLE 3.1**: Full Depth Excess Soil Quality Standards for Residential/Parkland/Institutional [RPI] and Industrial/Commercial/Community [ICC] land use in a non-potable groundwater condition.

The results of this laboratory testing are presented in the attached AGAT Certificates of Analysis [AGAT Work Order Number: 24T219117], and are summarized as follows:

1. The submitted samples were found to meet the Table 1 and 2.1 [AG] Standards for the parameters tested.
2. The submitted samples were found to meet the Table 1 [RPI/ICC] Standards for the parameters tested.
3. The submitted samples were found to meet the Table 2.1 and 3.1 [RPI] Standards for the parameters tested.
4. The submitted samples were found to meet the Table 2.1 and 3.1 [ICC] Standards for the parameters tested.
5. The soil sample(s) secured for laboratory analytical testing are believed to be representative of the soil condition at the sample locations only. This office should be contacted to reassess the environmental characteristics of the soil if any unusual staining or odours are observed during future construction activities.

The results of this analytical testing have been summarised as follows:

Summary of Analytical Results

Sample	Table 1		Table 2.1			Table 3.1	
	AG	RPI/ICC	AG	RPI	ICC	RPI	ICC
S1	✓	✓	✓	✓	✓	✓	✓
S2	✓	✓	✓	✓	✓	✓	✓
S3	✓	✓	✓	✓	✓	✓	✓

✓- Denotes the sample meets the standard for the respective table for the parameters tested

ENVIRONMENTAL CONSIDERATIONS FOR SOIL REUSE

1. As the tested material is reported to meet the Table 1 and 2.1 [AG] Standards, surplus soil from within these areas may reasonably be accepted on an agricultural property in a potable groundwater condition, subject to approval from the property owner and/or their designated QP.
2. As the sampled material was found to meet the Table 1 [RPI/ICC] Standards, surplus material should be reasonably accepted at an off-site RPI/ICC property requiring imported materials meet Table 1 Standards, subject to approval from the property owner and/or their designated QP.
3. As the material was found to meet the Table 2.1 and 3.1 [RPI] Standards, surplus material should be reasonably accepted at an off-site RPI property in either a potable or non-potable groundwater condition, subject to Table 2.1 or 3.1 Standards, subject to approval from the property owner and/or their designated QP.
4. As the material was found to meet the Table 2.1 and 3.1 [ICC] Standards for the parameters tested, surplus material may be reasonably accepted at an off-site ICC property in either a potable or non-potable groundwater condition, subject to approval from the property owner and/or their designated QP.
5. Surplus soil may be reused on the subject site.
6. The soil samples secured for laboratory analytical testing are believed to be representative of the soil conditions at the sample locations only. If any significant changes are noted, i.e., odours, staining etc., SOIL-MAT ENGINEERS & CONSULTANTS LTD. should be contacted to reassess the environmental characteristics of the soil.

GEOTECHNICAL CONSIDERATIONS FOR SOIL REUSE

As noted above, the sampled material was a brown silty clay/clayey silt with some gravel. This material is generally considered suitable for use as engineered fill, provided it is free of any significant inclusions of organics or debris, etc. and subject to appropriate moisture conditioning and proper compactive effort based on the specific project requirements where the material is to be reused. The soil is not considered to be 'free-draining' and should not be used as fill where this characteristic is required.

GENERAL COMMENTS

It is noted that the soil conditions noted above are based on observations made at the borehole locations only. In the event that the soil conditions encountered at the time of construction differ from those described above and within the geotechnical report, SOIL-MAT ENGINEERS should be retained to further assess the geotechnical and environmental characteristics of the soil.

The material in this report reflects SOIL-MAT ENGINEERS' best judgement in light of the information available at the time of preparation. The subsurface descriptions and test pit information are intended to describe conditions at the test pit locations only. 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 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.

[redacted]

Nathan Sears, Env Tech Dipl.
Environmental Technician

[redacted]

[redacted]

Stephen R. Sears, B. Eng. Mgmt., P. Eng., QP$_{ESA}$
Review Engineer

Enclosures: Drawing No. 1, Sample Location Plan
AGAT Certificates of Analysis 24T219117

Distribution: Pro Pavement Services Ltd. [pdf]

LEGEND

S# Sample Location

NOTES

1. This drawing should be read in conjunction with Soil-Mat Engineers & Consultants Ltd. Report No. SM 241051-E.

2. Test Pit locations are approximate.

SOIL-MAT

ENGINEERS & CONSULTANTS LTD.

Soil Characterisation
565 Arvin Avenue
Hamilton, Ontario

Sample Location Plan

Project No. SM 241051-E

Date: November 2024

Drawn: NS	Checked:-

SM 241051-E Sample Location Plan

Drawing No. 1

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: Steve Sears

PROJECT: 241051

AGAT WORK ORDER: 24T219117

SOIL ANALYSIS REVIEWED BY: Nivine Basily, Inorganic Team Lead

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: Nov 14, 2024

PAGES (INCLUDING COVER): 14

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 is available on request from AGAT Laboratories, in accordance with ISO/IEC 17025:2017, ISO/IEC 17025:2005 (Quebec), DR-12-PALA and/or NELAP Standards.*
- *This document is signed by an authorized signatory who meets the requirements of the MELCCFP, CALA, CCN and NELAP.*
- *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: 24T219117

PROJECT: 241051

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Steve Sears

SAMPLING SITE:

SAMPLED BY:NS

O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2024-11-08

DATE REPORTED: 2024-11-14

		SAMPLE DESCRIPTION:		S1	S2	S3
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2024-11-08	2024-11-08	2024-11-08
Parameter	Unit	G / S	RDL	6305949	6305950	6305951
Antimony	µg/g		0.8	<0.8	<0.8	<0.8
Arsenic	µg/g		1	7	5	5
Barium	µg/g		2.0	60.8	63.0	69.0
Beryllium	µg/g		0.5	0.6	0.6	0.6
Boron	µg/g		5	6	7	10
Boron (Hot Water Soluble)	µg/g		0.10	0.20	0.15	0.23
Cadmium	µg/g		0.5	<0.5	<0.5	0.6
Chromium	µg/g		5	17	19	18
Cobalt	µg/g		0.8	6.0	5.2	6.6
Copper	µg/g		1.0	21.6	18.5	23.2
Lead	µg/g		1	25	22	32
Molybdenum	µg/g		0.5	0.6	0.7	0.6
Nickel	µg/g		1	13	12	16
Selenium	µg/g		0.8	<0.8	<0.8	<0.8
Silver	µg/g		0.5	<0.5	<0.5	<0.5
Thallium	µg/g		0.5	<0.5	<0.5	<0.5
Uranium	µg/g		0.50	0.56	0.69	0.57
Vanadium	µg/g		2.0	24.6	23.5	24.1
Zinc	µg/g		5	77	77	224
Chromium, Hexavalent	µg/g		0.2	<0.2	<0.2	<0.2
Cyanide, WAD	µg/g		0.040	<0.040	<0.040	<0.040
Mercury	µg/g		0.10	<0.10	<0.10	<0.10
Electrical Conductivity (2:1)	mS/cm		0.005	0.251	0.170	0.272
Sodium Adsorption Ratio (2:1) (Calc.)	N/A		N/A	0.230	0.154	0.109
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.26	6.99	7.10

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6305949-6305951 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: 24T219117

PROJECT: 241051

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Steve Sears

SAMPLING SITE:

SAMPLED BY:NS

O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2024-11-08

DATE REPORTED: 2024-11-14

		SAMPLE DESCRIPTION:		S1	S2	S3
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2024-11-08	2024-11-08	2024-11-08
Parameter	**Unit**	**G / S**	**RDL**	**6305949**	**6305950**	**6305951**
Naphthalene	µg/g		0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g		0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g		0.05	<0.05	<0.05	<0.05
Fluorene	µg/g		0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g		0.05	<0.05	<0.05	<0.05
Anthracene	µg/g		0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g		0.05	0.09	<0.05	0.09
Pyrene	µg/g		0.05	0.09	<0.05	0.08
Benzo(a)anthracene	µg/g		0.05	<0.05	<0.05	<0.05
Chrysene	µg/g		0.05	0.10	<0.05	0.05
Benzo(b)fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g		0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g		0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g		0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g		0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g		0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g		0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	13.6	13.9	10.0
Surrogate	**Unit**	**Acceptable Limits**				
Naphthalene-d8	%	50-140		75	70	90
Acridine-d9	%	50-140		90	100	90
Terphenyl-d14	%	50-140		100	90	75

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6305949-6305951 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: 24T219117

PROJECT: 241051

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Steve Sears

SAMPLING SITE:

SAMPLED BY:NS

O. Reg. 153(511) - PHCs F1 - F4 (with PAHs and VOC) (Soil)

DATE RECEIVED: 2024-11-08

DATE REPORTED: 2024-11-14

		SAMPLE DESCRIPTION:		S1	S2	S3
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2024-11-08	2024-11-08	2024-11-08
Parameter	**Unit**	**G / S**	**RDL**	**6305949**	**6305950**	**6305951**
F1 (C6 to C10)	µg/g		5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g		5	<5	<5	<5
F2 (C10 to C16)	µg/g		10	<10	<10	<10
F2 (C10 to C16) minus Naphthalene	µg/g		10	<10	<10	<10
F3 (C16 to C34)	µg/g		50	<50	<50	<50
F3 (C16 to C34) minus PAHs	µg/g		50	<50	<50	<50
F4 (C34 to C50)	µg/g		50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA	NA
Moisture Content	%		0.1	13.6	13.9	10.0
Surrogate	**Unit**	**Acceptable Limits**				
Toluene-d8	%	50-140		89	92	90
Terphenyl	%	60-140		86	80	74

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6305949-6305951 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:

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: 24T219117

PROJECT: 241051

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Steve Sears

SAMPLING SITE:

SAMPLED BY:NS

O. Reg. 153(511) - VOCs (with PHC) (Soil)

DATE RECEIVED: 2024-11-08

DATE REPORTED: 2024-11-14

		SAMPLE DESCRIPTION:		S1	S2	S3
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2024-11-08	2024-11-08	2024-11-08
Parameter	Unit	G / S	RDL	6305949	6305950	6305951
Dichlorodifluoromethane	µg/g		0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g		0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g		0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g		0.05	<0.05	<0.05	<0.05
Acetone	ug/g		0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g		0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g		0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g		0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g		0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g		0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g		0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g		0.02	<0.02	<0.02	<0.02
Chloroform	ug/g		0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g		0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g		0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g		0.05	<0.05	<0.05	<0.05
Benzene	ug/g		0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g		0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g		0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g		0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g		0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g		0.04	<0.04	<0.04	<0.04
Toluene	ug/g		0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g		0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g		0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g		0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g		0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g		0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g		0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05

Certified By: [redacted]

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: 24T219117

PROJECT: 241051

CLIENT NAME: SOIL MAT ENGINEERS & CONSULTANTS LT

ATTENTION TO: Steve Sears

SAMPLING SITE:

SAMPLED BY:NS

O. Reg. 153(511) - VOCs (with PHC) (Soil)

DATE RECEIVED: 2024-11-08

DATE REPORTED: 2024-11-14

		SAMPLE DESCRIPTION:		S1	S2	S3
		SAMPLE TYPE:		Soil	Soil	Soil
		DATE SAMPLED:		2024-11-08	2024-11-08	2024-11-08
Parameter	**Unit**	**G / S**	**RDL**	**6305949**	**6305950**	**6305951**
Bromoform	ug/g		0.05	<0.05	<0.05	<0.05
Styrene	ug/g		0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g		0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g		0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g		0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g		0.05	<0.05	<0.05	<0.05
Xylenes (Total)	ug/g		0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene (Cis + Trans)	µg/g		0.05	<0.05	<0.05	<0.05
n-Hexane	µg/g		0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	13.6	13.9	10.0
Surrogate	**Unit**	**Acceptable Limits**				
Toluene-d8	% Recovery	50-140		89	92	90
4-Bromofluorobenzene	% Recovery	50-140		96	99	98

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard

6305949-6305951 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
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: 24T219117

PROJECT: 241051

ATTENTION TO: Steve Sears

SAMPLING SITE:

SAMPLED BY:NS

Soil Analysis

RPT Date: Nov 14, 2024			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	6306963		<0.8	<0.8	NA	< 0.8	115%	70%	130%	95%	80%	120%	75%	70%	130%
Arsenic	6306963		2	2	NA	< 1	120%	70%	130%	103%	80%	120%	109%	70%	130%
Barium	6306963		60.3	60.7	0.7%	< 2.0	97%	70%	130%	102%	80%	120%	127%	70%	130%
Beryllium	6306963		<0.5	<0.5	NA	< 0.5	102%	70%	130%	116%	80%	120%	129%	70%	130%
Boron	6306963		5	6	NA	< 5	86%	70%	130%	100%	80%	120%	124%	70%	130%
Boron (Hot Water Soluble)	6297336		<0.10	<0.10	NA	< 0.10	95%	60%	140%	90%	70%	130%	110%	60%	140%
Cadmium	6306963		<0.5	<0.5	NA	< 0.5	117%	70%	130%	110%	80%	120%	115%	70%	130%
Chromium	6306963		12	12	NA	< 5	95%	70%	130%	99%	80%	120%	109%	70%	130%
Cobalt	6306963		5.1	4.8	6.1%	< 0.8	97%	70%	130%	100%	80%	120%	103%	70%	130%
Copper	6306963		9.8	10.7	8.8%	< 1.0	93%	70%	130%	100%	80%	120%	100%	70%	130%
Lead	6306963		2	2	NA	< 1	104%	70%	130%	96%	80%	120%	92%	70%	130%
Molybdenum	6306963		0.6	0.7	NA	< 0.5	117%	70%	130%	103%	80%	120%	112%	70%	130%
Nickel	6306963		8	8	0.0%	< 1	101%	70%	130%	102%	80%	120%	102%	70%	130%
Selenium	6306963		<0.8	<0.8	NA	< 0.8	126%	70%	130%	92%	80%	120%	114%	70%	130%
Silver	6306963		<0.5	<0.5	NA	< 0.5	105%	70%	130%	108%	80%	120%	108%	70%	130%
Thallium	6306963		<0.5	<0.5	NA	< 0.5	96%	70%	130%	108%	80%	120%	129%	70%	130%
Uranium	6306963		1.91	1.99	NA	< 0.50	83%	70%	130%	109%	80%	120%	112%	70%	130%
Vanadium	6306963		23.3	23.5	0.9%	< 2.0	103%	70%	130%	101%	80%	120%	113%	70%	130%
Zinc	6306963		18	18	NA	< 5	101%	70%	130%	104%	80%	120%	96%	70%	130%
Chromium, Hexavalent	6305953		<0.2	<0.2	NA	< 0.2	90%	70%	130%	86%	80%	120%	73%	70%	130%
Cyanide, WAD	6305333		<0.040	<0.040	NA	< 0.040	103%	70%	130%	90%	80%	120%	92%	70%	130%
Mercury	6306963		<0.10	<0.10	NA	< 0.10	99%	70%	130%	91%	80%	120%	97%	70%	130%
Electrical Conductivity (2:1)	6309468		0.615	0.576	6.5%	< 0.005	101%	80%	120%						
Sodium Adsorption Ratio (2:1) (Calc.)	6309468		3.93	3.91	0.5%	NA									
pH, 2:1 CaCl2 Extraction	6305424		7.23	7.28	0.7%	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.
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: 24T219117

PROJECT: 241051

ATTENTION TO: Steve Sears

SAMPLING SITE:

SAMPLED BY:NS

Trace Organics Analysis

RPT Date: Nov 14, 2024			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 to C10)	6300172		<5	<5	NA	< 5	104%	60%	140%	98%	60%	140%	93%	60%	140%
F2 (C10 to C16)	6306973		< 10	< 10	NA	< 10	110%	60%	140%	101%	60%	140%	102%	60%	140%
F3 (C16 to C34)	6306973		< 50	< 50	NA	< 50	107%	60%	140%	129%	60%	140%	123%	60%	140%
F4 (C34 to C50)	6306973		< 50	< 50	NA	< 50	86%	60%	140%	103%	60%	140%	105%	60%	140%
O. Reg. 153(511) - VOCs (with PHC) (Soil)															
Dichlorodifluoromethane	6300172		<0.05	<0.05	NA	< 0.05	94%	50%	140%	114%	50%	140%	124%	50%	140%
Vinyl Chloride	6300172		<0.02	<0.02	NA	< 0.02	127%	50%	140%	103%	50%	140%	121%	50%	140%
Bromomethane	6300172		<0.05	<0.05	NA	< 0.05	111%	50%	140%	128%	50%	140%	129%	50%	140%
Trichlorofluoromethane	6300172		<0.05	<0.05	NA	< 0.05	119%	50%	140%	125%	50%	140%	105%	50%	140%
Acetone	6300172		<0.50	<0.50	NA	< 0.50	84%	50%	140%	103%	50%	140%	88%	50%	140%
1,1-Dichloroethylene	6300172		<0.05	<0.05	NA	< 0.05	78%	50%	140%	98%	60%	130%	107%	50%	140%
Methylene Chloride	6300172		<0.05	<0.05	NA	< 0.05	72%	50%	140%	91%	60%	130%	99%	50%	140%
Trans- 1,2-Dichloroethylene	6300172		<0.05	<0.05	NA	< 0.05	91%	50%	140%	84%	60%	130%	96%	50%	140%
Methyl tert-butyl Ether	6300172		<0.05	<0.05	NA	< 0.05	95%	50%	140%	83%	60%	130%	82%	50%	140%
1,1-Dichloroethane	6300172		<0.02	<0.02	NA	< 0.02	102%	50%	140%	87%	60%	130%	108%	50%	140%
Methyl Ethyl Ketone	6300172		<0.50	<0.50	NA	< 0.50	120%	50%	140%	93%	50%	140%	114%	50%	140%
Cis- 1,2-Dichloroethylene	6300172		<0.02	<0.02	NA	< 0.02	95%	50%	140%	84%	60%	130%	86%	50%	140%
Chloroform	6300172		<0.04	<0.04	NA	< 0.04	108%	50%	140%	94%	60%	130%	94%	50%	140%
1,2-Dichloroethane	6300172		<0.03	<0.03	NA	< 0.03	109%	50%	140%	94%	60%	130%	104%	50%	140%
1,1,1-Trichloroethane	6300172		<0.05	<0.05	NA	< 0.05	94%	50%	140%	101%	60%	130%	91%	50%	140%
Carbon Tetrachloride	6300172		<0.05	<0.05	NA	< 0.05	82%	50%	140%	68%	60%	130%	60%	50%	140%
Benzene	6300172		<0.02	<0.02	NA	< 0.02	104%	50%	140%	108%	60%	130%	102%	50%	140%
1,2-Dichloropropane	6300172		<0.03	<0.03	NA	< 0.03	63%	50%	140%	63%	60%	130%	73%	50%	140%
Trichloroethylene	6300172		<0.03	<0.03	NA	< 0.03	95%	50%	140%	105%	60%	130%	101%	50%	140%
Bromodichloromethane	6300172		<0.05	<0.05	NA	< 0.05	81%	50%	140%	67%	60%	130%	78%	50%	140%
Methyl Isobutyl Ketone	6300172		<0.50	<0.50	NA	< 0.50	88%	50%	140%	109%	50%	140%	101%	50%	140%
1,1,2-Trichloroethane	6300172		<0.04	<0.04	NA	< 0.04	80%	50%	140%	103%	60%	130%	80%	50%	140%
Toluene	6300172		<0.05	<0.05	NA	< 0.05	102%	50%	140%	98%	60%	130%	97%	50%	140%
Dibromochloromethane	6300172		<0.05	<0.05	NA	< 0.05	77%	50%	140%	70%	60%	130%	66%	50%	140%
Ethylene Dibromide	6300172		<0.04	<0.04	NA	< 0.04	108%	50%	140%	65%	60%	130%	71%	50%	140%
Tetrachloroethylene	6300172		<0.05	<0.05	NA	< 0.05	87%	50%	140%	99%	60%	130%	70%	50%	140%
1,1,1,2-Tetrachloroethane	6300172		<0.04	<0.04	NA	< 0.04	99%	50%	140%	108%	60%	130%	98%	50%	140%
Chlorobenzene	6300172		<0.05	<0.05	NA	< 0.05	110%	50%	140%	105%	60%	130%	102%	50%	140%
Ethylbenzene	6300172		<0.05	<0.05	NA	< 0.05	108%	50%	140%	102%	60%	130%	110%	50%	140%
m & p-Xylene	6300172		<0.05	<0.05	NA	< 0.05	122%	50%	140%	116%	60%	130%	116%	50%	140%
Bromoform	6300172		<0.05	<0.05	NA	< 0.05	71%	50%	140%	99%	60%	130%	94%	50%	140%
Styrene	6300172		<0.05	<0.05	NA	< 0.05	105%	50%	140%	102%	60%	130%	100%	50%	140%
1,1,2,2-Tetrachloroethane	6300172		<0.05	<0.05	NA	< 0.05	62%	50%	140%	70%	60%	130%	72%	50%	140%
o-Xylene	6300172		<0.05	<0.05	NA	< 0.05	96%	50%	140%	88%	60%	130%	113%	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: 24T219117

PROJECT: 241051

ATTENTION TO: Steve Sears

SAMPLING SITE:

SAMPLED BY:NS

Trace Organics Analysis (Continued)

RPT Date: Nov 14, 2024			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	6300172		<0.05	<0.05	NA	< 0.05	94%	50%	140%	104%	60%	130%	103%	50%	140%
1,4-Dichlorobenzene	6300172		<0.05	<0.05	NA	< 0.05	97%	50%	140%	102%	60%	130%	103%	50%	140%
1,2-Dichlorobenzene	6300172		<0.05	<0.05	NA	< 0.05	97%	50%	140%	99%	60%	130%	102%	50%	140%
n-Hexane	6300172		<0.05	<0.05	NA	< 0.05	93%	50%	140%	107%	60%	130%	104%	50%	140%
O. Reg. 153(511) - PAHs (Soil)															
Naphthalene	6306973		<0.05	<0.05	NA	< 0.05	113%	50%	140%	100%	50%	140%	90%	50%	140%
Acenaphthylene	6306973		<0.05	<0.05	NA	< 0.05	116%	50%	140%	83%	50%	140%	83%	50%	140%
Acenaphthene	6306973		<0.05	<0.05	NA	< 0.05	108%	50%	140%	100%	50%	140%	75%	50%	140%
Fluorene	6306973		<0.05	<0.05	NA	< 0.05	124%	50%	140%	73%	50%	140%	80%	50%	140%
Phenanthrene	6306973		<0.05	<0.05	NA	< 0.05	83%	50%	140%	108%	50%	140%	75%	50%	140%
Anthracene	6306973		<0.05	<0.05	NA	< 0.05	120%	50%	140%	108%	50%	140%	108%	50%	140%
Fluoranthene	6306973		<0.05	<0.05	NA	< 0.05	126%	50%	140%	73%	50%	140%	83%	50%	140%
Pyrene	6306973		<0.05	<0.05	NA	< 0.05	129%	50%	140%	90%	50%	140%	75%	50%	140%
Benzo(a)anthracene	6306973		<0.05	<0.05	NA	< 0.05	87%	50%	140%	113%	50%	140%	93%	50%	140%
Chrysene	6306973		<0.05	<0.05	NA	< 0.05	111%	50%	140%	95%	50%	140%	95%	50%	140%
Benzo(b)fluoranthene	6306973		<0.05	<0.05	NA	< 0.05	78%	50%	140%	105%	50%	140%	75%	50%	140%
Benzo(k)fluoranthene	6306973		<0.05	<0.05	NA	< 0.05	100%	50%	140%	100%	50%	140%	80%	50%	140%
Benzo(a)pyrene	6306973		<0.05	<0.05	NA	< 0.05	115%	50%	140%	85%	50%	140%	88%	50%	140%
Indeno(1,2,3-cd)pyrene	6306973		<0.05	<0.05	NA	< 0.05	105%	50%	140%	73%	50%	140%	75%	50%	140%
Dibenz(a,h)anthracene	6306973		<0.05	<0.05	NA	< 0.05	94%	50%	140%	75%	50%	140%	78%	50%	140%
Benzo(g,h,i)perylene	6306973		<0.05	<0.05	NA	< 0.05	112%	50%	140%	78%	50%	140%	73%	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: 24T219117

PROJECT: 241051

ATTENTION TO: Steve Sears

SAMPLING SITE:

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: 24T219117

PROJECT: 241051

ATTENTION TO: Steve Sears

SAMPLING SITE:

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
Benzo(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
2-and 1-methyl Naphthalene	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 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
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: 24T219117

PROJECT: 241051

ATTENTION TO: Steve Sears

SAMPLING SITE:

SAMPLED BY:NS

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: 24T219117

PROJECT: 241051

ATTENTION TO: Steve Sears

SAMPLING SITE:

SAMPLED BY:NS

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:
Address:
Phone: Fax:
Reports to be sent to:
1. Email: Nathan Sears
2. Email: Steve Sears

Project Information:

Project: 241051
Site Location: 5615 Avon Ave
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 ___ *Indicate One*
☐ Ind/Com ☐ Res/Park ☐ Agriculture
Soil Texture *(Check One)* ☐ Coarse ☐ Fine

☑ Regulation 406
Table ___ *Indicate One*
☐ Ind/Com ☐ Res/Park ☐ Agriculture

☐ 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 (RSC)**? ☐ Yes ☐ No

Report Guideline on *Certificate of Analysis* ☐ Yes ☐ No

Legal Sample ☐

Sample Matrix Legend

GW	Ground Water	**SD**	Sediment
O	Oil	**SW**	Surface Water
P	Paint	**R**	Rock/Shale
S	Soil		

Laboratory Use Only

Work Order #: 24T219117
Cooler Quantity: 1C
Arrival Temperatures: 8.5 | 8.9 | 9.0
Depot Temperatures: | |
Custody Seal Intact: ☐ Yes ☐ No ☑ N/A
Notes: C IT

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 CSR

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: Arocolors ☐	O. Reg 406: Regulation 406 Characterization Package	O. Reg 406: pH, Metals, BTEX, F1-F4	O. Reg 406: EC, SAR	O. Reg 406: Regulation 406 SPLP Rainwater Leach mSPLP: ☐ Metals ☐ VOCs ☐ SVOCs ☐ OC	O. Reg 558: Landfill Disposal Characterization TCLP: TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Corrosivity: ☐ Moisture ☐ Sulphide	Potentially Hazardous or High Concentration (Y/N)
1. S1	Nov 8	AM PM	4	S			✓		✓	✓	✓								
2. S2	〃	AM PM	1	〃			1		1	1	1								
3. S3	〃	AM PM	1	〃			1		1	1	1								
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	[redacted]	Date Nov 8	Time 3:40 pm
Samples Relinquished By (Print Name and Sign):	Date	Time		Date	Time
Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time

Page ___ of ___

N°: T - 163936

Pink Copy - Client | Yellow Copy - AGAT | White Copy: AGAT

DS CONSULTANTS LTD.
Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology

Project Number: 21-462-100 **October 28, 2024**

Flamborough Power Centre Inc.
2500 Appleby Line, Suite 200
Burlington, Ontario
L7L 0A2

Attention: Steve Malovic

Re: Topsoil Sampling and Chemical Analysis
Southeast Quadrant of Parkside Drive and Clappison Avenue, Waterdown, ON

1. Introduction

DS Consultants Ltd. (DS) is pleased to present the findings of the chemical analyses conducted on samples collected from a stockpile located within the southeast quadrant of Parkside Drive and Clappison Avenue, Waterdown (Hamilton), Ontario. DS was informed by Flamborough Power Centre Inc. (the "Client") that the stockpiled topsoil material was generated approximately six (6) years ago from the redevelopment of the adjacent property. Approximately 20,000 m^3 of topsoil was stockpiled on the property.

