Peto MacCallum Ltd.
CONSULTING ENGINEERS

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
PROPOSED SIMCOE COUNTY SERVICE CAMPUS
2 BORLAND STREET EAST
ORILLIA, ONTARIO

for

THE CORPORATION OF THE COUNTY OF SIMCOE

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EXECUTIVE SUMMARY

Peto MacCallum Ltd. (PML) was retained by the County of Simcoe to conduct a Phase Two Environmental Site Assessment (ESA) for 2 Borland Street East in Orillia, Ontario. The Phase Two ESA property (referred herein as the 'Site') is bounded by North Street, Peter Street North, Borland Street East and West Street in Orillia (Drawing 2-1).

Previously, a Phase One ESA report was completed for the Site by Terraprobe Inc. (Terraprobe) in 2018 (Terraprobe Report Reference No.: 3-18-0005, dated March 12, 2018). A copy of the Terraprobe Phase One ESA report was provided to PML for review, which was carried out in accordance with the CSA Z768-01 standard. Copy of the Terraprobe Phase One ESA report is provided in Appendix A.

Based on a review of the Terraprobe Phase One ESA report, PML identified several potentially contaminating activities (PCAs) and Areas of Potential Environmental Concerns (APECs) for the Site and recommended a Phase Two ESA.

The Phase Two ESA was conducted for the Site as part of the due diligence process to verify the potential sources of contamination identified during a review of a previous Phase One ESA completed by others. It is understood that a Record of Site Condition (RSC) is not required for the Site. In this regard, the Phase Two ESA was completed in general accordance with the O.Reg 153/04, as amended and Schedule E of the Regulation for due diligence purpose.

The Site comprises a rectangular shaped parcel of land encompassing an approximately area of 4.0 ha. The Site is currently vacant but was formerly occupied by a school building and paved areas which have been demolished and removed. The Site and the Study Area are situated in a historically rural area comprising residential and commercial land uses to the north, south and west and residential and community land uses to the east.

Based on information from the chain of title, aerial photographs and historical atlases, the first developed land use for the Site was the construction of the school building in the early 1920's. The school building and paved areas were demolished and removed in 2019, the Site is currently vacant.

Based on the findings of the Site records review, reconnaissance, and interviews, three on-Site PCA and no off-Site PCAs were identified. The on-Site PCA resulted from fill and debris noted in the vicinity of the former school building on-Site (PCAs 1 and 2), and an Above Ground Storage Tank (AST) identified during the previous Phase One ESA (PCA 3).

Based on the findings of the Phase One ESA conducted by others, a program of subsurface investigation (Phase Two ESA) was carried out at the Site. The Phase Two ESA program included advancement of four (4) boreholes with ground water monitoring wells in three (3) of the drilled boreholes on the Site for soil and ground water sampling and analyses, and an evaluation of the chemical test results in terms of the applicable Site Condition Standards (Ontario Regulation 153/04, amended, Table 1 Site Condition Standards for Residential/Parkland/Institutional/ Industrial/Commercial/Community Property Uses).

Results of the chemical analyses conducted on borehole soil samples indicated that the measured concentrations of metals, inorganic, petroleum hydrocarbons, polycyclic aromatic hydrocarbons, volatile organic compounds including benzene, toluene, ethylbenzene and xylene, and polychlorinated biphenyls parameters were below the Ontario Regulation 153/04 (amended) Table 1 Standards for Residential/Parkland/Institutional/Industrial/Commercial/Community Property Uses for coarse textured soils with the exception of:

- Mercury in BH/MW8 SS2, BH/MW10 SS2 and Dup 1A with measured concentrations of 0.295 to 0.997 µg/g vs. a standard of 0.27 µg/g
- Conductivity in BH/MW10 SS2 and Dup 1A with measured concentrations of 1.01 to 1.2 mS/cm vs. a standard of 0.57 mS/cm
- PHC Fraction F4 in BH/MW10 SS2, Dup 1A and BH/MW13 SS2 with measured concentrations of 170 to 860 µg/g vs. a standard of 120 µg/g
- Toluene in BH/MW 13 SS3 with a measured concentration of 0.4 µg/g vs. a standard of 0.2 µg/g
- Acenaphthene in BH/MW13 SS3 with a measured concentration of 0.08 µg/g vs. a standard of 0.072 µg/g
- Fluoranthene in BH/MW13 SS3 with a measured concentration of 0.59 µg/g vs. a standard of 0.56 µg/g
- Phenanthrene in BH/MW13 SS3 with a measured concentration of 0.7 µg/g vs. a standard of 0.69 µg/g

Results of the chemical analyses conducted on the ground water samples from the monitoring wells indicated that the measured concentrations of metals, PHCs, PAHs, and VOCs including BTEX parameters were less than the applicable Ontario Regulation 153/04 (amended) Table 1 Site Condition Standards for All Types of Property Uses in the non-potable ground water condition with the exception of:

- Pyrene in BH/MW20 with a measured concentration of 0.25 µg/L vs. a standard of 0.2 µg/L

Based on the above site background information, Phase Two ESA field and laboratory data and the limitations inherent in the scope of sampling and testing program undertaken to date, the following recommendations are made for the Site:

- The soil underlying the Site in the vicinity of BH/MW8, 10 and 13 did not comply with the applicable Ontario Regulation 153/04 (amended) Table 1 Site Condition Standards with the exception for ORPs, PHCs, and/or PAHs.
- It is understood that as part of the proposed earth works on-site the fill and upper native soil in the vicinity of BH/MW8, BH/MW10 and BH/MW13 is to be removed. As such, following the removal of the geotechnically unsuitable fill and upper native soil it is recommended that confirmatory sampling be completed in the vicinity of the impacted boreholes in accordance with O.Reg. 153/04 minimum confirmation sampling requirements for excavation. It is noted that the off-site reuse and/or disposal of the excess soils on-site will need to be completed in accordance with Ontario Regulation 406/19 requirements.
- The ground water underlying the Site complied with the applicable Ontario Regulation 153/04 (amended) Table 1 Site Condition Standards with the exception of pyrene in the vicinity of BH/MW20.
- Following the recommended removals and confirmatory sampling, it is further recommended that an additional ground water sample be obtained from BH/MW20 to confirm the pyrene exceedance.

It is understood that an RSC is not required at this time; however, a program of site remediation/cleanup and/or RA would be required before an RSC can be prepared for the Site, if ever required.

It should be noted that soil and/or ground water conditions between and beyond the sampled locations may differ from those encountered during this assignment. PML should be contacted if impacted soil conditions become apparent during future development to further access and appropriately handle the materials, if any, and evaluate whether modifications to the conclusions documented in this report are necessary.

The monitoring wells installed during the current investigations should be decommissioned in accordance with the Ontario Regulation 903, amended to O.Reg. 128/03 under the Water Resources Act.

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ATTACHMENTS:

1. INTRODUCTION

Peto MacCallum Ltd. (PML) was retained by the County of Simcoe to conduct a Phase Two Environmental Site Assessment (ESA) for 2 Borland Street East in Orillia, Ontario. The Phase Two ESA property (referred herein as the 'Site') is bounded by North Street, Peter Street North, Borland Street East and West Street in Orillia (Drawing 2-1).

Previously, a Phase One ESA report was completed for the Site by Terraprobe Inc. (Terraprobe) in 2018 (Terraprobe Report Reference No.: 3-18-0005, dated March 12, 2018). A copy of the Terraprobe Phase One ESA report was provided to PML for review, which was carried out in accordance with the CSA Z768-01 standard. Copy of the Terraprobe Phase One ESA report is provided in Appendix A.

Based on a review of the Terraprobe Phase One ESA report, PML identified several potentially contaminating activities (PCAs) and Areas of Potential Environmental Concerns (APECs) for the Site and recommended a Phase Two ESA.

The Phase Two ESA was conducted for the Site as part of the due diligence process to verify the potential sources of contamination identified during a review of a previous Phase One ESA completed by others (Terraprobe). It is understood that a Record of Site Condition (RSC) is not required for the Site. In this regard, the Phase Two ESA was completed in general accordance with the Ontario Regulation 153/04, as amended and Schedule E of the Regulation for due diligence purpose.

1.2 Current Property Uses

Based on information from the chain of title, aerial photographs and historical atlases, the first developed land use for the Site was the construction of the school building in the early 1920's. The school building and paved areas were demolished and removed in 2019, the Site is currently vacant.

1.1 Site Description and Land Uses

The Site comprises a rectangular shaped parcel of land encompassing an approximately area of 4.0 ha. The Site is currently vacant but was formerly occupied by a school building and paved areas which have been demolished and removed. The Site and the Study Area (area within a 250 m radius of the Site) are situated in a historically rural area comprising residential, commercial and community land uses to the north, south and west and residential and community land uses to the east.

The land use of the properties adjacent to the Site is given below.

TABLE 1
ADJACENT LAND USE OF THE SITE

Direction from Site	Description of Property	Land Use
North	North Street East (Residential Dwellings)	Residential
East	Peter Street North (Residential Dwellings and a Community Center)	Residential / Community
South	Borland Street East (Residential Dwelling)	Residential
West	West Street North (Residential Dwellings and a Strip Mall)	Residential / Commercial

The Site is legally described as Lot 7 Concession 5 Southern Division, Township of Orillia.

1.3 Applicable Site Condition Standards

In general, the applicable environmental quality standards depend on the site location, land use, and source of potable water at the investigation site. For the Site, the Full Depth Background Criteria of the Ontario Regulation 153/04 (amended), Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act dated April 15, 2011 (Soil/Ground Water Site Condition Standards) were selected.

The Site and the surrounding areas are located in a mixed residential, commercial and community setting and connected to the municipal water supply. The Site is within both a Well Head Protection Area (WHPA) and an Intake Protection Zone (IPZ).

No water bodies or areas of Natural Significance were located on-Site or within 30 m of the site.

The analyzed pH values of soil samples from the Site ranged from 7.84 to 11.90. To apply Generic Site Condition Standards as per Ontario Regulation 153/04 (amended), pH value should be in the range of 5 to 9 for surface soils and 5 to 11 for subsurface soils. As such, the site will be considered an environmentally sensitive site as these pH conditions do not apply.

Based on the subsurface investigation and review of available maps, it is understood that the Site is not a shallow soil property.

Considering the Site settings, land use and soil grain size, the Ontario Regulation 153/04 (amended) Table 1 Full Depth Background Site Condition Standards for Residential/Parkland/Institutional/ Industrial/Commercial/Community (RPI/ICC) Property Uses in a Potable Ground Water Condition for coarse textured soils were conservatively considered applicable for comparison to the Site.

2. BACKGROUND INFORMATION

2.1 Physical Setting

The Site is located within the physiographic region known as the Simcoe Lowlands comprising sand plains (Chapman and Putnam, 1984). It is noted that the physiographic region known as the Simcoe Uplands comprising drumlinzed till plans lies to the northwest of the site.

Bedrock below the overburden is mapped as limestone, dolostone, shale, arkose, and sandstone of the Simcoe Group from the Middle Ordovician period of the Paleozoic era of the Phanerozoic eon. Bedrock is anticipated at depths greater than 75 m based on the Ministry of Environment, Conservation and Parks (MECP) Water Well Records in the area.

There are no apparent water courses on-site. The closest waterbody is Lake Couchiching which lies approximately 870 m to the east of the site.

Based on the Ontario Ministry of Natural Resources and Forestry (MNRF), no area of natural significance (ANSI) existed on the Site and within the Study Area.

The Site and surrounding area ground surface elevation ranged from 260 to 270 masl. The ground surface of the area gently slopes towards the southeast.

2.2 Past Geoenvironmental Investigations

As noted earlier, a Phase One ESA report was completed for the Site by Terraprobe Inc. (Terraprobe) in 2018 (Terraprobe Report Reference No.: 3-18-0005, dated March 12, 2018). A copy of the Terraprobe Phase One ESA report was provided to PML for review. Terraprobe's Phase One ESA was completed in accordance with the CSA Z768-01 standard. The Phase One ESA completed by Terraprobe is included in Appendix A.

PMLs review findings are provided below:

- Based on the evaluation of the historical data and Site reconnaissance, no potentially contaminating activity (PCA) on the Site or within the Study Area were identified. As such, no Areas of Potential Environmental Concern (APEC) were identified by Terraprobe.

Based on PMLs review of the above Phase One ESA, three PCAs were identified on-site. The on-site PCAs were related to fill and debris in the vicinity of the former school and a former Above Ground Storage Tank (AST) identified during the Phase One ESA. The PCAs were further evaluated to determine APECs on the Site. The two on-Site PCAs were considered environmental concerns contributing to two APECs.

As such a Phase Two ESA, consisting of a soil and ground water sampling and chemical testing program, was recommended for the Site in order to further assess the soil and ground water environmental quality underlying the Site.

It is noted that a Geotechnical and Hydrogeological Investigation was completed concurrently and will be reported under separate cover in Report 1.

3. SCOPE OF INVESTIGATIONS

3.1 Overview of Site Investigation

This Phase Two ESA was conducted to determine the present environmental condition of the soils and ground water underlying the Site, and to determine the remedial or other action required to mitigate the environmental issues, if any.

To accomplish this task, a program of Phase Two ESA was to be completed undertaken, which involved subsurface investigations of the Site. The undertaken Phase Two ESA was completed concurrently with the Geotechnical and Hydrogeological Investigation and involved the following tasks:

- As part of the geotechnical and hydrogeological investigation, thirty (30) boreholes were advance, four (4) of the thirty (30) boreholes were utilized for this Phase Two ESA (BHs 8, 10, 13, and 20). The boreholes were located, sampled and logged to depths of 3.5 to 7.9 m below ground surface (bgs) with decontamination procedures and installation of a 50 mm diameter PVC well casing and screen in three (3) of the drilled boreholes for ground water sampling and ground water level monitoring.
- Chemical analyses on representative soil samples for chemical substances and parameters related to the actual and/or potential sources of contamination.
- Ground water samplings from monitoring wells installed in drilled boreholes for chemical analyses.
- Scientific evaluation of the compiled background information, field and laboratory data and preparation of a Phase Two ESA report including the factual data and interpretation together with the pertinent illustrations and recommendations.

The Phase Two ESA boreholes were drilled and sampled with de-contamination procedures as per the Ontario Regulation 153/04 (amended) sampling and chemical testing requirements with the pertinent QA/QC protocols.

3.2 Media Investigated

Sampling and chemical testing of soil and ground water underlying the Site were carried out to verify the environmental quality in comparison with the Ontario Regulation 153/04 (amended) Site Condition Standards.

3.3 Deviations from Sampling and Analytical Plan

There were no deviations from the soil sampling and analytical protocols employed during the course of investigation.

3.4 Impediments

There were no physical impediments encountered during the course of the site visit, borehole drilling, monitoring wells installation and soil sampling.

4. SITE AND SUBSURFACE INVESTIGATIONS

4.1 Subsurface Exploration and Sampling

The field work for this investigation was carried out as follows:

- December 8 and 10, 2020: Drilling, logging and soil sampling of Boreholes 8, 10, 13 and 20, and installation of monitoring wells in drilled boreholes 8, 10 and 20.
- December 21, 2020: Ground water samples were obtained from monitoring wells installed in drilled Boreholes 8 and 20 for chemical analyses. It is noted that the monitoring well installed in drilled borehole 10 was dry.

The boreholes were advanced to depths of 3.5 to 7.9 m bgs at the approximate locations shown on Drawing 2-1.

4.2 Elevation Survey

The borehole locations were marked at the Site by PML. The geodetic elevations were surveyed with a differential Global Positioning System (GPS) by PML. The survey data is presented on the Log of Borehole sheets.

4.3 Drilling and Summarized Subsurface Conditions

The boreholes were advanced using a track-mounted CME 55 bombardier drill rig equipped with continuous flight solid stem auger, owned and operated by a specialist drilling contractor.

Appropriate precautions were taken and equipment and sampling tools decontamination was carried out during field work to minimize potential cross-contamination between samples and boreholes.

The drilling contractor pre-cleaned a set of solid stem augers and tools prior to arriving at the Site. The split spoon sampler was decontaminated prior to and between taking samples by scrubbing with a wire brush and washing in a solution of Alconox soap. The sampler was then sprayed with isopropanol and rinsed with distilled water.

Reference is made to the appended Logs of Borehole Sheets for details of the field work, including inferred stratigraphy, soil classifications, Standard Penetration Test (SPT) N values, ground water observations carried out in the open boreholes during and upon completion of augering, details of monitoring well installations, ground water level readings in the monitoring wells, moisture content determinations and grain size distribution analyses.

Due to the soil sampling procedures and limited sample size, the depth/elevation demarcations on the borehole logs must be viewed as “transitional” zones between layers and cannot be construed as exact geologic boundaries between layers.

4.3.1 Stratigraphy

In general, the soil stratigraphy as encountered in drilled boreholes consisted of topsoil and/or fill underlain by a major native silt and sand till unit with variable clay and gravel contents (Log of Borehole Sheets). The stratigraphy and hydrogeological characteristics of the Site are depicted in

Sections A – A' and B-B' (Drawings 2-2 and 2-3). The section shows the measured depth to the water table, screened intervals of the monitoring wells, and the stratigraphy from ground surface to the deepest aquifer or aquitard investigated.

The following is a summary of the general subsurface conditions encountered during the geotechnical/hydrogeological drilling program:

Topsoil

Topsoil was present at the surface of Boreholes 16, 22, 25 and 27 to 29, ranging from 200 to 700 mm in thickness.

Fill

Fill was encountered in all boreholes (except Borehole 22) at surface or below the surficial topsoil extending to 0.7 to 4.0 m depth (elevation 265.2 to 268.5). The material was variable (typically silty sand). Trace organics were noted in moist samples near the surface and brick fragments were noted locally. The material had N Values ranging from 2 to greater than 50 indicating variable compaction when placed. The layer was moist, locally very moist to wet, with water contents of 5 to 24%.

Clayey Silt

Below the topsoil in Borehole 22, a clayey/sandy silt unit extended to 1.4 m depth (elevation 266.4). The material had a N Values of 11 indicating stiff conditions. The layer was about plastic limit with moisture content of 17%.

Silt

Locally in Borehole 23, below the fill, a silt unit was encountered to the 3.5 m exploration depth. The material had N Values of 5 to 22 indicating loose to compact conditions. The layer was wet to moist with water content of 14 to 31%.

Silt and Sand Till

Below the topsoil, fill and/or clayey/sandy silt/silt units in all boreholes, with the exception of Borehole 23, a major silt and sand till unit extended to the 3.5 to 7.9 m exploration depth. The matrix comprises silty sand to sandy silt with trace to some gravel and clay. Cobbles and boulders were noted during augering. The material had N Values of 5 to greater than 50 indicating loose to very dense conditions. The deposit was moist with water contents of 4 to 18%.

4.4 Soil Sampling

Representative samples of the overburden were recovered at regular depth intervals in the drilled boreholes using conventional split spoon sampler.

The soil samples obtained from the boreholes were immediately placed in glass jars and plastic bags. Observations of visible foreign materials and odours were recorded during the sampling operations.

The soil samples taken from boreholes are numbered as SS. The soil samples assigned for petroleum hydrocarbons and volatile organic compounds analyses were collected at the Site using laboratory supplied methanol vials.

Soil samples collected during this investigation were stored at low temperatures and brought to PML's laboratory for detailed visual examination before selecting the analytical protocols.

4.5 Field Screening Measurements

Following completion of the field work, the soil vapour concentrations (SVCs) were measured in the headspace of soil samples, which had sufficient recovery. The SVCs were measured using a combustible gas detector, RKI Eagle 2, calibrated to hexane.

There are no regulatory criteria for soil and wellhead vapours; however, vapours are often used as a field screening tool to identify petroleum hydrocarbon impacted soils. Elevated SVCs, typically in the percent of lower explosive level (LEL) range, are generally indicative of the presence of volatile petroleum products, such as gasoline or chlorinated degreasing solvents, and to a lesser extent diesel and fuel oil.

4.6 Monitoring Well Installation

Upon completion of drilling the boreholes, monitoring wells were installed in the drilled boreholes 8, 10 to 20. The casing was screened with 50 mm diameter Schedule 40 PVC pipe. The annular space of the borehole around the screen was backfilled with clean filter sand (up to 0.5 m above the top of the well screen). The monitoring wells were installed to allow ground water level measurement and sampling. The ground water conditions in the boreholes were also noted upon completion of drilling. The details of the monitoring well are shown on the appended Log of Borehole Sheets.

The monitoring wells were installed in accordance with the Ontario Regulation 903 (amended to 128/03).

Water levels were measured in the monitoring wells on December 18, 2020 using a Heron™ ground water level meter. Development/purging of monitoring wells were completed on December 18, 2020 and involved removal of a minimum of three to five well volumes or until the wells were dry in accordance with fixed volume and well evacuation purging procedures as outlined in ASTM D6452-99 (2012).

The times of development of the monitoring wells is summarized below:

TABLE 2
WELL DEVELOPMENT DETAILS

MONITORING WELL ID	TIME OF PURGING AND DEVELOPMENT	TOTAL VOLUME OF WATER REMOVED (L)
December 18, 2020		
BH/MW8	10:00 am to 11:00 am	Dry at 31
BH/MW20	11:00 am to 12:00 pm	Dry at 14

In an effort to minimize potential cross-contamination dedicated Waterra™ tubing was used on the ground water wells. The above equipment was used with new nitrile gloves for each well.

The Heron™ ground water level meter was cleaned between uses at each monitoring well location.

4.7 Field Measurement of Water Quality Parameters

Purging and development of the monitoring wells was carried out, as previously described, prior to ground water sample collection in order to obtain samples which were representative of ground water quality. Direct field measurement of water quality indicator parameters such as pH, conductivity, turbidity, dissolved oxygen (DO), temperature and oxidation reduction potential (ORP) was not part of the scope of work for this stage of the investigation.

4.8 Ground Water Sampling

Two (2) ground water samples were collected on December 21, 2020 from monitoring wells installed in boreholes 8 and 20. It is noted that the monitoring well installed in Borehole 10 was dry.

The ground water samples were collected using a Waterra inertial pump.

4.9 Sediment Sampling

Sediment sampling was not part of the scope of work for this stage of the investigation.

4.10 Analytical Protocols

Representative soil samples collected from the boreholes were selected and delivered to Caduceon Environmental Laboratories (Caduceon) for the chemical analyses. Caduceon is accredited by the Canadian Association of Environmental Analytical Laboratories (CALA). The soil and ground water sample analytical protocols are listed in the attached Table 1, respectively.

The analytical protocols for soils were selected to address the potential sources of contamination related to on-Site potentially contaminating activity (PCA), noted debris and fill, and historical AST noted during the Phase One ESA.

4.12 Quality Assurance and Quality Control (QA/QC)

Since the quality of data depends upon planning, sampling, analysis and reporting, duplicate soil

and ground water samples were analyzed for QA/QC purposes. In addition to the equipment used and the sampling tools decontamination procedures described in Section 4.3 above, the field QC measures consisted of taking two sets of samples of analyte free media (field blank and trip blank) were prepared and supplied by Caduceon.

The field QA/QC procedures were for determining the reproducibility or variability related to analytical procedures and sample homogeneity. The percentage differences between analyzed values for the original and duplicate samples were also calculated.

The laboratory analytical methods consisted of using standard testing methods required by the Ministry of Environment, Conservation and Parks (MECP) and referenced in Caduceon certificate of analyses (attached in Appendix B). The analytical procedures included the method blank, the spiked method blank, the laboratory spiked and duplicate soil and ground water samples, along with analyses of each batch of soil and ground water samples.

Appendix B includes the certificates of analyses and the QA/QC measures along with a table of analytical data indicating the parameters analyzed, the estimated quantitation limit, the corrected quantitation limit for dilute samples, the percentage recovery, and the range of lower and upper limits.

5. RESULTS AND EVALUATION

5.1 Geology and Drainage

The site is located within the physiographic region known as the Simcoe Lowlands comprising sand plains (Chapman and Putnam, 1984). It is noted that the physiographic region known as the Simcoe Uplands comprising drumlinzed till plans lies to the northwest of the site. Bedrock below the overburden is mapped as limestone, dolostone, shale, arkose, and sandstone of the Simcoe Group from the Middle Ordovician period of the Paleozoic era of the Phanerozoic eon. Bedrock is anticipated at depths greater than 75 m based on the Ministry of Environment, Conservation and Parks (MECP) Water Well Records in the area.

There are no apparent water courses on-site. The closest waterbody is Lake Couchiching which lies approximately 870 m to the east of the site.

The Site and the Study Area fall under the regulation of the Nottawasaga Valley Conservation Authority.

The hydrogeology of the Site and the vicinity is primarily controlled by Lake Simcoe and Lake Couchiching, topographic elevation, glacial geology and bedrock topography of the region. Locally, shallow ground water is expected to follow the topography towards the east and regional ground water is expected to flow to the east and south towards Lake Couchiching and Lake Simcoe, respectively.

5.2 Ground Water Conditions

Ground water conditions were noted during and upon completion of drilling. The Log of Borehole Sheets include details of ground water observations made during and upon completion of drilling.

Upon completion of the boreholes, water was observed in sixteen (16) boreholes at depths of 0.9 to 5.2 m bgs

During the investigations, no indications of questionable materials or evidence of presence of contaminants and/or deleterious materials were observed.

The ground water table is believed to be below the depth of exploration. Local perched water in the fill above the till stabilized at 1.1 to 2.5 m below existing grade, corresponding to elevation 266.5 to 268.3. Hydrostatic ground water levels of the monitoring wells are presented in attached Table 2.

The perched ground water flow direction is towards the east, with a gradient of 1.0 to 2.0% towards Lake Couchiching (Drawing 2-1).

Ground water levels are subject to seasonal fluctuations and variations in precipitation and climate change.

5.3 Soil Texture

As previously indicated, the subsurface stratigraphy in the boreholes typically comprised a silt and sand till with variable clay and gravel contents. The soils on-Site vary between fine/medium texture to coarse texture. Due to the variation, the coarse-textured soil criteria were chosen with respect to the regulatory criteria.

5.4 Field Screening Results

The measured headspace soil vapour concentrations (SVCs) varied from 10 parts per million (ppm) to 70 ppm, which are considered negligible. The results shown on the Borehole and Monitoring Well Logs appended.

5.5 Soil Quality

The laboratory certificates of chemical analyses carried out by Caduceon in accordance with the analytical protocols (attached Table 1) described in Section 4.10 above and chain-of-custody records are included in Appendix B.

Results of the chemical analyses conducted on borehole soil samples indicated that the measured concentrations of metals, inorganic, petroleum hydrocarbons, polycyclic aromatic hydrocarbons, volatile organic compounds including benzene, toluene, ethylbenzene and xylene, and polychlorinated biphenyls parameters were below the Ontario Regulation 153/04 (amended) Table 1 Standards for Residential/Parkland/Institutional/ Industrial/Commercial/Community Property Uses with the exception of:

Sample ID	Parameter	Units	Table 1 SCSs	Measured Concentration
BH/MW8 SS2	Mercury	µg/g	0.27	0.997
BH/MW10 SS2	Conductivity	mS/cm	0.57	1.2
	Mercury	µg/g	0.27	0.295
	PHC Fraction F4		120	170

Sample ID	Parameter	Units	Table 1 SCSs	Measured Concentration
Dup 1A	Conductivity	mS/cm	0.57	1.01
	Mercury	µg/g	0.27	0.318
	PHC Fraction F4		120	170
BH13 SS2	PHC Fraction F4	µg/g	120	860
BH13 SS3	Toluene	µg/g	0.2	0.4
	Acenaphthene		0.072	0.08
	Fluoranthene		0.56	0.59
	Phenanthrene		0.69	0.70

The elevated level of chemical substance detected in the borehole soil samples are listed in attached Table 3 and shown on Drawing 2-4.

5.6 Ground Water Quality

The laboratory certificates of chemical analyses carried out by Caduceon in accordance with the analytical protocols (attached Table 1) described in Section 4.10 above and chain-of-custody records are included in Appendix B.

Results of the chemical analyses conducted on the ground water samples from the monitoring wells indicated that the measured concentrations of metals, PHCs, PAHs, and VOCs including BTEX were less than the applicable Ontario Regulation 153/04 (amended) Table 1 Site Condition Standards for RPI/ICC Property Uses in the non-potable ground water condition with the exception of:

Sample ID	Parameter	Units	Table 1 SCSs	Measured Concentration
BH/MW20	Pyrene	µg/L	0.2	0.25

The elevated level of chemical substance detected in the borehole soil samples are listed in attached Table 4 and shown on Drawing 2-5.

5.7 Phase Two ESA Conceptual Site Model

A Phase Two ESA Conceptual Site Model (CSM) is prepared for a parcel of land (the Site) located at 2 Borland Street East in Orillia, Ontario (Drawing 2-1) to demonstrate the current underlying soil and ground water environmental condition.

The Site comprises a rectangular shaped parcel of land encompassing an approximately area of 4.0 ha. The Site is currently vacant but was formerly occupied by a school building and paved areas which have been demolished and removed. The Site and the Study Area are situated in a historically rural area comprising residential and commercial land uses to the north, south and west and residential and community land uses to the east.

5.7.1 Potentially Contaminating Activity and Areas of Potential Environmental Concern

5.7.1.1 Potentially Contaminating Activity (PCA)

Based on the findings of the Site background and records review, Site reconnaissance, interview and our experience with numerous similar projects in the past, three (3) PCAs on the Site and no PCAs within the Study Area were identified.

The identified PCAs are listed in the table below and shown on attached Drawings 2-1.

TABLE 3
POTENTIALLY CONTAMINATING ACTIVITIES (PCAs)

Potentially Contaminating Activity (PCA)	Location	PCA Description
IN/ON/UNDER PHASE ONE PROPERTY		
PCA N/A	2 Borland Street East	Debris in the vicinity of the former school
PCA 30 – Fill of Unknown Quality	2 Borland Street East	Fill in the vicinity of the former school
PCA 28 - Gasoline and Associated Products Storage in Fixed Tanks	2 Borland Street East	An AST identified during the pervious Phase One ESA

5.7.1.2 Areas of Potential Environmental Concern (APEC)

The above-noted PCAs were further evaluated to determine APEC on the Site. Due to developed site condition, the Site PCAs (PCA N/A, 30 and 28) were considered environmental concerns contributing to APECs 1 and 2.

The identified APEC are listed in the table below and shown on attached Drawing 2-1.

TABLE 4
TABLE OF AREAS OF POTENTIAL ENVIRONMENTAL CONCERN
(Refer to clause 16(2)(a), Schedule D, O. Reg. 153/04)

Area of Potential Environmental Concern (APEC)[1]	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)[2]	Location of PCA (On-Site or Off-Site	Contaminants of Potential Concern[3]	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1 The Site	Southwest portion of the Site	PCA N/A-Debris PCA 30 – Fill on Unknown Quality	On-Site	Metals and ORPs, PHCs, VOCs, PAHs and PCBs	Soil and Ground Water
APEC-2 The Site	Southwest portion of the Site	PCA 28 - Gasoline and Associated Products Storage in Fixed Tanks	On-Site	Metals, PHCs, VOCs and PAHs	Soil and Ground Water

Notes:

1 - Area of Potential Environmental Concern means the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through,

(a) identification of past or present uses on, in or under the phase one property, and

(b) identification of potentially contaminating activity.

2 - Potentially Contaminating Activity means a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a phase one study area

3 - When completing this column, identity all contaminants of potential concern using the Method Groups as identified in the "Protocol for in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011, as specified below:

List of Method Groups:

ABNs	PCBs	Metals	Electrical Conductivity
CPs	PAHs	As, Sb, Se	Cr (VI)
1,4-Dioxane	THMs	Na	Hg
Dioxins/Furans, PCDDs/PCDFs	VOCs	B-HWS	Methyl Mercury
OCs	BTEX	Cl-	Low or high pH
PHCs	Ca, Mg	CN-	SAR

4- When submitting a record of site condition for filing, a copy of this table must be attached.

5.7.1.3 Subsurface Structures and Utilities

No underground structure/utility/sewage works were reportedly present underneath the Site. However, as a former school building is known to have occupied the Site it is likely that underground structure/utility/sewage works previously were present in the vicinity of the school building.

5.7.2 Physical Setting of the Phase Two Property

The Site is bounded by North Street, Peter Street North, Borland Street East and West Street in Orillia (Drawing 2-1). The Site comprises a rectangular shaped parcel of land encompassing an approximately area of 4.0 ha. The Site is currently vacant but was formerly occupied by a school building and paved areas which have been demolished and removed. The Site and the Study Area are situated in a historically rural area comprising residential and commercial land uses to the north, south and west and residential and community land uses to the east.

Based on information from the chain of title, aerial photographs and historical atlases, the first developed land use for the Site was the construction of the school building in the early 1920's. The school building and paved areas were demolished and removed in 2019, the Site is currently vacant.

5.7.2.1 Geology, Hydrogeology and Soil Stratigraphy

The Site is located within the physiographic region known as the Simcoe Lowlands comprising sand plains (Chapman and Putnam, 1984). It is noted that the physiographic region known as the

Simcoe Uplands comprising drumlinzed till plans lies to the northwest of the site. Bedrock below the overburden is mapped as limestone, dolostone, shale, arkose, and sandstone of the Simcoe Group from the Middle Ordovician period of the Paleozoic era of the Phanerozoic eon. Bedrock is anticipated at depths greater than 75 m based on the MECP Water Well Records in the area.

There are no apparent water courses on-site. The closest waterbody is Lake Couchiching which lies approximately 870 m to the east of the site.

The Site and the Study Area fall under the regulation of the Nottawasaga Valley Conservation Authority.

The Site and surrounding area ground surface elevation ranged from 260 to 270 masl. The ground surface of the area gently slopes towards the southeast.

The hydrogeology of the Site and the vicinity is primarily controlled by Lake Simcoe and Lake Couchiching, topographic elevation, glacial geology and bedrock topography of the region. Locally, shallow ground water is expected to follow the topography towards the east and regional ground water is expected to flow to the east and south towards Lake Couchiching and Lake Simcoe, respectively.

In general, the soil stratigraphy as encountered in drilled boreholes consisted of topsoil and/or fill underlain by a major native silt and sand till unit with variable clay and gravel contents (Log of borehole sheets).

Based on the Ontario Ministry of MNRF, no ANSI existed on the Site and within the Study Area.

5.7.2.2 Bedrock

The bedrock underlying the area consists of limestone, dolostone, shale, arkose, and sandstone of the Simcoe Group.

5.7.2.3 Ground Water Conditions

Ground water conditions were noted during and upon completion of drilling. The Log of Borehole Sheets include details of ground water observations made during and upon completion of drilling.

Upon completion of the boreholes water was observed in sixteen (16) boreholes at depths of 0.9 to 5.2 m bgs

During the investigations, no indications of questionable materials or evidence of presence of contaminants and/or deleterious materials were observed.

On December 18, 2020, the hydrostatic ground water levels were measured at depths of 1.1 to 2.5 m bgs (elevation 266.5 to 268.3).

The ground water flow direction is towards the east, with a gradient of 1.0 to 2.0% towards Lake Couchiching (Drawing 2-1).

Ground water levels are subject to seasonal fluctuations and variations in precipitation and climate change.

5.7.3 Soils Brought From Off-Site to On-Site

Soil has not been imported to the Site since the completion of the Phase Two ESA.

5.7.4 Soil and Ground Water Quality

Based on the findings of the Phase One ESA conducted by PML, a program of subsurface investigation (Phase Two ESA) was carried out at the Site. The Phase Two ESA program included advancement of four (4) boreholes with ground water monitoring wells in three (3) of the drilled boreholes on the Site for soil and ground water samplings and analyses and evaluation of the chemical test results in terms of the applicable Site Condition Standards (Ontario Regulation 153/04, amended, Table 1 Site Condition Standards for Residential/Parkland/Institutional/ Institutional/Commercial/Community Property Uses).

5.7.4.1 Soil Quality

Results of the chemical analyses conducted on borehole soil samples indicated that the measured concentrations of metals, inorganic, PHC, PAH, VOC including BTEX and PCB parameters were below the Ontario Regulation 153/04 (amended) Table 1 Standards for

Residential/Parkland/Institutional/ Industrial/Commercial/Community Property Uses with the exception of:

Sample ID	Parameter	Units	Table 1 SCSs	Measured Concentration
BH/MW8 SS2	Mercury	µg/g	0.27	0.997
BH/MW10 SS2	Conductivity	mS/cm	0.57	1.2
	Mercury	µg/g	0.27	0.295
	PHC Fraction F4		120	170
Dup 1A	Conductivity	mS/cm	0.57	1.01
	Mercury	µg/g	0.27	0.318
	PHC Fraction F4		120	170
BH13 SS2	PHC Fraction F4	µg/g	120	860
BH13 SS3	Toluene	µg/g	0.2	0.4
	Acenaphthene		0.072	0.08
	Fluoranthene		0.56	0.59
	Phenanthrene		0.69	0.70

5.7.4.2 Ground Water Quality

Results of the chemical analyses conducted on the ground water samples from the monitoring wells indicated that the measured concentrations of metals, PHCs, PAHs, and VOCs including BTEX were less than the applicable Ontario Regulation 153/04 (amended) Table 1 Site Condition Standards for RPI/ICC Property Uses in the non-potable ground water condition with the exception of:

Sample ID	Parameter	Units	Table 1 SCSs	Measured Concentration
BH/MW20	Pyrene	µg/L	0.2	0.25

5.7.4.3 Field Screening Results

The measured headspace soil vapour concentrations (SVCs) varied from 10 parts per million (ppm) to 70 ppm, which are considered negligible. The results shown on the Borehole and Monitoring Well Logs appended.

5.8 QA/QC Results

A laboratory control standard and duplicate pair were assessed for each batch of soil and ground water samples in accordance with the MECP's criteria. The recoveries and relative percent differences of the duplicate pairs were reported. The reported laboratory control standard was within the statistical control limits.

The results of chemical analyses on method blank sample indicated that the detected levels were within the acceptable range. The chemical test results for spiked method blank and laboratory spike samples indicated that the recovery ranges were within the statistically determined control limits.

One duplicate soil sample and 1 duplicate ground water sample were submitted to Caduceon for the analyses of metals, inorganics, PHCs, VOCs including BTEX, PAHs, and/or PCBs for quality control purposes.

For sample reproducibility calculations, percentage differences were calculated for the chemical substances with analytical values greater than 3 X LOQ (Limit of Quantification, namely, the lowest concentration that a parameter can be identified with confidence by an analytical laboratory).

Percentage differences were determined using the following formula:

$$\text{Percentage difference of Analyte A} = \frac{\text{(Analyte A in test 1 – Analyte A in test 2) x 100}}{\text{(Analyte A in test 1 + Analyte A in test 2) / 2}}$$

Attached Tables 5A to 5C shows the calculated percentage differences between the duplicate and original soil samples analyzed for the Site. The calculated percentage differences between the original and duplicate samples were within the acceptable statistical variation of 30%, with the exception of zinc in soil and antimony and lead in ground water.