DS understands that the purpose of this investigation was to characterize the quality of the stockpiled topsoil for off-site reuse options. A plan depicting the stockpile location and sample locations is provided in Figure 1.

Based on a cursory review of historical information, the property from which the Client indicated that the excess soil was generated appears to have been vacant of structures and has been used for agricultural purposes since prior to 1951. Adjacent properties appear to have been developed for rural residential purposes and/or were used for agricultural purposes until recently when the commercial/industrial development commenced. The east neighbouring properties were used for agricultural purposes until the 1990s when residential development commenced.

To assess the chemical quality of the soil for potential off-site reuse, the following samples were collected and submitted for chemical analyses:

- A total of ten (10) samples (S1 to S10), plus one (1) duplicate sample, were collected from one large stockpile and were tested for metals/inorganics (M&I), Petroleum Hydrocarbons (PHCs) and Benzene, Toluene, Ethylbenzene, Xylenes (BTEX).

- Six (6) samples (S1, S3, S4, S5, S7 and S10), plus one (1) duplicate sample, were analyzed for Organochlorine Pesticides (OCPs).
- Two (2) samples (S1-D and S1-E), plus one (1) duplicate sample, were collected from within a 2 m radius of sample S1 and were tested for metals.
- Two (2) samples (S5-A and S5-B), were collected from within a 2 m radius of sample S5 and were tested for PHCs and BTEX.
- Two (2) samples (S6-B and S6-C), plus one (1) duplicate sample, were collected from within a 2 m radius of sample S6 and were tested for PHCs and BTEX.

2. Selection of Excess Soil Quality Standards

For the purposes of assessing off-Site reuse options, the results of the chemical analyses were assessed against the following Excess Soil Quality Standards (ESQS) contained in the document entitled "*Rules for Soil Management and Excess Soil Quality Standards*" published by the Ministry of Environment, Conservation and Parks (February 19, 2024):

- Table 1 RPIICC ESQS: Full Depth Background Site Condition Standards for Residential/ Parkland/Institutional/Industrial/Commercial/Community Use (Table 1 RPIICC ESQS)
- Table 2.1 RPI ESQS: Full Depth Excess Soil Quality Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional Use (Table 2.1 RPI ESQS)

3. Scope of Work

A scope of work conducted included the following:

- Conducting field screening of the soil;
- Collection of representative soil samples;
- Submission of representative soil samples for laboratory analysis;
- Review of the analytical results, comparing results with the current MECP Standards; and
- Preparation of a factual report.

4. Methodology

DS personnel conducted a site visit on September 9, 2024, to collect a total of ten (10) topsoil samples, plus one (1) duplicate sample, from the stockpile. The samples were collected from

a depth of 1 m to 2 m beneath the surface of the stockpile. All soil samples were collected using an excavator operated by the Client's site representative. DS personnel returned to the site on October 7, 2024, to collect six (6) additional samples within a 2 m radius of the original samples S1, S5 and S6 (i.e., 2 samples from each of the three locations).

A summary of the samples collected for analysis is provided below:

Table 4-1: Summary of Soil Samples Analyzed

Sample ID	Sample Depth Below Stockpile Surface (m)	Chemical Analysis
S1	1 - 2	M&I, PHCs/BTEX, OCPs
S1-D	1 - 2	Metals
S1-E	1 - 2	Metals
DUP3 (duplicate of S1-D)	1 - 2	Metals
S2	1 - 2	M&I, PHCs/BTEX
S3	1 - 2	M&I, PHCs/BTEX, OCPs
S4	1 - 2	M&I, PHCs/BTEX, OCPs
S5	1 - 2	M&I, PHCs/BTEX, OCPs
S5-A	1 - 2	PHCs/BTEX
S5-B	1 - 2	PHCs/BTEX
DUP1 (duplicate of S5)	1 - 2	M&I, PHCs/BTEX, OCPs
S6	1 - 2	M&I, PHCs/BTEX
S6-B	1 - 2	PHCs/BTEX
S6-C	1 - 2	PHCs/BTEX
S7	1 - 2	M&I, PHCs/BTEX, OCPs
S8	1 - 2	M&I, PHCs/BTEX
S9	1 - 2	M&I, PHCs/BTEX
S10	1 - 2	M&I, PHCs/BTEX, OCPs

Dedicated nitrile gloves were utilized when handling samples. The soil samples were screened for visual and olfactory indicators of impacts (e.g., staining, odours). There were no visual or olfactory observations that would suggest possible impact to the soil.

A portion of the sample was placed in a resealable plastic bag for field screening, and the remaining portion was placed into laboratory supplied glass sampling jars. Samples intended for the F1 fraction of petroleum hydrocarbons analysis were collected using a laboratory-supplied soil core sampler, placed into the vials containing methanol for preservation purposes and sealed using Teflon lined septa lids. All sample jars were stored in dedicated coolers with ice for storage, pending transport to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

5. Field Screening

Field screening in the form of visual and olfactory observations were conducted at the time of sampling to assess for the potential presence of chemical and aesthetic impacts (i.e. staining, debris, odours). The soil vapour headspace readings were collected using a PID and CGD in methane elimination mode. The PID and CGD readings were all non-detect (0 ppm).

Trace brick pieces were observed in the stockpiled topsoil. The inclusion of brick pieces may limit disposal options.

6. Laboratory Analysis

Ten (10) topsoil samples were submitted to the laboratory on September 9, 2024 for analysis of M&I, PHCs, and BTEX. Six (6) of the soil samples were also analyzed for OCPs. One (1) duplicate sample was analyzed for M&I, PHCs, BTEX, and OCPs. Two (2) additional topsoil samples were submitted to the laboratory on October 7, 2024 for analysis of Metals, and four (4) additional topsoil samples were submitted to the laboratory for analysis of PHCs and BTEX. One (1) duplicate sample was analyzed for Metals, and one (1) for PHCs, BTEX.

The topsoil samples collected were submitted to Bureau Veritas (BV) Canada located in Mississauga, Ontario, under chain of custody protocols. BV is a member of the Standards Council of Canada (SCC) and meets the requirements of Section 47 of O.Reg. 153/04 (as amended) certifying that the analytical laboratory be accredited in accordance with the International Standard ISO/IEC 17025 and with standards developed by the Standards Council of Canada. Laboratory certificates are presented in Appendix A.

7. Results

The pH of the samples ranged between 6.77-7.68, which is within the acceptable range of 5 to 9 for surface soils.

7.1. Comparison Against Table 1 RPIICC ESQS

The results of the chemical analysis indicated the following exceedance when compared against Table 1 RPIICC ESQS.

Table 7-1 Summary of Exceedance to Table 1 RPIICC ESQS

Sample ID	Parameter	Table 1 RPIICC ESQS (µg/g)	Reported Value (µg/g)
S5	PHCs F4G	120	**960**
S6	PHCs F4G	120	**1600**
S6-B	PHCs F4G	120	**1500**

Notes:
Result - Result exceeds Table 1 RPIICC ESQS

The original soil sample S1 exceeded the Table 1 RPIICC ESQS for zinc (result 360 µg/g vs Table 1 RPIICC ESQS of 290 µg/g). DS personnel returned to site to collect two (2) additional topsoil samples (S1-D and S1-E) from within a 2 m radius of sample S1 for analysis of zinc. The results of analysis indicated that the zinc concentration meets the Table 1 RPIICC ESQS as the average of the three samples was 189 µg/g (average of 360, 120 and 86 µg/g).

Two (2) additional topsoil samples (S5-A and S5-B) were collected from within a 2 m radius of the original sample S5 for analysis of PHCs and BTEX. The results indicated that the two additional samples met the Table 1 RPIICC ESQS for PHCs, including F4G.

Two (2) additional topsoil samples (S6-B and S6-C) were collected from within a 2 m radius of the original sample S6 for analysis of PHCs and BTEX. The results indicated that sample S6-B exceeded the Table 1 RPIICC ESQS for PHCs-F4G.

7.1. Comparison Against Table 2.1 RPI ESQS

The results of the chemical analysis indicated the soil samples met the Table 2.1 RPI ESQS.

The original soil sample S1 exceeded the Table 1 RPIICC ESQS for zinc (result 360 µg/g vs Table 2.1 RPI ESQS of 340 µg/g). DS personnel returned to site to collect two (2) additional topsoil samples from within a 2 m radius of sample S1 for analysis of zinc. The results of

analysis indicated that the zinc concentration meets the Table 1 RPIICC ESQS as the average of the three samples was 189 µg/g (average of 360, 120 and 86 µg/g).

The laboratory certificates of analysis are enclosed in Appendix A.

8. Conclusions

Based on the results of this investigation, DS presents the following conclusions:

- The results of the chemical analysis indicated that the concentration of PHCs F4G in soil samples S5 and S6, exceeded the Table 1 RPIICC ESQS. Topsoil has been excavated and removed from within the vicinity of sample S5 and segregated from the topsoil stockpile for off-site disposal. Based on the additional sampling conducted within a 2 m radius of S5, it has been determined that the PHC F4G is localized and the remaining soil meets the Table 1 RPIICC ESQS.
- The analytical laboratory was requested to further evaluate the chromatogram for sample S6-B and BV indicated that the range and profile for PHCs does not resemble a typical biogenic origin (i.e., plant-based origin). However, BV indicated that the chromatogram more closely resembles that of asphalt and is not similar to what would be typical for diesel and motor oil. As such, it is in the opinion of the Qualified Person that the F4G exceedance was likely the result of minor asphalt inclusion within the soil matrix in the sample analyzed rather than dissolved hydrocarbon within the soil. DS recommends that the material be visually screened during future earthworks. Soils exhibiting visible asphaltic inclusions should be segregated for further evaluation. Note that this was not encountered in the remaining samples analysed and therefore appears to be relatively localized in nature.
- The results of the chemical analysis indicated that soil samples met the Table 2.1 RPI ESQS for the parameters analyzed.
- Trace brick pieces were observed in the stockpiled topsoil. Material which includes brick pieces may not be acceptable to reuse sites.
- This report does not pertain to the geotechnical suitability of the material.
- Reception of the material will be at the discretion of the receiving site. Written acceptance of the material should be obtained from the intended receiver prior to commencing export.

9. Limitations

The purpose of this program was to assess the chemical quality of the soils, the scope of work conducted does not constitute a Phase Two Environmental Site Assessment as defined under O.Reg. 153/04 (as amended). It should be noted that the results of the chemical analyses conducted refer only to the soil samples analyzed, which were obtained from a specific location and depth. The soil chemistry may vary between and beyond the locations of the samples tested. The analytical results contained in this report should not be considered a warranty with respect to the soil quality, nor does it pertain to the geotechnical suitability of the material. The intent of this letter is to provide factual results of the chemical analyses conducted for the parameters analyzed.

This report was prepared for the account of Flamborough Power Centre Inc. All material contained within this report reflects the interpretation of the information available to DS at the time of this investigation. Any use, which a Third Party not noted above makes use of this report, or any reliance on the decisions to be made based on it are the responsibility of such Third Parties. DS accepts no responsibility for any damages suffered by any Third Party as a result of decisions made or actions taken based on the findings of this report.

10. Closure

Thank for you the opportunity to have been of service on this project. Should you have any questions regarding the findings of this investigation please do not hesitate to contact the undersigned.

Sincerely,

DS Consultants Ltd.

[redacted]

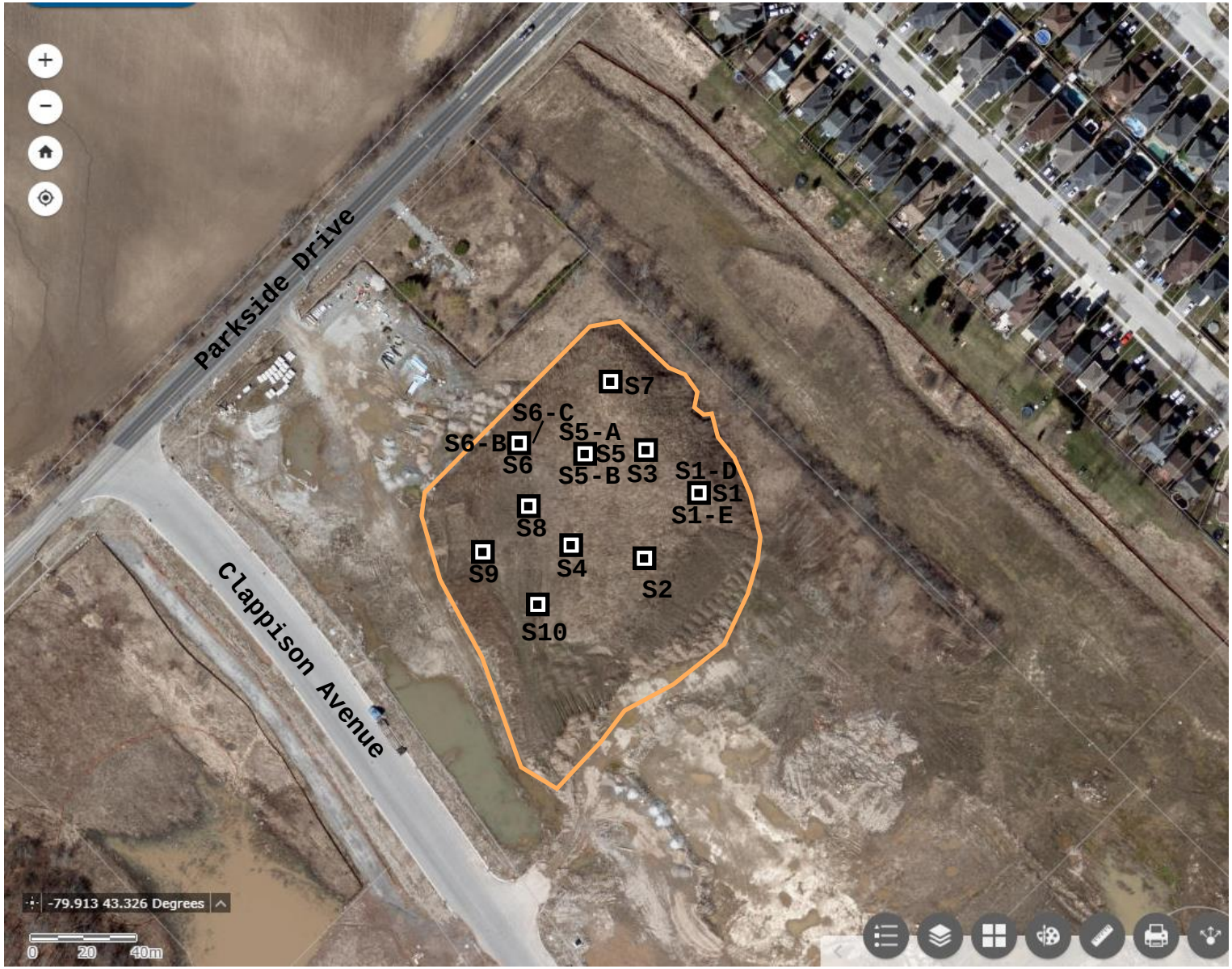
Aisha Sharif, MEnvSc., G.I.T.
Environmental Specialist

[redacted]

Teresa Weatherhead, LEL, QP_{ESA}
Environmental Team Lead

Enclosed:
Figure 1 –Sample Location Plan
Appendix A – Certificate of Analysis - Bureau Veritas

Figures



Legend

- Approximate sample location
- Approximate Stockpile Location

Client:	**Flamborough Power Centre Inc.**			Project No:	**22-276-600**	Figure No:	**1**
Drawn:	**TW**	Approved:	**TW**	Title:	**SAMPLE LOCATION PLAN**		
Date:	**October 2024**	Scale:	**As Shown**	Project:	**Soil Chemical Analysis, Southeast Quadrant of Parkside Drive and Clappison Avenue, Ontario**		
Original Size:	**Letter**	Rev:		DS CONSULTANTS LTD. Geotechnical ◆ Environmental ◆ Materials ◆ Hydrogeology			

Appendix A

Your Project #: 21-462-100
Your C.O.C. #: N/A

Attention: Teresa Weatherhead

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

Report Date: 2024/09/20
Report #: R8327873
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4S0694
Received: 2024/09/09, 15:23

Sample Matrix: Soil
Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hot Water Extractable Boron	4	2024/09/13	2024/09/13	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2024/09/13	2024/09/16	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2024/09/14	2024/09/16	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	5	2024/09/16	2024/09/16	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	11	2024/09/13	2024/09/13	CAM SOP-00457	OMOE E3015 m
Conductivity	11	2024/09/13	2024/09/13	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	11	2024/09/13	2024/09/13	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	5	N/A	2024/09/13	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	6	N/A	2024/09/14	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	11	2024/09/14	2024/09/15	CAM SOP-00316	CCME CWS m
F4G (CCME Hydrocarbons Gravimetric)	2	2024/09/17	2024/09/17	CAM SOP-00316	CCME PHC-CWS m
Acid Extractable Metals by ICPMS	11	2024/09/13	2024/09/13	CAM SOP-00447	EPA 6020B m
Moisture	11	N/A	2024/09/10	CAM SOP-00445	Carter 2nd ed 70.2 m
OC Pesticides (Selected) & PCB (4)	6	2024/09/11	2024/09/13	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides (Selected) & PCB (4)	1	2024/09/11	2024/09/17	CAM SOP-00307	EPA 8081B/ 8082A
OC Pesticides Summed Parameters	7	N/A	2024/09/11	CAM SOP-00307	EPA 8081B/ 8082A
pH CaCl2 EXTRACT	11	2024/09/13	2024/09/13	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	11	N/A	2024/09/17	CAM SOP-00102	EPA 6010C

Remarks:

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

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

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

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

Your Project #: 21-462-100
Your C.O.C. #: N/A

Attention: Teresa Weatherhead

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

Report Date: 2024/09/20
Report #: R8327873
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4S0694
Received: 2024/09/09, 15:23

otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Soils are reported on a dry weight basis unless otherwise specified.
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(4) Chlordane (Total) = Alpha Chlordane + Gamma Chlordane

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Ashton Gibson, Project Manager
Email: ashton.gibson@bureauveritas.com
Phone# (905)817-5765
==========
This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ACGS69		ACGS71		ACGS72		
Sampling Date			2024/09/09		2024/09/09		2024/09/09		
COC Number			N/A		N/A		N/A		
	UNITS	Criteria	S1	QC Batch	S2	QC Batch	S3	RDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	2.4	0.23	9626474	0.23	9626474	0.18 (1)		9626474
Inorganics									
Conductivity	mS/cm	0.57	0.28	9636939	0.22	9636939	0.30	0.002	9636939
Available (CaCl2) pH	pH	-	7.50	9636187	7.56	9636187	7.56		9636187
WAD Cyanide (Free)	ug/g	0.051	<0.01	9636031	<0.01	9636031	<0.01	0.01	9636031
Chromium (VI)	ug/g	0.66	<0.18	9636875	<0.18	9636875	<0.18	0.18	9636875
Metals									
Hot Water Ext. Boron (B)	ug/g	-	0.51	9640025	0.37	9640020	0.11	0.050	9638958
Acid Extractable Antimony (Sb)	ug/g	1.3	0.24	9637073	<0.20	9637073	<0.20	0.20	9637073
Acid Extractable Arsenic (As)	ug/g	18	5.5	9637073	4.8	9637073	5.6	1.0	9637073
Acid Extractable Barium (Ba)	ug/g	220	120	9637073	96	9637073	100	0.50	9637073
Acid Extractable Beryllium (Be)	ug/g	2.5	0.96	9637073	0.75	9637073	0.96	0.20	9637073
Acid Extractable Boron (B)	ug/g	36	6.7	9637073	8.5	9637073	<5.0	5.0	9637073
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.67	9637073	0.25	9637073	0.16	0.10	9637073
Acid Extractable Chromium (Cr)	ug/g	70	25	9637073	22	9637073	26	1.0	9637073
Acid Extractable Cobalt (Co)	ug/g	21	11	9637073	11	9637073	13	0.10	9637073
Acid Extractable Copper (Cu)	ug/g	92	34	9637073	25	9637073	37	0.50	9637073
Acid Extractable Lead (Pb)	ug/g	120	31	9637073	19	9637073	12	1.0	9637073
Acid Extractable Molybdenum (Mo)	ug/g	2	0.64	9637073	0.58	9637073	<0.50	0.50	9637073
Acid Extractable Nickel (Ni)	ug/g	82	26	9637073	25	9637073	28	0.50	9637073
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	9637073	<0.50	9637073	<0.50	0.50	9637073
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	9637073	<0.20	9637073	<0.20	0.20	9637073
Acid Extractable Thallium (Tl)	ug/g	1	0.16	9637073	0.15	9637073	0.13	0.050	9637073
Acid Extractable Uranium (U)	ug/g	2.5	1.4	9637073	0.81	9637073	0.87	0.050	9637073
Acid Extractable Vanadium (V)	ug/g	86	35	9637073	31	9637073	36	5.0	9637073
Acid Extractable Zinc (Zn)	ug/g	290	**360**	9637073	90	9637073	76	5.0	9637073
Acid Extractable Mercury (Hg)	ug/g	0.27	0.058	9637073	<0.050	9637073	<0.050	0.050	9637073

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
(1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

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

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ACGS73			ACGS73			ACGS74		
Sampling Date			2024/09/09			2024/09/09			2024/09/09		
COC Number			N/A			N/A			N/A		
	UNITS	Criteria	S4	RDL	QC Batch	S4 Lab-Dup	RDL	QC Batch	S5	RDL	QC Batch
Calculated Parameters											
Sodium Adsorption Ratio	N/A	2.4	0.20 (1)		9626474				0.22 (1)		9626474
Inorganics											
Conductivity	mS/cm	0.57	0.25	0.002	9636939				0.22	0.002	9636939
Available (CaCl2) pH	pH	-	7.37		9636187	7.55		9636187	7.68		9636187
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	9636031				<0.01	0.01	9636031
Chromium (VI)	ug/g	0.66	<0.18	0.18	9636875				<0.18	0.18	9636875
Metals											
Hot Water Ext. Boron (B)	ug/g	-	0.30	0.050	9636692	0.31	0.050	9636692	0.21	0.050	9640025
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.20	9637073				<0.20	0.20	9637073
Acid Extractable Arsenic (As)	ug/g	18	7.1	1.0	9637073				5.3	1.0	9637073
Acid Extractable Barium (Ba)	ug/g	220	170	0.50	9637073				76	0.50	9637073
Acid Extractable Beryllium (Be)	ug/g	2.5	0.71	0.20	9637073				0.67	0.20	9637073
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	9637073				7.3	5.0	9637073
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.44	0.10	9637073				0.16	0.10	9637073
Acid Extractable Chromium (Cr)	ug/g	70	19	1.0	9637073				23	1.0	9637073
Acid Extractable Cobalt (Co)	ug/g	21	10	0.10	9637073				13	0.10	9637073
Acid Extractable Copper (Cu)	ug/g	92	27	0.50	9637073				35	0.50	9637073
Acid Extractable Lead (Pb)	ug/g	120	17	1.0	9637073				18	1.0	9637073
Acid Extractable Molybdenum (Mo)	ug/g	2	0.65	0.50	9637073				0.58	0.50	9637073
Acid Extractable Nickel (Ni)	ug/g	82	19	0.50	9637073				27	0.50	9637073
Acid Extractable Selenium (Se)	ug/g	1.5	0.53	0.50	9637073				<0.50	0.50	9637073
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	9637073				<0.20	0.20	9637073
Acid Extractable Thallium (Tl)	ug/g	1	0.13	0.050	9637073				0.14	0.050	9637073
Acid Extractable Uranium (U)	ug/g	2.5	1.2	0.050	9637073				0.66	0.050	9637073
Acid Extractable Vanadium (V)	ug/g	86	34	5.0	9637073				31	5.0	9637073
Acid Extractable Zinc (Zn)	ug/g	290	110	5.0	9637073				97	5.0	9637073
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	9637073				<0.050	0.050	9637073

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

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

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

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ACGS74			ACGS75		ACGS76		
Sampling Date			2024/09/09			2024/09/09		2024/09/09		
COC Number			N/A			N/A		N/A		
	UNITS	Criteria	S5 Lab-Dup	RDL	QC Batch	S6	QC Batch	S7	RDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A	2.4				0.19 (1)	9626474	0.24 (1)		9626474
Inorganics										
Conductivity	mS/cm	0.57				0.26	9636939	0.18	0.002	9636939
Available (CaCl2) pH	pH	-				7.56	9636187	6.77		9636187
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	9636031	<0.01	9636031	<0.01	0.01	9636031
Chromium (VI)	ug/g	0.66	<0.18	0.18	9636875	<0.18	9636875	<0.18	0.18	9636875
Metals										
Hot Water Ext. Boron (B)	ug/g	-				0.40	9636692	0.92	0.050	9640020
Acid Extractable Antimony (Sb)	ug/g	1.3				0.21	9637073	<0.20	0.20	9637073
Acid Extractable Arsenic (As)	ug/g	18				5.8	9637073	4.8	1.0	9637073
Acid Extractable Barium (Ba)	ug/g	220				77	9637073	110	0.50	9637073
Acid Extractable Beryllium (Be)	ug/g	2.5				0.73	9637073	0.74	0.20	9637073
Acid Extractable Boron (B)	ug/g	36				5.9	9637073	<5.0	5.0	9637073
Acid Extractable Cadmium (Cd)	ug/g	1.2				0.39	9637073	0.51	0.10	9637073
Acid Extractable Chromium (Cr)	ug/g	70				21	9637073	21	1.0	9637073
Acid Extractable Cobalt (Co)	ug/g	21				11	9637073	9.8	0.10	9637073
Acid Extractable Copper (Cu)	ug/g	92				33	9637073	24	0.50	9637073
Acid Extractable Lead (Pb)	ug/g	120				21	9637073	22	1.0	9637073
Acid Extractable Molybdenum (Mo)	ug/g	2				<0.50	9637073	0.57	0.50	9637073
Acid Extractable Nickel (Ni)	ug/g	82				22	9637073	19	0.50	9637073
Acid Extractable Selenium (Se)	ug/g	1.5				<0.50	9637073	0.51	0.50	9637073
Acid Extractable Silver (Ag)	ug/g	0.5				<0.20	9637073	<0.20	0.20	9637073
Acid Extractable Thallium (Tl)	ug/g	1				0.15	9637073	0.13	0.050	9637073
Acid Extractable Uranium (U)	ug/g	2.5				0.60	9637073	1.2	0.050	9637073
Acid Extractable Vanadium (V)	ug/g	86				31	9637073	34	5.0	9637073
Acid Extractable Zinc (Zn)	ug/g	290				160	9637073	150	5.0	9637073
Acid Extractable Mercury (Hg)	ug/g	0.27				0.092	9637073	0.087	0.050	9637073