The results for BH/MW10 SS2 and Duplicate 1A in regards to zinc and BH/MW8 and Duplicate A were considered anomalous since the results of laboratory duplicate sampling performed by Caduceon as part of there in-house QA/QC discussed earlier in the section, yielded acceptable data.

6. CONCLUDING REMARKS

Based on the site background information, field investigation data and laboratory test results compiled to date and presented above, the following conclusions are made on the site setting, soil stratigraphy and ground water conditions and existing geoenvironmental conditions in comparison with the Ontario Regulation 153/04 (amended), Table 1 RPI/ICC Site Condition Standards.

- The Site comprises a rectangular shaped parcel of land encompassing an approximately area of 4.0 ha. The Site is currently vacant but was formerly occupied by a school building and paved areas which have been demolished and removed. The Site and the Study Area are situated in a historically rural area comprising residential and commercial land uses to the north, south and west and residential and community land uses to the east.

- Based on information from the chain of title, aerial photographs and historical atlases, the first developed land use for the Site was the construction of the school building in the early 1920's. The school building and paved areas were demolished and removed in 2019, the Site is currently vacant.

- The site is located within the physiographic region known as the Simcoe Lowlands comprising sand plains (Chapman and Putnam, 1984). It is noted that the physiographic region known as the Simcoe Uplands comprising drumlinzed till plans lies to the northwest of the site.

- There are no apparent water courses on-site. The closest waterbody is Lake Couchiching which lies approximately 870 m to the east of the site. Based on the MNRF, no ANSI existed on the Site and within the Study Area.

- The hydrogeology of the Site and the vicinity is primarily controlled by Lake Simcoe and Lake Couchiching, topographic elevation, glacial geology and bedrock topography of the region. Locally, shallow ground water is expected to follow the topography towards the east and regional ground water is expected to flow to the east and south towards Lake Couchiching and Lake Simcoe, respectively.

- Based on the review of a previously conducted Phase One ESA report (by Terraprobe). a program of subsurface investigation (Phase Two ESA) was carried out at the Site. The Phase Two ESA program included advancement of four (4) boreholes with ground water monitoring wells in three (3) of the drilled boreholes on the Site for soil and ground water samplings and analyses and evaluation of the chemical test results in terms of the applicable Site Condition Standards (Ontario Regulation 153/04, amended,

Table 1 Site Condition Standards for Residential/Parkland/Institutional/Industrial/ Commercial/ Community Property Uses).

- In general, the soil stratigraphy as encountered in drilled boreholes consisted of topsoil and/or fill underlain by a major native silt and sand till unit with variable clay and gravel contents.

- Upon completion of the boreholes water was observed in sixteen (16) boreholes at depths of 0.9 to 5.2 m bgs

- On December 18, 2020, the hydrostatic ground water levels were measured at depths of 1.1 to 2.5 m bgs (elevation 266.5 to 268.3). Based on the hydrostatic ground water level elevations measured, ground water was inferred to flow towards the east, with a gradient of 1.0 to 2.0% towards Lake Couchiching

- The measured headspace SVCs varied from 10 parts per million (ppm) to 70 ppm, which are considered negligible.

- Results of the chemical analyses conducted on borehole soil samples indicated that the measured concentrations of metals, inorganic, PHC, PAH, VOC including BTEX and PCB parameters were below the Ontario Regulation 153/04 (amended) Table 1 Standards for Residential/Parkland/Institutional/Industrial/Commercial/Community Property Uses for coarse textured soils with the exception of:

    - Mercury in BH/MW8 SS2, BH/MW10 SS2 and Dup 1A with measured concentrations of 0.295 to 0.997 µg/g vs. a standard of 0.27 µg/g.

    - Conductivity in BH/MW10 SS2 and Dup 1A with measured concentrations of 1.01 to 1.2 mS/cm vs. a standard of 0.57 mS/cm.

    - Fraction F4 in BH/MW10 SS2, Dup 1A and BH/MW13 SS2 with measured concentrations of 170 to 860 µg/g vs. a standard of 120 µg/g.

    - Toluene in BH/MW 13 SS3 with a measured concentration of 0.4 µg/g vs. a standard of 0.2 µg/g.

    - Acenaphthene in BH/MW13 SS3 with a measured concentration of 0.08 µg/g vs. a standard of 0.072 µg/g.

    - Fluoranthene in BH/MW13 SS3 with a measured concentration of 0.59 µg/g vs. a standard of 0.56 µg/g.

- Phenanthrene in BH/MW13 SS3 with a measured concentration of 0.7 µg/g vs. a standard of 0.69 µg/g

- Results of the chemical analyses conducted on the ground water samples from the monitoring wells indicated that the measured concentrations of metals, PHCs, PAHs, and VOCs including BTEX parameters were less than the applicable Ontario Regulation 153/04 (amended) Table 1 Site Condition Standards for All Types of Property Uses in the non-potable ground water condition with the exception of:

    - Pyrene in BH/MW20 with a measured concentration of 0.25 µg/L vs. a standard of 0.2 µg/L

7. RECOMMENDATIONS

Based on the above site background information, Phase Two ESA field and laboratory data and the limitations inherent in the scope of sampling and testing program undertaken to date, the following recommendations are made for the Site:

- The soil underlying the Site in the vicinity of BH/MW8, 10 and 13 did not comply with the applicable Ontario Regulation 153/04 (amended) Table 1 Site Condition Standards with the exception for ORPs, PHCs, and/or PAHs.

- It is understood that as part of the proposed earth works on-site the fill and upper native soil in the vicinity of BH/MW8, BH/MW10 and BH/MW13 is to be removed. As such, following the removal of the geotechnically unsuitable fill and upper native soil it is recommended that confirmatory sampling be completed in the vicinity of the impacted boreholes in accordance with O.Reg. 153/04 minimum confirmation sampling requirements for excavation. It is noted that the off-site reuse and/or disposal of the excess soils on-site will need to be completed in accordance with Ontario Regulation 406/19 requirements

- The ground water underlying the Site complied with the applicable Ontario Regulation 153/04 (amended) Table 1 Site Condition Standards with the exception of pyrene in the vicinity of BH/MW20.

- Following the recommended removals and confirmatory sampling, it is further recommended that an additional ground water sample be obtained from BH/MW20 to confirm the pyrene exceedance.

It is understood that an RSC is not required at this time; however, a program of site remediation/cleanup and/or RA would be required before an RSC can be prepared for the Site, if ever required.

It should be noted that soil and/or ground water conditions between and beyond the sampled locations may differ from those encountered during this assignment. PML should be contacted if impacted soil conditions become apparent during future development to further access and appropriately handle the materials, if any, and evaluate whether modifications to the conclusions documented in this report are necessary.

The monitoring wells installed during the current investigations should be decommissioned in accordance with the Ontario Regulation 903, amended to O.reg. 128/03 under the Water Resources Act.

8. STATEMENT OF LIMITATIONS

A Statement of Limitation is included in the attached Appendix C that should be read in conjunction with this report.

We trust this report is adequate for your present purposes. Should you have any questions or require further information, please do not hesitate to contact our office.

Sincerely

Peto MacCallum Ltd.

PROFESSIONAL GEOSCIENTIST
ALICIA KIMBERLEY
PRACTISING MEMBER
2949
Jan 22, 2021
ONTARIO

Alicia Kimberley, MSc., P.Geo.
Associate
Manager, Geoenvironmental and Hydrogeological Services

PROFESSIONAL GEOSCIENTIST
MAHABOOB ALAM
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Director
Discipline Lead, Geoenvironmental and Hydrogeological Services

AK/MA:tc

TABLE 1

Summary of Samples Submitted for Chemical Analysis

Borehole	Sample No.	Approx. Depth (m)	Soil Description	Type of Chemical Analysis						Rationale
				Metals	PHCs	PAHs	VOCs	PCBs	ORPs	
SOIL										
BH/MW8	SS2	0.8 to 1.4	Fill	✓	✓			✓	✓	To address APEC 1 – PCA Item No. N/A – Debris PCA Item No. 30 – Fill of unknown quality.
	SS7	6.0 to 6.1	Silt and Sand Till			✓	✓			
BH/MW10	SS2	0.8 – 0.9	Fill	✓	✓			✓	✓	To address APEC 1 – PCA Item No. N/A – Debris PCA Item No. 30 – Fill of unknown quality.
	Dup 1A – Duplicate of BH/MW10 SS2									
	SS3	1.5 to 2.1				✓	✓			
	Dup 1B – Duplicate of BH/MW20 SS3									
BH/MW13	SS2	0.8 – 1.4	Fill	✓	✓					To address APEC 2 – PCA No. 28 – Gasoline and Associated Products Storage in Fixed Tanks
	SS3	1.5 to 2.1	Silt and Sand Till			✓	✓			
BH/MW20	SS2	0.8 to 1.4	Fill	✓	✓			✓	✓	To address APEC 1 – PCA Item No. N/A – Debris PCA Item No. 30 – Fill of unknown quality.
	SS3	1.5 to 2.1	Silt and Sand Till			✓	✓			

TABLE 1

Summary of Samples Submitted for Chemical Analysis

Borehole/ Sample No.	Approx. Depth (m)	Ground Water Description	Type of Chemical Analysis					Rationale
			Metals	PHCs	PAHs	VOCs	ORPs	
GROUND WATER								
BH/MW8 Dup A	Screened from 4.6 to 7.6 m 261.4 to 264.4	No sheen or odours noted	✓	✓	✓	✓	✓	To address APEC 1 – PCA No. N/A – Debris PCA No. 30 – Fill of unknown quality To address APEC 2 – PCA No. 28 – Gasoline and Associated Products Storage in Fixed Tanks
BH/MW20	Screened from 6.1 to 7.6 m 262.0 to 263.5	No sheen or odours noted	✓	✓	✓	✓		To address APEC 1 – PCA Item No. N/A – Debris PCA Item No. 30 – Fill of unknown quality.
Trip Blank	NA	NA				✓		QA/QC

Notes:
PAHs – Polycyclic Aromatic Hydrocarbons
PHCs – Petroleum Hydrocarbons
VOCs – Volatile Organic Compounds
PCBs – Polychlorinated Biphenyls
ORPs – Other Regulated Parameters *include arsenic, antimony, selenium, electrical conductivity, sodium adsorption ratio, chromium (VI), mercury, free cyanide and pH.

TABLE 2

Summary of Ground Water Data

Location	Elevation of Ground Surface (m)	Screened Interval (m) (Elevations) Top to Bottom	Approx. Depth of Well (m)	Lithology Screened	Depth to Ground Water (meters below ground surface) December 18, 2020	Ground Water Elevation (m)
Phase Two ESA Monitoring Wells						
BH/MW8	269.00	4.6 to 7.6 m 261.4 to 264.4	7.6	Silt and Sand Till	2.5	266.5
BH/MW10	270.15	4.6 to 6.1 m 264.1 to 265.6	6.1	Silt and Sand Till	Dry	--
BH/MW17	268.00	4.6 to 6.1 m 261.9 to 263.4	6.1	Silt and Sand Till	1.3	266.7
BH/MW20	269.55	4.6 to 6.1 m 263.5 to 265.0	6.1	Silt and Sand Till	2.4	267.2
BH/MW28	267.60	3.1 to 4.6 m 263.0 to 264.5	4.6	Silt and Sand Till	1.1	266.5
BH/MW30	269.85	4.6 to 6.1 m 263.8 to 265.3	6.1	Silt and Sand Till	1.6	268.8

TABLE 3

Elevated Level of Chemical Substance Detected In Borehole Soil Sample Analyzed

Sample ID [1]	Sample Depth	Parameter	Unit	Measured Concentration	Site Condition Standard [2]	Remarks
BH/MW8 SS2	0.8 to 1.4	Mercury	µg/g	0.997	0.27	Exceeds Table 1 SCSs.
BH/MW10 SS2	0.8 to 1.4	Conductivity	mS/cm	1.2	0.57	Exceeds Table 1 SCSs.
		Mercury	µg/g	0.295	0.27	
		PHC Fraction F4		170	120	
Dup 1A	0.8 to 1.4	Conductivity	mS/cm	1.01	0.57	Exceeds Table 1 SCSs.
		Mercury	µg/g	0.318	0.27	
		PHC Fraction F4		170	120	
BH/MW13 SS2	0.8 to 1.4	PHC Fraction F4	µg/g	860	120	Exceeds Table 1 SCSs.
BH/MW13 SS3	1.5 to 2.1	Toluene	µg/g	0.4	0.2	Exceeds Table 1 SCSs.
		Acenaphthene		0.08	0.072	
		Fluoranthene		0.59	0.56	
		Phenanthrene		0.7	0.69	

Notes:
1. See Drawing 2-4 for approximate borehole location.
2. Soil, Ground Water and Sediment Standards for Use under Part XV of the Environmental Protection Act, Ontario, dated April 15, 2011. Table 1 Full Depth Background Site Condition Standards for Residential/Parkland/Institutional/ Industrial/Commercial/Community Property Uses in a Potable Ground Water Condition for coarse textured soils.

TABLE 4

Elevated Level of Chemical Substance Detected In Ground Water Sample Analyzed

Sample ID [1]	Screened Interval (m)	Parameter	Unit	Measured Concentration	Site Condition Standard [2]	Remarks
BH/MW20	6.1 to 7.6 m	Pyrene	µg/L	0.25	0.2	Exceeds Table 1 SCSs.

Notes:
1. See Drawing 2-4 for approximate borehole location.
2. Soil, Ground Water and Sediment Standards for Use under Part XV of the Environmental Protection Act, Ontario, dated April 15, 2011. Table 1 Full Depth Background Site Condition Standards for Residential/Parkland/Institutional/ Industrial/Commercial/Community Property Uses in a Potable Ground Water Condition for coarse textured soils.

TABLE 5A

Tabulated Percentage Differences Between the Original and Duplicate Soil Sample

Parameter	Limit of Quantitation	BH10 SS2	BH10 SS2 Duplicate	Percentage Differences
		Analyte A in Test 1	Analyte A in Test 2	
SOIL				
Conductivity	0.001	1.2	1.01	-17%
Sodium Absorption Ratio	--	1.06	1.09	-2.8
Arsenic	0.5	1.3	1.3	0%
Barium	1	65	66	-1.5%
Beryllium	0.2	0.3	0.3	0%
Boron	0.5	8.3	8.7	-4.7%
Chromium	1	15	14	6.9%
Cobalt	1	5	5	0%
Copper	1	9	9	0%
Lead	5	20	19	5.1%
Mercury	0.005	0.295	0.319	-7.5%
Nickel	1	9	7	25%
Uranium	0.1	0.5	0.5	0%
Vanadium	1	24	28	-15.4%
Zinc	3	60	43	33.0%

TABLE 5B

Tabulated Percentage Differences Between the Original and Duplicate Soil Sample

Parameter	Limit of Quantitation	BH10 SS3	BH10 SS3 Duplicate	Percentage Differences
		Analyte A in Test 1	Analyte A in Test 2	
SOIL				
PHC F3	10	42	32	27%
PHCF4	10	170	170	0%

TABLE 5C

Tabulated Percentage Differences Between the Ground Water Original and Duplicate Sample

Parameter	Limit of Quantitation	BH/MW8	BH/MW8 Duplicate	Percentage Differences
		Analyte A in Test 1	Analyte A in Test 2	
Ground Water				
Antimony	0.1	0.1	0.2	-66.7%
Arsenic	0.1	0.3	0.3	0%
Barium	1	126	126	0%
Boron	5	149	150	-0.7%
Cadmium	0.15	0.018	0.019	-5.4%
Cobalt	0.1	0.6	0.6	0%
Lead	0.02	0.14	0.23	-48.6%
Molybdenum	0.1	1.5	1.8	-18.2%
Nickel	0.2	2.6	2.4	-8%
Selenium	1	2	2	0%
Uranium	0.05	0.52	0.66	-23.7%
Vanadium	0.1	0.7	0.9	-25%

LIST OF ABBREVIATIONS

PENETRATION RESISTANCE

Standard Penetration Resistance N: - The number of blows required to advance a standard split spoon sampler 0.3 m into the subsoil. Driven by means of a 63.5 kg hammer falling freely a distance of 0.76 m.

Dynamic Penetration Resistance: - The number of blows required to advance a 51 mm, 60 degree cone, fitted to the end of drill rods, 0.3 m into the subsoil. The driving energy being 475 J per blow.

DESCRIPTION OF SOIL

The consistency of cohesive soils and the relative density or denseness of cohesionless soils are described in the following terms:

CONSISTENCY	N (blows/0.3 m)	c (kPa)	DENSENESS	N (blows/0.3 m)
Very Soft	0 - 2	0 - 12	Very Loose	0 - 4
Soft	2 - 4	12 - 25	Loose	4 - 10
Firm	4 - 8	25 - 50	Compact	10 - 30
Stiff	8 - 15	50 - 100	Dense	30 - 50
Very Stiff	15 - 30	100 - 200	Very Dense	> 50
Hard	> 30	> 200		

WTLL	Wetter Than Liquid Limit
WTPL	Wetter Than Plastic Limit
APL	About Plastic Limit
DTPL	Drier Than Plastic Limit

TYPE OF SAMPLE

SS	Split Spoon	ST	Slotted Tube Sample
WS	Washed Sample	TW	Thinwall Open
SB	Scraper Bucket Sample	TP	Thinwall Piston
AS	Auger Sample	OS	Oesterberg Sample
CS	Chunk Sample	FS	Foil Sample
GS	Grab Sample	RC	Rock Core

PH	Sample Advanced Hydraulically
PM	Sample Advanced Manually

SOIL TESTS

Qu	Unconfined Compression	LV	Laboratory Vane
Q	Undrained Triaxial	FV	Field Vane
Qcu	Consolidated Undrained Triaxial	C	Consolidation
Qd	Drained Triaxial		

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 1

17T 625032E 4941513N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE December 8, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES
		SURFACE ELEVATION 267.50				
0.0		FILL: Brown, silty sand, trace gravel, trace organics in upper 1 m, moist		1	SS	22
1.0				2	SS	30
2.0	2.1 265.4			3	SS	50/100 mm
		SILT AND SAND TILL: Compact to very dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist		4	SS	20
3.0				5	SS	26
4.0						
5.0				6	SS	44
6.0	6.4			7	SS	50/130 mm
	261.1	BOREHOLE TERMINATED AT 6.4 m				
7.0						
8.0						
9.0						
10.0						
11.0						
12.0						
13.0						
14.0						
15.0						

ELEVATION SCALE: 267, 266, 265, 264, 263, 262

SHEAR STRENGTH (kPa)
+ FIELD VANE △ TORVANE ○ Qu
▲ POCKET PENETROMETER ● Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

Upon completion of augering
No water
No cave

GRAIN SIZE DISTRIBUTION (%)
GR SA SI&CL

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 2

17T 625018E 4941505N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE November 30, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 267.70					
0.0		FILL: Dark brown, silty sand, trace gravel, cobbles and bolders, trace organics in upper 1 m, wet to moist		1	SS	66/290 mm	267
1.0				2	SS	50/100 mm	
2.0				3	SS	50/100 mm	266
	2.1 265.6	SILT AND SAND TILL: Compact to very dense, brown, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, moist		4	SS	18	265
3.0				5	SS	21	
4.0							264
5.0				6	SS	81/290 mm	263
6.0	6.3						262
	261.4	BOREHOLE TERMINATED AT 6.3 m		7	SS	50/50 mm	
7.0							
8.0							
9.0							
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							

SHEAR STRENGTH (kPa)
+ FIELD VANE △ TORVANE ○ Qu
▲ POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Upon completion of augering
No water
Cave at 5.8 m

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 3

17T 624984E 4941484N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE November 30, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE	SHEAR STRENGTH (kPa) / DYNAMIC CONE PENETRATION / STANDARD PENETRATION TEST	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT / WATER CONTENT (%)	GAS READINGS ppm	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
		SURFACE ELEVATION 268.85									
0.0		FILL: Dark brown, loose to very dense, silty sand, trace clay, cobbles and boulders, wet to moist		1	SS	4					
				2	SS	22	268				
1.4	267.5	SILT AND SAND TILL: Loose to very dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist to wet		3	SS	7	267				
				4	SS	11	266				
				5	SS	19					First water strike at 3.4 m
				6	SS	50/100 mm	265				
6.4	262.5	BOREHOLE TERMINATED AT 6.4 m		7	SS	50/100 mm	264				Upon completion of augering Water at 5.2 m Cave at 5.5 m
							263				

SHEAR STRENGTH (kPa): +FIELD VANE △TORVANE ○ Qu ▲POCKET PENETROMETER ○ Q; 50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80
PLASTIC LIMIT w_P NATURAL MOISTURE CONTENT w LIQUID LIMIT w_L
WATER CONTENT (%) 10 20 30 40

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 4

17T 624958E 4941469N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE November 30, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 269.35					
0.0		FILL: Dark brown, silty sand, some gravel, trace organics in upper 1 m, moist to wet		1	SS	22	269
1.0				2	SS	9	
							268
2.0	2.1			3	SS	8	
	267.3	SILT AND SAND TILL: Very dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist		4	SS	52	267
3.0				5	SS	50/80 mm	
							266
4.0							
							265
5.0				6	SS	50/145 mm	
							264
6.0	6.3			7	SS	90/145 mm	
	263.1	BOREHOLE TERMINATED AT 6.3 m					
7.0							
8.0							
9.0							
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS
GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Upon completion of augering
No water
Cave at 5.8 m

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 5

17T 624941E 4941459N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE November 30, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 269.95					
0.0		FILL: Dark brown, silty sand, some gravel, trace organics in upper 1 m, moist to very moist		1	SS	19	
1.0				2	SS	7	269
2.0	2.1			3	SS	7	268
	267.9	SILT AND SAND TILL: Compact to very dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist		4	SS	24	
3.0				5	SS	21	267
4.0							266
5.0				6	SS	50/145 mm	265
6.0	6.4			7	SS	50/100 mm	264
	263.6	BOREHOLE TERMINATED AT 6.4 m					
7.0							
8.0							
9.0							
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							

SHEAR STRENGTH (kPa)
+ FIELD VANE △ TORVANE ○ Qu
▲ POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Upon completion of augering
No water
Cave at 5.2 m

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 6

17T 625025E 4941526N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 8, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE	SHEAR STRENGTH (kPa) / DYNAMIC CONE PENETRATION / STANDARD PENETRATION TEST	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT / WATER CONTENT (%)	GAS READINGS (ppm)	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
		SURFACE ELEVATION 267.85									
0.0		FILL: Brown, sand to silty sand, some gravel, trace organics in upper 1 m, moist to wet		1	SS	34					
				2	SS	50	267				
1.0											First water strike at 1.4 m
				3	SS	6	266				
2.0	2.1 265.8	SILT AND SAND TILL: Compact to very dense, grey, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist		4	SS	29					
							265				
3.0				5	SS	32					
							264				
4.0	4.6 263.3	BOREHOLE TERMINATED UPON AUGER REFUSAL AT 4.6 m		6	SS	~~50/100 mm~~					Upon completion of augering Wet cave at 3.0 m
5.0											
6.0											
7.0											
8.0											
9.0											
10.0											
11.0											
12.0											
13.0											
14.0											
15.0											

SHEAR STRENGTH (kPa): + FIELD VANE △ TORVANE ○ Qu ▲ POCKET PENETROMETER ○ Q; 50 100 150 200; DYNAMIC CONE PENETRATION ×; STANDARD PENETRATION TEST ●; 20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%): 10 20 30 40

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 7

17T 625010E 4941517N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 7, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 268.05					
0.0		FILL: Brown, silty sand and gravel, to sand and gravel, moist to very moist		1	SS	50/280 mm	
				2	SS	50/130 mm	267
1.0							
				3	SS	44	
2.0							266
				4	SS	25	
	2.9						
3.0	265.2	SILT AND SAND TILL: Compact to very dense, grey, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist		5	SS	23	265
4.0							264
				6	SS	50/80 mm	
5.0							263
6.0							262
	6.4			7	SS	50/100 mm	
	261.7	BOREHOLE TERMINATED AT 6.4 m					
7.0							
8.0							
9.0							
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm	GROUND WATER OBSERVATIONS AND REMARKS	GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
30		
30		
35		
45		
35		
30		
35	First water strike at 6.1 m	
	Upon completion of augering Water at 6.1 m No cave	

NOTES 1. Samples submitted for laboratory analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE/MONITORING WELL NO. 8

17T 624977E 4941499N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 8, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 269.00					
0.0		FILL: Brown, silty sand, some gravel, trace organics in upper 1 m, very moist		1	SS	7	
				2	SS	3	268
1.0							
				3	SS	10	267
2.0	2.1 / 266.9	SILT AND SAND TILL: Compact to very dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist to very moist		4	SS	11	
3.0				5	SS	32	266
4.0							265
5.0				6	SS	50/145 mm	264
6.0				7	SS	50/80 mm	263
7.0							262
	7.9 / 261.2	BOREHOLE TERMINATED AT 7.9 m		8	SS	75/250 mm	
8.0							
9.0							
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							

SHEAR STRENGTH (kPa)
+ FIELD VANE △ TORVANE ○ Qu
▲ POCKET PENETROMETER ● Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS (ppm): 50, 50, 60, 65, 70, 30, 20, 25

GROUND WATER OBSERVATIONS AND REMARKS
GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Upon completion of augering
No water
No cave
Water Level Readings:

Date	Depth	Elev.
2020-12-18	2.5	266.5

NOTES 1. Samples submitted for chemical analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 9

17T 624951E 4941481N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE December 8, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES
		SURFACE ELEVATION 269.55				
0.0		FILL: Brown, silty sand, some gravel, trace red brick fragments, trace organics, moist		1	SS	58/295 mm
				2	SS	16
				3	SS	27
				4	SS	49
				5	SS	9
4.0	265.6	SILT AND SAND TILL: Very dense, grey, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist		6	SS	50/100 mm
6.2	263.4	BOREHOLE TERMINATED AT 6.2 m		7	SS	50/100 mm

ELEVATION SCALE: 269, 268, 267, 266, 265, 264

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ● Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Upon completion of augering
No water
No cave

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE/MONITORING WELL NO. 10

17T 624924E 4941465N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 8, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH ELEV (metres)	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
	SURFACE ELEVATION 270.15					
0.0	FILL: Brown, sand, some gravel, some silt, trace organics in upper 1 m, moist		1	SS	30	270
			2[1]	SS	50/130 mm	
1.0						269
			3[1]	SS	22	
2.0						268
2.6			4	SS	10	
267.6	SILT AND SAND TILL: Dense to very dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist					
3.0			5	SS	41	267
4.0						266
			6[1]	SS	97/200 mm	
5.0						265
6.0						
6.4			7	SS	50/145 mm	264
263.8	BOREHOLE TERMINATED AT 6.4 m					
7.0						
8.0						
9.0						
10.0						
11.0						
12.0						
13.0						
14.0						
15.0						

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm: 35, 35, 25, 15, 15, 15, 10

GROUND WATER OBSERVATIONS AND REMARKS
GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Stick-up casing
Concrete
Bentonite Seal
50 mm slotted pipe
Filter sand

Upon completion of augering
No water
No cave
Water Level Readings:

Date	Depth	Elev.
2020-12-18	DRY	---

NOTES 1. Samples submitted for chemical analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 11

17T 624926E 4941485N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE December 9, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 270.05					
0.0		FILL: Brown, silty sand, some gravel, trace organics, trace brick and concrete fragments, moist		1	SS	17	
				2	SS	50/100 mm	269
1.0							
				3	SS	34	
2.0	2.1						268
	268.0	SILT AND SAND TILL: Compact to very dense, grey, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist		4	SS	31	
3.0							267
				5	SS	25	
4.0							266
				6	SS	50/100 mm	
5.0							265
6.0							264
	6.4			7	SS	50/145 mm	
	263.7	BOREHOLE TERMINATED AT 6.2 m					
7.0							
8.0							
9.0							
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ● Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Upon completion of augering
No water
Cave at 5.8 m

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 12

17T 624976E 4941530N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE December 9, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE	SHEAR STRENGTH (kPa) / DYNAMIC CONE PENETRATION / STANDARD PENETRATION TEST	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT / WATER CONTENT (%)	GAS READINGS ppm	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
		SURFACE ELEVATION 269.20									
0.0		FILL: Brown, silty sand, some gravel, trace organics in upper 1 m, moist to wet		1	SS	18	269				
				2	SS	7					
1.0							268				
		Becoming clayey silt		3	SS	14					First water strike at 1.4 m
2.0	2.1										
	267.1	SILT AND SAND TILL: Very dense, grey, sandy silt to silty sand, trace to some gravel and clay, clayey silt layers, cobbles and boulders, moist		4	SS	50/20 mm	267				
3.0				5	SS	69	266				
	3.5										
	265.7	BOREHOLE TERMINATED AT 3.5 m									Upon completion of augering No water Cave at 2.8 m
4.0											
5.0											
6.0											
7.0											
8.0											
9.0											
10.0											
11.0											
12.0											
13.0											
14.0											
15.0											

SHEAR STRENGTH (kPa): + FIELD VANE △ TORVANE ○ Qu ▲ POCKET PENETROMETER ○ Q; 50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80
PLASTIC LIMIT w_P NATURAL MOISTURE CONTENT w LIQUID LIMIT w_L
WATER CONTENT (%) 10 20 30 40

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 13

17T 624951E 4941515N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE December 8, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES	ELEVATION SCALE	GAS READINGS (ppm)	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
		SURFACE ELEVATION 269.45							
0.0		FILL: Brown, silty sand, moist to wet		1	SS	90	269	25	
		Clayey silt pockets		2	SS	90		35	
1.0							268		
				3	SS	50/100 mm		30	
2.0									
				4	SS	50/80 mm	267	30	
	2.9								
3.0	266.6	SILT AND SAND TILL: Compact, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, wet		5	SS	17	266	35	First water strike at 3.0 m
	3.5								
	266.0	BOREHOLE TERMINATED AT 3.5 m							Upon completion of augering Water at 1.8 m Cave at 2.0 m
4.0									
5.0									
6.0									
7.0									
8.0									
9.0									
10.0									
11.0									
12.0									
13.0									
14.0									
15.0									

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

NOTES 1. Samples submitted for chemical analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 14

17T 624912E 4941513N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 9, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES
0.0		SURFACE ELEVATION 269.50				
		FILL: brown, sandy silt, some gravel, to silty sand, trace gravel, trace clay, trace organics, trace brick fragments, moist		1	SS	11
1.0				2	SS	20
2.0				3[1]	SS	18
	2.1 267.4	SILT AND SAND TILL: Compact to very dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist		4	SS	21
3.0				5	SS	14
4.0						
5.0				6	SS	50/100 mm
6.0	6.2 263.4	BOREHOLE TERMINATED AT 6.5 m		7	SS	50/50 mm
7.0						
8.0						
9.0						
10.0						
11.0						
12.0						
13.0						
14.0						
15.0						

ELEVATION SCALE: 269, 268, 267, 266, 265, 264

SHEAR STRENGTH (kPa)
+ FIELD VANE △ TORVANE ○ Qu
▲ POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Upon completion of augering
No water
Cave at 5.8 m

NOTES 1. Samples submitted for laboratory analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 15

17T 624899E 4941504N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 9, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH ELEV (metres)	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
	SURFACE ELEVATION 269.90					
0.0	FILL: Brown, silty sand, some gravel, cobbles and boulders, moist to very moist		1	SS	22	
			2	SS	8	269
1.4 / 268.5	SAND AND SILT TILL: Compact to very dense, brown to grey, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, moist		3	SS	16	
2.0			4'	SS	21	268
3.0			5	SS	29	267
4.0						266
5.0			6	SS	50/130 mm	265
6.0						264
6.2 / 263.7	BOREHOLE TERMINATED AT 6.2 m		7	SS	50/130 mm	
7.0						
8.0						
9.0						
10.0						
11.0						
12.0						
13.0						
14.0						
15.0						

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ● Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
35	
25	
25	
25	
25	
25	
30	Upon completion of augering No water Cave at 5.6 m

NOTES 1. Samples submitted for laboratory analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 16

17T 624980E 4941605N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 10, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 267.60					
0.0							
0.30	267.30	TOPSOIL: Dark brown, silty sand, some organics, very moist to wet		1	SS	4	267
0.70	266.90	FILL: Dark brown, sand, some silt, very moist					
1.0		SILT AND SAND TILL: Loose to very dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist		2	SS	8	
2.0				3	SS	52	266
				4	SS	56	265
3.0				5	SS	50/130 mm	
4.0							264
				6	SS	50/130 mm	263
5.0							
6.0							262
6.3	261.3	BOREHOLE TERMINATED AT 6.3 m		7	SS	50/50 mm	
7.0							
8.0							
9.0							
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							

SHEAR STRENGTH (kPa)
+ FIELD VANE △ TORVANE ○ Qu
▲ POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

First water strike at 2.1 m

Upon completion of augering
Water at 2.1 m
No cave

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE/MONITORING WELL NO. 17

17T 624958E 4941571N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 6, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES
		SURFACE ELEVATION 268.00				
0.0		FILL: Dark brown, silty sand, some gravel, moist		1	SS	16
1.0				2	SS	20
1.4	266.6	SILT AND SAND TILL: Compact to very dense, brown, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, moist to wet		3	SS	11
2.0				4[1]	SS	14
3.0				5	SS	30
4.0						
5.0				6	SS	50/100 mm
6.1	261.9	BOREHOLE TERMINATED AT 6.1 m		7	SS	50/25 mm
7.0						
8.0						
9.0						
10.0						
11.0						
12.0						
13.0						
14.0						
15.0						

ELEVATION SCALE: 267, 266, 265, 264, 263, 262

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm: 35, 30, 25, 25, 25, 25, 25

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Stick-up casing
Concrete
Bentonite Seal
First water strike at 2.9 m
50 mm slotted pipe
Filter sand

Upon completion of augering
Water at 2.9 m
No cave
Water Level Readings:

Date	Depth	Elev.
2020-12-18	1.3	266.7

NOTES 1. Samples submitted for laboratory analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 18

17T 624931E 4941557N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 10, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH ELEV (metres)	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE	SHEAR STRENGTH (kPa) / DYNAMIC CONE PENETRATION / STANDARD PENETRATION TEST	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT / WATER CONTENT (%)	GAS READINGS ppm	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
	SURFACE ELEVATION 268.20									
	FILL: Brown silty sand, some gravel, wet to moist		1	SS	7	268			30	
			2	SS	9	267			20	
	Clayey silt pockets		3	SS	7				25	
2.1										
266.1	SAND AND SILT TILL: Compact to dense, brown sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, moist		4	SS	17	266			30	
			5	SS	47	265			35	
3.5										
264.7	BOREHOLE TERMINATED AT 3.5 m									Upon completion of augering No water No cave

SHEAR STRENGTH (kPa): + FIELD VANE △ TORVANE ○ Qu ▲ POCKET PENETROMETER ○ Q; 50 100 150 200

DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●

20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L

WATER CONTENT (%): 10 20 30 40

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 19

17T 624900E 4941538N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE December 9, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 268.80					
0.0		FILL: Brown, sandy silt, some gravel, trace organics, moist		1	SS	19	
0.70	268.10	SAND AND SILT TILL: Compact to very dense, brown, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, moist to wet		2	SS	13	268
1.0							
2.0				3	SS	18	267
				4	SS	15	266
3.0				5	SS	32	
4.0							265
				6	SS	50/145 mm	264
5.0							
6.0	6.2						263
	262.6	BOREHOLE TERMINATED AT 6.2 m		7	SS	50/100 mm	
7.0							
8.0							
9.0							
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS
GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

First water strike at 4.0 m

Upon completion of augering
Water at 5.2 m
No cave

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE/MONITORING WELL NO. 20

17T 624884E 4941530N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 10, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 269.55					
0.0	269.6	FILL: Brown, sandy silt, some gravel, moist		1	SS	9	269
1.0				2	SS	8	
1.4	268.2	SAND AND SILT TILL: Compact to very dense, brown, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, moist and wet seams		3	SS	23	268
2.0				4	SS	18	267
3.0				5	SS	25	266
4.0				6	SS	50/80 mm	
				7	SS	50/120 mm	265
5.0				8	SS	50/100 mm	264
6.0	263.3			9	SS	50/145 mm	
6.2		BOREHOLE TERMINATED AT 6.3 m					
7.0							
8.0							
9.0							
10.0							
11.0							
12.0							
13.0							
14.0							
15.0							

SHEAR STRENGTH (kPa)
+ FIELD VANE △ TORVANE ○ Qu
▲ POCKET PENETROMETER ● Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm
45
25
35
30
35
25
35
30
25

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Stick-up casing
Concrete

Bentonite Seal

50 mm slotted pipe
Filter sand

Upon completion of augering
No water
No cave
Water Level Readings:

Date	Depth	Elev.
2020-12-18	2.4	267.1

NOTES 1. Samples submitted for chemical analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 21

17T 624867E 4941554N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 10, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 269.15					
0.0		FILL: Brown, silty sand, some gravel, trace organics in upper 1 m, very moist to moist		1	SS	14	269
				2	SS	9	
1.4	267.8	SAND AND SILT TILL: Loose to dense, brown, sandy silt to silty sand, trace to some gravel and clay, clayey silt layers, cobbles and boulders, moist to wet		3	SS	8	268
				4	SS	11	267
3.5	265.7	BOREHOLE TERMINATED AT 3.5 m		5	SS	37	266

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ● Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

First water strike at 2.9 m

Upon completion of augering
Water at 1.8 m
No cave

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 22

17T 624917E 4941605N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 10, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES	ELEVATION SCALE
		SURFACE ELEVATION 267.80					
0.0	267.80	TOPSOIL: Dark brown, silty clay, some organics, moist		1	SS	4	
0.70	267.10	CLAYEY SANDY SILT: Stiff, brown, clayey sandy silt, APL		2	SS	11	267
1.4	266.4	SILT AND SAND TILL: Loose to dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist		3	SS	11	266
				4	SS	20	265
3.5	264.3	BOREHOLE TERMINATED AT 3.5 m		5	SS	44	

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

First water strike at 1.7 m

Upon completion of augering
Water at 1.8 m
No cave

GRAIN SIZE DISTRIBUTION (%)
GR SA SI&CL

NOTES 1. Samples submitted for laboratory analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 23

17T 624892E 4941587N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE December 10, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES	ELEVATION SCALE	SHEAR STRENGTH (kPa) +FIELD VANE △TORVANE ○Qu ▲POCKET PENETROMETER ○Q / DYNAMIC CONE PENETRATION × STANDARD PENETRATION TEST ●	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%)	GAS READINGS ppm	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
		SURFACE ELEVATION 268.35						50 100 150 200 / 20 40 60 80	10 20 30 40		
0.0		FILL: Dark brown, silty sand to sandy silty, trace gravel, trace organics, moist to very moist		1	SS	3	268				
0.90	267.45	SILT: Loose to compact, brown, silt, trace sand, clay and gravel, wet to moist		2	SS	5					
1.0							267				First water strike at 1.4 m
				3	SS	5					
2.0							266				
				4	SS	6					
3.0											
3.5	264.9	BOREHOLE TERMINATED AT 3.5 m		5	SS	22	265				Upon completion of augering Water at 2.2 m No cave
4.0											
5.0											
6.0											
7.0											
8.0											
9.0											
10.0											
11.0											
12.0											
13.0											
14.0											
15.0											