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

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

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

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ACGS77	ACGS78			ACGS78		
Sampling Date			2024/09/09	2024/09/09			2024/09/09		
COC Number			N/A	N/A			N/A		
	UNITS	Criteria	S8	S9	RDL	QC Batch	S9 Lab-Dup	RDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	2.4	0.24 (1)	0.21 (1)		9626474			
Inorganics									
Conductivity	mS/cm	0.57	0.17	0.22	0.002	9636939	0.21	0.002	9636939
Available (CaCl2) pH	pH	-	7.00	7.06		9636187			
WAD Cyanide (Free)	ug/g	0.051	<0.01	<0.01	0.01	9636031			
Chromium (VI)	ug/g	0.66	<0.18	<0.18	0.18	9636875			
Metals									
Hot Water Ext. Boron (B)	ug/g	-	0.74	0.25	0.050	9636692			
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.20	9637073	<0.20	0.20	9637073
Acid Extractable Arsenic (As)	ug/g	18	3.3	5.7	1.0	9637073	5.6	1.0	9637073
Acid Extractable Barium (Ba)	ug/g	220	73	98	0.50	9637073	97	0.50	9637073
Acid Extractable Beryllium (Be)	ug/g	2.5	0.54	0.77	0.20	9637073	0.79	0.20	9637073
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5.0	9637073	<5.0	5.0	9637073
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.38	0.56	0.10	9637073	0.57	0.10	9637073
Acid Extractable Chromium (Cr)	ug/g	70	18	21	1.0	9637073	20	1.0	9637073
Acid Extractable Cobalt (Co)	ug/g	21	7.2	10	0.10	9637073	9.9	0.10	9637073
Acid Extractable Copper (Cu)	ug/g	92	18	26	0.50	9637073	26	0.50	9637073
Acid Extractable Lead (Pb)	ug/g	120	23	18	1.0	9637073	18	1.0	9637073
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.51	0.50	9637073	0.55	0.50	9637073
Acid Extractable Nickel (Ni)	ug/g	82	15	21	0.50	9637073	21	0.50	9637073
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	0.50	9637073	<0.50	0.50	9637073
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	0.20	9637073	<0.20	0.20	9637073
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.13	0.050	9637073	0.13	0.050	9637073
Acid Extractable Uranium (U)	ug/g	2.5	0.88	0.87	0.050	9637073	0.85	0.050	9637073
Acid Extractable Vanadium (V)	ug/g	86	29	33	5.0	9637073	32	5.0	9637073
Acid Extractable Zinc (Zn)	ug/g	290	98	160	5.0	9637073	150	5.0	9637073
Acid Extractable Mercury (Hg)	ug/g	0.27	0.073	<0.050	0.050	9637073	<0.050	0.050	9637073

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

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

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

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ACGS79		ACGS80		
Sampling Date			2024/09/09		2024/09/09		
COC Number			N/A		N/A		
	UNITS	Criteria	S10	QC Batch	DUP1	RDL	QC Batch
Calculated Parameters							
Sodium Adsorption Ratio	N/A	2.4	0.41 (1)	9626474	0.20 (1)		9626474
Inorganics							
Conductivity	mS/cm	0.57	0.069	9636939	0.25	0.002	9636939
Available (CaCl2) pH	pH	-	6.95	9636187	7.42		9636187
WAD Cyanide (Free)	ug/g	0.051	<0.01	9636031	<0.01	0.01	9636031
Chromium (VI)	ug/g	0.66	<0.18	9636875	<0.18	0.18	9636875
Metals							
Hot Water Ext. Boron (B)	ug/g	-	0.085	9637718	0.50	0.050	9640025
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	9637073	0.54	0.20	9637610
Acid Extractable Arsenic (As)	ug/g	18	4.9	9637073	5.3	1.0	9637610
Acid Extractable Barium (Ba)	ug/g	220	110	9637073	88	0.50	9637610
Acid Extractable Beryllium (Be)	ug/g	2.5	0.95	9637073	0.69	0.20	9637610
Acid Extractable Boron (B)	ug/g	36	<5.0	9637073	7.3	5.0	9637610
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	9637073	0.29	0.10	9637610
Acid Extractable Chromium (Cr)	ug/g	70	26	9637073	20	1.0	9637610
Acid Extractable Cobalt (Co)	ug/g	21	14	9637073	10	0.10	9637610
Acid Extractable Copper (Cu)	ug/g	92	35	9637073	28	0.50	9637610
Acid Extractable Lead (Pb)	ug/g	120	12	9637073	23	1.0	9637610
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	9637073	0.51	0.50	9637610
Acid Extractable Nickel (Ni)	ug/g	82	28	9637073	22	0.50	9637610
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	9637073	<0.50	0.50	9637610
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	9637073	<0.20	0.20	9637610
Acid Extractable Thallium (Tl)	ug/g	1	0.15	9637073	0.15	0.050	9637610
Acid Extractable Uranium (U)	ug/g	2.5	0.58	9637073	0.51	0.050	9637610
Acid Extractable Vanadium (V)	ug/g	86	36	9637073	29	5.0	9637610
Acid Extractable Zinc (Zn)	ug/g	290	66	9637073	110	5.0	9637610
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	9637073	<0.050	0.050	9637610

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

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
(1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

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

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			ACGS69		ACGS72		ACGS73	ACGS74		
Sampling Date			2024/09/09		2024/09/09		2024/09/09	2024/09/09		
COC Number			N/A		N/A		N/A	N/A		
	UNITS	Criteria	S1	RDL	S3	RDL	S4	S5	RDL	QC Batch
Calculated Parameters										
Chlordane (Total)	ug/g	0.05	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9626447
o,p-DDD + p,p-DDD	ug/g	-	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9626447
o,p-DDE + p,p-DDE	ug/g	-	<0.0020	0.0020	<0.0030	0.0030	<0.0020	<0.0020	0.0020	9626447
o,p-DDT + p,p-DDT	ug/g	-	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9626447
Total Endosulfan	ug/g	-	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9626447
Total PCB	ug/g	0.3	<0.015	0.015	0.055	0.015	<0.015	<0.015	0.015	9626447
Pesticides & Herbicides										
Aldrin	ug/g	0.05	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
a-Chlordane	ug/g	0.05	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
g-Chlordane	ug/g	0.05	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
o,p-DDD	ug/g	0.05	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
p,p-DDD	ug/g	0.05	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
o,p-DDE	ug/g	0.05	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
p,p-DDE	ug/g	0.05	<0.0020	0.0020	<0.0030 (1)	0.0030	<0.0020	<0.0020	0.0020	9632927
o,p-DDT	ug/g	1.4	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
p,p-DDT	ug/g	1.4	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Dieldrin	ug/g	0.05	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Lindane	ug/g	0.01	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Endosulfan I (alpha)	ug/g	0.04	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Endosulfan II (beta)	ug/g	0.04	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Endrin	ug/g	0.04	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Heptachlor	ug/g	0.05	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Heptachlor epoxide	ug/g	0.05	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Hexachlorobenzene	ug/g	0.01	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Hexachlorobutadiene	ug/g	0.01	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Hexachloroethane	ug/g	0.01	<0.0020	0.0020	<0.0020	0.0020	<0.0020	<0.0020	0.0020	9632927
Methoxychlor	ug/g	0.05	<0.0050	0.0050	<0.0050	0.0050	<0.0050	<0.0050	0.0050	9632927
Aroclor 1242	ug/g	-	<0.015	0.015	<0.015	0.015	<0.015	<0.015	0.015	9632927
Aroclor 1248	ug/g	-	<0.015	0.015	<0.015	0.015	<0.015	<0.015	0.015	9632927

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

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

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

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			ACGS69		ACGS72		ACGS73	ACGS74		
Sampling Date			2024/09/09		2024/09/09		2024/09/09	2024/09/09		
COC Number			N/A		N/A		N/A	N/A		
	UNITS	Criteria	S1	RDL	S3	RDL	S4	S5	RDL	QC Batch
Aroclor 1254	ug/g	-	<0.015	0.015	0.055	0.015	<0.015	<0.015	0.015	9632927
Aroclor 1260	ug/g	-	<0.015	0.015	<0.015	0.015	<0.015	<0.015	0.015	9632927
Surrogate Recovery (%)										
2,4,5,6-Tetrachloro-m-xylene	%	-	75		85		97	94		9632927
Decachlorobiphenyl	%	-	64		68		78	80		9632927

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

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

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

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			ACGS76	ACGS79	ACGS80		
Sampling Date			2024/09/09	2024/09/09	2024/09/09		
COC Number			N/A	N/A	N/A		
	UNITS	Criteria	S7	S10	DUP1	RDL	QC Batch
Calculated Parameters							
Chlordane (Total)	ug/g	0.05	<0.0020	<0.0020	<0.0020	0.0020	9626447
o,p-DDD + p,p-DDD	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	9626447
o,p-DDE + p,p-DDE	ug/g	-	0.0045	<0.0020	<0.0020	0.0020	9626447
o,p-DDT + p,p-DDT	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	9626447
Total Endosulfan	ug/g	-	<0.0020	<0.0020	<0.0020	0.0020	9626447
Total PCB	ug/g	0.3	<0.015	<0.015	<0.015	0.015	9626447
Pesticides & Herbicides							
Aldrin	ug/g	0.05	<0.0020	<0.0020	<0.0020	0.0020	9632927
a-Chlordane	ug/g	0.05	<0.0020	<0.0020	<0.0020	0.0020	9632927
g-Chlordane	ug/g	0.05	<0.0020	<0.0020	<0.0020	0.0020	9632927
o,p-DDD	ug/g	0.05	<0.0020	<0.0020	<0.0020	0.0020	9632927
p,p-DDD	ug/g	0.05	<0.0020	<0.0020	<0.0020	0.0020	9632927
o,p-DDE	ug/g	0.05	<0.0020	<0.0020	<0.0020	0.0020	9632927
p,p-DDE	ug/g	0.05	0.0045	<0.0020	<0.0020	0.0020	9632927
o,p-DDT	ug/g	1.4	<0.0020	<0.0020	<0.0020	0.0020	9632927
p,p-DDT	ug/g	1.4	<0.0020	<0.0020	<0.0020	0.0020	9632927
Dieldrin	ug/g	0.05	<0.0020	<0.0020	<0.0020	0.0020	9632927
Lindane	ug/g	0.01	<0.0020	<0.0020	<0.0020	0.0020	9632927
Endosulfan I (alpha)	ug/g	0.04	<0.0020	<0.0020	<0.0020	0.0020	9632927
Endosulfan II (beta)	ug/g	0.04	<0.0020	<0.0020	<0.0020	0.0020	9632927
Endrin	ug/g	0.04	<0.0020	<0.0020	<0.0020	0.0020	9632927
Heptachlor	ug/g	0.05	<0.0020	<0.0020	<0.0020	0.0020	9632927
Heptachlor epoxide	ug/g	0.05	<0.0020	<0.0020	<0.0020	0.0020	9632927
Hexachlorobenzene	ug/g	0.01	<0.0020	<0.0020	<0.0020	0.0020	9632927
Hexachlorobutadiene	ug/g	0.01	<0.0020	<0.0020	<0.0020	0.0020	9632927
Hexachloroethane	ug/g	0.01	<0.0020	<0.0020	<0.0020	0.0020	9632927
Methoxychlor	ug/g	0.05	<0.0050	<0.0050	<0.0050	0.0050	9632927
Aroclor 1242	ug/g	-	<0.015	<0.015	<0.015	0.015	9632927
Aroclor 1248	ug/g	-	<0.015	<0.015	<0.015	0.015	9632927
Aroclor 1254	ug/g	-	<0.015	<0.015	<0.015	0.015	9632927

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

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

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

O.REG 153 OC PESTICIDES (SOIL)

Bureau Veritas ID			ACGS76	ACGS79	ACGS80		
Sampling Date			2024/09/09	2024/09/09	2024/09/09		
COC Number			N/A	N/A	N/A		
	UNITS	Criteria	S7	S10	DUP1	RDL	QC Batch
Aroclor 1260	ug/g	-	<0.015	<0.015	<0.015	0.015	9632927
Surrogate Recovery (%)							
2,4,5,6-Tetrachloro-m-xylene	%	-	67	56	74		9632927
Decachlorobiphenyl	%	-	51	51	57		9632927

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

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

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

O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

Bureau Veritas ID			ACGS69			ACGS69			ACGS71	ACGS72		
Sampling Date			2024/09/09			2024/09/09			2024/09/09	2024/09/09		
COC Number			N/A			N/A			N/A	N/A		
	UNITS	Criteria	S1	RDL	QC Batch	S1 Lab-Dup	RDL	QC Batch	S2	S3	RDL	QC Batch
BTEX & F1 Hydrocarbons												
Benzene	ug/g	0.02	<0.020	0.020	9637497				<0.020	<0.020	0.020	9637497
Toluene	ug/g	0.2	<0.020	0.020	9637497				<0.020	<0.020	0.020	9637497
Ethylbenzene	ug/g	0.05	<0.020	0.020	9637497				<0.020	<0.020	0.020	9637497
o-Xylene	ug/g	-	<0.020	0.020	9637497				<0.020	<0.020	0.020	9637497
p+m-Xylene	ug/g	-	<0.040	0.040	9637497				<0.040	<0.040	0.040	9637497
Total Xylenes	ug/g	0.05	<0.040	0.040	9637497				<0.040	<0.040	0.040	9637497
F1 (C6-C10)	ug/g	25	<10	10	9637497				<10	<10	10	9637497
F1 (C6-C10) - BTEX	ug/g	25	<10	10	9637497				<10	<10	10	9637497
F2-F4 Hydrocarbons												
F2 (C10-C16 Hydrocarbons)	ug/g	10	<7.0	7.0	9638762	<7.0	7.0	9638762	<7.0	<7.0	7.0	9638762
F3 (C16-C34 Hydrocarbons)	ug/g	240	<50	50	9638762	<50	50	9638762	<50	<50	50	9638762
F4 (C34-C50 Hydrocarbons)	ug/g	120	<50	50	9638762	<50	50	9638762	<50	<50	50	9638762
Reached Baseline at C50	ug/g	-	Yes		9638762	Yes		9638762	Yes	Yes		9638762
Surrogate Recovery (%)												
1,4-Difluorobenzene	%	-	102		9637497				102	104		9637497
4-Bromofluorobenzene	%	-	94		9637497				94	90		9637497
D10-o-Xylene	%	-	118		9637497				116	125		9637497
D4-1,2-Dichloroethane	%	-	105		9637497				101	104		9637497
o-Terphenyl	%	-	83		9638762	80		9638762	84	83		9638762