NOTES 1. Samples submitted for laboratory analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 24

17T 624851E 4941579N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 10, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE	SHEAR STRENGTH (kPa) / DYNAMIC CONE PENETRATION / STANDARD PENETRATION TEST	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT / WATER CONTENT (%)	GAS READINGS ppm	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
		SURFACE ELEVATION 269.20									
0.0		FILL: Brown to black, sandy silt, trace gravel, trace clay, moist		1	GS		269			35	
1.0				2	SS	7				25	
1.4	267.8	SAND AND SILT TILL: Loose to very dense, brown, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, moist		3	SS	8	268			25	
2.0							267				
				4	SS	23				25	
3.0											
3.5	265.7	BOREHOLE TERMINATED AT 3.5 m		5	SS	52	266			25	Upon completion of augering No water No cave
4.0											
5.0											
6.0											
7.0											
8.0											
9.0											
10.0											
11.0											
12.0											
13.0											
14.0											
15.0											

SHEAR STRENGTH (kPa): + FIELD VANE △ TORVANE ○ Qu ▲ POCKET PENETROMETER ○ Q; 50 100 150 200; DYNAMIC CONE PENETRATION × STANDARD PENETRATION TEST ●; 20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L; WATER CONTENT (%): 10 20 30 40

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 25

17T 624950E 4941659N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE December 10, 2020
ENGINEER GW
BORING METHOD Continuous Flight Solid Stem Augers
TECHNICIAN NG

DEPTH ELEV (metres)	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GAS READINGS ppm	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
	SURFACE ELEVATION 267.40						
0.20 267.20	TOPSOIL: Dark brown, silty sand, some organics, moist		1	SS	4		
	FILL: Brown, silty sand, some gravel, trace clay, trace organics, very moist		2	SS	2		
1.5 265.9	SAND AND SILT TILL: Loose to very dense, brown, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, very moist to moist		3	SS	7		First water strike at 1.4 m
			4	SS	34		
3.3 264.1	BOREHOLE TERMINATED AT 3.3 m		5	SS	97/250 mm		Upon completion of augering Water at 0.9 m Cave at 2.1 m

SHEAR STRENGTH (kPa)
+ FIELD VANE △ TORVANE ○ Qu
▲ POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

ELEVATION SCALE: 267, 266, 265

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 26

17T 624875E 4941614N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 11, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE	SHEAR STRENGTH (kPa) / DYNAMIC CONE PENETRATION / STANDARD PENETRATION TEST	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT / WATER CONTENT (%)	GAS READINGS (ppm)	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
		SURFACE ELEVATION 268.40									
0.0		FILL: Brown to dark brown, sand and gravel, trace silt, trace clay, moist to very moist		1	SS	8	268				
0.70	267.70	SAND AND SILT TILL: Loose to dense, brown, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, moist, wet seams		2	SS	5					
1.0							267				First water strike at 1.5 m
				3	SS	9					
2.0							266				
				4	SS	52					
3.0											
3.5	264.9	BOREHOLE TERMINATED AT 3.5 m		5	SS	43	265				Upon completion of augering Water at 3.5 m Cave at 2.1 m
4.0											
5.0											
6.0											
7.0											
8.0											
9.0											
10.0											
11.0											
12.0											
13.0											
14.0											
15.0											

NOTES 1. Samples submitted for laboratory analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 27

17T 624896E 4941644N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 10, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres) / ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE
	SURFACE ELEVATION 267.60					
0.20 / 267.40	TOPSOIL: Dark brown, silty sand, some organics, moist to very moist		1	SS	3	267
0.70 / 266.90	FILL: Brown, sand, some gravel, trace silt, moist					
	SAND AND SILT TILL: Compact to very dense, brown, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, moist, wet seams		2	SS	13	
			3	SS	12	266
			4	SS	28	265
3.5 / 264.1	BOREHOLE TERMINATED AT 3.5 m		5	SS	56	

SHEAR STRENGTH (kPa)
+ FIELD VANE △ TORVANE ○ Qu
▲ POCKET PENETROMETER ○ Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Upon completion of augering
Water at 3.5 m
No cave

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE/MONITORING WELL NO. 28

17T 624901E 4941664N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 11, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH ELEV (metres)	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	TYPE	"N" VALUES
	SURFACE ELEVATION 267.60				
0.30 / 267.30	TOPSOIL: Dark brown, sandy silt, some organics, trace gravel, moist to very moist		1	SS	6
0.70 / 266.90	FILL: Brown, silty sand, trace gravel, moist		2	SS	6
	SAND AND SILT TILL: Loose to very dense, brown, clayey sandy silt to silty sand, trace to some gravel and clay, very moist to moist		3	SS	13
			4	SS	30
			5	SS	71
4.7 / 263.0	BOREHOLE TERMINATED UPON AUGER REFUSAL AT 4.7 m		6	SS	50/100 mm

ELEVATION SCALE: 267, 266, 265, 264, 263

SHEAR STRENGTH (kPa): + FIELD VANE △ TORVANE ○ Qu ▲ POCKET PENETROMETER ○ Q; 50 100 150 200

DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT (w_P) — NATURAL MOISTURE CONTENT (w) — LIQUID LIMIT (w_L)

WATER CONTENT (%): 10 20 30 40

GAS READINGS ppm: 30, 30, 25, 20, 20, 20

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Stick-up casing
Concrete

Bentonite Seal

First water strike at 2.1 m

50 mm slotted pipe
Filter sand

Upon completion of augering
Water at 2.1 m
No cave
Water Level Readings:

Date	Depth	Elev.
2020-12-18	1.1	266.5

Moved borehole over 1.5 m North, met auger refusal at 4.0 m

NOTES 1. Samples submitted for chemical analysis

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE NO. 29

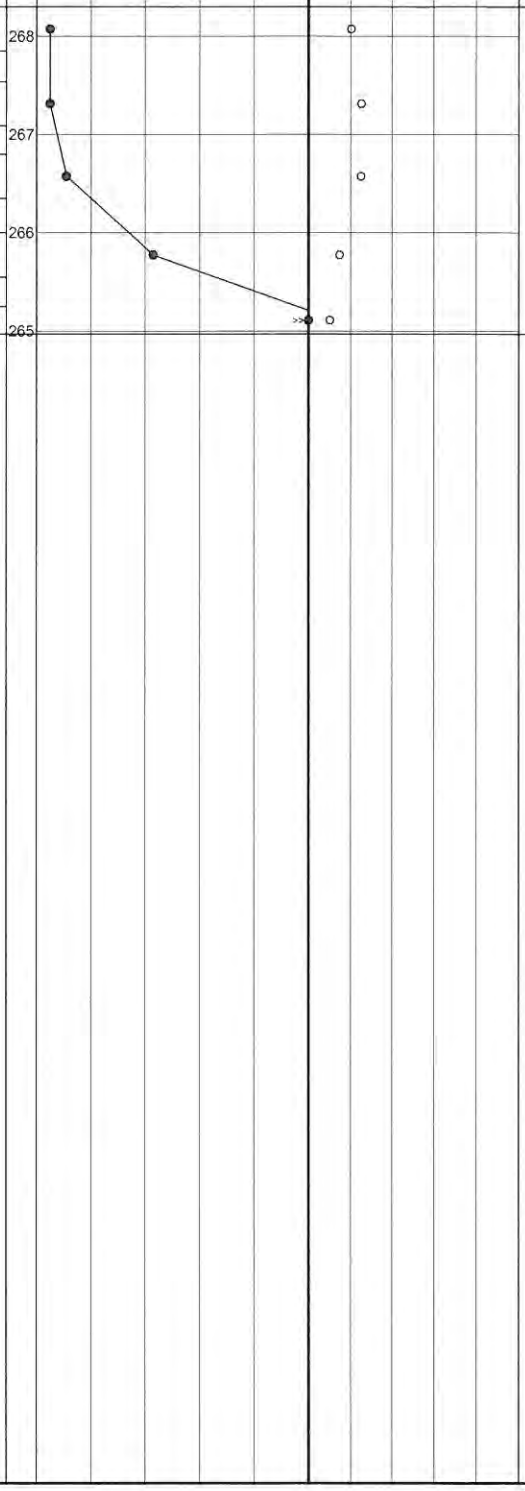
17T 624870E 4941646N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 11, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES
		SURFACE ELEVATION 268.30				
0.0	268.10	TOPSOIL: Dark brown, sandy silt, some organics, trace gravel, moist to wet		1	SS	5
0.20						
0.70	267.60	FILL: Brown, sand, some gravel, trace silt, moist				
1.0		SAND AND SILT TILL: Loose to very dense, brown, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, wet to moist		2	SS	5
2.0				3	SS	11
3.0				4	SS	43
3.3	265.0	BOREHOLE TERMINATED AT 3.3 m		5	SS	79/280 mm
4.0						
5.0						
6.0						
7.0						
8.0						
9.0						
10.0						
11.0						
12.0						
13.0						
14.0						
15.0						



GAS READINGS ppm

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

First water strike at 1.5 m

Upon completion of augering
Water at 2.1 m
No cave

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF BOREHOLE/MONITORING WELL NO. 30

17T 624829E 4941617N

PROJECT Proposed Simcoe County Service Campus — **PML REF.** 20BF055

LOCATION 2 Borland Street East, Orillia, Ontario — **BORING DATE** December 11, 2020 — **ENGINEER** GW

BORING METHOD Continuous Flight Solid Stem Augers — **TECHNICIAN** NG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	NUMBER	TYPE	"N" VALUES
		SURFACE ELEVATION 269.85				
0.0		FILL: Brown to dark brown, sandy silt, some gravel, trace silt, moist to wet		1	GS	-
1.0				2	SS	27
2.0	2.1			3	SS	31
	267.8	SAND AND SILT TILL: Very dense, brown, sandy silt to silty sand, trace to some gravel and clay, cobbles and boulders, moist		4	SS	54
3.0				5	SS	67
4.0				6	SS	50/130 mm
5.0						
6.0	6.4			7	SS	50/ 250 mm
	263.5	BOREHOLE TERMINATED AT 6.4 m				
7.0						
8.0						
9.0						
10.0						
11.0						
12.0						
13.0						
14.0						
15.0						

ELEVATION SCALE: 269, 268, 267, 266, 265, 264

SHEAR STRENGTH (kPa)
+FIELD VANE △TORVANE ○ Qu
▲POCKET PENETROMETER ● Q
50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80

PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30 40

GAS READINGS (ppm): 30, 30, 25, 25, 20, 20

GROUND WATER OBSERVATIONS AND REMARKS

GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL

Stick-up casing
Concrete

First water strike at 1.4 m

Bentonite Seal

50 mm slotted pipe
Filter sand

Upon completion of augering
Water at 1.5 m
No cave
Water Level Readings:

Date	Depth	Elev.
2020-12-18	1.6	268.3

NOTES 1. Samples submitted for chemical analysis

Peto MacCallum Ltd
CONSULTING ENGINEERS

LOG OF TEST PIT NO. 1

17T 624903.9E 4941645N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE November 23, 2020
ENGINEER GW
EXCAVATION METHOD Excavator
TECHNICIAN SG

DEPTH / ELEV (metres)	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE	SHEAR STRENGTH (kPa) + FIELD VANE △ TORVANE ○ Qu ▲ POCKET PENETROMETER ○ Q; DYNAMIC CONE PENETRATION × STANDARD PENETRATION TEST ●	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L; WATER CONTENT (%)	UNIT WEIGHT kN/m³	GROUND WATER OBSERVATIONS AND REMARKS; GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
	SURFACE ELEVATION 267.60						50 100 150 200 / 20 40 60 80	10 20 30 40		
0.0	TOPSOIL: Dark brown, sandy silt, moist									
0.30 / 267.30	SILT AND SAND TILL: Compact to dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, moist to wet		1	GS		267				GP Test 1 at 0.7 m
1.0										
						266				
2.0										
2.5 / 265.1	TEST PIT TERMINATED AT 2.5 m		2	GS						Upon completion of excavation Seepage at 0.7 m
3.0										
4.0										
5.0										

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF TEST PIT NO. 2

17T 624867.9E 4941622N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE November 23, 2020
ENGINEER GW
EXCAVATION METHOD Excavator
TECHNICIAN SG

DEPTH (metres) / ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE	SHEAR STRENGTH (kPa) +FIELD VANE △TORVANE ○Qu ▲POCKET PENETROMETER ○Q; DYNAMIC CONE PENETRATION ×, STANDARD PENETRATION TEST ●	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L; WATER CONTENT (%)	UNIT WEIGHT kN/m³	GROUND WATER OBSERVATIONS AND REMARKS; GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
	SURFACE ELEVATION 268.30						50 100 150 200 / 20 40 60 80	10 20 30 40		
0.0	TOPSOIL: Dark brown, sandy silt, moist									
268.25	FILL: Brown, silty sand to sandy silt, trace to some gravel and clay, moist		1	GS		268				GP Test 1 at 0.7 m
1.00 / 267.30	SILT AND SAND TILL: Compact to dense, brown, silty sand to sandy silt, trace to some gravel and clay, cobbles and boulders, very moist to wet					267				
2.0						266				
3.0 / 265.3	TEST PIT TERMINATED AT 3.0 m		2	GS						Upon completion of excavation Seepage at 1.0 m
4.0										
5.0										

NOTES

Peto MacCallum Ltd.
CONSULTING ENGINEERS

LOG OF TEST PIT NO. 3

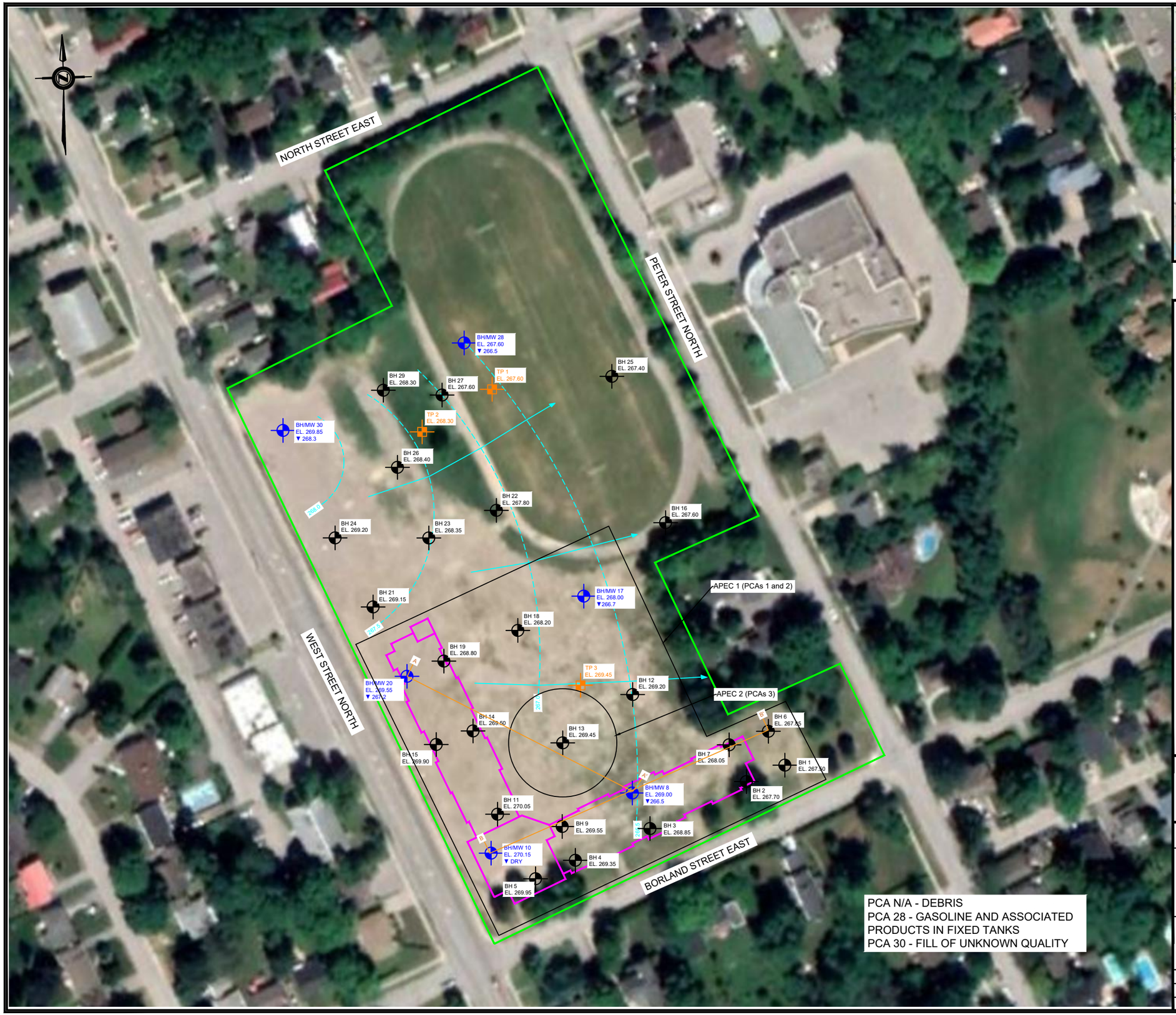
17T 624959.5E 4941529N

PROJECT Proposed Simcoe County Service Campus
PML REF. 20BF055
LOCATION 2 Borland Street East, Orillia, Ontario
BORING DATE November 23, 2020
ENGINEER GW
EXCAVATION METHOD Excavator
TECHNICIAN SG

DEPTH (metres)	ELEV	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	ELEVATION SCALE	SHEAR STRENGTH (kPa) / DYNAMIC CONE PENETRATION / STANDARD PENETRATION TEST	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L / WATER CONTENT (%)	UNIT WEIGHT kN/m³	GROUND WATER OBSERVATIONS AND REMARKS / GRAIN SIZE DISTRIBUTION (%) GR SA SI&CL
		SURFACE ELEVATION 269.45									
0.0	269.40	TOPSOIL: Dark brown, sandy silt, moist									
		FILL: Brown, silty sand to sandy silt, trace to some gravel and clay, moist					269				
0.70	268.75	SILT AND SAND TILL: Compact to dense, brown, silty sand to sandy silt, trace to some gravel and clay, moist to wet									
1.0				1	GS		268				GP Test 1 at 1.7 m
2.0											
							267				
3.0	266.5	TEST PIT TERMINATED AT 3.0 m		2	GS						Upon completion of excavation Seepage at 2.3 m
4.0											
5.0											

SHEAR STRENGTH (kPa): + FIELD VANE △ TORVANE ○ Qu ▲ POCKET PENETROMETER ○ Q; 50 100 150 200
DYNAMIC CONE PENETRATION ×
STANDARD PENETRATION TEST ●
20 40 60 80
WATER CONTENT (%): 10 20 30 40

NOTES



PCA N/A - DEBRIS
PCA 28 - GASOLINE AND ASSOCIATED PRODUCTS IN FIXED TANKS
PCA 30 - FILL OF UNKNOWN QUALITY

KEY PLAN
ORILLIA, ONTARIO

LEGEND:

- SITE LIMITS
- PROPOSED BUILDING
- BH 1 EL. 267.50 — BOREHOLE LOCATION, SURFACE ELEVATION
- BH/MW 8 EL. 269.00 ▼266.5 — BOREHOLE/MONITORING WELL LOCATION, SURFACE ELEVATION, GROUND WATER ELEVATION
- TP 1 EL. 269.45 — TEST PIT LOCATION, SURFACE ELEVATION
- INTERPRETTED GROUND WATER CONTOURS
- INFERRED GROUND WATER FLOW DIRECTION
- A — A' — CROSS SECTION A-A'

REFERENCE:
BASE PLAN PRODUCED USING GOOGLE EARTH AUG.2020

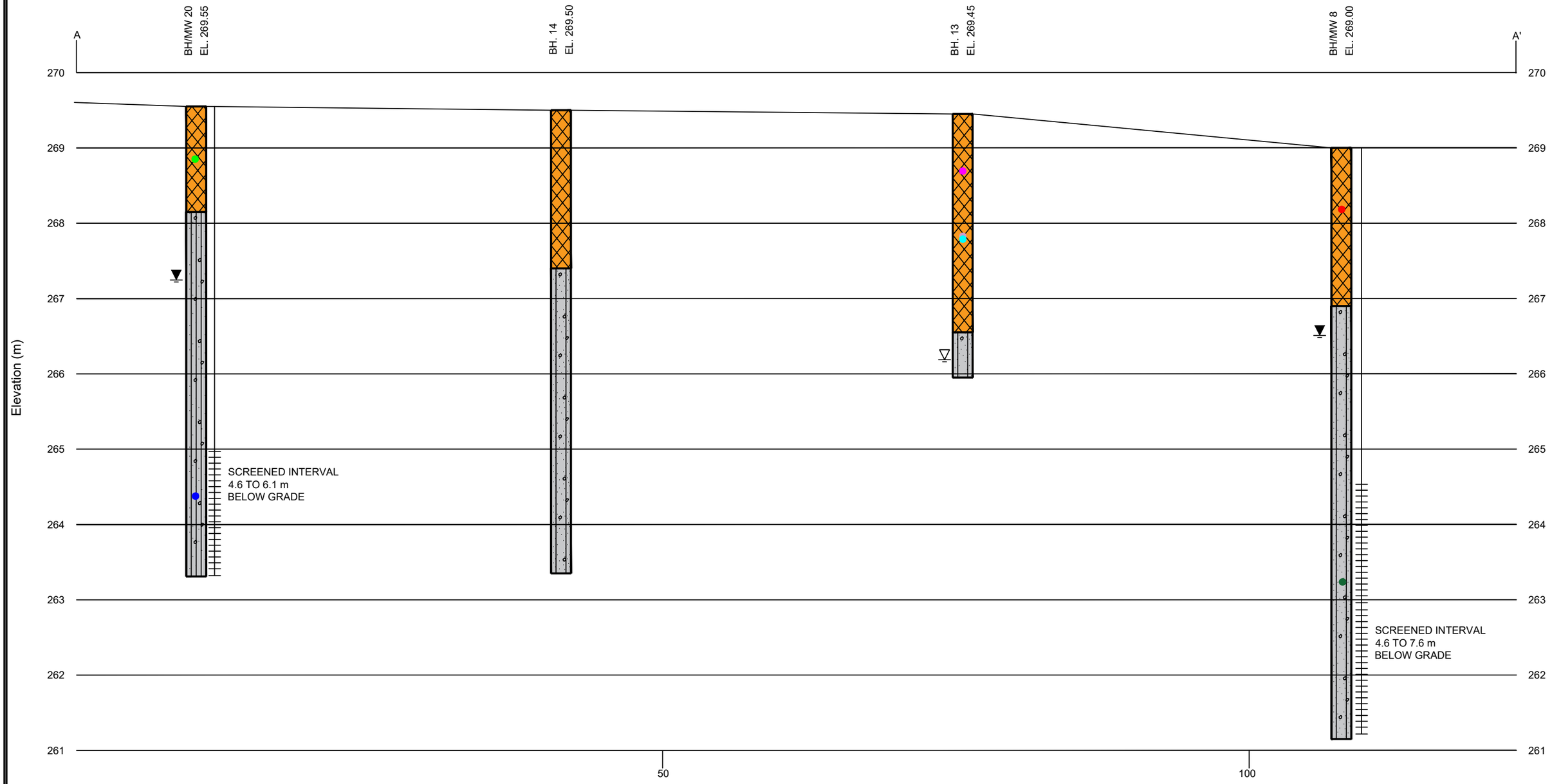
0m 20 40 60 80 100
SCALE

BOREHOLE/MONITORING WELL LOCATION PLAN

PROPOSED SIMCOE COUNTY SERVICE CAMPUS
2 BORLAND STREET EAST
ORILLIA, ONTARIO

Peto MacCallum Ltd.
CONSULTING ENGINEERS

		DATE	SCALE	PML REF.	DRAWING NO.
DRAWN	AK	JAN. 2021	AS SHOWN	20BF055	2-1
CHECKED	AK				
APPROVED	GRW				



NOTES:

1. REFER TO DRAWING 2-1 FOR SECTION LOCATION
2. REFER TO BOREHOLE AND MONITORING WELL LOGS, AND DRAWINGS 2-2 AND 2-3 FOR THE FOLLOWING: SAMPLE LOCATIONS, SAMPLE IDENTIFICATION NUMBERS, SAMPLING POINTS AND SAMPLING DEPTHS; CONCENTRATION OF CONTAMINANTS ANALYZED IN AN ACCREDITED LABORATORY; AND THE STRATIGRAPHY FROM GROUND SURFACE TO THE DEEPEST AQUIFER OR AQUITARD INVESTIGATED.
3. REFER TO TABLE 1 OF THE REPORT FOR A LIST OF ALL SAMPLES SUBMITTED FOR CHEMICAL TESTING.

LEGEND:

- FILL
- SILT AND SAND TILL
- HYDROSTATIC GROUND WATER LEVEL (2020-12-18)
- GROUND WATER STRIKE

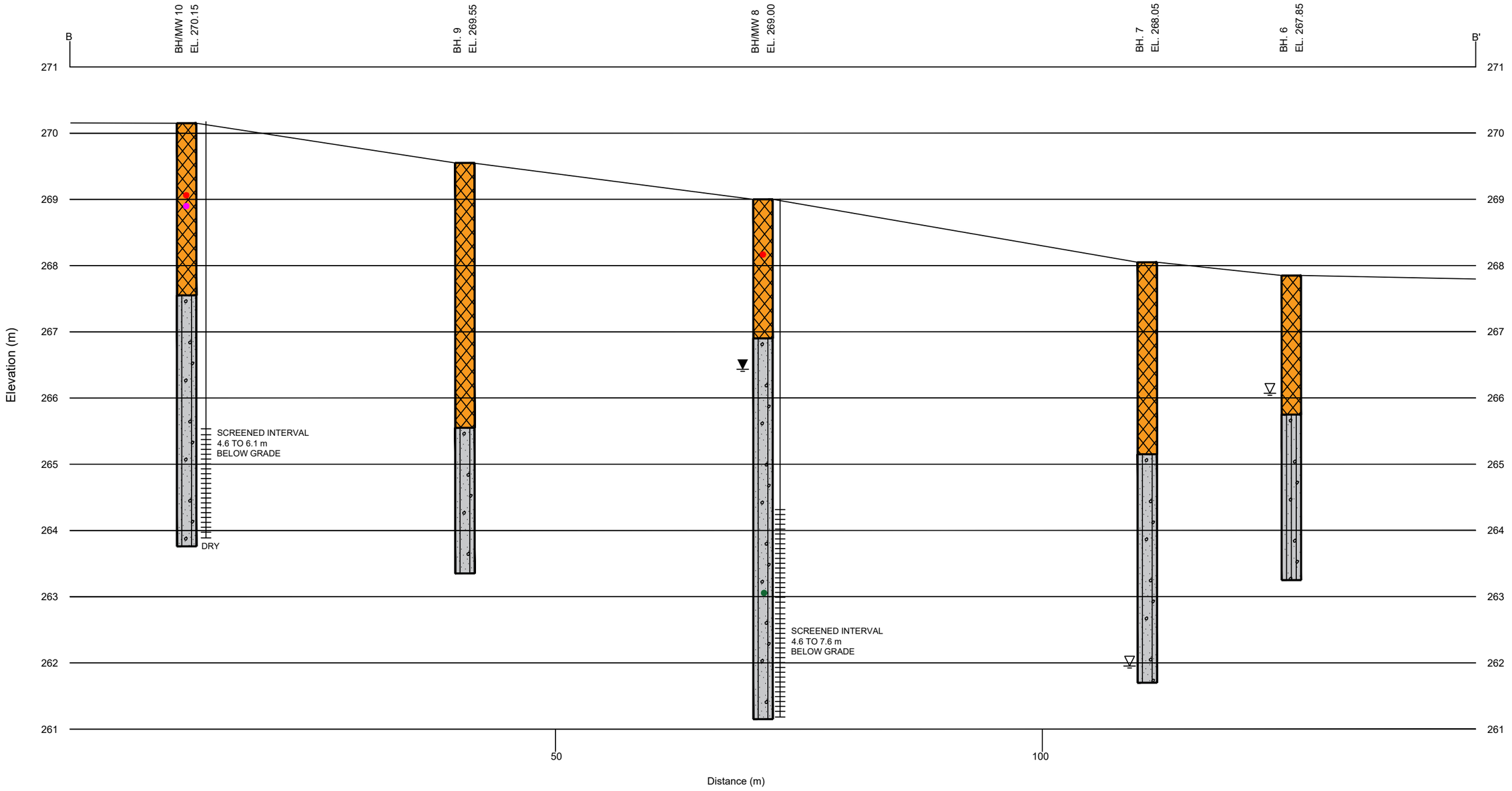
- LOCATION OF PML SOIL SAMPLE EXCEEDING TABLE 1 RPI/ICC SCSs FOR ORPs
- LOCATION OF PML SOIL SAMPLE EXCEEDING TABLE 1 RPI/ICC SCSs FOR PHCs
- LOCATION OF PML SOIL SAMPLE EXCEEDING TABLE 1 RPI/ICC SCSs FOR PAHs AND VOCs
- LOCATION OF PML SOIL SAMPLE EXCEEDING TABLE 1 RPI/ICC SCSs FOR PAHs AND VOCs
- LOCATION OF PML SOIL SAMPLE MEETING TABLE 1 RPI/ICC SCSs
- LOCATION OF PML GROUND WATER SAMPLE MEETING TABLE 1 RPI/ICC SCSs
- LOCATION OF PML GROUND WATER SAMPLE EXCEEDING TABLE 1 RPI/ICC SCSs FOR PAHs

CROSS SECTION A-A'

PROPOSED SIMCOE COUNTY SERVICE CAMPUS
2 BORLAND STREET EAST
ORILLIA, ONTARIO

Peto MacCallum Ltd.
CONSULTING ENGINEERS

DRAWN	AK	DATE	SCALE	PML REF.	DRAWING NO.
CHECKED	AK	JAN 2021	AS SHOWN	20BF055	2-2
APPROVED	MA				



NOTES:

1. REFER TO DRAWING 2-1 FOR SECTION LOCATION
2. REFER TO BOREHOLE AND MONITORING WELL LOGS, AND DRAWINGS 2-2 AND 2-3 FOR THE FOLLOWING: SAMPLE LOCATIONS, SAMPLE IDENTIFICATION NUMBERS, SAMPLING POINTS AND SAMPLING DEPTHS; CONCENTRATION OF CONTAMINANTS ANALYZED IN AN ACCREDITED LABORATORY; AND THE STRATIGRAPHY FROM GROUND SURFACE TO THE DEEPEST AQUIFER OR AQUITARD INVESTIGATED.
3. REFER TO TABLE 1 OF THE REPORT FOR A LIST OF ALL SAMPLES SUBMITTED FOR CHEMICAL TESTING.

LEGEND:

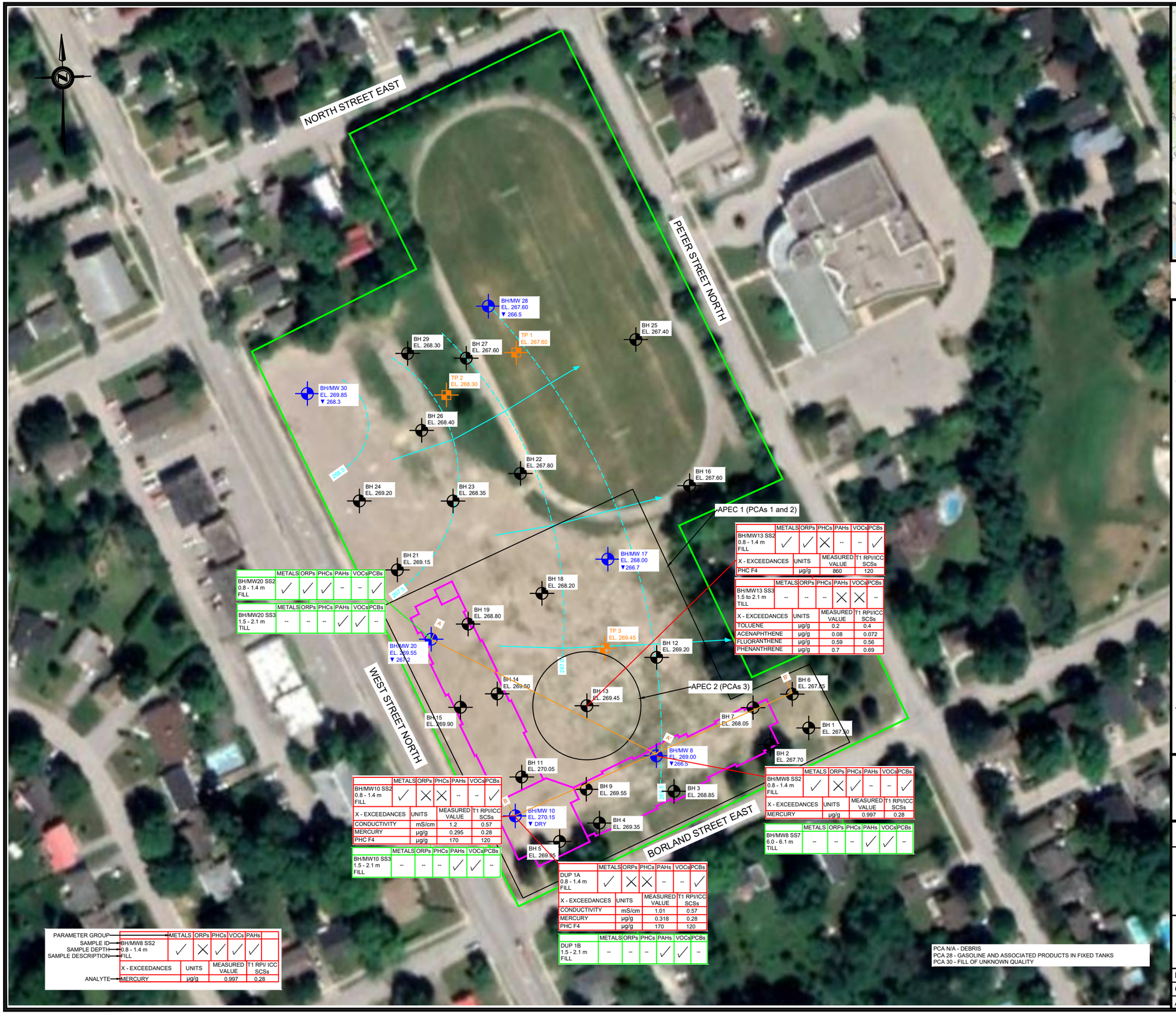
- FILL
- SILT AND SAND TILL
- HYDROSTATIC GROUND WATER LEVEL (2020-12-18)
- GROUND WATER STRIKE
- LOCATION OF PML SOIL SAMPLE EXCEEDING TABLE 1 RPI/ICC SCSs FOR ORPs
- LOCATION OF PML SOIL SAMPLE EXCEEDING TABLE 1 RPI/ICC SCSs FOR PHCs
- LOCATION OF PML GROUND WATER SAMPLE MEETING TABLE 1 RPI/ICC SCSs

CROSS SECTION B-B'

PROPOSED SIMCOE COUNTY SERVICE CAMPUS
2 BORLAND STREET EAST
ORILLIA, ONTARIO

Peto MacCallum Ltd.
CONSULTING ENGINEERS

DRAWN	AK	DATE	SCALE	PML REF.	DRAWING NO.
CHECKED	AK	JAN 2021	AS SHOWN	20BF055	2-3
APPROVED	MA				



	METALS	ORPs	PHCs	PAHs	VOCs	PCBs
BH/MW20 SS2 0.8 - 1.4 m FILL	✓	✓	✓	--	--	✓

	METALS	ORPs	PHCs	PAHs	VOCs	PCBs
BH/MW20 SS3 1.5 - 2.1 m TILL	--	--	--	✓	✓	--

	METALS	ORPs	PHCs	PAHs	VOCs	PCBs
BH/MW10 SS2 0.8 - 1.4 m FILL	✓	✗	✗	--	--	✓

X - EXCEEDANCES	UNITS	MEASURED VALUE	T1 RPI/ICC SCSs
CONDUCTIVITY	mS/cm	1.2	0.57
MERCURY	µg/g	0.295	0.28
PHC F4	µg/g	170	120

	METALS	ORPs	PHCs	PAHs	VOCs	PCBs
BH/MW10 SS3 1.5 - 2.1 m FILL	--	--	--	✓	✓	--

	METALS	ORPs	PHCs	PAHs	VOCs	PCBs
DUP 1A 0.8 - 1.4 m FILL	✓	✗	✗	--	--	✓

X - EXCEEDANCES	UNITS	MEASURED VALUE	T1 RPI/ICC SCSs
CONDUCTIVITY	mS/cm	1.01	0.57
MERCURY	µg/g	0.318	0.28
PHC F4	µg/g	170	120

	METALS	ORPs	PHCs	PAHs	VOCs	PCBs
DUP 1B 1.5 - 2.1 m FILL	--	--	--	✓	✓	--

	METALS	ORPs	PHCs	PAHs	VOCs	PCBs
BH/MW13 SS2 0.8 - 1.4 m FILL	✓	✓	✗	--	--	✓

X - EXCEEDANCES	UNITS	MEASURED VALUE	T1 RPI/ICC SCSs
PHC F4	µg/g	860	120

	METALS	ORPs	PHCs	PAHs	VOCs	PCBs
BH/MW13 SS3 1.5 to 2.1 m TILL	--	--	--	✗	✗	--

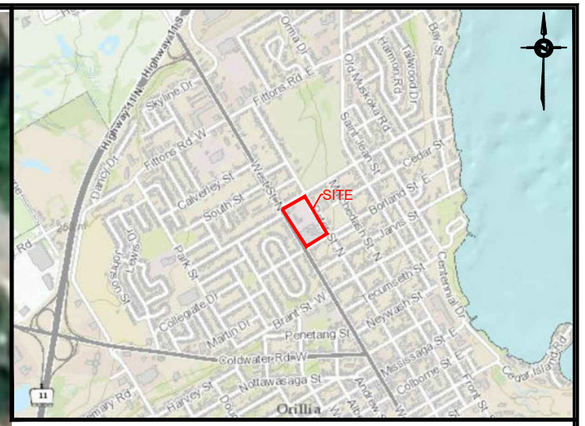
X - EXCEEDANCES	UNITS	MEASURED VALUE	T1 RPI/ICC SCSs
TOLUENE	µg/g	0.2	0.4
ACENAPHTHENE	µg/g	0.08	0.072
FLUORANTHENE	µg/g	0.59	0.56
PHENANTHRENE	µg/g	0.7	0.69

	METALS	ORPs	PHCs	PAHs	VOCs	PCBs
BH/MW8 SS2 0.8 - 1.4 m FILL	✓	✗	✓	--	--	✓

X - EXCEEDANCES	UNITS	MEASURED VALUE	T1 RPI/ICC SCSs
MERCURY	µg/g	0.997	0.28

	METALS	ORPs	PHCs	PAHs	VOCs	PCBs
BH/MW8 SS7 6.0 - 6.1 m TILL	--	--	--	✓	✓	--

PARAMETER GROUP	METALS	ORPs	PHCs	VOCs	PAHs	
SAMPLE ID: BH/MW8 SS2	✓	✗	✓	✓	✓	
SAMPLE DEPTH: 0.8 - 1.4 m						
SAMPLE DESCRIPTION: FILL						
ANALYTE	X - EXCEEDANCES	UNITS	MEASURED VALUE	T1 RPI/ ICC SCSs		
	MERCURY	µg/g	0.997	0.28		



KEY PLAN
ORILLIA, ONTARIO

LEGEND:

- SITE LIMITS
- PROPOSED BUILDING
- BH 1 EL. 267.50 — BOREHOLE LOCATION, SURFACE ELEVATION
- BH/MW 8 EL. 269.00 ▼266.5 — BOREHOLE/MONITORING WELL LOCATION, SURFACE ELEVATION, GROUND WATER ELEVATION
- TP 1 EL. 269.45 — TEST PIT LOCATION, SURFACE ELEVATION
- INTERPRETTED GROUND WATER CONTOURS
- INFERRED GROUND WATER FLOW DIRECTION
- A A' — CROSS SECTION A-A'

	PAHs
BH/MW8 SS7 6.1 - 6.1 m TILL	✓

LOCATION OF SOIL SAMPLE MEETING TABLE 1 RPI/ICC SCSs

	ORPs
BH/MW8 SS2 0.8 - 1.4 m FILL	✗

X - EXCEEDANCES	UNITS	MEASURED VALUE	T1 RPR/ICC SCSs
MERCURY	µg/g	0.997	0.28

LOCATION OF SOIL SAMPLE EXCEEDING TABLE 1 RPI/ICC SCSs

NOTES:

1. ORPs = OTHER REGULATED PARAMETERS, PHCs = PETROLEUM HYDROCARBONS, VOCs = VOLATILE ORGANIC COMPOUNDS, PAHs = POLYCYCLIC AROMATIC HYDROCARBONS, PCBs = POLYCHLORINATED BIPHENYLS

REFERENCE:

BASE PLAN PRODUCED USING GOOGLE EARTH AUG.2020

0m 20 40 60 80 100
SCALE

PCA N/A - DEBRIS
PCA 28 - GASOLINE AND ASSOCIATED PRODUCTS IN FIXED TANKS
PCA 30 - FILL OF UNKNOWN QUALITY

ANALYTICAL RESULTS IN SOIL

PROPOSED SIMCOE COUNTY SERVICE CAMPUS
2 BORLAND STREET EAST
ORILLIA, ONTARIO

Peto MacCallum Ltd.
CONSULTING ENGINEERS

DRAWN	AK	DATE	SCALE	PML REF.	DRAWING NO.
CHECKED	AK	JAN. 2021	AS SHOWN	20BF055	2-4
APPROVED	MA				

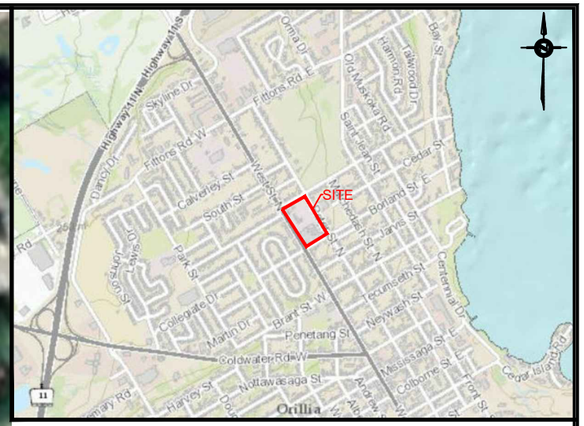
	METALS	ORPs	PHCs	VOCs	PAHs
BH/MW20 SCREENED FROM 4.6 TO 6.1 m TILL	✓	--	✓	✓	X

X - EXCEEDANCES	UNITS	MEASURED VALUE	T1 RPI/ICC SCSs
PYRENE	ug/L	0.25	0.2

	METALS	ORPs	PHCs	VOCs	PAHs
BH/MW8 SCREENED FROM 4.6 TO 7.6 m TILL	✓	✓	✓	✓	✓
DUPA - DUPLICATE OF BH/MW8 SCREENED FROM 4.6 TO 7.6 m TILL	✓	✓	✓	✓	✓

PARAMETER GROUP		METALS	ORPs	PHCs	VOCs	PAHs
SAMPLE ID	BH/MW20 SCREENED FROM 6.1 TO 7.6 m TILL	✓	✓	✓	X	X
SCREENED DEPTH						
SCREENED DESCRIPTION						
ANALYTE	X - EXCEEDANCES	UNITS	MEASURED VALUE	T1 RPI/ICC SCSs		
	PYRENE	ug/L	0.25	0.2		

PCA N/A - DEBRIS
PCA 28 - GASOLINE AND ASSOCIATED PRODUCTS IN FIXED TANKS
PCA 30 - FILL OF UNKNOWN QUALITY



KEY PLAN
ORILLIA, ONTARIO

LEGEND:

- SITE LIMITS
- PROPOSED BUILDING
- BH 1 EL. 267.50 — BOREHOLE LOCATION, SURFACE ELEVATION
- BH/MW 8 EL. 269.00 ▼266.5 — BOREHOLE/MONITORING WELL LOCATION, SURFACE ELEVATION, GROUND WATER ELEVATION
- TP 1 EL. 269.45 — TEST PIT LOCATION, SURFACE ELEVATION
- INTERPRETTED GROUND WATER CONTOURS
- INFERRED GROUND WATER FLOW DIRECTION
- A A' — CROSS SECTION A-A'

	METALS
BH/MW8 SCREENED FROM 6.1 - 7.6 m TILL	✓

LOCATION OF GROUND WATER SAMPLE MEETING TABLE 1 RPI/ICC SCSs

	PAHS
BH/MW20 SCREENED FROM 4.6 - 6.1 m TILL	X

X - EXCEEDANCES	UNITS	MEASURED VALUE	T1 RPI/ICC SCSs
PYRENE	ug/L	0.25	0.2

LOCATION OF GROUND WATER SAMPLE EXCEEDING TABLE 1 RPI/ICC SCSs

NOTES:

1. ORPs = OTHER REGULATED PARAMETERS, PHCs = PETROLEUM HYDROCARBONS, VOCs = VOLATILE ORGANIC COMPOUNDS, PAHs = POLYCYCLIC AROMATIC HYDROCARBONS

REFERENCE:

BASE PLAN PRODUCED USING GOOGLE EARTH AUG.2020

0m 20 40 60 80 100

SCALE

ANALYTICAL RESULTS IN GROUND WATER

PROPOSED SIMCOE COUNTY SERVICE CAMPUS
2 BORLAND STREET EAST
ORILLIA, ONTARIO

Peto MacCallum Ltd.
CONSULTING ENGINEERS

		DATE	SCALE	PML REF.	DRAWING NO.
DRAWN	AK	JAN. 2021	AS SHOWN	20BF055	2-5
CHECKED	AK				
APPROVED	MA				

APPENDIX A

Previous Phase One ESA (completed by others)

Terraprobe

Consulting Geotechnical & Environmental Engineering
Construction Materials Inspection & Testing

PHASE ONE
ENVIRONMENTAL SITE ASSESSMENT
2 BORLAND STREET EAST
ORILLIA, ONTARIO

Prepared for:

County of Simcoe
1110 Hwy 26
Midhurst, Ontario
L9X 1N6

Attn: Ms. Dawn Hipwell

File No 3-18-0005
March 12, 2018

Terraprobe Inc.

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APPENDICES

1.0 EXECUTIVE SUMMARY

Terraprobe Inc. (Terraprobe) was retained by the County of Simcoe to complete a Phase One Environmental Assessment (ESA) of the site identified as 2 Borland Street East, Orillia, Ontario. The purpose of the Phase One ESA was to assess the environmental condition of the Property for due diligence purposes.

The Phase One ESA involved the following principal tasks:

- A review of records and reports regarding historical and current occupancy and activities for the Property and Study Area.
- Interviews with available individuals having knowledge of current and/or past site activities.
- An inspection of the Property and observation of the Study Area.

Sampling and analysis of soil, ground water, or other materials (e.g., construction materials, air) were not carried out as part of the investigation.

The results of the investigation indicate that the property has been occupied by a secondary school since at least the 1920s. The surrounding properties have been occupied primarily by residential homes since the 1920s.

The Phase One Environmental Site Assessment identified no Potentially Contaminating Activities on the Phase One Property. Therefore no Areas of Potential Environmental Concern were identified at the Property. No further investigations are recommended in connection with the Phase One Property at this time.

The Phase One Environmental Site Assessment was completed in accordance with the CSA Z768-01 Standard. The objectives and requirements set out in that Standard were applied in carrying out this environmental site assessment and preparation of the report. The Phase One Environmental Site Assessment may not meet the full requirements as set out in Ontario Regulation 153/04 (Records of Site Condition – Part XV.1 of the Environmental Protection Act).

2.0 INTRODUCTION

Terraprobe was retained by the County of Simcoe to complete a Phase One Environmental Assessment (ESA) of the site identified as 2 Borland Street East, Orillia, Ontario The general location of the Phase One property is presented in the Site Location Plan (Figure 1).

2.1 Phase One Property Information

The Phase One Property information is provided in Table 2.1-1, below.

Table 2.1-1: Phase One Property Information

Legal Description	Lot 7 Conc 5 Southern Division, Township of Orillia
PIN	N/A
Municipal Address	2 Borland Street East
Zoning	Institutional
Property Owner Information	Simcoe County District School Board

2.2 Site Description

The Phase One Property is occupied by a school with an area of about 3.8 hectares. The property is bounded by North Street East to the north, Peter Street North to the east, West Street North to the west and Borland Street East to the south. Site features are presented in the Site Plan (Figure 2).

2.3 Buildings

The property is occupied by a vacant secondary school building which is approximately 155,000 sq.ft. in size. The building was first constructed in at least the early 1920s, with various additions constructed up to about 1979.

2.4 Purpose of Investigation

The purpose of this study was to assess the environmental condition of the property and building prior to its redevelopment. The objective of the Phase One ESA was as follows:

- to assess environmental condition of the Phase One Property;
- to identify potentially contaminating activities within the Phase One Study Area;
- based on the above, to identify issues of obvious or potential environmental concern with respect to the Phase One Property.

The Phase One ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04 (O.Reg. 153/04) as amended.

3.0 SCOPE OF INVESTIGATION

The Phase One ESA involved the following principal tasks:

- a review of records and reports regarding historical and current occupancy and activities for the Phase One Property and Study Area;
- interviews with available individuals having knowledge of current and/or past site activities;
- an inspection of the Phase One Property and observation of the Phase One Study Area.

The information on the Phase One Property and Study Area are summarized in this report. Sampling and analysis of soil, ground water, or other materials (e.g., construction materials, air) were not carried out as part of the investigation.

3.1 Records Review

The records review provides information on historical and current activities. The objectives of the records review were as follows:

- to obtain and review records that relate to the current and past uses, site features and activities at the Phase One Property;
- to obtain and review records that relate to potentially contaminating activities, water bodies, and areas of natural significance in the Phase One Study Area (in addition to the Phase One Property);
- based on the above, to provide an assessment of actual and potential contaminating activities and concerns with respect to the environmental condition of the Phase One Property.

The following sources of information were reviewed:

- archival information for the site including aerial photographs, topographic maps, historical maps and drawings;
- site specific environmental reports or company records (e.g., Certificates of Approval, waste generator registration, approvals, permits) provided to Terraprobe;
- geological and hydrogeological information in published government maps and/or reports;
- databases maintained by Ecolog ERIS containing environmentally related information from private, provincial, and federal sources;
- fire insurance plans and insurance inspection reports (and related plans) on file with Risk Management Service Inc. (RMS);
- published Ontario Ministry of the Environment (MOE) directories related to registered PCB storage sites and active and closed landfill sites;
- the Ontario Ministry of Natural Resources (MNR) Natural Heritage Information Centre database for information specific to natural areas, such as locations of environmentally sensitive areas.

3.2 Interviews

The objectives of the interview were:

- to obtain information to assist in determining if an area of potential environmental concern exists;
- to identify details of potentially contaminating activities or potential contaminant pathways in, on or under the Phase One property.

Key personnel were interviewed and asked questions related to specific site activities, such as:

- the nature of the operations;
- handling and storage of environmentally sensitive products and related wastes;
- environmental approvals and registrations;
- knowledge of previous reports related to the environmental condition of the property;
- issues related to non-compliance, orders, or charges related to environmental conditions on the property.

This information is presented in Section 5.0.

3.3 Site Reconnaissance

The objectives of the site reconnaissance were:

- to identify potential environmental concerns based on observations of current and past uses, and potentially contaminating activities at the Phase One Property and in the Phase One Study Area;
- to identify potential pathways for contamination at the Phase One Property and Phase One Study Area.

The site reconnaissance included a review of issues of potential environmental concern, including the following:

- activities and practices including site operations, processes and waste management currently carried out on the Phase One property;
- evidence of past waste disposal, landfill or fill placement on the Phase One property;
- the presence of hazardous or toxic chemicals, materials or processes;
- the presence of existing or former above ground or underground fuel storage tanks;
- identification of heating and cooling systems;
- the presence of floor cracks, hydraulic hoists, elevators, sumps and drains, wells, pits and lagoons;
- identification of water supply source to the Property;

- the presence of various designated substances and building materials, including friable and non-friable asbestos, PCB-containing materials and electrical equipment, lead-based paint, mould, and chlorofluorocarbons (CFCs) in air-conditioning and refrigeration equipment;
- evidence of stained or odorous soils and stressed vegetation.

In addition, an inspection of adjacent properties within the Phase One Study Area (identified in Section 4.1.1) was completed to assess the potential for operations being carried out on those properties to impact on the environmental condition of the Phase One Property. The inspection of adjacent properties was limited to inspection from the Phase One property boundaries and public areas (road, sidewalks, etc.).

3.3.1 Documentation and Evaluation of Information

The information obtained from the records review, interviews and site reconnaissance were described, documented and evaluated as summarized below:

- documentation of information, as noted in subsequent sections of the report;
- description of potentially contaminating activities;
- description of areas of potential environmental concern;
- development of a Phase One Conceptual Site Model;
- discussion of the need, if any, for further investigation.

4.0 RECORDS REVIEW

4.1 General

4.1.1 Phase One Study Area Determination

Based on the historical development and land use on the Property and surrounding area, it was determined that a 250 m radius around the property was sufficient to identify issues of potential environmental concern that could potentially impact on the environmental condition of the Property. It is noted that the majority of the surrounding properties are residential in use.

4.1.2 First Developed Use Determination

The determination of first developed use is based on the review of air photographs and ownership records. The property has been occupied by the existing school building since at least the early 1920s. Based on this, the first developed use of the site is considered to be before 1920.

4.1.3 Fire Insurance Plans and Insurance Inspection Reports and Plans

One historical fire insurance plan from 1928 was available for review. A copy of the plan is provided in Appendix A. The property was occupied by a school similar to what is currently present at that time. The surrounding properties were primarily occupied by single family homes. No items of potential environmental concern were identified in the fire insurance plan.

4.1.4 Chain of Title

A chain of title was not prepared for the subject property. It is known that the property has been owned by the Simcoe County School Board for at least the past several decades.

4.1.5 City Directory Search

A City Directory Search was conducted for the Property and surrounding sites. The Property was listed in the 2000 directory as the Orillia District Collegiate & Vocational Institute. The surrounding properties were primarily occupied by residential homes from at least 1982 until 2000. No items of potential environmental concern were identified in the City Directory Search. A copy of the search results is provided in Appendix B.

4.1.6 Environmental Reports

No environmental reports on the subject property were available for review.

4.2 Environmental Source Information

4.2.1 Ecolog ERIS

Ecolog Environmental Risk Information Services Ltd. (ERIS) is an organization that maintains and searches various government and private databases for property-related environmental information. A search of the Ecolog ERIS Ltd. databases was requested for the subject site and surrounding area. The ERIS Report is provided in Appendix C.

The Phase One Property was listed as a registered generator of waste oil & lubricants, waste laboratory chemicals, waste aliphatic solvents, and several other similar items. It is expected that these waste chemicals were generated in small quantities by the school for chemistry classes, auto shop classes, and the like. Given the small quantities involved, it is unlikely that this has caused any environmental impairment to the property.

One record of potential note was identified in the ERIS report for surrounding properties. A 25 litre fuel oil spill to the ground surface was reported at 66 Cedar Street in 1994. This spill was located about 200 m away from the Phase One Property and would have been too far away to cause impact. No environmental impact to the Phase One Property is anticipated in connection with the historical spill at 66 Cedar Street.

Therefore no potentially contaminating activities were identified in the Ecolog ERIS Report.

4.2.2 Ontario Ministry of the Environment

A Freedom of Information Request was submitted to the Ontario Ministry of the Environment (MOE), to determine if there is information regarding orders, investigations or other information on file with respect to the Phase One Property. This includes a search for information on Certificates of Approval for air emissions, water, sewage, wastewater and pesticides. At the time of this writing, the response from the MOE had not yet been received.

Directories published by the MOE related to waste disposal sites [1] and PCB storage sites [2], and the Brownfields Environmental Site Registry were reviewed. The following summarizes the information from those sources for the Phase One Property and Phase One Study Area:

- The MOE Waste Disposal Site Inventory did not identify any active or closed waste disposal sites within 1 km of the subject property.
- The subject property and surrounding properties had no recorded history of use as municipal coal gasification plants or as industrial sites producing or using coal tar and related products.
- The MOE Inventory of PCB Storage Sites did not identify the subject property as a PCB storage site.

- According to the MOE Brownfields Environmental Site Registry, no Records of Site Condition have been filed for the subject property.

Information from the Ontario Ministry of the Environment was also reviewed as part of the Ecolog ERIS database search, which is summarized in Section 4.2.1. In particular, information on Certificates of Approval, Compliance and Convictions, Waste Disposal Sites, PCB Storage Sites, and Waste Generators were reviewed.

4.2.3 Technical Standards and Safety Authority

The Technical Standards and Safety Authority (TSSA) maintain records related to storage tanks for petroleum related products. The TSSA was contacted regarding the Property, and reported that their records indicate that there are no storage tanks at the site or at any immediately surrounding buildings.

4.3 Physical Setting Sources

4.3.1 Aerial Photographs

Aerial photographs from 1967 to 1995 were reviewed. Copies of the aerial photographs are provided in Appendix D. The state of development of the subject property and surrounding area is summarized in Table 4.3-1, below.

Table 4.3-1: Development of Subject Property and Surrounding Area from Aerial Photographs

Date	Subject Property	Surrounding Area
1967	The subject property is occupied by a school building and associated sports fields	Surrounding area is primarily occupied by residential homes.
1951	No significant changes.	No significant changes.
1969	No significant changes.	No significant changes.

4.3.2 Topography Hydrology, Geology

An Ontario Base Map from 1985, which was based on aerial photography from 1979, was reviewed. The map showed the elevation of the site was approximately 270 m above sea level. Surface runoff is directed overland across the site, which slopes towards the south.

Regional ground water flow is expected to be in a easterly direction, towards Lake Couchiching. Locally, ground water depth and flow direction may be influenced by underground structures (e.g., service trenches, etc.).

Based on published geological information for the area [3], the near surface soil at and in the vicinity of the subject generally consists of sandy silt to silt till. Bedrock in the vicinity of the subject property is the Bobcaygen Formation, which consists primarily of limestone.

4.3.3 Fill Materials

No above-grade deposits of fill materials were noted on the subject property at the time of the site inspection.

4.3.4 Water Bodies and Areas of Natural Significance

The closest water body Lake Couchiching, which is located about 800 m to the east. The Ontario Ministry of Natural Resources National Heritage Information Centre database for listings of Areas of Natural or Scientific Interest (ANSIs) was reviewed. No ANSIs were identified in the vicinity of the site.

4.3.5 Well Records

The Ontario Ministry of the Environment well records database was searched through Ecolog ERIS for records located at subject property and in the surrounding area (within 250 m). No water supply wells were identified on the Property. No records of water supply wells were identified in the Phase One Study Area.

4.4 Site Operating Records

No site operating records were provided for review.

5.0 INTERVIEWS

The former maintenance supervisor for the school, Mr. Peter Novosky, was interviewed during the site inspection. Mr. Novosky provided the following information regarding the site:

- The school was built over 100 years ago, with several additions over the years.
- The school building has been vacant since 2015.
- There is confirmed asbestos-containing material (pipe insulation) present at the school. The asbestos insulation is marked with warning stickers where present.
- The building is heated with gas-fired boilers.
- There was formerly a 200 litre above ground oil storage tank located outside of the school's auto shop. The tank was used to store waste oil until it was disposed of by a waste removal company. No spills or leaks had occurred in the vicinity of the tank that he is aware of.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The conditions at the time of the site reconnaissance are summarized in Table 6.1-1, below.

Table 6.1-1: Details of Site Reconnaissance

	Exterior of Property
Date of Investigation	February 14, 2018
Time of Investigation	10:00 AM to 1:00 PM
Weather Conditions	Sunny, approx.. 0°C
Duration of Investigation	3.0 hours
Was the Facility Operating	No
Person(s) Conducting Investigation and Qualifications	Tim Greer, CET

6.2 Specific Observations at Phase One Property

The site reconnaissance included a walking tour of the property, as well as compiling written and photographic records. Site features are illustrated on Figure 2, and photographs are presented in Appendix E.

6.2.1 General Description

The Phase One Property covers an area of about 3.8 hectares. The property is occupied by the school building and associated sports fields and parking lots. Site features are presented in the Site Plan (Figure 2).

6.2.2 Building Descriptions

The property is occupied by a vacant secondary school building which is approximately 155,000 sq.ft. in size. The building was first constructed in at least the early 1920s, with various additions constructed up to about 1979.

6.2.3 Exterior Site Conditions

The site is covered by sports fields and parking lots.

6.2.4 Below Ground Structures

The existing building has a basement level. No other below ground structures were present.

6.2.5 Above Ground Storage Tanks

No above ground fuel storage tanks were observed. Information provided by the maintenance supervisor indicated that there was a 200 litre oil storage tank located outside the auto shop. The tank was removed from the property within the past year or so. No spills or leaks were reported in connection with the tank, and the tank had been located on an asphalt pad with no storm drains or other potential pathways to the underlying soil or ground water nearby. Based on this, it is considered unlikely that there would be any significant environmental impairment at the site in connection with the former tank.

6.2.6 Underground Storage Tanks

No underground storage tanks or evidence of historical underground storage tanks was observed.

6.2.7 Water Sources

The subject property is municipally serviced with water and sanitary sewers.

6.2.8 Underground Utility and Services

No underground services or utilities were noted at the site during the site inspection.

6.2.9 Building Exit and Entry Points

The school building has multiple exit and entry points.

6.2.10 Heating Systems

The school building is heated with gas fired boilers.

6.2.11 Drains, Pits and Sumps

No pits or sumps were noted. Floor drains were visible in the boiler room of the building. No odours, staining, or other items of potential environmental concern were noted in connection with the drains.

6.2.12 Unidentified Substances

No unidentified substances were noted on the Phase One property at the time of the site inspection.

6.2.13 Staining and Corrosion

No staining or corrosion was noted on the subject property.

6.2.14 Current and Former Wells

No evidence of wells on the subject property was noted during the site inspection. No historical records of wells on the subject property were found (see Sections 4.2.1and 4.3.5).

6.2.15 Sewage Works

The subject property is serviced with municipal storm and sanitary sewers.

6.2.16 Ground Surface

The exterior of the property is covered by grass and asphalt parking areas. The ground surface slopes towards the south.

6.2.17 Railways

No existing rail lines were located on or near to the subject property.

6.2.18 Stained and Odorous Soils

No evidence of stained or odorous soils was noted during the site inspection. It is noted that the majority of the site was snow covered at the time of inspection.

6.2.19 Stressed Vegetation

No stressed vegetation was observed at the site.

6.2.20 Fill Materials

No above-grade deposits of fill materials were noted on the subject property.

6.2.21 Watercourses, Ditches or Standing Water

There were no watercourses, ditches or standing water on the Phase One property at the time of the site inspection.

6.2.22 Air Emissions

No air emission sources were located on the Phase One property.

6.2.23 Roads, Parking Facilities, and Right-of-Ways

No obvious right-of-ways were noted on the subject property.

6.2.24 Designated Substances and Special Attention Items

The building inspection was carried out in accessible areas, and included an assessment of the potential presence of the following materials:

- Designated substances (i.e., acrylonitrile, asbestos, arsenic, benzene, coke oven emissions, ethylene oxide, isocyanates, lead, mercury, silica, and vinyl chloride).
- Polychlorinated biphenyls (PCBs).
- Ozone depleting substances.
- Urea-formaldehyde foam insulation (UFFI).
- Special attention items (i.e., mould, radioactive materials).

The presence of these materials is summarized in Table 6.2-1, below.

Table 6.2-1: Designated Substances and Special Attention Items

Asbestos	Asbestos-containing pipe insulation is known to be present in the building. Other asbestos-containing materials (i.e. vinyl floor tiles, etc.) may also be present.
Lead	No evidence of suspected lead was noted during site inspection (ie lead based paints). Given the age of the building, lead paint may be present in underlying layers.
Mercury	No evidence of mercury was observed during the site inspection.
PCBs	No evidence of PCB's was observed during the site inspection.
Ozone Depleting Substances	No ozone depleting substances were observed.
UFFI	No evidence of UFFI was observed during the site inspection.
Mould	No mould or areas of excessive dampness was observed in the buildings.
Radioactive Materials	No manmade sources of radiation were observed during the site inspection. Based on the geology in the area, Radon gas is not expected to be an issue.

6.3 Enhanced Investigation Property

The current and historical activities on the subject property do not qualify the site as an Enhanced Investigation Property.

6.4 Investigation of Phase One Study Area

At the time of the site inspection, the following land uses were noted on the properties immediately adjacent to the Phase One property.

Direction	Land Uses
North	North Street, then residential properties
East	Peter Street, then YMCA, a radio tower, and a golf course
South	Borland Street, then residential properties
West	West Street, then a retail plaza and residential properties

During the reconnaissance of the Phase One Study Area, no items of potential environmental concern were observed on the immediately surrounding properties.

6.5 Written Description of Investigation

The site inspection included a walking tour of the entire property, as well as compiling written and photographic records. No potential environmental concerns were noted on the subject property or on surrounding properties during the inspection.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Current and Past Uses

Current and past uses of the Phase One property were determined from historical aerial photographs, fire insurance plans, and city directories. The Phase One Property has been occupied by a school since at least the 1920s.

7.2 Potentially Contaminating Activities and Areas of Potential Environmental Concern

No potentially contaminating activities and areas of potential concern were identified at the subject property.

8.0 CONCLUSIONS

Terraprobe Inc. (Terraprobe) was retained by the County of Simcoe to complete a Phase One Environmental Assessment (ESA) of the site identified as 2 Borland Street East, Orillia, Ontario. The purpose of the Phase One ESA was to assess the environmental condition of the Property for due diligence purposes.

The Phase One ESA involved the following principal tasks:

- A review of records and reports regarding historical and current occupancy and activities for the Property and Study Area.
- An inspection of the Property and observation of the Study Area.

Sampling and analysis of soil, ground water, or other materials (e.g., construction materials, air) were not carried out as part of the investigation.

The results of the investigation indicate that the property has been occupied by a school since at least the 1920s. The surrounding properties have been occupied primarily by residential homes since at least the 1920s.

The Phase One Environmental Site Assessment identified no Potentially Contaminating Activities on the Phase One Property. Therefore no Areas of Potential Environmental Concern were identified at the Property. No further investigations are recommended in connection with the Phase One Property at this time.

The Phase One Environmental Site Assessment was completed in accordance with the CSA Z768-01 Standard. The objectives and requirements set out in that Standard were applied in carrying out this environmental site assessment and preparation of the report. The Phase One Environmental Site Assessment may not meet the full requirements as set out in Ontario Regulation 153/04 (Records of Site Condition – Part XV.1 of the Environmental Protection Act).

9.0 REFERENCES

1. Ontario Ministry of the Environment, June 1991. *Waste Disposal Site Inventory*. ISBN 0-7729-8409-3.
2. Ontario Ministry of the Environment, October 1991. *Ontario Inventory of PCB Storage Sites*. ISBN 0-7729-9044-1.
3. Ontario Geological Survey, 1980. Quaternary Geology: Toronto and Surrounding Area, Southern Ontario. Ontario Geological Survey Preliminary Map P.2204, scale 1:100,000.
4. Ontario Geological Survey, 1991. Bedrock geology of Ontario, southern sheet; Ontario Geological Survey, Map 2544, scale 1:1,000,000.

10.0 LIMITATIONS AND USE OF THE REPORT

This report was prepared for the exclusive use of the County of Simcoe, and is intended to provide an assessment of the environmental condition on the property identified as 2 Borland Street East, Orillia, Ontario.

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. Terraprobe Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report, including consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The assessment should not be considered a comprehensive audit that eliminates all risks of encountering environmental problems. The information presented in this report is based on information collected during the completion of the Phase One Environmental Site Assessment by Terraprobe Inc.. It is based on the conditions on the Phase One property at the time of the site inspection supplemented by a review of historical information to assess the environmental conditions on the Phase One, as reported herein.

Sampling and analysis of soil, ground water or any other material was not carried out as part of this assessment. Consequently, the presence and/or extent of any adverse environmental impact cannot be verified. The potential for environmental liability and/or environmental impact is an opinion that has been arrived at within the scope of this assessment.

In assessing the environmental conditions / history of the Phase One, Terraprobe Inc. has relied in good faith on information provided by others, as noted in this report, and has assumed that the information provided by those individuals is factual and accurate. Terraprobe Inc. accepts no responsibility for any deficiency, misstatement or inaccuracy in this report resulting from the information provided by those individuals.

There is no warranty expressed or implied by this report regarding the environmental status of the Phase One. Professional judgement was exercised in gathering and analysing information collected by our staff, as well as that submitted by others. The conclusions presented are the product of professional care and competence, and cannot be construed as an absolute guarantee.

In the event that during future work new information regarding the environmental condition of the Phase One is encountered, or in the event that the outstanding responses from the regulatory agencies indicate outstanding issues on file with respect to the Phase One, Terraprobe Inc. should be notified in order that we may re-evaluate the findings of this assessment and provide amendments, as required.

We trust this report meets with your requirements. Should you have any questions regarding the information presented, please do not hesitate to contact our office.

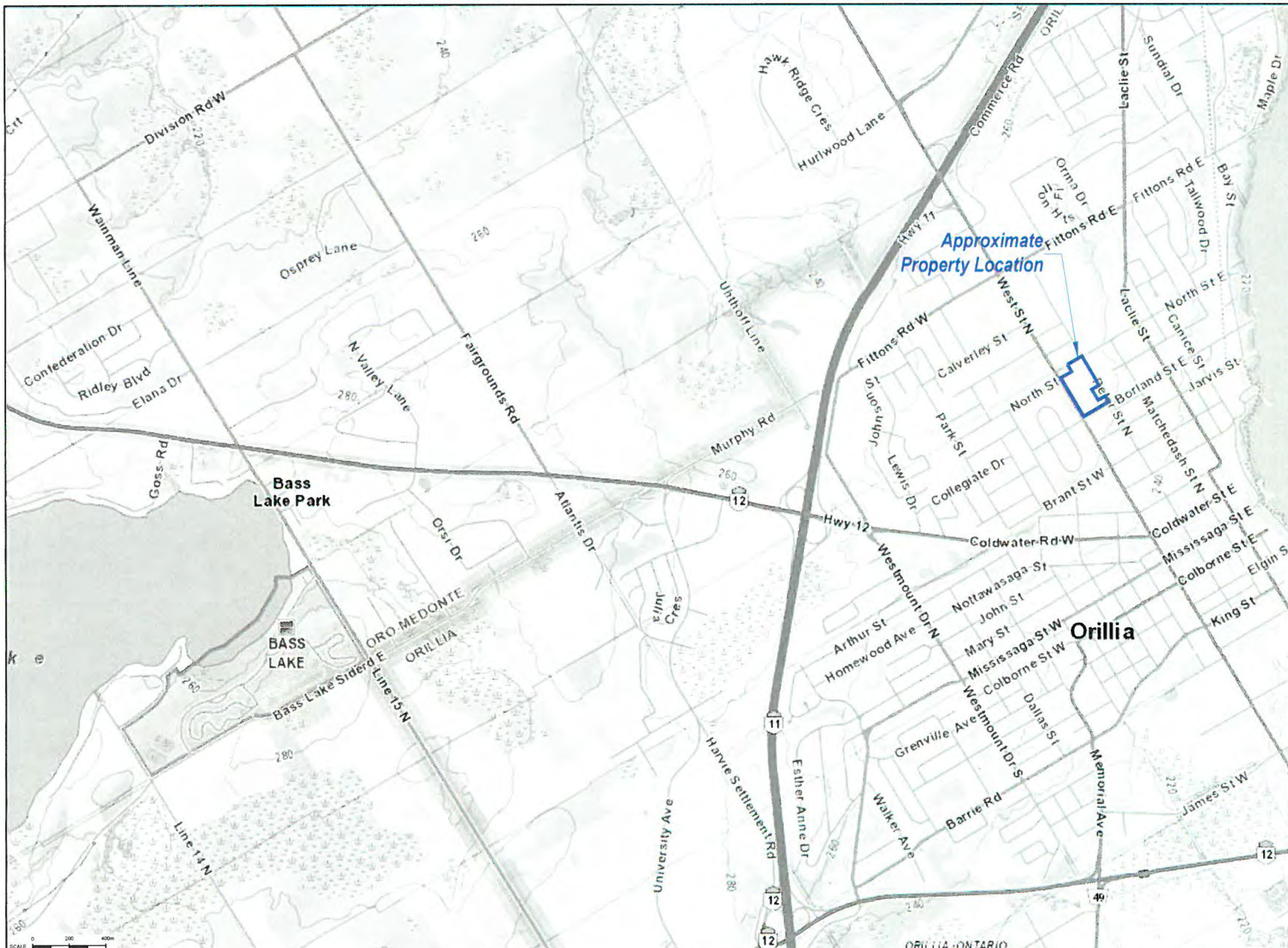
Yours truly,

Terraprobe Inc.

Serena Oyama, CET, P.Geo(Limited), QP_{ESA}
Senior Project Manager

FIGURES

TERRAPROBE INC.



Terraprobe Inc.