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

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

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

O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

Bureau Veritas ID			ACGS73	ACGS74	ACGS75	ACGS76	ACGS77	ACGS78		
Sampling Date			2024/09/09	2024/09/09	2024/09/09	2024/09/09	2024/09/09	2024/09/09		
COC Number			N/A	N/A	N/A	N/A	N/A	N/A		
	UNITS	Criteria	S4	S5	S6	S7	S8	S9	RDL	QC Batch
BTEX & F1 Hydrocarbons										
Benzene	ug/g	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	9637497
Toluene	ug/g	0.2	<0.020	<0.020	0.030	<0.020	<0.020	<0.020	0.020	9637497
Ethylbenzene	ug/g	0.05	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	9637497
o-Xylene	ug/g	-	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	9637497
p+m-Xylene	ug/g	-	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9637497
Total Xylenes	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9637497
F1 (C6-C10)	ug/g	25	<10	<10	<10	<10	<10	<10	10	9637497
F1 (C6-C10) - BTEX	ug/g	25	<10	<10	<10	<10	<10	<10	10	9637497
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	10	<7.0	<7.0	<7.0	<7.0	<7.0	<7.0	7.0	9638762
F3 (C16-C34 Hydrocarbons)	ug/g	240	<50	110	130	<50	<50	<50	50	9638762
F4 (C34-C50 Hydrocarbons)	ug/g	120	<50	**200**	**360**	<50	<50	<50	50	9638762
Reached Baseline at C50	ug/g	-	Yes	No	No	Yes	Yes	Yes		9638762
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	-	105	102	103	102	102	105		9637497
4-Bromofluorobenzene	%	-	93	95	93	93	94	95		9637497
D10-o-Xylene	%	-	114	105	106	107	113	114		9637497
D4-1,2-Dichloroethane	%	-	104	110	106	103	99	103		9637497
o-Terphenyl	%	-	79	82	87	80	83	80		9638762

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

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

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

O.REG 153 PHCS, BTEX/F1-F4 (SOIL)

Bureau Veritas ID			ACGS79	ACGS80		
Sampling Date			2024/09/09	2024/09/09		
COC Number			N/A	N/A		
	UNITS	Criteria	S10	DUP1	RDL	QC Batch
BTEX & F1 Hydrocarbons						
Benzene	ug/g	0.02	<0.020	<0.020	0.020	9637497
Toluene	ug/g	0.2	<0.020	<0.020	0.020	9637497
Ethylbenzene	ug/g	0.05	<0.020	<0.020	0.020	9637497
o-Xylene	ug/g	-	<0.020	<0.020	0.020	9637497
p+m-Xylene	ug/g	-	<0.040	<0.040	0.040	9637497
Total Xylenes	ug/g	0.05	<0.040	<0.040	0.040	9637497
F1 (C6-C10)	ug/g	25	<10	<10	10	9637497
F1 (C6-C10) - BTEX	ug/g	25	<10	<10	10	9637497
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	10	<7.0	<7.0	7.0	9638762
F3 (C16-C34 Hydrocarbons)	ug/g	240	<50	<50	50	9638762
F4 (C34-C50 Hydrocarbons)	ug/g	120	<50	<50	50	9638762
Reached Baseline at C50	ug/g	-	Yes	Yes		9638762
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	-	98	105		9637497
4-Bromofluorobenzene	%	-	87	92		9637497
D10-o-Xylene	%	-	113	117		9637497
D4-1,2-Dichloroethane	%	-	99	104		9637497
o-Terphenyl	%	-	79	79		9638762

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

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

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

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ACGS69	ACGS71	ACGS72	ACGS73	ACGS74	ACGS75	ACGS76		
Sampling Date		2024/09/09	2024/09/09	2024/09/09	2024/09/09	2024/09/09	2024/09/09	2024/09/09		
COC Number		N/A	N/A	N/A	N/A	N/A	N/A	N/A		
	UNITS	S1	S2	S3	S4	S5	S6	S7	RDL	QC Batch
Inorganics										
Moisture	%	21	10	16	23	13	15	18	1.0	9628557

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		ACGS76	ACGS77	ACGS78	ACGS79	ACGS80		
Sampling Date		2024/09/09	2024/09/09	2024/09/09	2024/09/09	2024/09/09		
COC Number		N/A	N/A	N/A	N/A	N/A		
	UNITS	S7 Lab-Dup	S8	S9	S10	DUP1	RDL	QC Batch
Inorganics								
Moisture	%	19	17	17	15	14	1.0	9628557

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

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

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID			ACGS74	ACGS74	ACGS75		
Sampling Date			2024/09/09	2024/09/09	2024/09/09		
COC Number			N/A	N/A	N/A		
	UNITS	Criteria	S5	S5 Lab-Dup	S6	RDL	QC Batch
F2-F4 Hydrocarbons							
F4G-sg (Grav. Heavy Hydrocarbons)	ug/g	120	**960**	**880**	**1600**	100	9642358

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

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

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

TEST SUMMARY

Bureau Veritas ID: ACGS69
Sample ID: S1
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9640025	2024/09/16	2024/09/16	Japneet Gill
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/13	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
OC Pesticides (Selected) & PCB	GC/ECD	9632927	2024/09/11	2024/09/13	Li Peng
OC Pesticides Summed Parameters	CALC	9626447	N/A	2024/09/11	Automated Statchk
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

Bureau Veritas ID: ACGS69 Dup
Sample ID: S1
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb

Bureau Veritas ID: ACGS71
Sample ID: S2
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9640020	2024/09/16	2024/09/16	Jolly John
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/13	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

Bureau Veritas ID: ACGS72
Sample ID: S3
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9638958	2024/09/14	2024/09/16	Japneet Gill
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou

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

TEST SUMMARY

Bureau Veritas ID: ACGS72
Sample ID: S3
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/13	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
OC Pesticides (Selected) & PCB	GC/ECD	9632927	2024/09/11	2024/09/17	Li Peng
OC Pesticides Summed Parameters	CALC	9626447	N/A	2024/09/11	Automated Statchk
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

Bureau Veritas ID: ACGS73
Sample ID: S4
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9636692	2024/09/13	2024/09/13	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/13	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
OC Pesticides (Selected) & PCB	GC/ECD	9632927	2024/09/11	2024/09/13	Li Peng
OC Pesticides Summed Parameters	CALC	9626447	N/A	2024/09/11	Automated Statchk
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

Bureau Veritas ID: ACGS73 Dup
Sample ID: S4
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9636692	2024/09/13	2024/09/13	Suban Kanapathippllai
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran

Bureau Veritas ID: ACGS74
Sample ID: S5
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9640025	2024/09/16	2024/09/16	Japneet Gill
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/13	Georgeta Rusu

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

TEST SUMMARY

Bureau Veritas ID: ACGS74
Sample ID: S5
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
F4G (CCME Hydrocarbons Gravimetric)	BAL	9642358	2024/09/17	2024/09/17	Rashmi Dubey
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
OC Pesticides (Selected) & PCB	GC/ECD	9632927	2024/09/11	2024/09/13	Li Peng
OC Pesticides Summed Parameters	CALC	9626447	N/A	2024/09/11	Automated Statchk
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

Bureau Veritas ID: ACGS74 Dup
Sample ID: S5
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
F4G (CCME Hydrocarbons Gravimetric)	BAL	9642358	2024/09/17	2024/09/17	Rashmi Dubey

Bureau Veritas ID: ACGS75
Sample ID: S6
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9636692	2024/09/13	2024/09/13	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/14	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
F4G (CCME Hydrocarbons Gravimetric)	BAL	9642358	2024/09/17	2024/09/17	Rashmi Dubey
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

Bureau Veritas ID: ACGS76
Sample ID: S7
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9640020	2024/09/16	2024/09/16	Jolly John
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/14	Georgeta Rusu

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

TEST SUMMARY

Bureau Veritas ID: ACGS76 **Collected:** 2024/09/09
Sample ID: S7 **Shipped:**
Matrix: Soil **Received:** 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
OC Pesticides (Selected) & PCB	GC/ECD	9632927	2024/09/11	2024/09/13	Li Peng
OC Pesticides Summed Parameters	CALC	9626447	N/A	2024/09/11	Automated Statchk
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

Bureau Veritas ID: ACGS76 Dup **Collected:** 2024/09/09
Sample ID: S7 **Shipped:**
Matrix: Soil **Received:** 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon

Bureau Veritas ID: ACGS77 **Collected:** 2024/09/09
Sample ID: S8 **Shipped:**
Matrix: Soil **Received:** 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9636692	2024/09/13	2024/09/13	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/14	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

Bureau Veritas ID: ACGS78 **Collected:** 2024/09/09
Sample ID: S9 **Shipped:**
Matrix: Soil **Received:** 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9636692	2024/09/13	2024/09/13	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/14	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran

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

TEST SUMMARY

Bureau Veritas ID: ACGS78
Sample ID: S9
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

Bureau Veritas ID: ACGS78 Dup
Sample ID: S9
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu

Bureau Veritas ID: ACGS79
Sample ID: S10
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9637718	2024/09/13	2024/09/16	Japneet Gill
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/14	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9637073	2024/09/13	2024/09/13	Daniel Teclu
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
OC Pesticides (Selected) & PCB	GC/ECD	9632927	2024/09/11	2024/09/13	Li Peng
OC Pesticides Summed Parameters	CALC	9626447	N/A	2024/09/11	Automated Statchk
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

Bureau Veritas ID: ACGS80
Sample ID: DUP1
Matrix: Soil

Collected: 2024/09/09
Shipped:
Received: 2024/09/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9640025	2024/09/16	2024/09/16	Japneet Gill
Free (WAD) Cyanide	TECH	9636031	2024/09/13	2024/09/13	Prgya Panchal
Conductivity	AT	9636939	2024/09/13	2024/09/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9636875	2024/09/13	2024/09/13	Sousan Besharatlou
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9637497	N/A	2024/09/14	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9638762	2024/09/14	2024/09/15	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9637610	2024/09/13	2024/09/13	Jaswinder Kaur
Moisture	BAL	9628557	N/A	2024/09/10	Jeremy Apoon
OC Pesticides (Selected) & PCB	GC/ECD	9632927	2024/09/11	2024/09/13	Li Peng
OC Pesticides Summed Parameters	CALC	9626447	N/A	2024/09/11	Automated Statchk
pH CaCl2 EXTRACT	AT	9636187	2024/09/13	2024/09/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9626474	N/A	2024/09/17	Automated Statchk

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

GENERAL COMMENTS

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

Package 1	6.7°C

Sample ACGS74 [S5] : F1/BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample ACGS75 [S6] : F1/BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

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

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9632927	2,4,5,6-Tetrachloro-m-xylene	2024/09/12	54	50 - 130	83	50 - 130	79	%		
9632927	Decachlorobiphenyl	2024/09/12	69	50 - 130	91	50 - 130	73	%		
9637497	1,4-Difluorobenzene	2024/09/13	93	60 - 140	96	60 - 140	103	%		
9637497	4-Bromofluorobenzene	2024/09/13	103	60 - 140	99	60 - 140	88	%		
9637497	D10-o-Xylene	2024/09/13	104	60 - 140	112	60 - 140	111	%		
9637497	D4-1,2-Dichloroethane	2024/09/13	98	60 - 140	97	60 - 140	100	%		
9638762	o-Terphenyl	2024/09/15	72	60 - 140	80	60 - 140	84	%		
9628557	Moisture	2024/09/10							1.6	20
9632927	a-Chlordane	2024/09/12	55	50 - 130	83	50 - 130	<0.0020	ug/g	NC	40
9632927	Aldrin	2024/09/12	54	50 - 130	71	50 - 130	<0.0020	ug/g	NC	40
9632927	Aroclor 1242	2024/09/12					<0.015	ug/g		
9632927	Aroclor 1248	2024/09/12					<0.015	ug/g		
9632927	Aroclor 1254	2024/09/12					<0.015	ug/g		
9632927	Aroclor 1260	2024/09/12					<0.015	ug/g		
9632927	Dieldrin	2024/09/12	67	50 - 130	97	50 - 130	<0.0020	ug/g	NC	40
9632927	Endosulfan I (alpha)	2024/09/12	56	50 - 130	91	50 - 130	<0.0020	ug/g	NC	40
9632927	Endosulfan II (beta)	2024/09/12	57	50 - 130	78	50 - 130	<0.0020	ug/g	NC	40
9632927	Endrin	2024/09/12	68	50 - 130	100	50 - 130	<0.0020	ug/g	NC	40
9632927	g-Chlordane	2024/09/12	57	50 - 130	83	50 - 130	<0.0020	ug/g	NC	40
9632927	Heptachlor epoxide	2024/09/12	67	50 - 130	88	50 - 130	<0.0020	ug/g	NC	40
9632927	Heptachlor	2024/09/12	44 (1)	50 - 130	73	50 - 130	<0.0020	ug/g	NC	40
9632927	Hexachlorobenzene	2024/09/12	65	50 - 130	75	50 - 130	<0.0020	ug/g	NC	40
9632927	Hexachlorobutadiene	2024/09/12	43 (1)	50 - 130	89	50 - 130	<0.0020	ug/g	NC	40
9632927	Hexachloroethane	2024/09/12	77	50 - 130	74	50 - 130	<0.0020	ug/g	NC	40
9632927	Lindane	2024/09/12	77	50 - 130	82	50 - 130	<0.0020	ug/g	NC	40
9632927	Methoxychlor	2024/09/12	52	50 - 130	78	50 - 130	<0.0050	ug/g	NC	40
9632927	o,p-DDD	2024/09/12	76	50 - 130	93	50 - 130	<0.0020	ug/g	NC	40
9632927	o,p-DDE	2024/09/12	64	50 - 130	100	50 - 130	<0.0020	ug/g	NC	40
9632927	o,p-DDT	2024/09/12	64	50 - 130	79	50 - 130	<0.0020	ug/g	NC	40
9632927	p,p-DDD	2024/09/12	87	50 - 130	92	50 - 130	<0.0020	ug/g	NC	40
9632927	p,p-DDE	2024/09/12	85	50 - 130	115	50 - 130	<0.0020	ug/g	NC	40