Consulting Geotechnical & Environmental Engineering
Construction Materials, Inspection & Testing

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Reference: Google Earth Pro 2017

Notes:

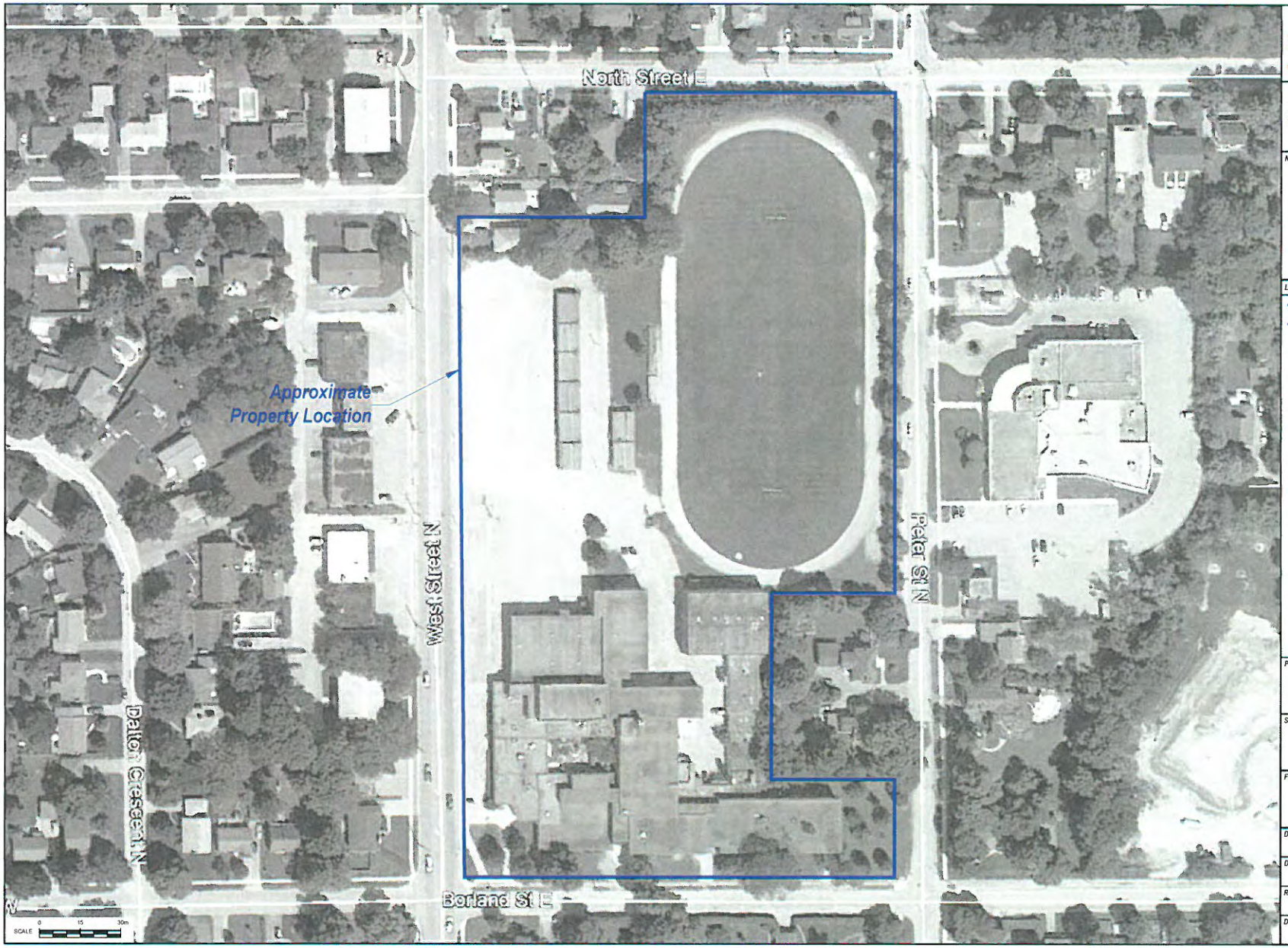
Legend: Property Boundary

Project Title: Phase One Environmental Site Assessment

Site Location: 2 Borland Street East, Orillia, Ontario

Figure Title: PHASE ONE PROPERTY LOCATION

Designed By: SO		**File No.:** 3-18-0005-41	
Drawn By: JB		**Scale:** As Shown	
Reviewed By: MB			
Date: February 2018		**Figure No.:** 1	



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11 Indell Lane - Brampton Ontario L6T 3Y3 (905) 796-2650

Reference: Google Earth Pro 2017

Notes:

Legend:

- Phase One Property Boundary
- Phase One Study Area

Project Title: Phase One Environmental Site Assessment

Site Location: 2 Borland Street East, Orillia, Ontario

Figure Title: PHASE ONE PROPERTY LOCATION

Designed By: SO	**File No.:** 3-18-0005-41
Drawn By: JB	**Scale:** As Shown
Reviewed By: MB	**Figure No.:** 2
Date: February 2018	

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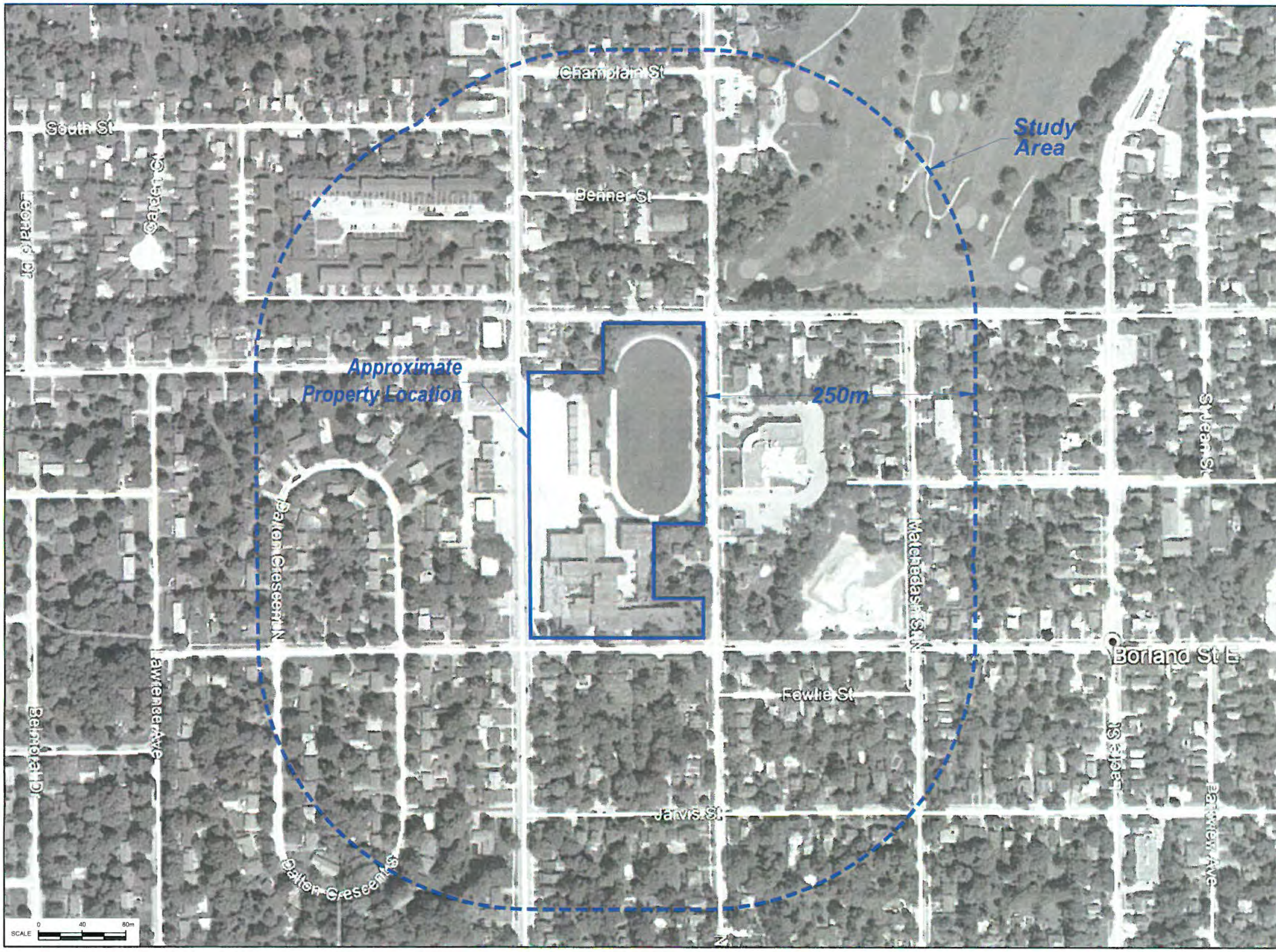

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Reference:	Google Earth Pro 2017
Notes:	
Legend:	Property Boundary; Phase One Study Area
Project Title:	Phase One Environmental Site Assessment
Site Location:	2 Borland Street East, Orillia, Ontario
Figure Title:	PHASE ONE STUDY AREA
Designed By:	SO
Drawn By:	JB
Reviewed By:	MB
Date:	February 2018
File No.:	3-18-0005-41
Scale:	As Shown
Figure No.:	3

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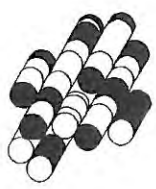
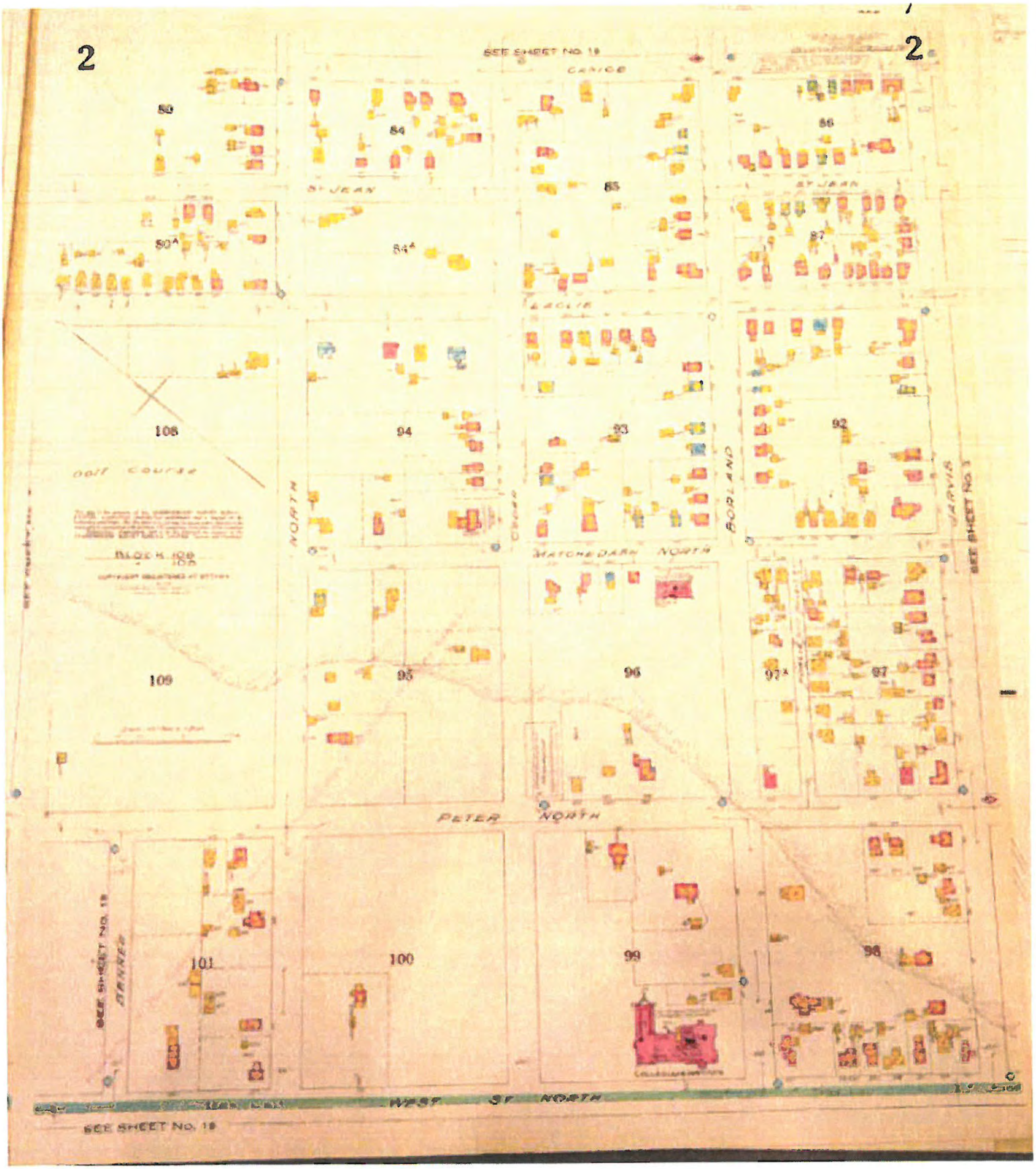
APPENDIX A

TERRAPROBE INC.




2
2
SEE SHEET NO. 19
ST JEAN
ST JEAN
NORTH
BORLAND
JARVIS
SEE SHEET No. 3
NORTH
PETER
NORTH
WEST
ST
NORTH
SEE SHEET No. 18
SEE SHEET No. 18
BLOCK 108
89
84
85
86
89A
84A
87
108
94
93
92
109
95
96
97A
97
101
100
99
98

APPENDIX B

TERRAPROBE INC.

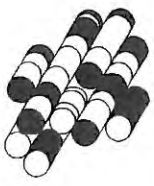
City Directory Search
3-18-0005
2 Borland St. E, Orillia

Date	Benner St.	Borland St. E		Borland St. W	Cedar St.	Dalton Crescent N	Fowlie St.	Jarvis St.	Matchedash St. N	North St. E	Noth St. W	Peter St. N	South St.	West St. N
	16-30	2	11 - 91	9 - 16	89-94	1-68	49 - 71	8- 80	80-320	1-65	8-47	176-353	3 - 23	175-356
2000	Residential	Institutional/Commercial 2 - Orillia District Collegiate & Vocational Institute, Simcoe County District School Board	Residential	Residential	Residential	Residential/Commercial	Residential	Commercial/Residential	Commercial/Institutional/Residential 258 - Multi-line Coatings	Residential/Institutional	Residential	Commercial/Community/Residential	Commercial/Residential	Commercial/Residential 345 - Autosport Orillia
1982	Commercial/Residential	Address not listed	Residential	Residential	Residential	Residential	Residential	Residential	Residential/Institutional	Residential/Institutional	Residential	Residential/Institutional	Residential/Community	Residential/Commercial/Institutional
1930	Street not listed	Street not listed	Street not listed	Street not listed	Street not listed	Residential	Street not listed	Street not listed	Street not listed	Street not listed	Street not listed	Street not listed	Street not listed	Street not listed

References
Orillia - Midland & Area Criss Cross Directory - 2000
Vernon's City of Orillia (Ontario) Directory - 1982
Vernon's City of Orillia (Ontario) Directory - 1930

APPENDIX C

TERRAPROBE INC.



ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*2 Borland St E, Orillia* *2 Borland St E* *Orillia ON L3V2B4*
Project No:	*3-18-0005-41*
Report Type:	*Standard Report*
Order No:	*20180125059*
Requested by:	*Terraprobe Ltd*
Date Completed:	*January 31, 2018*

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

www.erisinfo.com

Table of Contents

Executive Summary

Property Information:

Project Property: *2 Borland St E, Orillia*
2 Borland St E Orillia ON L3V2B4

Project No: *3-18-0005-41*

Coordinates:

Latitude:	*44.616915*
Longitude:	*-79.42581*
UTM Northing:	*4,941,601.16*
UTM Easting:	*624,894.45*
UTM Zone:	*UTM Zone 17T*

Elevation: *880 FT*
268.09 M

Order Information:

Order No: *20180125059*
Date Requested: *January 25, 2018*
Requested by: *Terraprobe Ltd*
Report Type: *Standard Report*

Historical/Products:

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0
AGR	Aggregate Inventory	Y	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BORE	Borehole	Y	0	0	0
CA	Certificates of Approval	Y	0	0	0
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	0	0
DRL	Drill Hole Database	Y	0	0	0
EASR	Environmental Activity and Sector Registry	Y	0	0	0
EBR	Environmental Registry	Y	0	1	1
ECA	Environmental Compliance Approval	Y	0	1	1
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	0	2	2
EIIS	Environmental Issues Inventory System	Y	0	0	0
EMHE	Emergency Management Historical Event	Y	0	0	0
EXP	List of TSSA Expired Facilities	Y	0	0	0
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FST	Fuel Storage Tank	Y	0	0	0
FSTH	Fuel Storage Tank - Historic	Y	0	0	0
GEN	Ontario Regulation 347 Waste Generators Summary	Y	19	7	26
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	1	0	1
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
INC	TSSA Incidents	Y	0	0	0
LIMO	Landfill Inventory Management Ontario	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0

Database	Name	Searched	Project Property	Within 0.25 km	Total
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBW	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGW	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	TSSA Pipeline Incidents	Y	0	0	0
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	1	2	3
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	TSSA Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	0	0
	Total:		21	13	34

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	GEN	SIMCOE BOARD OF EDUCATION	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INST., 2 BORLAND AVENUE ORILLIA ON L3V 5W1	-/0.0	0.00	15
1	GEN	SIMCOE BOARD OF EDUCATION	ORILLIA DIST. COLLEG. & VOCAT. INST. 2 BORLAND STREET EAST ORILLIA ON L3V 2B4	-/0.0	0.00	15
1	GEN	SIMCOE BOARD OF EDUCATION 35-753	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INST., 2 BORLAND AVENUE ORILLIA ON L3V 5W1	-/0.0	0.00	16
1	GEN	SIMCOE BOARD OF EDUCATION 35-753	ORILLIA DIST. COLLEG. & VOCAT. INST. 2 BORLAND STREET EAST ORILLIA ON L3V 2B4	-/0.0	0.00	16
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DIST. COLLEG. & VOCAT. INST. 2 BORLAND STREET EAST ORILLIA ON L3V 2B4	-/0.0	0.00	17
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COL. & VOCATIONAL INST. 2 BORLAND STREET EAST ORILLIA ON L3V 2B4	-/0.0	0.00	18
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-/0.0	0.00	18
1	GEN	SIMCOE (SEE & USE ON0358114)	ORILLIA COLLEG. VOC.INST.,RM.145, ODCVI COMMUN. TECHNOLOGY, 2 BORLAND ST. EAST ORILLIA ON L3V 2B4	-/0.0	0.00	19
1	GEN	SIMCOE COUNTY BOARD OF EDUCATION	ORILLIA COLLEG. VOC.INST.,RM.145, ODCVI COMMUN. TECHNOLOGY, 2 BORLAND ST. EAST ORILLIA ON L3V 2B4	-/0.0	0.00	20
1	GEN	SIMCOE COUNTRY (SEE & USE ON0358114)	COMMUNICATIONS TECHNOLOGY - ODCVI 2 BORLAND STREET EAST, ROOM 145 ORILLIA ON L3V 2B4	-/0.0	0.00	20
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON	-/0.0	0.00	20
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON	-/0.0	0.00	21
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON	-/0.0	0.00	22
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON	-/0.0	0.00	23
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-/0.0	0.00	23

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-/0.0	0.00	24
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-/0.0	0.00	25
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-/0.0	0.00	26
1	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-/0.0	0.00	27
1	HINC		2 BORLAND STREET EAST ORILLIA ON L3V 2B4	-/0.0	0.00	28
1	SPL	Union Gas<UNOFFICIAL>	2 Borland St., E. Orillia ON L3V 2B4	-/0.0	0.00	28

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
2	SPL		in front of 245 West Street North Orillia ON L3V 5C9	SW/110.4	1.76	29
3	GEN	UDELL'S SPORTS WORLD	251 WEST STREET, NORTH ORILLIA ON L3V 5C9	WSW/113.4	1.79	29
3	GEN	UDELL'S SPORTS WORLD 39-164	251 WEST STREET, NORTH ORILLIA ON L3V 5C9	WSW/113.4	1.79	29
4	EBR	Orillia Power Distribution Corporation	306 Peter Street North Orillia County of Simcoe CITY OF ORILLIA ON	NE/133.4	-2.32	30
4	ECA	Orillia Power Distribution Corporation	306 Peter St N Orillia ON L3V 6J9	NE/133.4	-2.32	30
5	EHS		306 Peter St N Orillia ON L3V5A2	NE/141.2	-1.24	30
6	SPL	PRIVATE OWNER	AT 66 CEDAR ST. STORAGE TANK/BARREL ORILLIA CITY ON L3V 2C4	NE/226.0	-8.56	30
7	EHS		255 Matchedash Street North Orillia ON L3V 4V8	E/241.2	-9.24	31
7	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	HILLCREST PUBLIC SCHOOL ORILLIA 255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8	E/241.2	-9.24	31
7	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8	E/241.2	-9.24	31
7	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8	E/241.2	-9.24	32
7	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8	E/241.2	-9.24	32
7	GEN	SIMCOE COUNTY DISTRICT SCHOOL BOARD	255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8	E/241.2	-9.24	32

Executive Summary: Summary By Data Source

EBR - Environmental Registry

A search of the EBR database, dated 1994-Oct 2017 has found that there are 1 EBR site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
Orillia Power Distribution Corporation	306 Peter Street North Orillia County of Simcoe CITY OF ORILLIA ON	NE	133.44	4

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011-Oct 2017 has found that there are 1 ECA site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
Orillia Power Distribution Corporation	306 Peter St N Orillia ON L3V 6J9	NE	133.44	4

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Aug 2016 has found that there are 2 EHS site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	306 Peter St N Orillia ON L3V5A2	NE	141.16	5
	255 Matchedash Street North Orillia ON L3V 4V8	E	241.23	7

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Jun 2017 has found that there are 26 GEN site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DIST. COLLEG. & VOCAT. INST. 2 BORLAND STREET EAST ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COL. & VOCATIONAL INST. 2 BORLAND STREET EAST ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE (SEE & USE ON0358114)	ORILLIA COLLEG. VOC.INST.,RM.145, ODCVI COMMUN. TECHNOLOGY, 2 BORLAND ST. EAST ORILLIA ON L3V 2B4	-	0.00	1

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
SIMCOE COUNTY BOARD OF EDUCATION	ORILLIA COLLEG. VOC.INST.,RM.145, ODCVI COMMUN. TECHNOLOGY, 2 BORLAND ST. EAST ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE COUNTRY (SEE & USE ON0358114)	COMMUNICATIONS TECHNOLOGY - ODCVI 2 BORLAND STREET EAST, ROOM 145 ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE COUNTY DISTRICT SCHOOL BOARD	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE BOARD OF EDUCATION 35-753	ORILLIA DIST. COLLEG. & VOCAT. INST. 2 BORLAND STREET EAST ORILLIA ON L3V 2B4	-	0.00	1
SIMCOE BOARD OF EDUCATION 35-753	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INST., 2 BORLAND AVENUE ORILLIA ON L3V 5W1	-	0.00	1
SIMCOE BOARD OF EDUCATION	ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INST., 2 BORLAND AVENUE ORILLIA ON L3V 5W1	-	0.00	1
SIMCOE BOARD OF EDUCATION	ORILLIA DIST. COLLEG. & VOCAT. INST. 2 BORLAND STREET EAST ORILLIA ON L3V 2B4	-	0.00	1
UDELL'S SPORTS WORLD	251 WEST STREET, NORTH ORILLIA ON L3V 5C9	WSW	113.36	3
UDELL'S SPORTS WORLD 39-164	251 WEST STREET, NORTH ORILLIA ON L3V 5C9	WSW	113.36	3

Lower Elevation	Address	Direction	Distance (m)	Map Key

SIMCOE COUNTY DISTRICT SCHOOL BOARD	255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8	E	241.23	7
SIMCOE COUNTY DISTRICT SCHOOL BOARD	255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8	E	241.23	7
SIMCOE COUNTY DISTRICT SCHOOL BOARD	255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8	E	241.23	7
SIMCOE COUNTY DISTRICT SCHOOL BOARD	255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8	E	241.23	7
SIMCOE COUNTY DISTRICT SCHOOL BOARD	HILLCREST PUBLIC SCHOOL ORILLIA 255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8	E	241.23	7

HINC - TSSA Historic Incidents

A search of the HINC database, dated 2006-June 2009* has found that there are 1 HINC site(s) within approximately 0.25 kilometers of the project property.

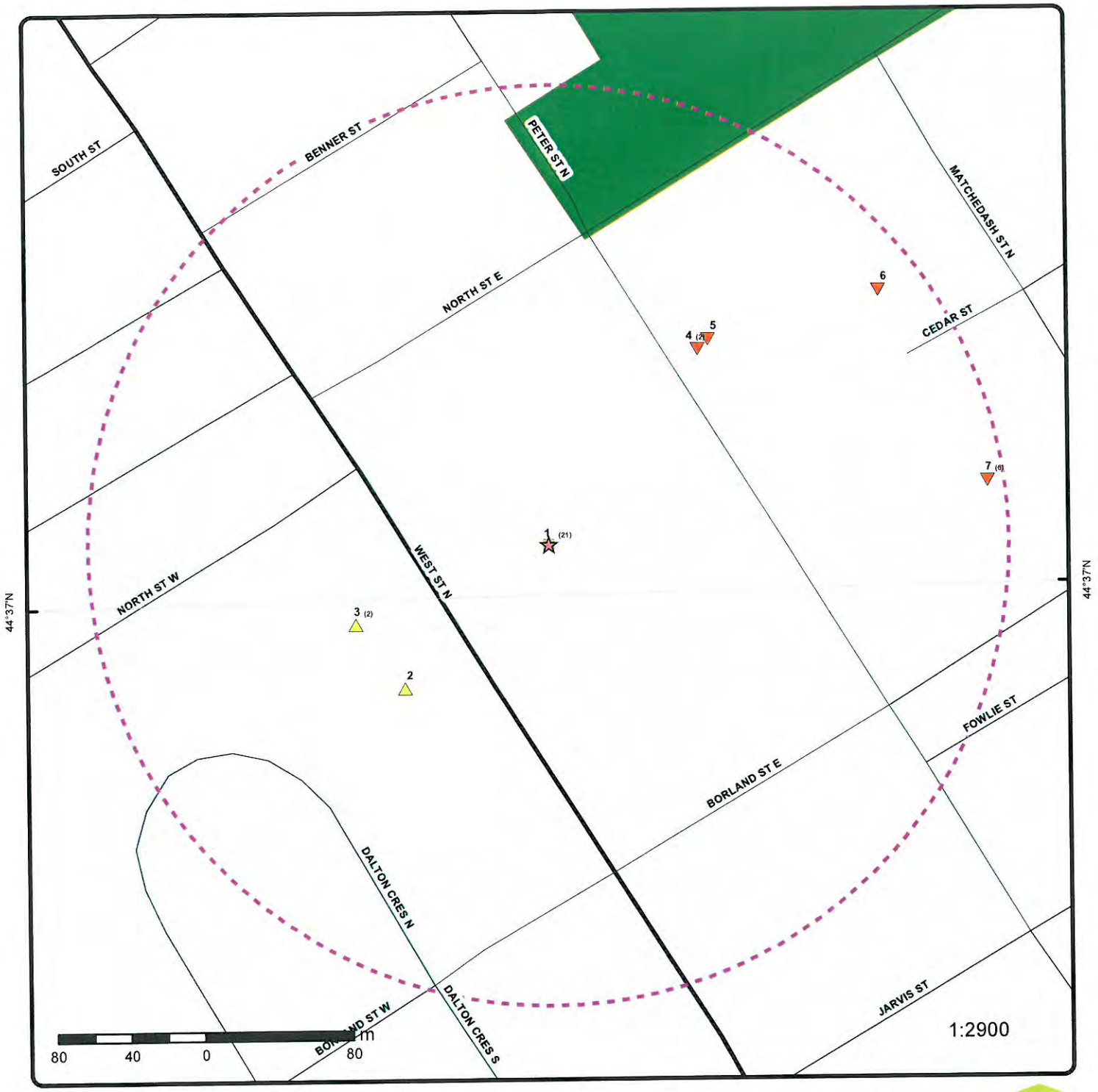
Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	2 BORLAND STREET EAST ORILLIA ON L3V 2B4	-	0.00	1

SPL - Ontario Spills

A search of the SPL database, dated 1988-Sep 2017 has found that there are 3 SPL site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
Union Gas<UNOFFICIAL>	2 Borland St., E. Orillia ON L3V 2B4	-	0.00	1
	in front of 245 West Street North Orillia ON L3V 5C9	SW	110.35	2

Lower Elevation	Address	Direction	Distance (m)	Map Key
PRIVATE OWNER	AT 66 CEDAR ST. STORAGE TANK/BARREL ORILLIA CITY ON L3V 2C4	NE	225.96	6



Map : 0.25 Kilometer Radius

Order No: 20180125059

Address: 2 Borland St E, Orillia, ON, L3V2B4

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

- Project Property
- Buffer Outline
- Eris Sites with Higher Elevation
- Eris Sites with Same Elevation
- Eris Sites with Lower Elevation
- Eris Sites with Unknown Elevation

- Expressway
- Principal Highway
- Secondary Highway
- Major Road
- Local road
- Trail
- Proposed Road
- Ferry Route/Ice Road

- Industrial and Resource - Regions
- Main Line
- Sidetrack
- Transit Line
- Abandoned Line

- National Park
- Provincial or Territorial Park
- Other Park
- Golf Course or Driving Range
- Park or Sports Field
- Other Recreation Area

Source: © 2015 DMTI Spatial Inc.

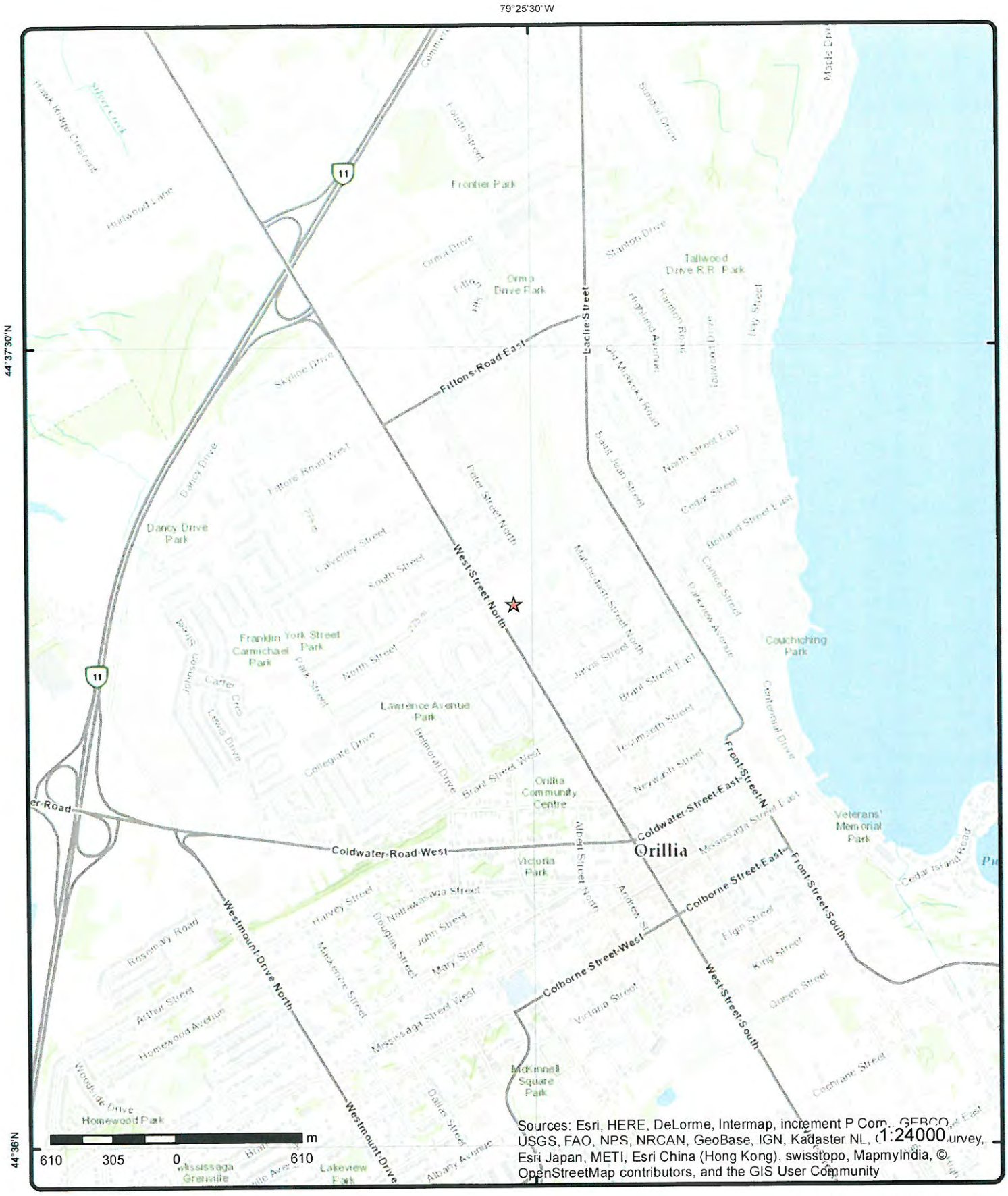
Aerial (2014)

Address: 2 Borland St E, Orillia, ON, L3V2B4

Source: ESRI World Imagery

Order No: 20180125059

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES



Topographic Map

Address: 2 Borland St E, Orillia, ON, L3V2B4

Source: ESRI World Topographic Map

Order No: 20180125059

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site	DB
1	1 of 21	-/0.0	268.1	SIMCOE BOARD OF EDUCATION ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INST., 2 BORLAND AVENUE ORILLIA ON L3V 5W1	GEN

Generator No.: ON0358114
Status:
Approval Years: 86,87,88,89,90
Contam. Facility:
MHSW Facility:
SIC Code: 8511
SIC Description: ELEMT./SECON. EDUC.

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

--Details--

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site	DB
1	2 of 21	-/0.0	268.1	SIMCOE BOARD OF EDUCATION ORILLIA DIST. COLLEG. & VOCAT. INST. 2 BORLAND STREET EAST ORILLIA ON L3V 2B4	GEN

Generator No.: ON0358114
Status:
Approval Years: 92,93
Contam. Facility:
MHSW Facility:
SIC Code: 8511
SIC Description: ELEMT./SECON. EDUC.

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

--Details--

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

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

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

---

1 | 3 of 21 | -/0.0 | 268.1 | SIMCOE BOARD OF EDUCATION 35-753
ORILLIA DISTRICT COLLEGIATE &
VOCATIONAL INST., 2 BORLAND AVENUE
ORILLIA ON L3V 5W1 | GEN

Generator No.: ON0358114
Status:
Approval Years: 94
Contam. Facility:
MHSW Facility:
SIC Code: 8511
SIC Description: ELEMT./SECON. EDUC.

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

--Details--

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

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1 | 4 of 21 | -/0.0 | 268.1 | SIMCOE BOARD OF EDUCATION 35-753
ORILLIA DIST. COLLEG. & VOCAT. INST. 2
BORLAND STREET EAST
ORILLIA ON L3V 2B4 | GEN

Generator No.: ON0358114
Status:
Approval Years: 95,96

PO Box No.:
Country:
Choice of Contact:

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

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

--Details--
Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

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1 ***5 of 21*** ***-/0.0*** ***268.1*** ***SIMCOE COUNTY DISTRICT SCHOOL BOARD*** ***GEN***
ORILLIA DIST. COLLEG. & VOCAT. INST. 2
BORLAND STREET EAST
ORILLIA ON L3V 2B4

Generator No.: ON0358114 ***PO Box No.:***
Status: ***Country:***
Approval Years: 97 ***Choice of Contact:***
Contam. Facility: ***Co Admin:***
MHSW Facility: ***Phone No. Admin:***
SIC Code: 8511
SIC Description: ELEMT./SECON. EDUC.

--Details--
Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

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

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 331
Waste Description: WASTE COMPRESSED GASES

1	6 of 21	-/0.0	268.1	SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COL. & VOCATIONAL INST. 2 BORLAND STREET EAST ORILLIA ON L3V 2B4	GEN

Generator No.: ON0358114
Status:
Approval Years: 98,99,00,01
Contam. Facility:
MHSW Facility:
SIC Code: 8511
SIC Description: ELEMT./SECON. EDUC.

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

--Details--

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 331
Waste Description: WASTE COMPRESSED GASES

1	7 of 21	-/0.0	268.1	SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COLLEGIATE &	GEN

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site	DB
				VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	

Generator No.: ON0358114
Status:
Approval Years: 02,03,04,05,06,07,08
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

--Details--

Waste Code: 121
Waste Description: ALKALINE WASTES - HEAVY METALS

Waste Code: 145
Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 331
Waste Description: WASTE COMPRESSED GASES

1	8 of 21	-/0.0	268.1	SIMCOE (SEE & USE ON0358114) ORILLIA COLLEG. VOC.INST.,RM.145, ODCVI COMMUN. TECHNOLOGY, 2 BORLAND ST. EAST ORILLIA ON L3V 2B4	GEN

Generator No.: ON0358119
Status:
Approval Years: 93,95,96,97
Contam. Facility:
MHSW Facility:
SIC Code: 2821
SIC Description: PLATEMAKING, ETC.

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

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site	DB
--Details--					
Waste Code:		264			
Waste Description:		PHOTOPROCESSING WASTES			
1	9 of 21	-/0.0	268.1	SIMCOE COUNTY BOARD OF EDUCATION ORILLIA COLLEG. VOC.INST.,RM.145, ODCVI COMMUN. TECHNOLOGY, 2 BORLAND ST. EAST ORILLIA ON L3V 2B4	GEN
Generator No.:	ON0358119			PO Box No.:	
Status:				Country:	
Approval Years:	94			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No. Admin:	
SIC Code:	2821				
SIC Description:	PLATEMAKING, ETC.				
--Details--					
Waste Code:		264			
Waste Description:		PHOTOPROCESSING WASTES			
1	10 of 21	-/0.0	268.1	SIMCOE COUNTRY (SEE & USE ON0358114) COMMUNICATIONS TECHNOLOGY - ODCVI 2 BORLAND STREET EAST, ROOM 145 ORILLIA ON L3V 2B4	GEN
Generator No.:	ON0358119			PO Box No.:	
Status:				Country:	
Approval Years:	98			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No. Admin:	
SIC Code:	2821				
SIC Description:	PLATEMAKING, ETC.				
--Details--					
Waste Code:		264			
Waste Description:		PHOTOPROCESSING WASTES			
1	11 of 21	-/0.0	268.1	SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON	GEN
Generator No.:	ON0358114			PO Box No.:	
Status:				Country:	
Approval Years:	2009			Choice of Contact:	
Contam. Facility:				Co Admin:	
MHSW Facility:				Phone No. Admin:	
SIC Code:	611110				
SIC Description:	Elementary and Secondary Schools				
--Details--					
Waste Code:		263			
Waste Description:		ORGANIC LABORATORY CHEMICALS			
Waste Code:		213			
Waste Description:		PETROLEUM DISTILLATES			

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 331
Waste Description: WASTE COMPRESSED GASES

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 121
Waste Description: ALKALINE WASTES - HEAVY METALS

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 145
Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

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1 | **12 of 21** | **-/0.0** | **268.1** | **SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON** | **GEN**

Generator No.: ON0358114
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

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

--Details--

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 121
Waste Description: ALKALINE WASTES - HEAVY METALS

Waste Code: 145
Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 331
Waste Description: WASTE COMPRESSED GASES

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

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

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

1	13 of 21	-/0.0	268.1	**SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON**	GEN

Generator No.: ON0358114
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

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

--Details--

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 331
Waste Description: WASTE COMPRESSED GASES

Waste Code: 121
Waste Description: ALKALINE WASTES - HEAVY METALS

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 145

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

Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

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1 | **14 of 21** | **-/0.0** | **268.1** | **SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4** | **GEN**

Generator No.: ON0358114
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

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

--Details--

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 145
Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 331
Waste Description: WASTE COMPRESSED GASES

Waste Code: 121
Waste Description: ALKALINE WASTES - HEAVY METALS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

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1 | **15 of 21** | **-/0.0** | **268.1** | **SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON** | **GEN**

Generator No.: ON0358114

PO Box No.:

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

Status:		**Country:**	
Approval Years:	2013	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No. Admin:**	
SIC Code:	611110		
SIC Description:	ELEMENTARY AND SECONDARY SCHOOLS		

--Details--

Waste Code:	264
Waste Description:	PHOTOPROCESSING WASTES
Waste Code:	112
Waste Description:	ACID WASTE - HEAVY METALS
Waste Code:	121
Waste Description:	ALKALINE WASTES - HEAVY METALS
Waste Code:	212
Waste Description:	ALIPHATIC SOLVENTS
Waste Code:	145
Waste Description:	PAINT/PIGMENT/COATING RESIDUES
Waste Code:	331
Waste Description:	WASTE COMPRESSED GASES
Waste Code:	148
Waste Description:	INORGANIC LABORATORY CHEMICALS
Waste Code:	213
Waste Description:	PETROLEUM DISTILLATES
Waste Code:	122
Waste Description:	ALKALINE WASTES - OTHER METALS
Waste Code:	251
Waste Description:	OIL SKIMMINGS & SLUDGES
Waste Code:	252
Waste Description:	WASTE OILS & LUBRICANTS
Waste Code:	221
Waste Description:	LIGHT FUELS
Waste Code:	263
Waste Description:	ORGANIC LABORATORY CHEMICALS

1	***16 of 21***	***-/0.0***	***268.1***	***SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4***	***GEN***

Generator No.:	ON0358114	**PO Box No.:**	
Status:		**Country:**	Canada
Approval Years:	2016	**Choice of Contact:**	CO_ADMIN
Contam. Facility:	No	**Co Admin:**	Ward Coish
MHSW Facility:	No	**Phone No. Admin:**	(705) 734-6363 Ext.11314
SIC Code:	611110		
SIC Description:	ELEMENTARY AND SECONDARY SCHOOLS		

--Details--

Waste Code:	148

Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 121
Waste Description: ALKALINE WASTES - HEAVY METALS

Waste Code: 145
Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 331
Waste Description: WASTE COMPRESSED GASES

Waste Code: 221
Waste Description: LIGHT FUELS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 242
Waste Description: HALOGENATED PESTICIDES

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

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1 | **17 of 21** | **-/0.0** | **268.1** | **SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4** | **GEN**

Generator No.: ON0358114
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 611110
SIC Description: ELEMENTARY AND SECONDARY SCHOOLS

PO Box No.:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: Ward Coish
Phone No. Admin: (705) 734-6363 Ext.11314

--Details--

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 145
Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 121
Waste Description: ALKALINE WASTES - HEAVY METALS

Waste Code: 331
Waste Description: WASTE COMPRESSED GASES

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 221
Waste Description: LIGHT FUELS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

1	18 of 21	-/0.0	268.1	SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4	GEN

Generator No.: ON0358114
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 611110
SIC Description: ELEMENTARY AND SECONDARY SCHOOLS

PO Box No.:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: Ward Coish
Phone No. Admin: (705) 734-6363 Ext.11314

--Details--

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 122
Waste Description: ALKALINE WASTES - OTHER METALS

Waste Code: 121
Waste Description: ALKALINE WASTES - HEAVY METALS

Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 221
Waste Description: LIGHT FUELS

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

Waste Code: 145
Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 112
Waste Description: ACID WASTE - HEAVY METALS

Waste Code: 264
Waste Description: PHOTOPROCESSING WASTES

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Waste Code: 331
Waste Description: WASTE COMPRESSED GASES

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1 ***19 of 21*** ***-/0.0*** ***268.1*** ***SIMCOE COUNTY DISTRICT SCHOOL BOARD ORILLIA DISTRICT COLLEGIATE & VOCATIONAL INSTITUTE 2 BORLAND STREET ORILLIA ON L3V 2B4*** ***GEN***

Generator No.: ON0358114
Status: Registered
Approval Years: As of Jun 2017
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

--Details--

Waste Code: 242 B
Waste Description: Halogenated pesticides and herbicides

Waste Code: 221 I
Waste Description: Light fuels

Waste Code: 148 I
Waste Description: Misc. wastes and inorganic chemicals

Waste Code: 263 B
Waste Description: Misc. waste organic chemicals

Waste Code: 148 R
Waste Description: Misc. wastes and inorganic chemicals

Waste Code: 331 B
Waste Description: Waste compressed gases including cylinders

Waste Code: 213 I
Waste Description: Petroleum distillates

Waste Code: 145 I
Waste Description: Wastes from the use of pigments, coatings and paints

Waste Code: 148 C
Waste Description: Misc. wastes and inorganic chemicals

Waste Code: 148 B

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

Waste Description: Misc. wastes and inorganic chemicals

Waste Code: 264 C
Waste Description: Photoprocessing wastes

Waste Code: 251 L
Waste Description: Waste oils/sludges (petroleum based)

Waste Code: 112 C
Waste Description: Acid solutions - containing heavy metals

Waste Code: 212 L
Waste Description: Aliphatic solvents and residues

Waste Code: 263 I
Waste Description: Misc. waste organic chemicals

Waste Code: 331 I
Waste Description: Waste compressed gases including cylinders

Waste Code: 331 C
Waste Description: Waste compressed gases including cylinders

Waste Code: 121 C
Waste Description: Alkaline slutions - containing heavy metals

Waste Code: 252 L
Waste Description: Waste crankcase oils and lubricants

1	20 of 21	-/0.0	268.1	2 BORLAND STREET EAST ORILLIA ON L3V 2B4	HINC

External File Num: FS INC 0812-07681
Date of Occurrence: 12/9/2008
Fuel Occurrence Type: Pipeline Strike
Fuel Type Involved: Natural Gas
Status Desc:: Completed - Causal Analysis(End)
Job Type Desc:: Incident/Near-Miss Occurrence (FS)
Oper. Type Involved:: Construction Site (pipeline strike)
Service Interruptions:: Yes
Property Damage:: No
Fuel Life Cycle Stage:: Transmission, Distribution and Transportation
Root Cause:: Root Cause: Equipment/Material/Component:No Procedures:No Maintenance:No Design:Yes Training:No Management:No Human Factors:Yes

Reported Details::
Fuel Category:: Gaseous Fuel
Occurrence Type:: Incident
Affiliation:: Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
County Name:: Simcoe
Approx. Quant. Rel::
Nearby body of water::
Enter Drainage Syst.::
Approx. Quant. Unit::
Environmental Impact::

1	21 of 21	-/0.0	268.1	Union Gas<UNOFFICIAL> 2 Borland St., E. Orillia ON L3V 2B4	SPL

Ref No: 1636-7M6MEL
Contaminant Name: NATURAL GAS (METHANE)
Contaminant Code: 35
Site Address:
Site Conc:
Site Lot:

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

Contaminant Limit 1:		**Site County/District:**	
Contam. Limit Freq 1:		**Site Municipality:**	Orillia
Contaminant UN No 1:		**Site Postal Code:**	
Contaminant Qty:	57 min (duration)	**Sector Type:**	Pipeline
MOE Reported Dt:	12/9/2008	**Source Type:**	
Health/Env Conseq:		**Receiving Medium:**	
Incident Dt:		**Receiving Env:**	
Incident Cause:	Other Discharges	**Environment Impact:**	Confirmed
Incident Event:		**Nature of Impact:**	Air Pollution
Incident Reason:	Other - Reason not otherwise defined	**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Summary:	TSSA: 2" line pulled, evacuations, gas shut off		

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site	DB
2	1 of 1	SW/110.4	269.9	in front of 245 West Street North Orillia ON L3V 5C9	SPL

Ref No:	7715-8WXHVC	**Site Address:**	in front of 245 West Street North
Contaminant Name:	ETHYLENE GLYCOL (ANTIFREEZE)	**Site Conc:**	
Contaminant Code:	24	**Site Lot:**	
Contaminant Limit 1:		**Site County/District:**	
Contam. Limit Freq 1:		**Site Municipality:**	Orillia
Contaminant UN No 1:		**Site Postal Code:**	
Contaminant Qty:	5 L	**Sector Type:**	Motor Vehicle
MOE Reported Dt:	07-AUG-12	**Source Type:**	
Health/Env Conseq:		**Receiving Medium:**	
Incident Dt:	06-AUG-12	**Receiving Env:**	
Incident Cause:	Other Transport Accident	**Environment Impact:**	Not Anticipated
Incident Event:		**Nature of Impact:**	Other Impact(s)
Incident Reason:	Unknown - Reason not determined	**SAC Action Class:**	Land Spills
Incident Summary:	MVA, <5L antifreeze to road and c/b, yesterday, clnd		

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site	DB
3	1 of 2	WSW/113.4	269.9	UDELL'S SPORTS WORLD 251 WEST STREET, NORTH ORILLIA ON L3V 5C9	GEN

Generator No.:	ON0766800	**PO Box No.:**	
Status:		**Country:**	
Approval Years:	86,87,88,89,90	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No. Admin:**	
SIC Code:	3931		
SIC Description:	SPORTING GOODS IND.		

--Details--

Waste Code:	213
Waste Description:	PETROLEUM DISTILLATES

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site		DB
3	2 of 2	WSW/113.4	269.9	UDELL'S SPORTS WORLD 251 WEST STREET, NORTH ORILLIA ON L3V 5C9	39-164	GEN

Generator No.:	ON0766800	**PO Box No.:**	
Status:		**Country:**	
Approval Years:	92,93,94,95,96,97,98	**Choice of Contact:**	
Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No. Admin:**	
SIC Code:	3931		
SIC Description:	SPORTING GOODS IND.		

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

--Details--
Waste Code: 213
Waste Description: PETROLEUM DISTILLATES

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site	DB
4	1 of 2	NE/133.4	265.8	Orillia Power Distribution Corporation 306 Peter Street North Orillia County of Simcoe CITY OF ORILLIA ON	EBR

EBR Registry No.: 012-7273
Ministry Ref. No.:
Year: 2016
Proposal Date: April 05, 2016
Notice Date: June 14, 2016
Notice Type: Instrument Decision
Proponent Address: 360 West Street South, Post Office Box Delivery 398, Orillia Ontario, Canada L3V 6J9
Instrument Type: Orillia Power Distribution Corporation (EPA Part II.1-sewage) - Environmental Compliance Approval (project type: sewage)
Location: 306 Peter Street North Orillia County of Simcoe CITY OF ORILLIA
Location Other:

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site	DB
4	2 of 2	NE/133.4	265.8	Orillia Power Distribution Corporation 306 Peter St N Orillia ON L3V 6J9	ECA

Approval No: 0453-AABRJ7
Status: Approved
Date: 2016-06-03
Record Type: ECA
Link Source: IDS
Project Type: Industrial Sewage Works
Approval Type: ECA-Industrial Sewage Works
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/6141-A7PJP6-14.pdf

SWP Area Name:
MOE District:
City:
Latitude:
Longitude:

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site	DB
5	1 of 1	NE/141.2	266.9	306 Peter St N Orillia ON L3V5A2	EHS

Postal Code: L3V5A2
City: Orillia
Address2:
Address1: 306 Peter St N
Provstate: ON
Order No.: 20151027053
Addit. Info Ordered::
Report Date: 28-OCT-15
Report Type: Standard Report
Search Radius (km): .25

Map Key	Number of Records	Direction/ Distance (m)	Elevation (m)	Site	DB
6	1 of 1	NE/226.0	259.5	PRIVATE OWNER AT 66 CEDAR ST. STORAGE TANK/BARREL ORILLIA CITY ON L3V 2C4	SPL

Ref No: 98988
Contaminant Name:
Contaminant Code:
Contaminant Limit 1:
Contam. Limit Freq 1:

Site Address:
Site Conc:
Site Lot:
Site County/District:
Site Municipality: 70102

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

Contaminant UN No 1:
Contaminant Qty:
MOE Reported Dt: 4/22/1994
Health/Env Conseq:
Incident Dt: 4/8/1994
Incident Cause: OTHER CONTAINER LEAK
Incident Event:
Incident Reason: ERROR
Incident Summary: RESIDENT -25 L OF USED MOTOR OIL TO GROUND FROM PAIL.

Site Postal Code:
Sector Type:
Source Type:
Receiving Medium: LAND
Receiving Env:
Environment Impact: CONFIRMED
Nature of Impact: Soil contamination
SAC Action Class:

---

7 **1 of 6** **E/241.2** **258.9** **255 Matchedash Street North Orillia ON L3V 4V8** **EHS**

Postal Code:
City:
Address2:
Address1:
Provstate:
Order No.: 20090914048
Addit. Info Ordered::
Report Date: 9/23/2009
Report Type: Standard Report
Search Radius (km): 0.25

---

7 **2 of 6** **E/241.2** **258.9** **SIMCOE COUNTY DISTRICT SCHOOL BOARD HILLCREST PUBLIC SCHOOL ORILLIA 255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8** **GEN**

Generator No.: ON0358145
Status:
Approval Years: 99,00,01
Contam. Facility:
MHSW Facility:
SIC Code: 8511
SIC Description: ELEMT./SECON. EDUC.

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

--Details--
Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

---

7 **3 of 6** **E/241.2** **258.9** **SIMCOE COUNTY DISTRICT SCHOOL BOARD 255 MATCHEDASH STREET NORTH ORILLIA ON L3V 4V8** **GEN**

Generator No.: ON0358145
Status:
Approval Years: 07,08
Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

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

--Details--
Waste Code: 145

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

Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

---

7 **4 of 6** **E/241.2** **258.9** **SIMCOE COUNTY DISTRICT SCHOOL BOARD**
255 MATCHEDASH STREET NORTH
ORILLIA ON L3V 4V8 **GEN**

Generator No.: ON0358145
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

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

--Details--
Waste Code: 145
Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

---

7 **5 of 6** **E/241.2** **258.9** **SIMCOE COUNTY DISTRICT SCHOOL BOARD**
255 MATCHEDASH STREET NORTH
ORILLIA ON L3V 4V8 **GEN**

Generator No.: ON0358145
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

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

--Details--
Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Waste Code: 145
Waste Description: PAINT/PIGMENT/COATING RESIDUES

---

7 **6 of 6** **E/241.2** **258.9** **SIMCOE COUNTY DISTRICT SCHOOL BOARD**
255 MATCHEDASH STREET NORTH
ORILLIA ON L3V 4V8 **GEN**

Generator No.: ON0358145
Status:
Approval Years: 2011

PO Box No.:
Country:
Choice of Contact:

Contam. Facility:
MHSW Facility:
SIC Code: 611110
SIC Description: Elementary and Secondary Schools

Co Admin:
Phone No. Admin:

--Details--
Waste Code: 148
Waste Description: INORGANIC LABORATORY CHEMICALS

Waste Code: 145
Waste Description: PAINT/PIGMENT/COATING RESIDUES

Waste Code: 263
Waste Description: ORGANIC LABORATORY CHEMICALS

Unplottable Summary

Total: 47 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
AAGR		Lot 6 Con 4 SD	Orillia ON	
CA	OTTO CSEKEY	WEST STREET	ORILLIA CITY ON	
CA	ORILLIA CITY	WEST STREET NORTH	ORILLIA CITY ON	
CA	The Corporation of the City of Orillia	North Street	Orillia ON	
CA	The Corporation of the City of Orillia	North Street	Orillia ON	
CA	The Corporation of the City of Orillia	Matchedash Street	Orillia ON	
CA	The Corporation of the City of Orillia	Lots 2 to 6, Concession 4	Orillia ON	
CA	OTTO CSEKEY	WEST STREET	ORILLIA CITY ON	
CA	The Corporation of the City of Orillia	West St N	Orillia ON	
CA	The Corporation of the City of Orillia	West St N	Orillia ON	
CA	ORILLIA CITY	WEST ST. N.	ORILLIA CITY ON	
ECA	The Corporation of the City of Orillia	West St N	Orillia ON	L3V 7T5
ECA	The Corporation of the City of Orillia	West St N	Orillia ON	L3V 7T5
ECA	The Corporation of the City of Orillia	West St N	Orillia ON	L3V 7T5
ECA	The Corporation of the City of Orillia	West St N	Orillia ON	L3V 7T5
ECA	The Corporation of the City of Orillia	West St N	Orillia ON	L3V 7T5
ECA	The Corporation of the City of Orillia	Matchedash St	Orillia ON	L3V 7T5

ECA	The Corporation of the City of Orillia	Matchedash St	Orillia ON	L3V 7T5
ECA	The Corporation of the City of Orillia	Matchedash St	Orillia ON	L3V 7T5
ECA	The Corporation of the City of Orillia	Matchedash St	Orillia ON	L3V 7T5
ECA	The Corporation of the City of Orillia	Matchedash St	Orillia ON	L3V 7T5
ECA	The Corporation of the City of Orillia	North St	Orillia ON	L3V 7T5
ECA	The Corporation of the City of Orillia	North St	Orillia ON	L3V 7T5
GEN	CENTRA GAS ONTARIO INC.	WEST STREET NORTH	ORILLIA ON	
GEN	ORILLIA, TOWNSHIP OF	LOT 3, CONCESSION 5, SOUTH DIVISION WEST STREET NORTH	ORILLIA ON	L3V 6J3
GEN	CENTRA (SEE & USE ON0178270)	WEST STREET NORTH	ORILLIA ON	
GEN	ORILLIA TWP. OF, PUBLIC WORKS YARD	WEST STREET NORTH TWP OF ORILLIA	ORILLIA ON	L3V 6J3
GEN	UNION GAS LIMITED	WEST STREET NORTH	ORILLIA ON	
PRT	NORFOLK COOPERATIVE CO LTD	LOT 7 CON 5 NORFOLK WOODHOUSE	SIMCOE ON	
PTTW	James Brian Knack	Lot 7, Concession 5	SIMCOE ON	
SCT	NELSON AGGREGATE CO.	WEST ST N	ORILLIA ON	L3V 6H4
SPL	Orillia Power Distribution Corporation		Orillia ON	
SPL	The Corporation of the City of Orillia	Cedar St. between Matchedash and Laclie St.	Orillia ON	
SPL	MOTOR VEHICLE	WEST ST. MOTOR VEHICLE (OPERATING FLUID)	ORILLIA CITY ON	
SPL	ONTARIO HYDRO	LOT 7, CON 5(ONT.HYDRO TRANSFER STN.) CAPACITOR	SIMCOE TOWN ON	
WWIS		lot 7 con 4	ON	
WWIS		lot 7	ON	
WWIS		lot 7 con 5	ON	
WWIS		con 4	ON	

WWIS	con 4	ON
WWIS	con 5	ON
WWIS	lot 6	ON
WWIS	lot 6	ON
WWIS	lot 6	ON
WWIS	lot 7	ON
WWIS	lot 7	ON
WWIS	lot 7	ON

Unplottable Report

Site:
Lot 6 Con 4 SD Orillia ON

Database:
AAGR

Type:	Pit
Region/County:	Simcoe
Township:	Orillia
Concession::	4 SD
Lot::	6
Size (ha)::	
Landuse::	
Comments::	

Site: ***OTTO CSEKEY***
WEST STREET ORILLIA CITY ON

Database:
CA

Certificate #:	7-0861-88-
Application Year:	88
Issue Date:	8/11/1988
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

Site: ***ORILLIA CITY***
WEST STREET NORTH ORILLIA CITY ON

Database:
CA

Certificate #:	3-0897-86-
Application Year:	86
Issue Date:	8/1/1986
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

Site: ***The Corporation of the City of Orillia***
North Street Orillia ON

Database:
CA

Certificate #:	9114-62NHGQ
Application Year:	2004
Issue Date:	7/8/2004
Approval Type:	Municipal and Private Sewage Works
Status:	Approved
Application Type:	
Client Name::	

Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Site: ***The Corporation of the City of Orillia***
North Street Orillia ON

Database: ***CA***

Certificate #:	9513-6MNHBB
Application Year:	2006
Issue Date:	3/9/2006
Approval Type:	Municipal and Private Sewage Works
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

Site: ***The Corporation of the City of Orillia***
Matchedash Street Orillia ON

Database: ***CA***

Certificate #:	7631-72DNSG
Application Year:	2007
Issue Date:	4/20/2007
Approval Type:	Municipal and Private Sewage Works
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

Site: ***The Corporation of the City of Orillia***
Lots 2 to 6, Concession 4 Orillia ON

Database: ***CA***

Certificate #:	8641-5K6QQ9
Application Year:	2003
Issue Date:	3/4/2003
Approval Type:	Municipal and Private Sewage Works
Status:	Approved
Application Type:	
Client Name::	
Client Address::	
Client City::	
Client Postal Code::	
Project Description::	
Contaminants::	
Emission Control::	

Site: ***OTTO CSEKEY***
WEST STREET ORILLIA CITY ON

Database: ***CA***

Certificate #:	3-0989-88-
Application Year:	88

Issue Date: 8/11/1988
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Site: ***The Corporation of the City of Orillia***
West St N Orillia ON

Database: *CA*

Certificate #: 8100-7C9MDM
Application Year: 2008
Issue Date: 2/29/2008
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Site: ***The Corporation of the City of Orillia***
West St N Orillia ON

Database: *CA*

Certificate #: 3305-733K9H
Application Year: 2007
Issue Date: 5/22/2007
Approval Type: Municipal and Private Sewage Works
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Site: ***ORILLIA CITY***
WEST ST. N. ORILLIA CITY ON

Database: *CA*

Certificate #: 3-0756-89-
Application Year: 89
Issue Date: 7/28/1989
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name::
Client Address::
Client City::
Client Postal Code::
Project Description::
Contaminants::
Emission Control::

Site: ***The Corporation of the City of Orillia***
West St N Orillia ON L3V 7T5

Database: ECA

Approval No: 8245-68HR7C
Status: Approved
Date: 2005-01-12
Record Type: ECA
Link Source: IDS
Project Type: Municipal Drinking Water Systems
Approval Type: ECA-Municipal Drinking Water Systems
Full Address:
Full PDF Link:

SWP Area Name:
MOE District:
City:
Latitude:
Longitude:

Site: ***The Corporation of the City of Orillia***
West St N Orillia ON L3V 7T5

Database: ECA

Approval No: 1921-7C9MP9
Status: Approved
Date: 2008-02-29
Record Type: ECA
Link Source: IDS
Project Type: Municipal Drinking Water Systems
Approval Type: ECA-Municipal Drinking Water Systems
Full Address:
Full PDF Link:

SWP Area Name:
MOE District:
City:
Latitude:
Longitude:

Site: ***The Corporation of the City of Orillia***
West St N Orillia ON L3V 7T5

Database: ECA

Approval No: 8100-7C9MDM
Status: Approved
Date: 2008-02-29
Record Type: ECA
Link Source: IDS
Project Type: Municipal and Private Sewage Works
Approval Type: ECA-Municipal and Private Sewage Works
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1308-7C6SUG-14.pdf

SWP Area Name:
MOE District:
City:
Latitude:
Longitude:

Site: ***The Corporation of the City of Orillia***
West St N Orillia ON L3V 7T5

Database: ECA

Approval No: 0254-733KDL
Status: Approved
Date: 2007-05-22
Record Type: ECA
Link Source: IDS
Project Type: Municipal Drinking Water Systems
Approval Type: ECA-Municipal Drinking Water Systems
Full Address:
Full PDF Link:

SWP Area Name:
MOE District:
City:
Latitude:
Longitude:

Site: ***The Corporation of the City of Orillia***
West St N Orillia ON L3V 7T5

Database: ECA

Approval No: 3305-733K9H
Status: Approved
Date: 2007-05-22
Record Type: ECA
Link Source: IDS
Project Type: Municipal and Private Sewage Works
Approval Type: ECA-Municipal and Private Sewage Works
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/6337-72UQYR-14.pdf

SWP Area Name:
MOE District:
City:
Latitude:
Longitude:

Site: ***The Corporation of the City of Orillia***
Matchedash St Orillia ON L3V 7T5

Database: ***ECA***

Approval No:	8612-8UXHUX	***SWP Area Name:***	
Status:	Approved	***MOE District:***	
Date:	2012-06-08	***City:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Longitude:***	
Project Type:	Municipal and Private Sewage Works		
Approval Type:	ECA-Municipal and Private Sewage Works		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/9776-8UTLA9-14.pdf		

Site: ***The Corporation of the City of Orillia***
Matchedash St Orillia ON L3V 7T5

Database: ***ECA***

Approval No:	3058-63BHC6	***SWP Area Name:***	
Status:	Approved	***MOE District:***	
Date:	2004-07-29	***City:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Longitude:***	
Project Type:	Municipal Drinking Water Systems		
Approval Type:	ECA-Municipal Drinking Water Systems		
Full Address:			
Full PDF Link:			

Site: ***The Corporation of the City of Orillia***
Matchedash St Orillia ON L3V 7T5

Database: ***ECA***

Approval No:	7631-72DNSG	***SWP Area Name:***	
Status:	Approved	***MOE District:***	
Date:	2007-04-20	***City:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Longitude:***	
Project Type:	Municipal and Private Sewage Works		
Approval Type:	ECA-Municipal and Private Sewage Works		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/4439-6ZCPSW-14.pdf		

Site: ***The Corporation of the City of Orillia***
Matchedash St Orillia ON L3V 7T5

Database: ***ECA***

Approval No:	6640-72DSE5	***SWP Area Name:***	
Status:	Approved	***MOE District:***	
Date:	2007-04-20	***City:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Longitude:***	
Project Type:	Municipal Drinking Water Systems		
Approval Type:	ECA-Municipal Drinking Water Systems		
Full Address:			
Full PDF Link:			

Site: ***The Corporation of the City of Orillia***
Matchedash St Orillia ON L3V 7T5

Database: ***ECA***

Approval No:	4207-9AEPZT	***SWP Area Name:***	
Status:	Approved	***MOE District:***	
Date:	2013-08-16	***City:***	
Record Type:	ECA	***Latitude:***	
Link Source:	IDS	***Longitude:***	
Project Type:	Municipal and Private Sewage Works		

Approval Type: ECA-Municipal and Private Sewage Works
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/5762-99YNH3-14.pdf

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Site: ***The Corporation of the City of Orillia***
North St Orillia ON L3V 7T5

Database: ECA

Approval No: 9513-6MNHBB
Status: Approved
Date: 2006-03-09
Record Type: ECA
Link Source: IDS
Project Type: Municipal and Private Sewage Works
Approval Type: ECA-Municipal and Private Sewage Works
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/2913-6MHLVW-14.pdf

SWP Area Name:
MOE District:
City:
Latitude:
Longitude:

Site: ***The Corporation of the City of Orillia***
North St Orillia ON L3V 7T5

Database: ECA

Approval No: 9114-62NHGQ
Status: Approved
Date: 2004-07-08
Record Type: ECA
Link Source: IDS
Project Type: Municipal and Private Sewage Works
Approval Type: ECA-Municipal and Private Sewage Works
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1517-62LLUS-14.pdf

SWP Area Name:
MOE District:
City:
Latitude:
Longitude:

Site: ***CENTRA GAS ONTARIO INC.***
WEST STREET NORTH ORILLIA ON

Database: GEN

Generator No.: ON0738712
Status:
Approval Years: 94,95,96
Contam. Facility:
MHSW Facility:
SIC Code: 4921
SIC Description: GAS DISTIRB. SYS.

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

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Site: ***ORILLIA, TOWNSHIP OF***
LOT 3, CONCESSION 5, SOUTH DIVISION WEST STREET NORTH ORILLIA ON L3V 6J3

Database: GEN

Generator No.: ON0937600
Status:
Approval Years: 99,00,01
Contam. Facility:
MHSW Facility:
SIC Code: 8371
SIC Description: TRANSPORTATION ADMIN.

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

--Details--
Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Site: ***CENTRA (SEE & USE ON0178270)***
WEST STREET NORTH ORILLIA ON

Database: GEN

Generator No.: ON0738712
Status:
Approval Years: 97,98
Contam. Facility:
MHSW Facility:
SIC Code: 4921
SIC Description: GAS DISTIRB. SYS.

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

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Site: ***ORILLIA TWP. OF, PUBLIC WORKS YARD***
WEST STREET NORTH TWP OF ORILLIA ORILLIA ON L3V 6J3

Database: GEN

Generator No.: ON0937600
Status:
Approval Years: 92,93,97,98
Contam. Facility:
MHSW Facility:
SIC Code: 8371
SIC Description: TRANSPORTATION ADMIN

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

--Details--
Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Site: ***UNION GAS LIMITED***
WEST STREET NORTH ORILLIA ON

Database: GEN

Generator No.: ON0178270
Status:
Approval Years: 97
Contam. Facility:
MHSW Facility:
SIC Code: 4921
SIC Description: GAS DISTIRB. SYS.

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

--Details--
Waste Code: 212
Waste Description: ALIPHATIC SOLVENTS

Site: ***NORFOLK COOPERATIVE CO LTD***
LOT 7 CON 5 NORFOLK WOODHOUSE SIMCOE ON

Database: PRT

Location ID: 13445
Type: private
Expiry Date:
Capacity (L): 1000.00
Licence #: 0001002096

Site: ***James Brian Knack***
Lot 7, Concession 5 SIMCOE ON

Database: PTTW

EBR Registry No.: IA03E0008
Ministry Ref. No.:
Year: 2003
Proposal Date: 1/2/03

Notice Date:	
Notice Type:	Instrument
Proponent Address:	James Brian KnackR.R. #2,Simcoe, Ontario, N3Y 4K1
Instrument Type:	OWRA s. 34 - Permit to take water
Location:	SIMCOE
Location Other:	Lot 7, Concession 5, Township of Delhi, County of Norfolk

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Site: **NELSON AGGREGATE CO.**
WEST ST N ORILLIA ON L3V 6H4

Database: SCT

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

--Details--

Description:	LIME
SIC/NAICS Code:	3274
Description:	MINERALS & EARTHS, GROUND OR OTHERWISE TREATED
SIC/NAICS Code:	3295

Site: **Orillia Power Distribution Corporation**
Orillia ON

Database: SPL

Ref No:	3826-8AHPMP	**Site Address:**	
Contaminant Name:	HYDRAULIC OIL	**Site Conc:**	
Contaminant Code:	15	**Site Lot:**	
Contaminant Limit 1:		**Site County/District:**	
Contam. Limit Freq 1:		**Site Municipality:**	
Contaminant UN No 1:		**Site Postal Code:**	
Contaminant Qty:	2 gal-Imp	**Sector Type:**	
MOE Reported Dt:	10/23/2010	**Source Type:**	
Health/Env Conseq:		**Receiving Medium:**	
Incident Dt:		**Receiving Env:**	
Incident Cause:		**Environment Impact:**	Not Anticipated
Incident Event:		**Nature of Impact:**	Soil Contamination
Incident Reason:		**SAC Action Class:**	Land Spills
Incident Summary:	Orillia Power Corp: 2 gal hydraulic oil to rd, clnd		

Site: **The Corporation of the City of Orillia**
Cedar St. between Matchedash and Laclie St. Orillia ON

Database: SPL

Ref No:	5672-7RHKNQ	**Site Address:**	
Contaminant Name:	WATER (HIGH CHLORINE)	**Site Conc:**	
Contaminant Code:		**Site Lot:**	
Contaminant Limit 1:		**Site County/District:**	
Contam. Limit Freq 1:		**Site Municipality:**	Orillia
Contaminant UN No 1:		**Site Postal Code:**	
Contaminant Qty:	184 L	**Sector Type:**	Other
MOE Reported Dt:	4/27/2009	**Source Type:**	
Health/Env Conseq:		**Receiving Medium:**	
Incident Dt:		**Receiving Env:**	
Incident Cause:	Other Discharges	**Environment Impact:**	Possible
Incident Event:		**Nature of Impact:**	Surface Water Pollution
Incident Reason:	Other - Reason not otherwise defined	**SAC Action Class:**	Watercourse Spills
Incident Summary:	City of Orillia: 184L Chlorine sol'n to Lake Couchiching.		

Site: **MOTOR VEHICLE**
WEST ST. MOTOR VEHICLE (OPERATING FLUID) ORILLIA CITY ON

Database: SPL

Ref No:	68374	**Site Address:**	

Contaminant Name:		***Site Conc:***	
Contaminant Code:		***Site Lot:***	
Contaminant Limit 1:		***Site County/District:***	
Contam. Limit Freq 1:		***Site Municipality:***	70102
Contaminant UN No 1:		***Site Postal Code:***	
Contaminant Qty:		***Sector Type:***	
MOE Reported Dt:	3/25/1992	***Source Type:***	
Health/Env Conseq:		***Receiving Medium:***	LAND
Incident Dt:	3/23/1992	***Receiving Env:***	
Incident Cause:	OTHER CONTAINER LEAK	***Environment Impact:***	NOT ANTICIPATED
Incident Event:		***Nature of Impact:***	
Incident Reason:	UNKNOWN	***SAC Action Class:***	
Incident Summary:	MOTOR VEHICLE: 90L DIESELFUEL LEAK TO PARKING LOT		

Site: ***ONTARIO HYDRO***
LOT 7, CON 5(ONT.HYDRO TRANSFER STN.) CAPACITOR SIMCOE TOWN ON

Database: *SPL*

Ref No:	101298	***Site Address:***	
Contaminant Name:		***Site Conc:***	
Contaminant Code:		***Site Lot:***	
Contaminant Limit 1:		***Site County/District:***	
Contam. Limit Freq 1:		***Site Municipality:***	12403
Contaminant UN No 1:		***Site Postal Code:***	
Contaminant Qty:		***Sector Type:***	
MOE Reported Dt:	6/16/1994	***Source Type:***	
Health/Env Conseq:		***Receiving Medium:***	LAND
Incident Dt:	6/16/1994	***Receiving Env:***	
Incident Cause:	VALVE/FITTING LEAK OR FAILURE	***Environment Impact:***	NOT ANTICIPATED
Incident Event:		***Nature of Impact:***	
Incident Reason:	MATERIAL FAILURE	***SAC Action Class:***	
Incident Summary:	ONT.HYDRO: 1 L INSULATINGOIL TO GROUND, CLEANED UP		

Site:
lot 7 con 4 ON

Database: *WWIS*

Well ID:	5732100	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	3/15/1996
Sec. Water Use:		***Selected Flag:***	1
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	2653
Casing Material:		***Form Version:***	1
Audit No:	158252	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	ORILLIA TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	007
Well Depth:		***Concession:***	04
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10409633	***Spatial Status:***	
DP2BR:	20	***Cluster Kind:***	
Code OB:	r	***UTMRC:***	9
Code OB Desc:	Bedrock	***UTMRC Desc:***	unknown UTM
Open Hole:		***Location Method:***	na
Elevation:		***Org CS:***	

Elevrc: ***Date Completed:*** 1/5/1996
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID:	932397264
Layer:	1
Color:	
General Color:	
Mat1:	05
Most Common Material:	CLAY
Mat2:	14
Other Materials:	HARDPAN
Mat3:	
Other Materials:	
Formation Top Depth:	0.00
Formation End Depth:	20.00
Formation End Depth UOM:	ft

Formation ID:	932397265
Layer:	2
Color:	
General Color:	
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	20.00
Formation End Depth:	45.00
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965732100
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10958203
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930664272
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	20.00
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Casing ID:	930664273
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	45.00
Casing Diameter:	
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995732100
Pump Set At:	
Static Level:	43.00
Final Level After Pumping:	
Recommended Pump Depth:	44.00
Pumping Rate:	10.00
Flowing Rate:	
Recommended Pump Rate:	10.00
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	2
Pumping Duration HR:	4
Pumping Duration MIN:	0
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934306540
Test Type:	
Test Duration:	15
Test Level:	8.00
Test Level UOM:	ft

Water Details

Water ID:	933892180
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	45.00
Water Found Depth UOM:	ft

Site:
lot 7 ON

Database: ***WWIS***

Well ID:	5734769	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	12/8/1999
Sec. Water Use:		***Selected Flag:***	1
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	6763
Casing Material:		***Form Version:***	1
Audit No:	172489	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	ORILLIA TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	007
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	ND
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	

Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10412299
DP2BR: 12
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Elevation:
Elevrc:
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Spatial Status:
Cluster Kind:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na
Org CS:
Date Completed: 10/14/1999

Overburden and Bedrock Materials Interval

Formation ID: 932410306
Layer: 1
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 06
Other Materials: SILT
Mat3: 85
Other Materials: SOFT
Formation Top Depth: 0.00
Formation End Depth: 12.00
Formation End Depth UOM: ft

Formation ID: 932410307
Layer: 2
Color: 2
General Color: GREY
Mat1: 21
Most Common Material: GRANITE
Mat2: 73
Other Materials: HARD
Mat3:
Other Materials:
Formation Top Depth: 12.00
Formation End Depth: 65.00
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965734769
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10960869
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID:	930667686
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	20.00
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995734769
Pump Set At:	
Static Level:	6.00
Final Level After Pumping:	6.00
Recommended Pump Depth:	60.00
Pumping Rate:	1.00
Flowing Rate:	
Recommended Pump Rate:	8.00
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	0
Pumping Duration MIN:	
Flowing:	N

Water Details

Water ID:	933894916
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	58.00
Water Found Depth UOM:	ft

Site:

lot 7 con 5 ON

Database: ***WWIS***

Well ID:	5729175	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	6/22/1992
Sec. Water Use:		***Selected Flag:***	1
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	2653
Casing Material:		***Form Version:***	1
Audit No:	110838	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	ORILLIA TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	007
Well Depth:		***Concession:***	05
Overburden/Bedrock:		***Concession Name:***	SD
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID: 10406749
DP2BR: 24
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Elevation:
Elevrc:
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Spatial Status:
Cluster Kind:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na
Org CS:
Date Completed: 6/9/1992

Overburden and Bedrock Materials Interval

Formation ID: 932382542
Layer: 1
Color:
General Color:
Mat1: 14
Most Common Material: HARDPAN
Mat2: 05
Other Materials: CLAY
Mat3: 13
Other Materials: BOULDERS
Formation Top Depth: 0.00
Formation End Depth: 24.00
Formation End Depth UOM: ft

Formation ID: 932382543
Layer: 2
Color:
General Color:
Mat1: 15
Most Common Material: LIMESTONE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 24.00
Formation End Depth: 49.00
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965729175
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10955319
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930660746
Layer: 1

Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	24.00
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
Casing ID:	930660747
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	49.00
Casing Diameter:	
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995729175
Pump Set At:	
Static Level:	
Final Level After Pumping:	25.00
Recommended Pump Depth:	48.00
Pumping Rate:	10.00
Flowing Rate:	
Recommended Pump Rate:	10.00
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	2
Pumping Duration HR:	4
Pumping Duration MIN:	0
Flowing:	N

Water Details

Water ID:	933889233
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	49.00
Water Found Depth UOM:	ft

Site:
con 4 ON

Database:
WWIS

Well ID:	5733378	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Not Used	***Date Received:***	4/14/1998
Sec. Water Use:		***Selected Flag:***	1
Final Well Status:	Abandoned-Other	***Abandonment Rec:***	
Water Type:		***Contractor:***	9999
Casing Material:		***Form Version:***	1
Audit No:	190801	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	ORILLIA CITY
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	04
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	

Clear/Cloudy:

Bore Hole Information

Bore Hole ID: 10410910
DP2BR:
Code OB: o
Code OB Desc: Overburden
Open Hole:
Elevation:
Elevrc:
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Spatial Status:
Cluster Kind:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na
Org CS:
Date Completed: 4/2/1998

Overburden and Bedrock Materials Interval

Formation ID: 932403512
Layer: 1
Color: 6
General Color: BROWN
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0.00
Formation End Depth: 1.00
Formation End Depth UOM: ft

Formation ID: 932403513
Layer: 2
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 06
Other Materials: SILT
Mat3: 66
Other Materials: DENSE
Formation Top Depth: 1.00
Formation End Depth: 8.00
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933196046
Layer: 1
Plug From: 21.00
Plug To: 23.00
Plug Depth UOM: ft

Plug ID: 933196047
Layer: 2
Plug From: 23.00
Plug To: 31.00
Plug Depth UOM: ft

Method of Construction & Well

Use

Method Construction ID:	965733378
Method Construction Code:	A
Method Construction:	Digging
Other Method Construction:	

Pipe Information

Pipe ID:	10959480
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930665939
Layer:	1
Material:	3
Open Hole or Material:	CONCRETE
Depth From:	
Depth To:	
Casing Diameter:	36.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Site:

con 4 ON

Database: ***WWIS***

Well ID:	5733898
Construction Date:	
Primary Water Use:	Domestic
Sec. Water Use:	
Final Well Status:	Water Supply
Water Type:	
Casing Material:	
Audit No:	180034
Tag:	
Construction Method:	
Elevation (m):	
Elevation Reliability:	
Depth to Bedrock:	
Well Depth:	
Overburden/Bedrock:	
Pump Rate:	
Static Water Level:	
Flowing (Y/N):	
Flow Rate:	
Clear/Cloudy:	

Data Entry Status:	
Data Src:	1
Date Received:	12/8/1998
Selected Flag:	1
Abandonment Rec:	
Contractor:	2653
Form Version:	1
Owner:	
Street Name:	
County:	SIMCOE
Municipality:	ORILLIA TOWNSHIP
Site Info:	
Lot:	
Concession:	04
Concession Name:	ND
Easting NAD83:	
Northing NAD83:	
Zone:	
UTM Reliability:	

Bore Hole Information

Bore Hole ID:	10411430
DP2BR:	35
Code OB:	r
Code OB Desc:	Bedrock
Open Hole:	
Elevation:	
Elevrc:	
Remarks:	
Elevrc Desc:	
Location Source Date:	
Improvement Location Source:	
Improvement Location Method:	
Source Revision Comment:	
Supplier Comment:	