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

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9632927	p,p-DDT	2024/09/12	45 (1)	50 - 130	66	50 - 130	<0.0020	ug/g	NC	40
9636031	WAD Cyanide (Free)	2024/09/13	90	75 - 125	92	80 - 120	<0.01	ug/g	NC	35
9636187	Available (CaCl2) pH	2024/09/13			100	97 - 103			2.4	N/A
9636692	Hot Water Ext. Boron (B)	2024/09/13	103	75 - 125	104	75 - 125	<0.050	ug/g	4.3	40
9636875	Chromium (VI)	2024/09/13	27 (2)	70 - 130	89	80 - 120	<0.18	ug/g	NC	35
9636939	Conductivity	2024/09/13			98	90 - 110	<0.02	mS/cm	0.48	10
9637073	Acid Extractable Antimony (Sb)	2024/09/13	105	75 - 125	116	80 - 120	<0.20	ug/g	NC	30
9637073	Acid Extractable Arsenic (As)	2024/09/13	103	75 - 125	103	80 - 120	<1.0	ug/g	3.0	30
9637073	Acid Extractable Barium (Ba)	2024/09/13	NC	75 - 125	97	80 - 120	<0.50	ug/g	1.7	30
9637073	Acid Extractable Beryllium (Be)	2024/09/13	102	75 - 125	102	80 - 120	<0.20	ug/g	2.5	30
9637073	Acid Extractable Boron (B)	2024/09/13	85	75 - 125	99	80 - 120	<5.0	ug/g	NC	30
9637073	Acid Extractable Cadmium (Cd)	2024/09/13	100	75 - 125	100	80 - 120	<0.10	ug/g	2.5	30
9637073	Acid Extractable Chromium (Cr)	2024/09/13	108	75 - 125	103	80 - 120	<1.0	ug/g	4.1	30
9637073	Acid Extractable Cobalt (Co)	2024/09/13	104	75 - 125	103	80 - 120	<0.10	ug/g	4.0	30
9637073	Acid Extractable Copper (Cu)	2024/09/13	NC	75 - 125	102	80 - 120	<0.50	ug/g	0.13	30
9637073	Acid Extractable Lead (Pb)	2024/09/13	104	75 - 125	102	80 - 120	<1.0	ug/g	1.9	30
9637073	Acid Extractable Mercury (Hg)	2024/09/13	106	75 - 125	110	80 - 120	<0.050	ug/g	NC	30
9637073	Acid Extractable Molybdenum (Mo)	2024/09/13	97	75 - 125	99	80 - 120	<0.50	ug/g	6.0	30
9637073	Acid Extractable Nickel (Ni)	2024/09/13	107	75 - 125	103	80 - 120	<0.50	ug/g	1.9	30
9637073	Acid Extractable Selenium (Se)	2024/09/13	99	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
9637073	Acid Extractable Silver (Ag)	2024/09/13	100	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
9637073	Acid Extractable Thallium (Tl)	2024/09/13	103	75 - 125	104	80 - 120	<0.050	ug/g	5.2	30
9637073	Acid Extractable Uranium (U)	2024/09/13	102	75 - 125	102	80 - 120	<0.050	ug/g	2.5	30
9637073	Acid Extractable Vanadium (V)	2024/09/13	NC	75 - 125	105	80 - 120	<5.0	ug/g	2.5	30
9637073	Acid Extractable Zinc (Zn)	2024/09/13	NC	75 - 125	103	80 - 120	<5.0	ug/g	2.8	30
9637497	Benzene	2024/09/13	87	50 - 140	92	50 - 140	<0.020	ug/g	NC	50
9637497	Ethylbenzene	2024/09/13	97	50 - 140	99	50 - 140	<0.020	ug/g	NC	50
9637497	F1 (C6-C10) - BTEX	2024/09/13					<10	ug/g	NC	30
9637497	F1 (C6-C10)	2024/09/13	111	60 - 140	106	80 - 120	<10	ug/g	NC	30
9637497	o-Xylene	2024/09/13	96	50 - 140	100	50 - 140	<0.020	ug/g	NC	50
9637497	p+m-Xylene	2024/09/13	93	50 - 140	97	50 - 140	<0.040	ug/g	NC	50

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

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9637497	Toluene	2024/09/13	86	50 - 140	92	50 - 140	<0.020	ug/g	NC	50
9637497	Total Xylenes	2024/09/13					<0.040	ug/g	NC	50
9637610	Acid Extractable Antimony (Sb)	2024/09/13	81	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
9637610	Acid Extractable Arsenic (As)	2024/09/13	93	75 - 125	99	80 - 120	<1.0	ug/g	2.0	30
9637610	Acid Extractable Barium (Ba)	2024/09/13	NC	75 - 125	105	80 - 120	<0.50	ug/g	1.2	30
9637610	Acid Extractable Beryllium (Be)	2024/09/13	90	75 - 125	94	80 - 120	<0.20	ug/g	0.54	30
9637610	Acid Extractable Boron (B)	2024/09/13	95	75 - 125	97	80 - 120	<5.0	ug/g	0.63	30
9637610	Acid Extractable Cadmium (Cd)	2024/09/13	90	75 - 125	96	80 - 120	<0.10	ug/g	NC	30
9637610	Acid Extractable Chromium (Cr)	2024/09/13	95	75 - 125	94	80 - 120	<1.0	ug/g	1.8	30
9637610	Acid Extractable Cobalt (Co)	2024/09/13	85	75 - 125	93	80 - 120	<0.10	ug/g	0.58	30
9637610	Acid Extractable Copper (Cu)	2024/09/13	NC	75 - 125	94	80 - 120	<0.50	ug/g	6.0	30
9637610	Acid Extractable Lead (Pb)	2024/09/13	101	75 - 125	102	80 - 120	<1.0	ug/g	20	30
9637610	Acid Extractable Mercury (Hg)	2024/09/13	92	75 - 125	102	80 - 120	<0.050	ug/g	NC	30
9637610	Acid Extractable Molybdenum (Mo)	2024/09/13	87	75 - 125	95	80 - 120	<0.50	ug/g	NC	30
9637610	Acid Extractable Nickel (Ni)	2024/09/13	NC	75 - 125	96	80 - 120	<0.50	ug/g	1.1	30
9637610	Acid Extractable Selenium (Se)	2024/09/13	91	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
9637610	Acid Extractable Silver (Ag)	2024/09/13	91	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
9637610	Acid Extractable Thallium (Tl)	2024/09/13	87	75 - 125	100	80 - 120	<0.050	ug/g	8.9	30
9637610	Acid Extractable Uranium (U)	2024/09/13	93	75 - 125	100	80 - 120	<0.050	ug/g	2.6	30
9637610	Acid Extractable Vanadium (V)	2024/09/13	NC	75 - 125	98	80 - 120	<5.0	ug/g	1.2	30
9637610	Acid Extractable Zinc (Zn)	2024/09/13	NC	75 - 125	102	80 - 120	<5.0	ug/g	3.8	30
9637718	Hot Water Ext. Boron (B)	2024/09/16	101	75 - 125	100	75 - 125	<0.050	ug/g	NC	40
9638762	F2 (C10-C16 Hydrocarbons)	2024/09/15	73	60 - 140	84	80 - 120	<7.0	ug/g	NC	30
9638762	F3 (C16-C34 Hydrocarbons)	2024/09/15	73	60 - 140	83	80 - 120	<50	ug/g	NC	30
9638762	F4 (C34-C50 Hydrocarbons)	2024/09/15	71	60 - 140	81	80 - 120	<50	ug/g	NC	30
9638958	Hot Water Ext. Boron (B)	2024/09/16	109	75 - 125	101	75 - 125	<0.050	ug/g	NC	40
9640020	Hot Water Ext. Boron (B)	2024/09/16	110	75 - 125	106	75 - 125	<0.050	ug/g	2.5	40
9640025	Hot Water Ext. Boron (B)	2024/09/16	115	75 - 125	102	75 - 125	<0.050	ug/g	0.19	40

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

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9642358	F4G-sg (Grav. Heavy Hydrocarbons)	2024/09/17	78	65 - 135	102	65 - 135	<100	ug/g	8.0	50

N/A = Not Applicable

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

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

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

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

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

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

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

(1) Spike recovery is below the control limit stipulated by Ont Reg 153, however, this recovery is still within Bureau Veritas' performance based limits. Results reported with recoveries within this range are still valid but may have a low bias.

(2) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The sample was reanalyzed with the same results.

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

VALIDATION SIGNATURE PAGE

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

[redacted]

Anastassia Hamanov, Supervisor-Afternoon Shift

[redacted]

Cristina Carriere, Senior Scientific Specialist

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

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

C4S0694
2024/09/09 15:23

www.BVNA.com

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

CHAIN OF CUSTODY RECORD

ENV COC - 00014v5

NONT-2024-09-1395

Invoice Information		Report Information (if differs from invoice)		Project Information	
Invoice to (requires report)	☐				
Company :	DS Consultants Ltd.	Company:	DS Consultants Ltd.	Quotation #:	
Contact Name:	Accounts Payable	Contact Name:	Teresa Weatherhead	P.O. #/ AFE#:	
Street Address:	6221 Hwy 7, Unit 16	Street Address:	6221 Highway 7, Unit 16	Project #:	
City: / Prov: / Postal Code:		City: / Prov: / Postal Code:	Vaughan / ON / L4H0K8	Site #:	21-462-100
Phone:	905-264-9393	Phone:		Site Location:	
Email:	accounting@dsconsultants.ca	Email:	tweatherhead@dsconsultants.ca	Site Location Province:	Ontario
Copies:		Copies:		Sampled By:	Dina Al-Shalah

Regulatory Criteria

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

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

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

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

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

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

Date Required: YYYY / MM / DD

	Sample Identification (Please print or Type)	Date Sampled YYYY	MM	DD	Time (24hr) HH	MM	Matrix	FIELD FILTERED	FIELD PRESERVED	LAB FILTRATION REQUIRED	BTEX/ F1	F2 - F4	VOCs	Reg 153 metals and inorganics	Reg 153 (CPMS metals	Reg 153 metals (Hg, Cr VI, ICPMS metals, HWS - B)	PAHs	pH	oc Pesticides	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE	Comments
1	S1	2024	09	09	am		Soil				X	X		X					x	5		
2	S2	24					Soil				X	X		X						4		
3	S3	24					Soil				X	X		X					x	5		
4	S4						Soil				X	X		X					x	5		
5	S5						Soil				X	X		X					x	5		
6	S6						Soil				X	X		X						4		
7	S7						Soil				X	X		X					x	5		
8	S8						Soil				X	X		X						4		
9	S9						Soil				X	X		X						4		
10	S10						Soil				X	X		X					x	5		
11	DUP1						Soil				X	X		X					X	5		
12																						

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present	✓		8			
Seal intact	✓		7.5			
Cooling media present						

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

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

	Relinquished by: (Signature/ Print)	Date YYYY	MM	DD	Time HH	MM	Received by: (Signature/ Print)	Date YYYY	MM	DD	Time HH	MM	Special instructions
1	Dina Al-Shalah	2024	09	09	3:30	pm	1	2024	09	09	15	23	
2							2						

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

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
S1	ACGS69-01	Acid Extractable Zinc (Zn)	290	360	5.0	ug/g
S5	ACGS74-03	F4 (C34-C50 Hydrocarbons)	120	200	50	ug/g
S5	ACGS74-03-Lab Dup	F4G-sg (Grav. Heavy Hydrocarbons)	120	880	100	ug/g
S5	ACGS74-03	F4G-sg (Grav. Heavy Hydrocarbons)	120	960	100	ug/g
S6	ACGS75-02	F4 (C34-C50 Hydrocarbons)	120	360	50	ug/g
S6	ACGS75-02	F4G-sg (Grav. Heavy Hydrocarbons)	120	1600	100	ug/g

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

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

Your Project #: 21-462-100
Site Location: FLAMBOROUGH POWER CENTER
Your C.O.C. #: N/A

Attention: Teresa Weatherhead

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

Report Date: 2024/10/25
Report #: R8376694
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C4V5978
Received: 2024/10/07, 16:09

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	1	N/A	2024/10/11	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	1	2024/10/10	2024/10/12	CAM SOP-00316	CCME CWS m
F4G (CCME Hydrocarbons Gravimetric)	1	2024/10/16	2024/10/16	CAM SOP-00316	CCME PHC-CWS m
Moisture	1	N/A	2024/10/10	CAM SOP-00445	Carter 2nd ed 70.2 m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

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

Your Project #: 21-462-100
Site Location: FLAMBOROUGH POWER CENTER
Your C.O.C. #: N/A

Attention: Teresa Weatherhead

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

Report Date: 2024/10/25
Report #: R8376694
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C4V5978
Received: 2024/10/07, 16:09

Encryption Key

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

==========

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

Bureau Veritas Job #: C4V5978
Report Date: 2024/10/25

DS Consultants Limited
Client Project #: 21-462-100
Site Location: FLAMBOROUGH POWER CENTER
Sampler Initials: DO

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		AFFG28			
Sampling Date		2024/10/07			
COC Number		N/A			
	UNITS	S6-B	RDL	MDL	QC Batch
Inorganics					
Moisture	%	16	1.0	0.50	9693216

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID			AFFG28			
Sampling Date			2024/10/07			
COC Number			N/A			
	UNITS	Criteria	S6-B	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons						
Benzene	ug/g	0.02	<0.020	0.020	0.020	9697763
Toluene	ug/g	0.2	0.025	0.020	0.020	9697763
Ethylbenzene	ug/g	0.05	<0.020	0.020	0.020	9697763
o-Xylene	ug/g	-	<0.020	0.020	0.020	9697763
p+m-Xylene	ug/g	-	<0.040	0.040	0.040	9697763
Total Xylenes	ug/g	0.05	<0.040	0.040	0.040	9697763
F1 (C6-C10)	ug/g	25	<10	10	5.0	9697763
F1 (C6-C10) - BTEX	ug/g	25	<10	10	5.0	9697763
F2-F4 Hydrocarbons						
F4G-sg (Grav. Heavy Hydrocarbons)	ug/g	120	**1500**	100	100	9703026
F2 (C10-C16 Hydrocarbons)	ug/g	10	<7.0	7.0	5.0	9694756
F3 (C16-C34 Hydrocarbons)	ug/g	240	130	50	5.0	9694756
F4 (C34-C50 Hydrocarbons)	ug/g	120	**360**	50	10	9694756
Reached Baseline at C50	ug/g	-	No			9694756
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	-	104			9697763
4-Bromofluorobenzene	%	-	90			9697763
D10-o-Xylene	%	-	102			9697763
D4-1,2-Dichloroethane	%	-	100			9697763
o-Terphenyl	%	-	84			9694756

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

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ont. Reg. 406/19 Excess Soil Quality Standards, Table 1, Full Depth Background Site Condition Standards, Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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

Bureau Veritas Job #: C4V5978
Report Date: 2024/10/25

DS Consultants Limited
Client Project #: 21-462-100
Site Location: FLAMBOROUGH POWER CENTER
Sampler Initials: DO

TEST SUMMARY

Bureau Veritas ID: AFFG28
Sample ID: S6-B
Matrix: Soil

Collected: 2024/10/07
Shipped:
Received: 2024/10/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9697763	N/A	2024/10/11	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9694756	2024/10/10	2024/10/12	Ksenia Trofimova
F4G (CCME Hydrocarbons Gravimetric)	BAL	9703026	2024/10/16	2024/10/16	Rashmi Dubey
Moisture	BAL	9693216	N/A	2024/10/10	Joe Thomas

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

GENERAL COMMENTS

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

Package 1	6.0°C

Sample AFFG28 [S6-B] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

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

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9694756	o-Terphenyl	2024/10/11	80	60 - 140	86	60 - 140	88	%		
9697763	1,4-Difluorobenzene	2024/10/11	100	60 - 140	100	60 - 140	105	%		
9697763	4-Bromofluorobenzene	2024/10/11	104	60 - 140	103	60 - 140	91	%		
9697763	D10-o-Xylene	2024/10/11	115	60 - 140	96	60 - 140	97	%		
9697763	D4-1,2-Dichloroethane	2024/10/11	99	60 - 140	97	60 - 140	99	%		
9693216	Moisture	2024/10/10							0	20
9694756	F2 (C10-C16 Hydrocarbons)	2024/10/11	79	60 - 140	85	80 - 120	<7.0	ug/g	NC	30
9694756	F3 (C16-C34 Hydrocarbons)	2024/10/11	78	60 - 140	84	80 - 120	<50	ug/g	NC	30
9694756	F4 (C34-C50 Hydrocarbons)	2024/10/11	74	60 - 140	80	80 - 120	<50	ug/g	NC	30
9697763	Benzene	2024/10/11	87	50 - 140	95	50 - 140	<0.020	ug/g	NC	50
9697763	Ethylbenzene	2024/10/11	98	50 - 140	104	50 - 140	<0.020	ug/g	NC	50
9697763	F1 (C6-C10) - BTEX	2024/10/11					<10	ug/g	NC	30
9697763	F1 (C6-C10)	2024/10/11	79	60 - 140	101	80 - 120	<10	ug/g	NC	30
9697763	o-Xylene	2024/10/11	95	50 - 140	100	50 - 140	<0.020	ug/g	NC	50
9697763	p+m-Xylene	2024/10/11	91	50 - 140	96	50 - 140	<0.040	ug/g	NC	50
9697763	Toluene	2024/10/11	83	50 - 140	88	50 - 140	<0.020	ug/g	1.1	50
9697763	Total Xylenes	2024/10/11					<0.040	ug/g	NC	50
9703026	F4G-sg (Grav. Heavy Hydrocarbons)	2024/10/16	121	65 - 135	102	65 - 135	<100	ug/g	11	50

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

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

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

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

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

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

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

Bureau Veritas Job #: C4V5978
Report Date: 2024/10/25

DS Consultants Limited
Client Project #: 21-462-100
Site Location: FLAMBOROUGH POWER CENTER
Sampler Initials: DO

VALIDATION SIGNATURE PAGE

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

[redacted]
Cristina Carriere, Senior Scientific Specialist

[redacted]
Louise Harding, Scientific Specialist

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

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

C4V5978
2024/10/07 16:09

www.BVNA.com

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

REC'D IN WATERLOO

CHAIN OF CUSTODY RECORD

ENV COC - 00014v5

NONT-2024-10-1797

Invoice Information	Invoice to (requires report) ☐	Report Information (if differs from invoice)		Project Information	
Company :	DS Consultants	Company:	DS Consultants	Quotation #:	
Contact Name:	Accounting	Contact Name:	Teresa Weatherhead	P.O. #/ AFE#:	
Street Address:	6221 Highway 7, Unit 16	Street Address:	1290 Arvin Ave, Unit 4	Project #:	21-462-100
City: Vaughan Prov: ON Postal Code:	L4H 0K8	City: Stoney Creek Prov: ON Postal Code:	L8E0H7	Site #:	
Phone:	905-264-9393	Phone:	519-465-7015	Site Location:	Flamborough Power Center
Email:	Accounting@dsconsultants.ca	Email:	tweatherhead@dsconsultants.ca	Site Location Province:	ON
Copies:		Copies:	DOpersko@dsconsultants.ca	Sampled By:	Dayna Opersko

Regulatory Criteria

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

OTHER: ☐ CCME ☐ Reg 558* ☐ *min 3 day TAT ☐ MISA ☐ PWQO ☒ Reg 406, Table: T1 RPIICC ☐ Sanitary Sewer Bylaw ☐ Storm Sewer Bylaw Municipality _____ ☐ Other:

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

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

	Sample Identification (Please print or Type)	Date Sampled YYYY	MM	DD	Time (24hr) HH	MM	Matrix	FIELD FILTERED	FIELD PRESERVED	LAB FILTRATION REQUIRED	BTEX/ F1	F2 - F4	VOCs	Reg 153 metals and inorganics	Reg 153 ICPMS metals	Reg 153 metals (Hg, Cr VI, ICPMS metals, HWS - B)	PAHs	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE
1	S1-D	2024	10	07	AM		Soil								X			1	
2	S1-E	2024	10	07	AM		Soil								x			1	
3	S5-A	2024	10	07	AM		Soil				x	x						3	
4	S5-B	2024	10	07	AM		Soil				x	x						3	
5	S6-B	2024	10	07	AM		Soil				x	x						3	
6	S6-C	2024	10	07	AM		Soil				x	x						3	
7	DUP2	2024	10	07	AM		Soil				x	x						3	
8	DUP3	2024	10	07	AM		Soil								x			1	
9																			
10																			
11																			
12																			

Regular Turnaround Time (TAT)

☒ 5 to 7 Day ☐ 10 Day

Rush Turnaround Time (TAT) Surcharges apply

☐ Same Day ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 4 Day

Date Required: YYYY MM DD

Comments

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

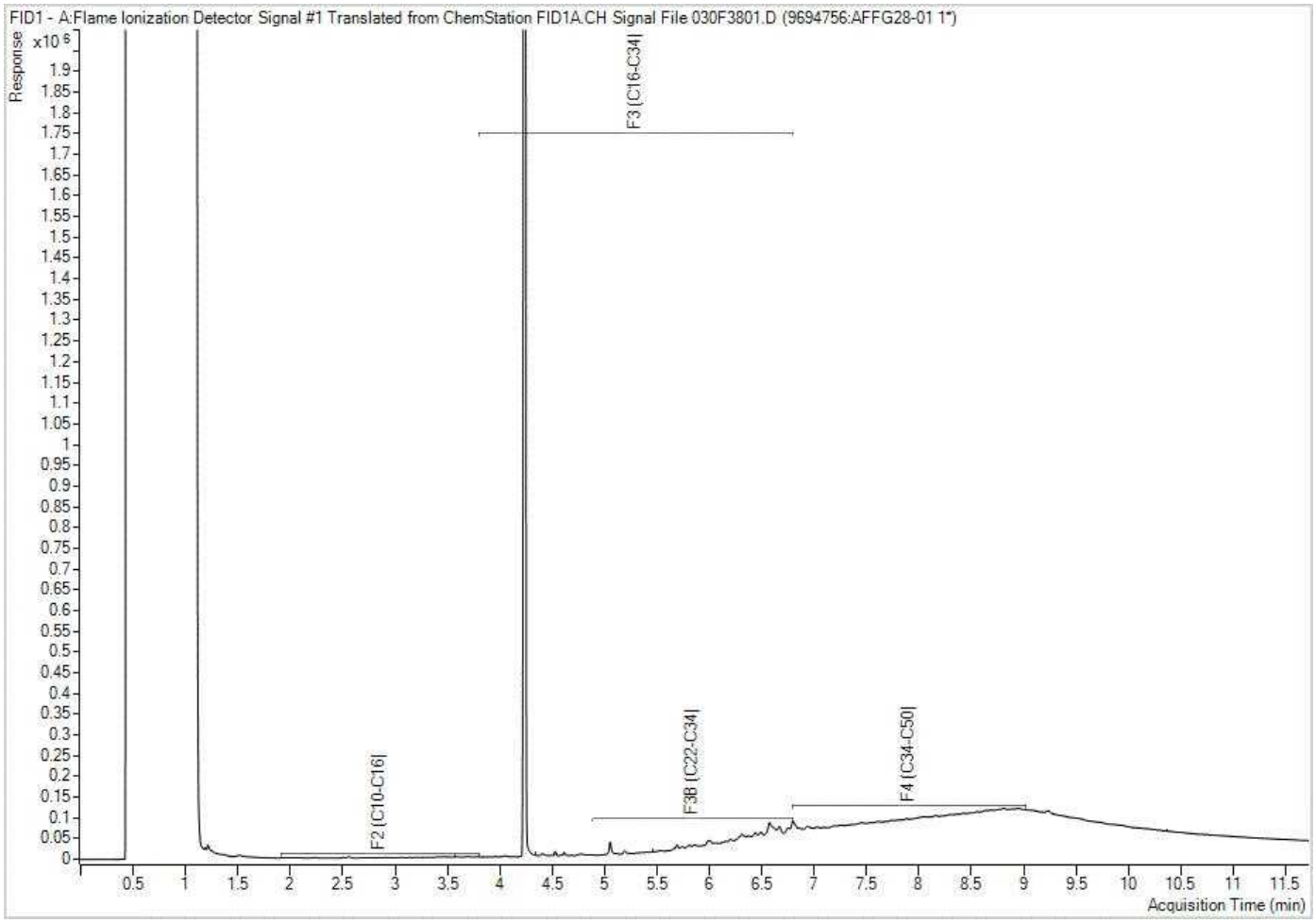
LAB USE ONLY	Yes	No	°C				LAB USE ONLY	Yes	No	°C				LAB USE ONLY	Yes	No	°C				Temperature reading by:
Seal present	✓						Seal present	✓						Seal present							
Seal intact	✓						Seal intact	✓						Seal intact							
Cooling media present	✓						Cooling media present	✓						Cooling media present							
				6	6	6					4	4	4					1	2	3	
				1	2	3					1	2	3								

Relinquished by: (Signature/ Print)	Date YYYY	MM	DD	Time HH	MM	Received by: (Signature/ Print)	Date YYYY	MM	DD	Time HH	MM	Special instructions
1 Dayna Opersko	2024	10	07	16	08	1 [redacted] AAYUSHI	2024	10	07	16	09	
2						2 BHARGAV	2024	10	07	17	54	

Bureau Veritas Job #: C4V5978
Report Date: 2024/10/25
Bureau Veritas Sample: AFFG28

DS Consultants Limited
Client Project #: 21-462-100
Project name: FLAMBOROUGH POWER CENTER
Client ID: S6-B

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4V5978
Report Date: 2024/10/25

DS Consultants Limited
Client Project #: 21-462-100
Site Location: FLAMBOROUGH POWER CENTER
Sampler Initials: DO

Exceedance Summary Table – Reg 406 T1 Res (S)

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
S6-B	AFFG28-01	F4 (C34-C50 Hydrocarbons)	120	360	50	ug/g
S6-B	AFFG28-01	F4G-sg (Grav. Heavy Hydrocarbons)	120	1500	100	ug/g

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

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