Spatial Status:	
Cluster Kind:	
UTMRC:	9
UTMRC Desc:	unknown UTM
Location Method:	na
Org CS:	
Date Completed:	10/22/1998

Overburden and Bedrock Materials Interval

Formation ID:	932406095
Layer:	1
Color:	
General Color:	
Mat1:	05
Most Common Material:	CLAY
Mat2:	14
Other Materials:	HARDPAN
Mat3:	13
Other Materials:	BOULDERS
Formation Top Depth:	0.00
Formation End Depth:	35.00
Formation End Depth UOM:	ft

Formation ID:	932406096
Layer:	2
Color:	
General Color:	
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	35.00
Formation End Depth:	40.00
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965733898
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10960000
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930666560
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	35.00
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Casing ID:	930666561
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	40.00
Casing Diameter:	
Casing Diameter UOM:	inch

Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995733898
Pump Set At:
Static Level: 31.00
Final Level After Pumping:
Recommended Pump Depth: 29.00
Pumping Rate: 10.00
Flowing Rate:
Recommended Pump Rate: 10.00
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 2
Pumping Duration HR: 3
Pumping Duration MIN:
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934321632
Test Type:
Test Duration: 15
Test Level: 30.00
Test Level UOM: ft

Water Details

Water ID: 933894040
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 40.00
Water Found Depth UOM: ft

Site:
con 5 ON

Database: WWIS

Well ID: 5718266
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No:
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 12/8/1982
Selected Flag: 1
Abandonment Rec:
Contractor: 4241
Form Version: 1
Owner:
Street Name:
County: SIMCOE
Municipality: ORILLIA TOWNSHIP
Site Info:
Lot:
Concession: 05
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10395953
DP2BR:
Spatial Status:
Cluster Kind:

Code OB: o
Code OB Desc: Overburden
Open Hole:
Elevation:
Elevrc:
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na
Org CS:
Date Completed: 11/5/1982

Overburden and Bedrock Materials Interval

Formation ID: 932332791
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0.00
Formation End Depth: 25.00
Formation End Depth UOM: ft

Formation ID: 932332792
Layer: 2
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 25.00
Formation End Depth: 35.00
Formation End Depth UOM: ft

Formation ID: 932332793
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 12
Other Materials: STONES
Mat3:
Other Materials:
Formation Top Depth: 35.00
Formation End Depth: 42.00
Formation End Depth UOM: ft

Formation ID: 932332794
Layer: 4
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 42.00

Formation End Depth:	48.00
Formation End Depth UOM:	ft
Formation ID:	932332795
Layer:	5
Color:	6
General Color:	BROWN
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	48.00
Formation End Depth:	50.00
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965718266
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10944523
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930647034
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	50.00
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995718266
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	48.00
Pumping Rate:	12.00
Flowing Rate:	
Recommended Pump Rate:	12.00
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	2
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	Y

Draw Down & Recovery

Pump Test Detail ID:	934300109

Test Type:	Recovery
Test Duration:	15
Test Level:	0.00
Test Level UOM:	ft
Pump Test Detail ID:	934574966
Test Type:	Recovery
Test Duration:	30
Test Level:	0.00
Test Level UOM:	ft
Pump Test Detail ID:	934825465
Test Type:	Recovery
Test Duration:	45
Test Level:	0.00
Test Level UOM:	ft
Pump Test Detail ID:	935090735
Test Type:	Recovery
Test Duration:	60
Test Level:	0.00
Test Level UOM:	ft

Water Details

Water ID:	933878092
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	50.00
Water Found Depth UOM:	ft

Site: ***Database:*** ***WWIS***

lot 6 ON

Well ID:	5735090	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	5/5/2000
Sec. Water Use:		***Selected Flag:***	1
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	6763
Casing Material:		***Form Version:***	1
Audit No:	172490	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	ORILLIA TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	006
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	ND
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10412620	***Spatial Status:***	
DP2BR:	24	***Cluster Kind:***	
Code OB:	r	***UTMRC:***	9
Code OB Desc:	Bedrock	***UTMRC Desc:***	unknown UTM
Open Hole:		***Location Method:***	na
Elevation:		***Org CS:***	
Elevrc:		***Date Completed:***	4/10/2000
Remarks:			
Elevrc Desc:			
Location Source Date:			

Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID:	932411970
Layer:	1
Color:	8
General Color:	BLACK
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	03
Other Materials:	MUCK
Mat3:	
Other Materials:	
Formation Top Depth:	0.00
Formation End Depth:	2.00
Formation End Depth UOM:	ft

Formation ID:	932411971
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	2.00
Formation End Depth:	8.00
Formation End Depth UOM:	ft

Formation ID:	932411972
Layer:	3
Color:	2
General Color:	GREY
Mat1:	03
Most Common Material:	MUCK
Mat2:	05
Other Materials:	CLAY
Mat3:	06
Other Materials:	SILT
Formation Top Depth:	8.00
Formation End Depth:	24.00
Formation End Depth UOM:	ft

Formation ID:	932411973
Layer:	4
Color:	8
General Color:	BLACK
Mat1:	21
Most Common Material:	GRANITE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	24.00
Formation End Depth:	36.00
Formation End Depth UOM:	ft

Formation ID:	932411974
Layer:	5
Color:	2
General Color:	GREY
Mat1:	21

Most Common Material:	GRANITE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	36.00
Formation End Depth:	190.00
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965735090
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

Pipe Information

Pipe ID:	10961190
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930668105
Layer:	1
Material:	
Open Hole or Material:	
Depth From:	
Depth To:	27.00
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995735090
Pump Set At:	
Static Level:	8.00
Final Level After Pumping:	190.00
Recommended Pump Depth:	175.00
Pumping Rate:	12.00
Flowing Rate:	
Recommended Pump Rate:	8.00
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	N

Water Details

Water ID:	933895239
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	178.00
Water Found Depth UOM:	ft

Well ID:	5734587	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Domestic	**Date Received:**	10/4/1999
Sec. Water Use:		**Selected Flag:**	1
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	1312
Casing Material:		**Form Version:**	1
Audit No:	201086	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	SIMCOE
Elevation (m):		**Municipality:**	ORILLIA CITY
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	006
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10412117	**Spatial Status:**	
DP2BR:		**Cluster Kind:**	
Code OB:	o	**UTMRC:**	9
Code OB Desc:	Overburden	**UTMRC Desc:**	unknown UTM
Open Hole:		**Location Method:**	na
Elevation:		**Org CS:**	
Elevrc:		**Date Completed:**	7/22/1999
Remarks:			
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932409421
Layer:	1
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0.00
Formation End Depth:	8.00
Formation End Depth UOM:	ft

Formation ID:	932409422
Layer:	2
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	12
Other Materials:	STONES
Mat3:	
Other Materials:	
Formation Top Depth:	8.00

Formation End Depth: 56.00
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933197101
Layer: 1
Plug From: 0.00
Plug To: 20.00
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 965734587
Method Construction Code: 5
Method Construction: Air Percussion
Other Method Construction:

Pipe Information

Pipe ID: 10960687
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930667458
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 56.00
Casing Diameter: 6.00
Casing Diameter UOM: inch
Casing Depth UOM: ft

Results of Well Yield Testing

Pump Test ID: 995734587
Pump Set At:
Static Level: 20.00
Final Level After Pumping: 40.00
Recommended Pump Depth: 45.00
Pumping Rate: 35.00
Flowing Rate:
Recommended Pump Rate: 25.00
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934315679
Test Type: Recovery
Test Duration: 15
Test Level: 20.00
Test Level UOM: ft

Pump Test Detail ID:	934588997
Test Type:	Recovery
Test Duration:	30
Test Level:	20.00
Test Level UOM:	ft
Pump Test Detail ID:	934846457
Test Type:	Recovery
Test Duration:	45
Test Level:	20.00
Test Level UOM:	ft
Pump Test Detail ID:	935095712
Test Type:	Recovery
Test Duration:	60
Test Level:	20.00
Test Level UOM:	ft

Water Details

Water ID:	933894724
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	55.00
Water Found Depth UOM:	ft

Site:

lot 6 ON

Database: ***WWIS***

Well ID:	5738483	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	1/22/2004
Sec. Water Use:		***Selected Flag:***	1
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	1312
Casing Material:		***Form Version:***	2
Audit No:	260841	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	ORILLIA TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	006
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	11099983	***Spatial Status:***	
DP2BR:		***Cluster Kind:***	
Code OB:	o	***UTMRC:***	9
Code OB Desc:	Overburden	***UTMRC Desc:***	unknown UTM
Open Hole:		***Location Method:***	na
Elevation:		***Org CS:***	
Elevrc:		***Date Completed:***	10/7/2003
Remarks:			
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932951129
Layer:	1
Color:	8
General Color:	BLACK
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0.00
Formation End Depth:	7.00
Formation End Depth UOM:	ft

Formation ID:	932951130
Layer:	2
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	12
Other Materials:	STONES
Mat3:	
Other Materials:	
Formation Top Depth:	7.00
Formation End Depth:	30.00
Formation End Depth UOM:	ft

Formation ID:	932951131
Layer:	3
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	13
Other Materials:	BOULDERS
Mat3:	
Other Materials:	
Formation Top Depth:	30.00
Formation End Depth:	51.00
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933247366
Layer:	1
Plug From:	0.00
Plug To:	20.00
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965738483
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	11103698

Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930835841
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	48.00
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	933407415
Layer:	1
Slot:	012
Screen Top Depth:	48.00
Screen End Depth:	51.00
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	6.00

Results of Well Yield Testing

Pump Test ID:	995738483
Pump Set At:	
Static Level:	28.00
Final Level After Pumping:	45.00
Recommended Pump Depth:	47.00
Pumping Rate:	9.00
Flowing Rate:	
Recommended Pump Rate:	9.00
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934318009
Test Type:	Recovery
Test Duration:	15
Test Level:	45.00
Test Level UOM:	ft

Pump Test Detail ID:	934592436
Test Type:	Recovery
Test Duration:	30
Test Level:	40.00
Test Level UOM:	ft

Pump Test Detail ID:	934848864
Test Type:	Recovery
Test Duration:	45
Test Level:	35.00
Test Level UOM:	ft

Pump Test Detail ID: 935107021
Test Type: Recovery
Test Duration: 60
Test Level: 28.00
Test Level UOM: ft

Water Details

Water ID: 934045276
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 51.00
Water Found Depth UOM: ft

Site:
lot 7 ON

Database: WWIS

Well ID: 5735606
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 203092
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src: 1
Date Received: 11/6/2000
Selected Flag: 1
Abandonment Rec:
Contractor: 2653
Form Version: 1
Owner:
Street Name:
County: SIMCOE
Municipality: ORILLIA TOWNSHIP
Site Info:
Lot: 007
Concession:
Concession Name: ND
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10413136
DP2BR: 55
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Elevation:
Elevrc:
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Spatial Status:
Cluster Kind:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na
Org CS:
Date Completed: 9/2/2000

Overburden and Bedrock Materials Interval

Formation ID: 932414535
Layer: 1
Color:
General Color:
Mat1: 14
Most Common Material: HARDPAN
Mat2: 13

Other Materials:	BOULDERS
Mat3:	05
Other Materials:	CLAY
Formation Top Depth:	0.00
Formation End Depth:	55.00
Formation End Depth UOM:	ft
Formation ID:	932414536
Layer:	2
Color:	
General Color:	
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	55.00
Formation End Depth:	64.00
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965735606
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10961706
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930668771
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft
Casing ID:	930668772
Layer:	2
Material:	4
Open Hole or Material:	OPEN HOLE
Depth From:	
Depth To:	
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995735606
Pump Set At:	
Static Level:	52.00
Final Level After Pumping:	
Recommended Pump Depth:	60.00
Pumping Rate:	10.00

Flowing Rate:	
Recommended Pump Rate:	10.00
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	2
Pumping Duration HR:	3
Pumping Duration MIN:	
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934592878
Test Type:	
Test Duration:	30
Test Level:	40.00
Test Level UOM:	ft

Water Details

Water ID:	933895774
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	64.00
Water Found Depth UOM:	ft

Site:

lot 7 ON

Database: ***WWIS***

Well ID:	5724319	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Public	***Date Received:***	12/8/1988
Sec. Water Use:		***Selected Flag:***	1
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	5224
Casing Material:		***Form Version:***	1
Audit No:	50144	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	INDIAN RESERVE RAMA 32
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	007
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10401918	***Spatial Status:***	
DP2BR:		***Cluster Kind:***	
Code OB:	o	***UTMRC:***	9
Code OB Desc:	Overburden	***UTMRC Desc:***	unknown UTM
Open Hole:		***Location Method:***	na
Elevation:		***Org CS:***	
Elevrc:		***Date Completed:***	11/22/1988
Remarks:			
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			

Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID:	932359470
Layer:	1
Color:	8
General Color:	BLACK
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0.00
Formation End Depth:	1.00
Formation End Depth UOM:	ft

Formation ID:	932359471
Layer:	2
Color:	
General Color:	
Mat1:	05
Most Common Material:	CLAY
Mat2:	28
Other Materials:	SAND
Mat3:	
Other Materials:	
Formation Top Depth:	1.00
Formation End Depth:	20.00
Formation End Depth UOM:	ft

Formation ID:	932359472
Layer:	3
Color:	
General Color:	
Mat1:	14
Most Common Material:	HARDPAN
Mat2:	87
Other Materials:	STONEY
Mat3:	
Other Materials:	
Formation Top Depth:	20.00
Formation End Depth:	43.00
Formation End Depth UOM:	ft

Formation ID:	932359473
Layer:	4
Color:	
General Color:	
Mat1:	31
Most Common Material:	COARSE GRAVEL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	43.00
Formation End Depth:	46.00
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965724319
Method Construction Code:	1
Method Construction:	Cable Tool
Other Method Construction:	

Pipe Information

Pipe ID:	10950488
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930654797
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	46.00
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995724319
Pump Set At:	
Static Level:	14.00
Final Level After Pumping:	46.00
Recommended Pump Depth:	44.00
Pumping Rate:	10.00
Flowing Rate:	
Recommended Pump Rate:	8.00
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	2
Water State After Test:	CLOUDY
Pumping Test Method:	2
Pumping Duration HR:	2
Pumping Duration MIN:	0
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934308914
Test Type:	Recovery
Test Duration:	15
Test Level:	14.00
Test Level UOM:	ft
Pump Test Detail ID:	934583637
Test Type:	Recovery
Test Duration:	30
Test Level:	14.00
Test Level UOM:	ft
Pump Test Detail ID:	934832237
Test Type:	Recovery
Test Duration:	45
Test Level:	14.00
Test Level UOM:	ft
Pump Test Detail ID:	935100158
Test Type:	Recovery
Test Duration:	60
Test Level:	14.00
Test Level UOM:	ft

Water Details

Water ID:	933884162
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	45.00
Water Found Depth UOM:	ft

Site:
lot 7 ON

Database:
WWIS

Well ID:	5724474
Construction Date:	
Primary Water Use:	Public
Sec. Water Use:	
Final Well Status:	Water Supply
Water Type:	
Casing Material:	
Audit No:	50142
Tag:	
Construction Method:	
Elevation (m):	
Elevation Reliability:	
Depth to Bedrock:	
Well Depth:	
Overburden/Bedrock:	
Pump Rate:	
Static Water Level:	
Flowing (Y/N):	
Flow Rate:	
Clear/Cloudy:	

Data Entry Status:	
Data Src:	1
Date Received:	1/12/1989
Selected Flag:	1
Abandonment Rec:	
Contractor:	5224
Form Version:	1
Owner:	
Street Name:	
County:	SIMCOE
Municipality:	INDIAN RESERVE RAMA 32
Site Info:	
Lot:	007
Concession:	
Concession Name:	
Easting NAD83:	
Northing NAD83:	
Zone:	
UTM Reliability:	

Bore Hole Information

Bore Hole ID:	10402073
DP2BR:	21
Code OB:	r
Code OB Desc:	Bedrock
Open Hole:	
Elevation:	
Elevrc:	
Remarks:	
Elevrc Desc:	
Location Source Date:	
Improvement Location Source:	
Improvement Location Method:	
Source Revision Comment:	
Supplier Comment:	

Spatial Status:	
Cluster Kind:	
UTMRC:	9
UTMRC Desc:	unknown UTM
Location Method:	na
Org CS:	
Date Completed:	12/5/1988

Overburden and Bedrock Materials Interval

Formation ID:	932360163
Layer:	1
Color:	8
General Color:	BLACK
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0.00
Formation End Depth:	1.00
Formation End Depth UOM:	ft

Formation ID:	932360164
Layer:	2

Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Other Materials:	GRAVEL
Mat3:	13
Other Materials:	BOULDERS
Formation Top Depth:	1.00
Formation End Depth:	21.00
Formation End Depth UOM:	ft
Formation ID:	932360165
Layer:	3
Color:	
General Color:	
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	85
Other Materials:	SOFT
Mat3:	
Other Materials:	
Formation Top Depth:	21.00
Formation End Depth:	35.00
Formation End Depth UOM:	ft
Formation ID:	932360166
Layer:	4
Color:	1
General Color:	WHITE
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	73
Other Materials:	HARD
Mat3:	
Other Materials:	
Formation Top Depth:	35.00
Formation End Depth:	50.00
Formation End Depth UOM:	ft
Formation ID:	932360167
Layer:	5
Color:	6
General Color:	BROWN
Mat1:	15
Most Common Material:	LIMESTONE
Mat2:	85
Other Materials:	SOFT
Mat3:	
Other Materials:	
Formation Top Depth:	50.00
Formation End Depth:	66.00
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	965724474
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

Pipe Information

Pipe ID:	10950643
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930654985
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	21.00
Casing Diameter:	6.00
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Results of Well Yield Testing

Pump Test ID:	995724474
Pump Set At:	
Static Level:	5.00
Final Level After Pumping:	66.00
Recommended Pump Depth:	63.00
Pumping Rate:	7.00
Flowing Rate:	
Recommended Pump Rate:	7.00
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	24
Pumping Duration MIN:	0
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	934833301
Test Type:	Recovery
Test Duration:	45
Test Level:	55.00
Test Level UOM:	ft
Pump Test Detail ID:	935099554
Test Type:	Recovery
Test Duration:	60
Test Level:	5.00
Test Level UOM:	ft

Water Details

Water ID:	933884325
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	66.00
Water Found Depth UOM:	ft

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ***Note:*** *Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.*

Abandoned Aggregate Inventory: Provincial AAGR

The MAAP Program maintains a database of abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.*

Government Publication Date: Sept 2002*

Aggregate Inventory: Provincial AGR

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. The database provides information regarding the registered owner/operator, location name, operation type, approval type, and maximum annual tonnage.

Government Publication Date: Up to Sep 2017

Abandoned Mine Information System: Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Nov 2016

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-May 2017

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2014

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Commercial Fuel Oil Tanks: Provincial CFOT

Since May 2002, Ontario developed a new act where it became mandatory for fuel oil tanks to be registered with Technical Standards & Safety Authority (TSSA). This data would include all commercial underground fuel oil tanks in Ontario with fields such as location, registration number, tank material, age of tank and tank size.

Government Publication Date: Feb 28, 2017

Chemical Register: Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1999-May 2017

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 31, 2012

Inventory of Coal Gasification Plants and Coal Tar Sites: Provincial COAL

This inventory includes both the "Inventory of Coal Gasification Plant Waste Sites in Ontario-April 1987" and the Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario-November 1988) collected by the MOE. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, land use, information on adjoining properties, soil condition, site operators/occupants, site description, potential environmental impacts and historic maps available. This was a one-time inventory.*

Government Publication Date: Apr 1987 and Nov 1988*

Compliance and Convictions: Provincial CONV

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Government Publication Date: 1989-Nov 2017

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994-Oct 2017

Drill Hole Database: Provincial DRL

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Government Publication Date: 1886-Aug 2015

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011-Oct 2017

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994-Oct 2017

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011-Oct 2017

Environmental Effects Monitoring: Federal EEM

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches: Private EHS

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Aug 2016

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Dec 31, 2016

List of TSSA Expired Facilities: Provincial EXP

List of facilities with removed tanks which were once registered with the Fuels Safety Program of the Technical Standards and Safety Authority (TSSA). Includes private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc. Tanks which have been removed automatically fall under the expired facilities inventory held by TSSA.

Government Publication Date: Feb 28, 2017

Federal Convictions: Federal FCON

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land: Federal FCS

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government.

Government Publication Date: Jun 2000-Dec 2017

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2017

Fuel Storage Tank: Provincial FST

The Technical Standards & Safety Authority (TSSA), under the Technical Standards & Safety Act of 2000 maintains a database of registered private and retail fuel storage tanks in Ontario with fields such as location, tank status, license date, tank type, tank capacity, fuel type, installation year and facility type.

Government Publication Date: Feb 28, 2017

Fuel Storage Tank - Historic: Provincial FSTH

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Government Publication Date: Pre-Jan 2010*

Ontario Regulation 347 Waste Generators Summary: Provincial GEN

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. It includes data on waste generating facilities such as: drycleaners, waste treatment and disposal facilities, machine shops, electric power distribution etc. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use..." followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Government Publication Date: 1986-Jun 2017

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2015

TSSA Historic Incidents: Provincial HINC

This database will cover all incidences recorded by TSSA with their older system, before they moved to their new management system. TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. The TSSA works to protect the public, the environment and property from fuel-related hazards such as spills, fires and explosions. This database will include spills and leaks from pipelines, diesel, fuel oil, gasoline, natural gas, propane and hydrogen recorded by the TSSA.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

TSSA Incidents: Provincial INC

TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Includes incidents from fuel-related hazards such as spills, fires and explosions. This database will include spills and leaks from diesel, fuel oil, gasoline, natural gas, propane and hydrogen recorded by the TSSA.

Government Publication Date: Feb 28, 2017

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills will include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Dec 31, 2013

Canadian Mine Locations: Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Feb 2017

National Analysis of Trends in Emergencies System (NATES): Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports: Provincial NCPL

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Government Publication Date: Dec 31, 2014

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Aug 2010

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008 -Jun 2017

National Energy Board Wells: Federal NEBW

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGW

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-Sep 2017

Ontario Oil and Gas Wells: Provincial OOGW

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. The OGSR Library has over 20,000+ wells in their database. Information available for all wells in the ERIS database include well owner/operator, location, permit issue date, and well cap date, license No., status, depth and the primary target (rock unit) of the well being drilled. All geology/stratigraphy table information, plus all water table information is also provide for each well record.

Government Publication Date: 1800-Oct 2017

Inventory of PCB Storage Sites: Provincial OPCB

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Government Publication Date: 1987-Oct 2004; 2012-Dec 2013

Orders: Provincial ORD

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all Orders on the registry such as (EPA s. 17) - Order for remedial work, (EPA s. 18) - Order for preventative measures, (EPA s. 43) - Order for removal of waste and restoration of site, (EPA s. 44) - Order for conformity with Act for waste disposal sites, (EPA s. 136) - Order for performance of environmental measures.

Government Publication Date: 1994-Oct 2017

Canadian Pulp and Paper: Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: 1988-Aug 2017

TSSA Pipeline Incidents: Provincial PINC

TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. This database will include spills, strike and leaks from recorded by the TSSA.

Government Publication Date: Feb 28, 2017

Private and Retail Fuel Storage Tanks: Provincial PRT

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks and licensed retail fuel outlets. This database includes an inventory of locations that have gasoline, oil, waste oil, natural gas and/or propane storage tanks on their property. The MCCR no longer collects this information. This information is now collected by the Technical Standards and Safety Authority (TSSA).

Government Publication Date: 1989-1996*

Permit to Take Water: Provincial PTTW

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all PTTW's on the registry such as OWRA s. 34 - Permit to take water.

Government Publication Date: 1994-Oct 2017

Ontario Regulation 347 Waste Receivers Summary: Provincial REC

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address, and includes receivers of waste such as: landfills, incinerators, transfer stations, PCB storage sites, sludge farms and water pollution control plants. This information is a summary of all years from 1986 including the most currently available data.

Government Publication Date: 1986-2016

Record of Site Condition: Provincial RSC

The Record of Site Condition (RSC) is part of the Ministry of the Environment's Brownfields Environmental Site Registry. Protection from environmental cleanup orders for property owners is contingent upon documentation known as a record of site condition (RSC) being filed in the Environmental Site Registry. In order to file an RSC, the property must have been properly assessed and shown to meet the soil, sediment and groundwater standards appropriate for the use (such as residential) proposed to take place on the property. The Record of Site Condition Regulation (O. Reg. 153/04) details requirements related to site assessment and clean up.
RSCs filed after July 1, 2011 will also be included as part of the new (O.Reg. 511/09).

Government Publication Date: 1997-Sept 2001, Oct 2004-Nov 2017

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-May 2017

Scott's Manufacturing Directory: Private SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Ontario Spills: Provincial SPL

This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information from 1988-2002 was part of the ORIS (Occurrence Reporting Information System). The SAC (Spills Action Centre) handles all spills reported in Ontario. Regulations for spills in Ontario are part of the MOE's Environmental Protection Act, Part X.

Government Publication Date: 1988-Sep 2017

Wastewater Discharger Registration Database: Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 2016

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970-Aug 2017

TSSA Variances for Abandonment of Underground Storage Tanks: Provincial VAR

List of variances granted for abandoned tanks. Under the Technical Standards and Safety Authority (TSSA) Liquid Fuels Handling Code and Fuel Oil Code, all underground storage tanks must be removed within two years of disuse. If removal of a tank is not feasible, an application may be sought for a variance from this code requirement.

Government Publication Date: Feb 28, 2017

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 31, 2017

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Mar 31, 2017

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

APPENDIX D

TERRAPROBE INC.

1967


1981


1995

APPENDIX E

TERRAPROBE INC.

PHOTOGRAPHS: 2 BORLAND STREET EAST, ORILLIA, ON

PHOTOGRAPH 1: View of property exterior.

PHOTOGRAPH 2: Typical view of classrooms.

PHOTOGRAPH 3: Former auto shop classroom.

PHOTOGRAPH 4: Boiler room inside building.

APPENDIX B

Certificates of Chemical Analyses, QA/QC Measures, and Chain of Custody Records

CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: GH0118 **REPORT No. B20-39191 (i)**

Report To:

Peto MacCallum Ltd
19 Churchill Drive,
Barrie ON L4N 8Z5
Attention: Alicia Kimberley

Caduceon Environmental Laboratories
112 Commerce Park Drive
Barrie ON L4N 8W8
Tel: 705-252-5743
Fax: 705-252-5746

DATE RECEIVED: 14-Dec-20
DATE REPORTED: 24-Dec-20
SAMPLE MATRIX: Soil

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
Cyanide	4	Kingston	US	17-Dec-20	A-CN s K	in house
Conductivity	4	Holly Lane	ROD	18-Dec-20	A-COND-01 (o)	SM 2510B
pH	4	Richmond Hill	HAZ	15-Dec-20	A-pH-02 (rh)	MOEE3530
Chromium (VI)	5	Holly Lane	LMG	17-Dec-20	D-CRVI-02 (o)	EPA7196A
Mercury	5	Holly Lane	NHG	21-Dec-20	D-HG-01 (o)	EPA 7471A
Sodium Adsorption Ratio	4	Holly Lane	hmc	21-Dec-20	D-ICP-01 SAR (o)	SM 3120
Metals - ICP-OES	5	Holly Lane	hmc	21-Dec-20	D-ICP-02 (o)	EPA 6010
Metals - ICP-MS	5	Holly Lane	TPR	21-Dec-20	D-ICPMS-01 (o)	EPA 6020

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

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

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

Christine Burke
Lab Manager

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

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Fax: 705-252-5746

DATE RECEIVED: 14-Dec-20
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SAMPLE MATRIX: Soil

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D.		BH/MW8 SS2	BH/MW10 SS2	BH/MW20 SS2	BH/MW13 SS2	O. Reg. 153 Tbl. 1 - All	
	Sample I.D.		B20-39191-1	B20-39191-3	B20-39191-5	B20-39191-7		
	Date Collected		08-Dec-20	09-Dec-20	10-Dec-20	09-Dec-20		
Parameter	**Units**	**R.L.**						
pH @25°C	pH Units		8.15	11.9	7.84			
Conductivity @25°C	mS/cm	0.001	0.346	**1.2**	0.186		0.57	
Cyanide (Free)	µg/g	0.05	< 0.05	< 0.05	< 0.05		0.051	
Sodium Adsorption Ratio	units		0.454	1.06	0.812		2.4	
Antimony	µg/g	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.3	
Arsenic	µg/g	0.5	1.4	1.3	1.2	1.1	18	
Barium	µg/g	1	82	65	74	68	220	
Beryllium	µg/g	0.2	0.2	0.3	0.3	0.5	2.5	
Boron	µg/g	0.5	4.4	8.3	3.6	11.1	36	
Cadmium	µg/g	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.2	
Chromium	µg/g	1	13	15	13	14	70	
Chromium (VI)	µg/g	0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.66	
Cobalt	µg/g	1	5	5	5	5	21	
Copper	µg/g	1	15	9	29	9	92	
Lead	µg/g	5	24	20	< 5	9	120	
Mercury	µg/g	0.005	**0.996**	**0.295**	0.016	0.040	0.27	
Molybdenum	µg/g	1	< 1	< 1	< 1	< 1	2	
Nickel	µg/g	1	9	9	9	8	82	
Selenium	µg/g	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.5	
Silver	µg/g	0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.5	
Thallium	µg/g	0.1	< 0.1	< 0.1	< 0.1	< 0.1	1	
Uranium	µg/g	0.1	0.3	0.5	0.3	0.6	2.5	
Vanadium	µg/g	1	29	24	27	28	86	
Zinc	µg/g	3	48	60	33	42	290	

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

Christine Burke
Lab Manager

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Fax: 705-252-5746

DATE RECEIVED: 14-Dec-20
DATE REPORTED: 24-Dec-20
SAMPLE MATRIX: Soil

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D. / Sample I.D. / Date Collected		Dup 1A B20-39191-9 09-Dec-20				O. Reg. 153 Tbl. 1 - All	
Parameter	**Units**	**R.L.**						
pH @25°C	pH Units		11.9					
Conductivity @25°C	mS/cm	0.001	**1.01**				0.57	
Cyanide (Free)	µg/g	0.05	< 0.05				0.051	
Sodium Adsorption Ratio	units		1.09				2.4	
Antimony	µg/g	0.5	< 0.5				1.3	
Arsenic	µg/g	0.5	1.3				18	
Barium	µg/g	1	66				220	
Beryllium	µg/g	0.2	0.3				2.5	
Boron	µg/g	0.5	8.7				36	
Cadmium	µg/g	0.5	< 0.5				1.2	
Chromium	µg/g	1	14				70	
Chromium (VI)	µg/g	0.2	< 0.2				0.66	
Cobalt	µg/g	1	5				21	
Copper	µg/g	1	9				92	
Lead	µg/g	5	19				120	
Mercury	µg/g	0.005	**0.318**				0.27	
Molybdenum	µg/g	1	< 1				2	
Nickel	µg/g	1	7				82	
Selenium	µg/g	0.5	< 0.5				1.5	
Silver	µg/g	0.2	< 0.2				0.5	
Thallium	µg/g	0.1	< 0.1				1	
Uranium	µg/g	0.1	0.5				2.5	
Vanadium	µg/g	1	28				86	
Zinc	µg/g	3	43				290	

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

Christine Burke
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SAMPLE MATRIX: Soil

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

Summary of Exceedances

Table 1 - Res/Park/Institutional/Indus/Com/Commun		
BH/MW8 SS2	Found Value	Limit
Mercury (µg/g)	0.996	0.27
BH/MW10 SS2	Found Value	Limit
Mercury (µg/g)	0.295	0.27
Conductivity @25°C (mS/cm)	1.2	0.57
Dup 1A	Found Value	Limit
Mercury (µg/g)	0.318	0.27
Conductivity @25°C (mS/cm)	1.01	0.57

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

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
VOC's	5	Richmond Hill	FAL	16-Dec-20	C-VOC-02 (rh)	EPA 8260

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

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

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

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DATE RECEIVED: 14-Dec-20
DATE REPORTED: 24-Dec-20
SAMPLE MATRIX: Soil

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D.		BH/MW8 SS7	BH/MW10 SS3	BH/MW20 SS3	BH/MW13 SS3	O. Reg. 153 Tbl. 1 - All	
	Sample I.D.		B20-39191-2	B20-39191-4	B20-39191-6	B20-39191-8		
	Date Collected		08-Dec-20	09-Dec-20	10-Dec-20	09-Dec-20		
Parameter	**Units**	**R.L.**						
Acetone	µg/g	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Benzene	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.02	
Bromodichloromethane	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Bromoform	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Bromomethane	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Carbon Tetrachloride	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Monochlorobenzene (Chlorobenzene)	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Chloroform	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Dibromochloromethane	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Dichlorobenzene,1,2-	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Dichlorobenzene,1,3-	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Dichlorobenzene,1,4-	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Dichlorodifluoromethane	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Dichloroethane,1,1-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Dichloroethane,1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Dichloroethylene,1,1-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Dichloroethene, cis-1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Dichloroethene, trans-1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Dichloropropane,1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Dichloropropene, cis-1,3-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02		
Dichloropropene, trans-1,3-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02		
Dichloropropene 1,3-cis+trans	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	

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

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Lab Manager

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	Sample I.D.		B20-39191-2	B20-39191-4	B20-39191-6	B20-39191-8		
	Date Collected		08-Dec-20	09-Dec-20	10-Dec-20	09-Dec-20		
Parameter	**Units**	**R.L.**						
Ethylbenzene	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Dibromoethane,1,2-(Ethylene Dibromide)	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Hexane	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Methyl Ethyl Ketone	µg/g	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Methyl Isobutyl Ketone	µg/g	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Methyl-t-butyl Ether	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Dichloromethane (Methylene Chloride)	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Styrene	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Tetrachloroethane,1,1,1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Tetrachloroethane,1,1,2,2-	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Tetrachloroethylene	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Toluene	µg/g	0.2	< 0.2	< 0.2	< 0.2	**0.4**	0.2	
Trichloroethane,1,1,1-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Trichloroethane,1,1,2-	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.05	
Trichloroethylene	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.05	
Trichlorofluoromethane	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.25	
Vinyl Chloride	µg/g	0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.02	
Xylene, m,p-	µg/g	0.03	< 0.03	< 0.03	< 0.03	< 0.03		
Xylene, o-	µg/g	0.03	< 0.03	< 0.03	< 0.03	< 0.03		
Xylene, m,p,o-	µg/g	0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.05	

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Tbl. 1 - All - Table 1 - Res/Park/Institutional/Indus/Com/Commun

Christine Burke
Lab Manager

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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: GH0118 **REPORT No. B20-39191 (ii)**

Report To:

Peto MacCallum Ltd
19 Churchill Drive,
Barrie ON L4N 8Z5
Attention: Alicia Kimberley

Caduceon Environmental Laboratories
112 Commerce Park Drive
Barrie ON L4N 8W8
Tel: 705-252-5743
Fax: 705-252-5746

DATE RECEIVED: 14-Dec-20
DATE REPORTED: 24-Dec-20
SAMPLE MATRIX: Soil

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D.	Dup 1B				O. Reg. 153	
	Sample I.D.	B20-39191-10				Tbl. 1 - All	
	Date Collected	09-Dec-20					
Parameter	**Units**	**R.L.**					
Acetone	µg/g	0.5	< 0.5			0.5	
Benzene	µg/g	0.02	< 0.02			0.02	
Bromodichloromethane	µg/g	0.02	< 0.02			0.05	
Bromoform	µg/g	0.02	< 0.02			0.05	
Bromomethane	µg/g	0.05	< 0.05			0.05	
Carbon Tetrachloride	µg/g	0.05	< 0.05			0.05	
Monochlorobenzene (Chlorobenzene)	µg/g	0.02	< 0.02			0.05	
Chloroform	µg/g	0.02	< 0.02			0.05	
Dibromochloromethane	µg/g	0.02	< 0.02			0.05	
Dichlorobenzene,1,2-	µg/g	0.05	< 0.05			0.05	
Dichlorobenzene,1,3-	µg/g	0.05	< 0.05			0.05	
Dichlorobenzene,1,4-	µg/g	0.05	< 0.05			0.05	
Dichlorodifluoromethane	µg/g	0.05	< 0.05			0.05	
Dichloroethane,1,1-	µg/g	0.02	< 0.02			0.05	
Dichloroethane,1,2-	µg/g	0.02	< 0.02			0.05	
Dichloroethylene,1,1-	µg/g	0.02	< 0.02			0.05	
Dichloroethene, cis-1,2-	µg/g	0.02	< 0.02			0.05	
Dichloroethene, trans-1,2-	µg/g	0.02	< 0.02			0.05	
Dichloropropane,1,2-	µg/g	0.02	< 0.02			0.05	
Dichloropropene, cis-1,3-	µg/g	0.02	< 0.02				
Dichloropropene, trans-1,3-	µg/g	0.02	< 0.02				
Dichloropropene 1,3-cis+trans	µg/g	0.02	< 0.02			0.05	

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

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DATE RECEIVED: 14-Dec-20
DATE REPORTED: 24-Dec-20
SAMPLE MATRIX: Soil

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D.		Dup 1B				O. Reg. 153	
	Sample I.D.		B20-39191-10				Tbl. 1 - All	
	Date Collected		09-Dec-20					
Parameter	**Units**	**R.L.**						
Ethylbenzene	µg/g	0.05	< 0.05				0.05	
Dibromoethane,1,2-(Ethylene Dibromide)	µg/g	0.02	< 0.02				0.05	
Hexane	µg/g	0.02	< 0.02				0.05	
Methyl Ethyl Ketone	µg/g	0.5	< 0.5				0.5	
Methyl Isobutyl Ketone	µg/g	0.5	< 0.5				0.5	
Methyl-t-butyl Ether	µg/g	0.05	< 0.05				0.05	
Dichloromethane (Methylene Chloride)	µg/g	0.05	< 0.05				0.05	
Styrene	µg/g	0.05	< 0.05				0.05	
Tetrachloroethane,1,1,1,2-	µg/g	0.02	< 0.02				0.05	
Tetrachloroethane,1,1,2,2-	µg/g	0.05	< 0.05				0.05	
Tetrachloroethylene	µg/g	0.05	< 0.05				0.05	
Toluene	µg/g	0.2	< 0.2				0.2	
Trichloroethane,1,1,1-	µg/g	0.02	< 0.02				0.05	
Trichloroethane,1,1,2-	µg/g	0.02	< 0.02				0.05	
Trichloroethylene	µg/g	0.05	< 0.05				0.05	
Trichlorofluoromethane	µg/g	0.02	< 0.02				0.25	
Vinyl Chloride	µg/g	0.02	< 0.02				0.02	
Xylene, m,p-	µg/g	0.03	< 0.03					
Xylene, o-	µg/g	0.03	< 0.03					
Xylene, m,p,o-	µg/g	0.03	< 0.03				0.05	

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

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SAMPLE MATRIX: Soil

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

Summary of Exceedances

Table 1 - Res/Park/Institutional/Indus/Com/Commun

BH/MW13 SS3	Found Value	Limit
Toluene (µg/g)	0.4	0.2

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

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JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
% Moisture	5	Richmond Hill	FAL	16-Dec-20	A-% moisture RH	
Comment	4	Default Site	CS	18-Dec-20	C-Arochlor Comment	-
OC Pesticides	4	Kingston	CS	18-Dec-20	C-PESTCL-01 K	EPA 8080
PHC(F2-F4)	5	Kingston	KPR	18-Dec-20	C-PHC-S-001 (k)	CWS Tier 1
PHC(F2-F4)	3	Kingston	SmT	21-Dec-20	C-PHC-S-001 (k)	CWS Tier 1
PHC(F1)	5	Richmond Hill	FAL	17-Dec-20	C-VPHS-01 (rh)	CWS Tier 1

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

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

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

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SAMPLE MATRIX: Soil

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D.		BH/MW8 SS2	BH/MW10 SS2	BH/MW20 SS2	BH/MW13 SS2	O. Reg. 153 Tbl. 1 - All	
	Sample I.D.		B20-39191-1	B20-39191-3	B20-39191-5	B20-39191-7		
	Date Collected		08-Dec-20	09-Dec-20	10-Dec-20	09-Dec-20		
Parameter	**Units**	**R.L.**						
Poly-Chlorinated Biphenyls (PCB's)	µg/g	0.3	< 0.3	< 0.3	< 0.3		0.3	
Aroclor	-		-	-	-			
PHC F1 (C6-C10)	µg/g	10	< 10	< 10	< 10	< 10	25	
PHC F2 (>C10-C16)	µg/g	5	6	< 5	< 5	< 5	10	
PHC F3 (>C16-C34)	µg/g	10	13	42	< 10	102	240	
PHC F4 (>C34-C50)	µg/g	10	< 10	64 [1]	< 10	**291** [1]	120	
PHC F4 (Gravimetric)	µg/g	50		**170** [2]		**860** [2]	120	
% moisture	%		10.9	6.8	9.8	10.2		

1. F4 Gravimetric analysis required as chromats did not return to baseline.
2. Sample silica cleaned

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

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JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D. / Sample I.D. / Date Collected		Dup 1A B20-39191-9 09-Dec-20				O. Reg. 153 Tbl. 1 - All	
Parameter	**Units**	**R.L.**						
Poly-Chlorinated Biphenyls (PCB's)	µg/g	0.3	< 0.3				0.3	
Aroclor	-		-					
PHC F1 (C6-C10)	µg/g	10	< 10				25	
PHC F2 (>C10-C16)	µg/g	5	< 5				10	
PHC F3 (>C16-C34)	µg/g	10	32				240	
PHC F4 (>C34-C50)	µg/g	10	60 [1]				120	
PHC F4 (Gravimetric)	µg/g	50	**170** [2]				120	
% moisture	%		6.8					

1. F4 Gravimetric analysis required as chromats did not return to baseline.

2. Sample silica cleaned

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

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WATERWORKS NO.

Summary of Exceedances

Table 1 - Res/Park/Institutional/Indus/Com/Commun		
BH/MW10 SS2	Found Value	Limit
PHC F4 (Gravimetric) (µg/g)	170	120
BH/MW13 SS2	Found Value	Limit
PHC F4 (Gravimetric) (µg/g)	860	120
PHC F4 (>C34-C50) (µg/g)	291	120
Dup 1A	Found Value	Limit
PHC F4 (Gravimetric) (µg/g)	170	120

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Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
SVOC	5	Kingston	abk	24-Dec-20	C-NAB-S-001 (k)	EPA 8270

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

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

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

JOB/PROJECT NO.:
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WATERWORKS NO.

	Client I.D.		BH/MW8 SS7	BH/MW10 SS3	BH/MW20 SS3	BH/MW13 SS3	O. Reg. 153 Tbl. 1 - All	
	Sample I.D.		B20-39191-2	B20-39191-4	B20-39191-6	B20-39191-8		
	Date Collected		08-Dec-20	09-Dec-20	10-Dec-20	09-Dec-20		
Parameter	**Units**	**R.L.**						
Acenaphthene	µg/g	0.05	< 0.05	< 0.05	< 0.05	**0.08**	0.072	
Acenaphthylene	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.093	
Anthracene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.14	0.16	
Benzo(a)anthracene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.26	0.36	
Benzo(a)pyrene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.26	0.3	
Benzo(b)fluoranthene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.28	0.47	
Benzo(b+k)fluoranthene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.39		
Benzo(g,h,i)perylene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.17	0.68	
Benzo(k)fluoranthene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.11	0.48	
Chrysene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.25	2.8	
Dibenzo(a,h)anthracene	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.1	
Fluoranthene	µg/g	0.05	< 0.05	< 0.05	< 0.05	**0.59**	0.56	
Fluorene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.06	0.12	
Indeno(1,2,3,-cd)pyrene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.14	0.23	
Methylnaphthalene,1-	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.59	
Methylnaphthalene,2-	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.59	
Methylnaphthalene 2-(1-)	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.59	
Naphthalene	µg/g	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.09	
Phenanthrene	µg/g	0.05	< 0.05	< 0.05	< 0.05	**0.70**	0.69	
Pyrene	µg/g	0.05	< 0.05	< 0.05	< 0.05	0.54	1	

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	Sample I.D.	B20-39191-10				Tbl. 1 - All	
	Date Collected	09-Dec-20					
Parameter	**Units**	**R.L.**					
Acenaphthene	µg/g	0.05	< 0.05			0.072	
Acenaphthylene	µg/g	0.05	< 0.05			0.093	
Anthracene	µg/g	0.05	< 0.05			0.16	
Benzo(a)anthracene	µg/g	0.05	< 0.05			0.36	
Benzo(a)pyrene	µg/g	0.05	< 0.05			0.3	
Benzo(b)fluoranthene	µg/g	0.05	< 0.05			0.47	
Benzo(b+k)fluoranthene	µg/g	0.05	0.05				
Benzo(g,h,i)perylene	µg/g	0.05	< 0.05			0.68	
Benzo(k)fluoranthene	µg/g	0.05	< 0.05			0.48	
Chrysene	µg/g	0.05	< 0.05			2.8	
Dibenzo(a,h)anthracene	µg/g	0.05	< 0.05			0.1	
Fluoranthene	µg/g	0.05	< 0.05			0.56	
Fluorene	µg/g	0.05	< 0.05			0.12	
Indeno(1,2,3,-cd)pyrene	µg/g	0.05	< 0.05			0.23	
Methylnaphthalene,1-	µg/g	0.05	< 0.05			0.59	
Methylnaphthalene,2-	µg/g	0.05	< 0.05			0.59	
Methylnaphthalene 2-(1-)	µg/g	0.05	< 0.05			0.59	
Naphthalene	µg/g	0.05	< 0.05			0.09	
Phenanthrene	µg/g	0.05	< 0.05			0.69	
Pyrene	µg/g	0.05	< 0.05			1	

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Barrie ON L4N 8W8
Tel: 705-252-5743
Fax: 705-252-5746

DATE RECEIVED: 14-Dec-20
DATE REPORTED: 24-Dec-20
SAMPLE MATRIX: Soil

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

Summary of Exceedances

Table 1 - Res/Park/Institutional/Indus/Com/Commun

BH/MW13 SS3	Found Value	Limit
Phenanthrene (µg/g)	0.70	0.69
Fluoranthene (µg/g)	0.59	0.56
Acenaphthene (µg/g)	0.08	0.072

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

Christine Burke
Lab Manager

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

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TESTING REQUIREMENTS

- [x] O.Reg 153 — Table 1 — [ ] Medium/Fine [ ] Coarse
- [ ] RPI [ ] ICC
- [ ] Yes [ ] No
- [ ] Agricultural (O.Reg 153)
- Record of Site Condition (O.Reg 153)
- Provincial Water Quality Objectives
- [ ] Sewer Use By-Law: _____
- [ ] MISA Guidelines
- [ ] O.Reg 558 Leachate Analysis
- Disposal Site: _____
- [ ] Landfill Monitoring
- [ ] Other: _____

REPORT NUMBER (Lab Use)

B20-39191

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? [ ] Yes [x] No (If yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: [ ] Kingston [ ] Ottawa [ ] Richmond Hill [ ] Windsor [x] Barrie [ ] London

Organization:	Address and Invoicing Address (if different)	
Peto MacCallum Ltd.		
Contact: A. Kimberley	19 Churchill Drive, Barrie, ON L4N8Z5, barrie@petomaccallum.com	
Tel: 705-734-3900		
Fax: 705-734-9911	Quote No.:	Project Name: 20BF055
Email: akimberley@petomaccallum.com	P.O. No.:	Additional Info:

ANALYSES REQUESTED (Print Test in Boxes)

metals and inorganics; PHC; VOCs; PAH; BTEX; PCBs; metals; Suspected Highly Contaminated

TURNAROUND SERVICE REQUESTED (see back page)

- [ ] Platinum 200% Surcharge
- [ ] Gold 100% Surcharge
- [ ] Silver 50% Surcharge
- [x] Bronze 25% Surcharge
- [x] Standard 5-7 days
- [ ] Specific Date: _____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Indicate Test For Each Sample By Using A Check Mark In The Box Provided												✓	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered(Y/N)
1	BH/MW8 SS2		Soil	2020-12-08	12:00	x	x				x										4	
2	BH/MW8 SS7		Soil	2020-12-08	12:15			x	x	x											4	
3	BH/MW10 SS2		Soil	2020-12-09	12:00	x	x				x										4	
4	BH/MW10 SS3		Soil	2020-12-09	12:15			x	x	x											4	
5	BH/MW20 SS2		Soil	2020-12-10	12:00	x	x				x										4	
6	BH/MW20 SS3		Soil	2020-12-10	12:15			x	x	x											4	
7	BH/MW13 SS2		Soil	2020-12-09	1:00		x					x									4	
8	BH/MW13 SS3		Soil	2020-12-09	1:15			x	x	x											4	
9	Dup 1A		Soil	2020-12-09	12:00	x	x				x										4	
10	Dup 1B		Soil	2020-12-09	12:15			x	x	x											4	

SAMPLE SUBMISSION INFORMATION

	Sampled By:	Submitted by:
Print:	N.Garland	N.Garland
Sign:		
	2020-12-08	2020-12-14
	Date (yy-mm-dd)/Time:	Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

- [ ] Client's Courier
- [ ] Caduceon's Courier
- [x] Drop Off
- [ ] Caduceon (Pick-up)

Invoice [ ]

# of Pieces: 1

REPORTING / INVOICING

- [ ] Report by Fax
- [x] Report by Email
- [x] Invoice by Email
- [ ] Invoice by Mail

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

Received By (print): C Burke Signature:

Date Received (yy-mm-dd): 20-12-14 Time Received: 16:10

Laboratory Prepared Bottles: [ ] Yes [ ] No

Sample Temperature °C: 6·8

Labeled by:

Comments:

K-Jar
O-Jar (1,3,5,7,9)
RH-Vials, ~~split for pH~~ (Jar (2,4,6,8,10)
Split for pH (1,3,5,7,9)

Page 1 of 1

GH0118

White: Lab Copy / Yellow: Invoicing Copy / Pink: Client Copy

CofC, May 2019, Revision No: 22

Quality Assurance Report

Report No: B20-39191

Report To:
Peto MacCallum Ltd
19 Churchill Drive,
Barrie ON L4N 8Z5
Attention: Alicia Kimberley

Caduceon Environmental Laboratories
112 Commerce Park Drive
Barrie ON L4N 8W8
Tel: 705-252-5743
Fax: 705-252-5746

Date Submitted:	14-Dec-20	Job/Project No.:	
Samples Submitted By:	Niklas Gardlund	COC No.:	GH0118
Samples Received By:	C. Burke	P.O. Number:	20BF055
Date Reported:	13-Jan-21	Waterworks No.:	
Sample Matrix:	Soil	Quote No.:	
Temperature Upon Receipt		Invoice To:	

Analyses	Qty	Site Analyzed	Analyst Initials	Date Extracted	Date Analyzed	Time Analyzed	Date Approved	Lab Method	Method Reference
% Moisture	5	Richmond Hill	FAL	16-Dec-20	16-Dec-20	13:49	21-Dec-20	A-% moisture RH	
Chromium (VI)	5	Holly Lane	LMG	17-Dec-20	17-Dec-20	13:30	17-Dec-20	D-CRVI-02 (o)	EPA7196A
Comment	4	Default Site	CS	17-Dec-20	18-Dec-20	08:33	18-Dec-20	C-Arochlor Comment	-
Conductivity	5	Holly Lane	ROD	18-Dec-20	18-Dec-20	08:33	18-Dec-20	A-COND-01 (o)	SM 2510B
Cyanide	5	Kingston	MD	15-Dec-20	17-Dec-20	10:23	22-Dec-20	A-CN s K	in house
Mercury	5	Holly Lane	NHG	21-Dec-20	21-Dec-20	16:32	21-Dec-20	D-HG-01 (o)	EPA 7471A
Metals - ICP-MS	5	Holly Lane	JGC	21-Dec-20	21-Dec-20	14:44	21-Dec-20	D-ICPMS-01 (o)	EPA 6020
Metals - ICP-OES	5	Holly Lane	hmc	21-Dec-20	21-Dec-20	15:29	21-Dec-20	D-ICP-01 (o)	SM 3120
Metals - ICP-OES	5	Holly Lane	hmc	21-Dec-20	21-Dec-20	16:12	21-Dec-20	D-ICP-02 (o)	EPA 6010
OC Pesticides	4	Kingston	CS	17-Dec-20	18-Dec-20	08:33	18-Dec-20	C-PESTCL-01 K	EPA 8080
pH	5	Richmond Hill	HAZ	15-Dec-20	15-Dec-20	15:16	15-Dec-20	A-pH-02 (rh)	MOEE3530
PHC(F1)	5	Richmond Hill	FAL	17-Dec-20	17-Dec-20	10:23	21-Dec-20	C-VPHS-01 (rh)	CWS Tier 1
PHC(F2-F4)	5	Kingston	KPR	18-Dec-20	18-Dec-20	16:10	21-Dec-20	C-PHC-S-001 (k)	CWS Tier 1
Sodium Adsorption Ratio	5	Holly Lane	hmc	21-Dec-20	21-Dec-20	15:29	21-Dec-20	D-ICP-01 SAR (o)	SM 3120
SVOC	5	Kingston	abk	15-Dec-20	16-Dec-20	08:44	16-Dec-20	C-NAB-S-001 (k)	EPA 8270
VOC's	5	Richmond Hill	FAL	17-Dec-20	16-Dec-20	10:21	21-Dec-20	C-VOC-02 (rh)	EPA 8260

CADUCEON ENVIRONMENTAL LABORATORIES
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Quality Assurance Report

REPORT No. B20-39191 (i)

PARAMETERS	R.L.	QC DATA								
		LCS Sample (% Rec.)		Duplicate				Lab	Matrix Spike (% Recovery)	
		Found	Limits	Result 1	Result 2	R.P.D.	Limits (%)	Blank	Found	Limits
pH		0.01	0.2 pH units	8.19	8.17	0.02	0.3 pH units	< R.L.	NA	-
Conductivity	0.001	108	80-120	0.67	0.66	0.8	30	< R.L.	NA	-
Cyanide (Free)	0.05	103	80-120	< R.L.	< R.L.	NC	35	< R.L.	107	70-130
Antimony	0.5	80	80-120	< R.L.	< R.L.	NC	30	< R.L.	92	70-130
Arsenic	0.5	91	80-120	1.4	1.4	NC	30	< R.L.	102	70-130
Barium	1	105	80-120	82	84	2.4	30	< R.L.	99	70-130
Beryllium	0.2	100	80-120	0.2	0.2	NC	30	< R.L.	93	70-130
Boron	0.5	103	80-120	4.4	4.8	NC	30	< R.L.	87	70-130
Cadmium	0.5	100	80-120	< R.L.	< R.L.	NC	30	< R.L.	96	70-130
Chromium	1	100	80-120	13	13	0	30	< R.L.	95	70-130
Chromium (VI)	0.2	98	80-120	< R.L.	< R.L.	NC	35	< R.L.	36	25-124
Cobalt	1	100	80-120	5	6	NC	30	< R.L.	78	70-130
Copper	1	105	80-120	14	14	0	30	< R.L.	97	70-130
Lead	5	103	80-120	24	26	NC	30	< R.L.	97	70-130
Mercury	0.005	80	80-120	0.996	0.976	2.0	30	< R.L.	81	70-130
Molybdenum	1	100	80-120	< R.L.	< R.L.	NC	30	< R.L.	105	70-130
Nickel	1	108	80-120	9	9	NC	30	< R.L.	101	70-130
Selenium	0.5	80	80-120	0.5	< R.L.	NC	30	< R.L.	91	70-130
Silver	0.2	98	80-120	0.3	0.2	NC	30	< R.L.	100	70-130
Thallium	0.1	98	80-120	0.1	< R.L.	NC	30	< R.L.	101	70-130
Uranium	0.1	100	80-120	0.8	0.8	NC	30	< R.L.	101	70-130
Vanadium	1	100	80-120	29	29	0	30	< R.L.	97	70-130
Zinc	3	103	80-120	48	47	2.1	30	< R.L.	97	70-130

All values expressed as µg/g unless stated otherwise
LCS = Laboratory Control Standard
R.P.D. = Relative Percent Difference of Duplicate Pairs at > 10 x's M.D.L.
M.D.L. = Method Detection Limit

NC = Not Calculated
- = Not Requested/Analyzed
NA = Not Applicable

CADUCEON ENVIRONMENTAL LABORATORIES
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Quality Assurance Report

Report No: B20-39191 (ii)

Parameter	MDL	QC Data								
		LCS Sample (% Rec.)		Duplicate				Lab Blank	Matrix Spike (% Rec.)	
		Found	Limits	Result 1	Result 2	R.P.D.	Limits (%)		Found	Limits
Acetone	0.5	65 [2]	50-140	<MDL	<MDL [2]	NC	50	<MDL [2]	65 [2]	50-140
Benzene	0.02	68 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	86 [2]	50-140
Bromodichloromethane	0.02	101 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	105 [2]	50-140
Bromoform	0.02	103 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	118 [2]	50-140
Bromomethane	0.05	104 [2]	50-140	<MDL	<MDL [2]	NC	50	<MDL [2]	87 [2]	50-140
Carbon Tetrachloride	0.05	103 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	108 [2]	50-140
Monochlorobenzene (Chlorobenzene)	0.02	91 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	95 [2]	50-140
Chloroform	0.02	84 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	89 [2]	50-140
Dibromochloromethane	0.02	93 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	96 [2]	50-140
Dichlorobenzene,1,2-	0.05	98 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	104 [2]	50-140
Dichlorobenzene,1,3-	0.05	103 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	116 [2]	50-140
Dichlorobenzene,1,4-	0.05	101 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	105 [2]	50-140
Dichlorodifluoromethane	0.05	NC [2]	50-140	<MDL	<MDL [2]	NC	50	<MDL [2]	133 [2]	50-140
Dichloroethane,1,1-	0.02	79 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	82 [2]	50-140
Dichloroethane,1,2-	0.02	95 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	100 [2]	50-140
Dichloroethylene,1,1-	0.02	85 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	82 [2]	50-140
Dichloroethene, cis-1,2-	0.02	75 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	77 [2]	50-140
Dichloroethene, trans-1,2-	0.02	83 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	86 [2]	50-140
Dichloropropane,1,2-	0.02	69 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	72 [2]	50-140
Dichloropropene, cis-1,3-	0.02	84 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	87 [2]	50-140
Dichloropropene, trans-1,3-	0.02	90 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	92 [2]	50-140
Ethylbenzene	0.05	91 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	94 [2]	50-140
Dibromoethane,1,2- (Ethylene Dibromide)	0.02	81 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	82 [2]	50-140
Hexane	0.02	73 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	72 [2]	50-140
Methyl Ethyl Ketone	0.5	58 [2]	50-140	<MDL	<MDL [2]	NC	50	<MDL [2]	58 [2]	50-140
Methyl Isobutyl Ketone	0.5	78 [2]	50-140	<MDL	<MDL [2]	NC	50	<MDL [2]	80 [2]	50-140
Methyl-t-butyl Ether	0.05	88 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	88 [2]	50-140

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Quality Assurance Report

Report No: B20-39191 (ii)

Parameter	MDL	QC Data								
		LCS Sample (% Rec.)		Duplicate				Lab Blank	Matrix Spike (% Rec.)	
		Found	Limits	Result 1	Result 2	R.P.D.	Limits (%)		Found	Limits
Dichloromethane (Methylene Chloride)	0.05	85 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	85 [2]	50-140
Styrene	0.05	86 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	93 [2]	50-140
Tetrachloroethane,1,1,1,2-	0.02	88 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	92 [2]	50-140
Tetrachloroethane,1,1,2,2-	0.05	93 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	110 [2]	50-140
Tetrachloroethylene	0.05	93 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	70 [2]	50-140
Toluene	0.2	92 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	96 [2]	50-140
Trichloroethane,1,1,1-	0.02	121 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	128 [2]	50-140
Trichloroethane,1,1,2-	0.02	80 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	81 [2]	50-140
Trichloroethylene	0.05	86 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	92 [2]	50-140
Trichlorofluoromethane	0.02	115 [2]	50-140	<MDL	<MDL [2]	NC	50	<MDL [2]	NC [2]	50-140
Vinyl Chloride	0.02	90 [2]	50-140	<MDL	<MDL [2]	NC	50	<MDL [2]	73 [2]	50-140
Xylene, m,p-	0.03	93 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	97 [2]	50-140
Xylene, o-	0.03	97 [2]	60-130	<MDL	<MDL [2]	NC	50	<MDL [2]	104 [2]	50-140
PHC F1 (C6-C10)	10	82 [3]	80-120	<MDL	<MDL [3]	NC	50	<MDL [3]	95 [3]	60-140
PHC F2 (>C10-C16)	5	81 [4]	80-120	<MDL	<MDL [4]	NC	50	<MDL [4]	71 [4]	60-140
PHC F3 (>C16-C34)	10	83 [4]	80-120	11.0	13.0 [4]	NC	50	<MDL [4]	73 [4]	60-140
PHC F4 (>C34-C50)	10	91 [4]	80-120	13.0	<MDL [4]	NC	50	<MDL [4]	69 [4]	60-140
PHC F4 (Gravimetric)	50	88 [5]	80-120	50.0	50.0 [5]	NC	50	<MDL [5]	60 [1]	60-140

Soil results are expressed in µg/g unless otherwise stated
Water results are expressed in mg/L, except SVOC and VOC are in µg/L, unless otherwise stated
LCS = Laboratory Control Standard
R.P.D. = Relative Percent Difference of Duplicate Pairs at > 10x M.D.L.
SS = Surrogate Standard
MDL = Method Detection Limit

NC = Not Calculated
-- = Not Requested / Analyzed
NA = Not Applicable

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Quality Assurance Report

Report No: B20-39191 (iii)

Parameter	MDL	QC Data								
		LCS Sample (% Rec.)		Duplicate				Lab Blank	Matrix Spike (% Rec.)	
		Found	Limits	Result 1	Result 2	R.P.D.	Limits (%)		Found	Limits
Poly-Chlorinated Biphenyls (PCB's)	0.3	67 [4]	50-140	<MDL	<MDL [4]	NC	50	<MDL [5]	66 [4]	50-140
Acenaphthene	0.05	78 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	80 [6]	50-140
Acenaphthylene	0.05	80 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	83 [6]	50-140
Anthracene	0.05	77 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	80 [6]	50-140
Benzo(a)anthracene	0.05	84 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	84 [6]	50-140
Benzo(a)pyrene	0.05	74 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	87 [6]	50-140
Benzo(b)fluoranthene	0.05	85 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	87 [6]	50-140
Benzo(g,h,i)perylene	0.05	83 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	87 [6]	50-140
Benzo(k)fluoranthene	0.05	83 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	85 [6]	50-140
Chrysene	0.05	84 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	85 [6]	50-140
Dibenzo(a,h)anthracene	0.05	82 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	85 [6]	50-140
Fluoranthene	0.05	82 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	83 [6]	50-140
Fluorene	0.05	79 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	82 [6]	50-140
Indeno(1,2,3,-cd)pyrene	0.05	83 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	87 [6]	50-140
Methylnaphthalene,2-	0.05	74 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	75 [6]	50-140
Naphthalene	0.05	75 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	75 [6]	50-140
Phenanthrene	0.05	77 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	80 [6]	50-140
Pyrene	0.05	86 [6]	50-140	<MDL	<MDL [6]	NC	50	<MDL [6]	87 [6]	50-140

Soil results are expressed in µg/g unless otherwise stated
Water results are expressed in mg/L, except SVOC and VOC are in µg/L, unless otherwise stated
LCS = Laboratory Control Standard
R.P.D. = Relative Percent Difference of Duplicate Pairs at > 10x M.D.L.
SS = Surrogate Standard
MDL = Method Detection Limit

NC = Not Calculated
-- = Not Requested / Analyzed
NA = Not Applicable

CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: GH0121

REPORT No. B20-40108 (i)

Rev. 1

Report To:

Peto MacCallum Ltd
19 Churchill Drive,
Barrie ON L4N 8Z5
Attention: Alicia Kimberley

Caduceon Environmental Laboratories
112 Commerce Park Drive
Barrie ON L4N 8W8
Tel: 705-252-5743
Fax: 705-252-5746

DATE RECEIVED: 22-Dec-20
DATE REPORTED: 15-Jan-21
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
Cyanide	2	Kingston	US	14-Jan-21	A-CN-001 (k)	SM 4500CN
Conductivity	2	Holly Lane	SYL	14-Jan-21	A-COND-02 (o)	SM 2510B
pH	2	Holly Lane	SYL	14-Jan-21	A-PH-01 (o)	SM 4500H
Chromium (VI)	3	Holly Lane	LMG	30-Dec-20	D-CRVI-01 (o)	MOE E3056
Mercury	3	Holly Lane	PBK	29-Dec-20	D-HG-02 (o)	SM 3112 B
Metals - ICP-OES	3	Holly Lane	AHM	29-Dec-20	D-ICP-01 (o)	SM 3120
Metals - ICP-MS	3	Holly Lane	TPR	30-Dec-20	D-ICPMS-01 (o)	EPA 200.8

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

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

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

Christine Burke
Lab Manager

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

CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: GH0121

REPORT No. B20-40108 (i)

Rev. 1

Report To:

Peto MacCallum Ltd
19 Churchill Drive,
Barrie ON L4N 8Z5
Attention: Alicia Kimberley

Caduceon Environmental Laboratories
112 Commerce Park Drive
Barrie ON L4N 8W8
Tel: 705-252-5743
Fax: 705-252-5746

DATE RECEIVED: 22-Dec-20
DATE REPORTED: 15-Jan-21
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D.		BH/MW8	BH/MW20	DUP A		O. Reg. 153 Tbl. 1 - GW	
	Sample I.D.		B20-40108-2	B20-40108-3	B20-40108-4			
	Date Collected		21-Dec-20	21-Dec-20	21-Dec-20			
Parameter	**Units**	**R.L.**						
pH @25°C	pH Units		7.74		7.82			
Conductivity @25°C	mS/cm	0.001	1.36		1.35			
Cyanide (Free)	µg/L	5	< 5 [2]		< 5 [2]		5	
Sodium	µg/L	200	57300	347000	56100		490000	
Antimony	µg/L	0.1	0.1	0.2	0.2		1.5	
Arsenic	µg/L	0.1	0.3	0.3	0.3		13	
Barium	µg/L	1	126	209	126		610	
Beryllium	µg/L	0.1	< 0.1	< 0.1	< 0.1		0.5	
Boron	µg/L	5	149	35	150		1700	
Cadmium	µg/L	0.015	0.018	0.022	0.019		0.5	
Chromium	µg/L	2	< 2	< 2	< 2		11	
Chromium (VI)	µg/L	10	< 10 [1]	< 10 [1]	< 10 [1]		25	
Cobalt	µg/L	0.1	0.6	3.2	0.6		3.8	
Copper	µg/L	2	< 2	3	< 2		5	
Lead	µg/L	0.02	0.14	0.09	0.23		1.9	
Mercury	µg/L	0.02	< 0.02	< 0.02	< 0.02		0.1	
Molybdenum	µg/L	0.1	1.5	4.9	1.8		23	
Nickel	µg/L	0.2	2.6	10.3	2.4		14	
Selenium	µg/L	1	2	2	2		5	
Silver	µg/L	0.1	< 0.1	< 0.1	< 0.1		0.3	
Thallium	µg/L	0.05	< 0.05	< 0.05	< 0.05		0.5	
Uranium	µg/L	0.05	0.52	1.29	0.66		8.9	
Vanadium	µg/L	0.1	0.7	0.8	0.9		3.9	
Zinc	µg/L	5	< 5	7	< 5		160	

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

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SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D.		BH/MW8	BH/MW20	DUP A		O. Reg. 153
	Sample I.D.		B20-40108-2	B20-40108-3	B20-40108-4		Tbl. 1 - GW
	Date Collected		21-Dec-20	21-Dec-20	21-Dec-20		
Parameter	**Units**	**R.L.**					

1. Chromium (VI) result is based on total chromium
2. Analysis added and completed on expired sample as per client request

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

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JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

Summary of Exceedances

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

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SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
PHC(F2-F4)	3	Kingston	KPR	23-Dec-20	C-PHC-W-001 (k)	MOE E3421
VOC's	4	Richmond Hill	JE	23-Dec-20	C-VOC-02 (rh)	EPA 8260
PHC(F1)	3	Richmond Hill	JE	23-Dec-20	C-VPHW-01 (rh)	MOE E3421

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

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

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SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D.		Trip Blank	BH/MW8	BH/MW20	DUP A	O. Reg. 153	
	Sample I.D.		B20-40108-1	B20-40108-2	B20-40108-3	B20-40108-4	Tbl. 1 - GW	
	Date Collected			21-Dec-20	21-Dec-20	21-Dec-20		
Parameter	**Units**	**R.L.**						
Acetone	µg/L	30	< 30	< 30	< 30	< 30	2700	
Benzene	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Bromodichloromethane	µg/L	2	< 2	< 2	< 2	< 2	2	
Bromoform	µg/L	5	< 5	< 5	< 5	< 5	5	
Bromomethane	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.89	
Carbon Tetrachloride	µg/L	0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2	
Monochlorobenzene (Chlorobenzene)	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Chloroform	µg/L	1	< 1	< 1	< 1	< 1	2	
Dibromochloromethane	µg/L	2	< 2	< 2	< 2	< 2	2	
Dichlorobenzene,1,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Dichlorobenzene,1,3-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Dichlorobenzene,1,4-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Dichlorodifluoromethane	µg/L	2	< 2	< 2	< 2	< 2	590	
Dichloroethane,1,1-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Dichloroethane,1,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Dichloroethylene,1,1-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Dichloroethene, cis-1,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.6	
Dichloroethene, trans-1,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.6	
Dichloropropane,1,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Dichloropropene, cis-1,3-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Dichloropropene, trans-1,3-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Dichloropropene 1,3-cis+trans	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	

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

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DATE RECEIVED: 22-Dec-20
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SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

	Client I.D. / Sample I.D. / Date Collected		Trip Blank B20-40108-1	BH/MW8 B20-40108-2 21-Dec-20	BH/MW20 B20-40108-3 21-Dec-20	DUP A B20-40108-4 21-Dec-20	O. Reg. 153 Tbl. 1 - GW	
Parameter	**Units**	**R.L.**						
Ethylbenzene	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Dibromoethane,1,2-(Ethylene Dibromide)	µg/L	0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.2	
Hexane	µg/L	5	< 5	< 5	< 5	< 5	5	
Methyl Ethyl Ketone	µg/L	20	< 20	< 20	< 20	< 20	400	
Methyl Isobutyl Ketone	µg/L	20	< 20	< 20	< 20	< 20	640	
Methyl-t-butyl Ether	µg/L	2	< 2	< 2	< 2	< 2	15	
Dichloromethane (Methylene Chloride)	µg/L	5	< 5	< 5	< 5	< 5	5	
Styrene	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Tetrachloroethane,1,1,1,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	1.1	
Tetrachloroethane,1,1,2,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Tetrachloroethylene	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Toluene	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.8	
Trichloroethane,1,1,1-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Trichloroethane,1,1,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Trichloroethylene	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.5	
Trichlorofluoromethane	µg/L	5	< 5	< 5	< 5	< 5	150	
Vinyl Chloride	µg/L	0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.5	
Xylene, m,p-	µg/L	1.0	< 1.0	< 1.0	< 1.0	< 1.0		
Xylene, o-	µg/L	0.5	< 0.5	< 0.5	< 0.5	< 0.5		
Xylene, m,p,o-	µg/L	1.1	< 1.1	< 1.1	< 1.1	< 1.1	72	
PHC F1 (C6-C10)	µg/L	25		< 25	< 25	< 25	420	

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Tbl. 1 - GW - Table 1 - Ground Water

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	Client I.D. / Sample I.D. / Date Collected		Trip Blank B20-40108-1	BH/MW8 B20-40108-2 21-Dec-20	BH/MW20 B20-40108-3 21-Dec-20	DUP A B20-40108-4 21-Dec-20	O. Reg. 153 Tbl. 1 - GW	
Parameter	**Units**	**R.L.**						
PHC F2 (>C10-C16)	µg/L	50		< 50	< 50	< 50	150	
PHC F3 (>C16-C34)	µg/L	400		< 400	< 400	< 400	500	
PHC F4 (>C34-C50)	µg/L	400		< 400	< 400	< 400	500	

1 . Revised report to add inorganics testing as per client request

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JOB/PROJECT NO.:
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Parameter	Qty	Site Analyzed	Analyst Initials	Date Analyzed	Lab Method	Reference Method
SVOC	3	Kingston	sge	29-Dec-20	C-NAB-W-001 (k)	EPA 8270

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

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

O. Reg. 153 - Soil, Ground Water and Sediment Standards
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P.O. NUMBER: 20BF055
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	Sample I.D.		B20-40108-2	B20-40108-3	B20-40108-4		Tbl. 1 - GW	
	Date Collected		21-Dec-20	21-Dec-20	21-Dec-20			
Parameter	**Units**	**R.L.**						
Acenaphthene	µg/L	0.05	< 0.05	< 0.05	< 0.05		4.1	
Acenaphthylene	µg/L	0.05	< 0.05	< 0.05	< 0.05		1	
Anthracene	µg/L	0.05	< 0.05	< 0.05	< 0.05		0.1	
Benzo(a)anthracene	µg/L	0.05	< 0.05	0.08	< 0.05		0.2	
Benzo(a)pyrene	µg/L	0.01	< 0.01	< 0.01	< 0.01		0.01	
Benzo(b)fluoranthene	µg/L	0.05	< 0.05	0.08	< 0.05		0.1	
Benzo(b+k)fluoranthene	µg/L	0.1	< 0.1	< 0.1	< 0.1			
Benzo(g,h,i)perylene	µg/L	0.05	< 0.05	0.08	< 0.05		0.2	
Benzo(k)fluoranthene	µg/L	0.05	< 0.05	< 0.05	< 0.05		0.1	
Chrysene	µg/L	0.05	< 0.05	0.08	< 0.05		0.1	
Dibenzo(a,h)anthracene	µg/L	0.05	< 0.05	< 0.05	< 0.05		0.2	
Fluoranthene	µg/L	0.05	< 0.05	0.16	< 0.05		0.4	
Fluorene	µg/L	0.05	< 0.05	< 0.05	< 0.05		120	
Indeno(1,2,3,-cd)pyrene	µg/L	0.05	< 0.05	0.06	< 0.05		0.2	
Methylnaphthalene,1-	µg/L	0.05	< 0.05	< 0.05	< 0.05		2	
Methylnaphthalene,2-	µg/L	0.05	< 0.05	< 0.05	< 0.05		2	
Methylnaphthalene 2-(1-)	µg/L	1	< 1	< 1	< 1		2	
Naphthalene	µg/L	0.05	< 0.05	< 0.06	< 0.05		7	
Phenanthrene	µg/L	0.05	< 0.05	< 0.05	< 0.05		0.1	
Pyrene	µg/L	0.05	0.06	**0.25**	< 0.05		0.2	

1 . Revised report to add inorganics testing as per client request

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

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

Christine Burke
Lab Manager

CADUCEON ENVIRONMENTAL LABORATORIES
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CERTIFICATE OF ANALYSIS

Final Report

C.O.C.: GH0121

REPORT No. B20-40108 (iii)

Rev. 1

Report To:

Peto MacCallum Ltd
19 Churchill Drive,
Barrie ON L4N 8Z5
Attention: Alicia Kimberley

Caduceon Environmental Laboratories
112 Commerce Park Drive
Barrie ON L4N 8W8
Tel: 705-252-5743
Fax: 705-252-5746

DATE RECEIVED: 22-Dec-20
DATE REPORTED: 15-Jan-21
SAMPLE MATRIX: Groundwater

JOB/PROJECT NO.:
P.O. NUMBER: 20BF055
WATERWORKS NO.

Summary of Exceedances

Table 1 - Ground Water

BH/MW20	Found Value	Limit
Pyrene (µg/L)	0.25	0.2

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

Christine Burke
Lab Manager

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

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TESTING REQUIREMENTS

O.Reg 153 ☒ Table 1 ☐ Medi ☐ Fine ☐ Coars ☐ MISA G ☐ elines
F ☐ IC ☐ Ag ☐ tural (O.Reg 153) O.Reg ☐ Leachate Analysis
Y ☐ No ☐ Record of Site Condition (O.Reg 153) Disposal Site: _____
Provincial Water Quality Objectives Landfill ☐ nitoring
Sewer Use By-Law: _____ Other: ☐

REPORT NUMBER (Lab Use)

B20-40108

Are any samples to be submitted intended for Human Consumption under any Drinking Water Regulations? Yes ☐ No ☒ (If Yes, submit all Drinking Water Samples on a Drinking Water Chain of Custody)

Indicate Laboratory Samples are submitted to: Kingston ☐ Ottawa ☐ Richmond Hill ☐ Windsor ☐ Barrie ☒ London ☐

Organization: Peto MacCallum Ltd.	Address and Invoicing Address (if different)	
Contact: A. Kimberley	19 Churchill Drive, Barrie. ON L4N8Z5, barrie@petomaccallum.com	
Tel: 705-734-3900		
Fax: 705-734-9911	Quote No.:	Project Name: 20BF055
Email: akimberley@petomaccallum.com	P.O. No.:	Additional Info: sgriffith@petomaccallum.com

ANALYSES REQUESTED (Print Test in Boxes)

TURNAROUND SERVICE REQUESTED (see back page)

Platinum ☐ 200% Surcharge
Gold ☐ 100% Surcharge
Silver ☐ 50% Surcharge
Bronze ☐ 25% Surcharge
Standard ☒ 5-7 days
Specific Date: _____

* Sample Matrix Legend: WW=Waste Water, SW=Surface Water, GW=Groundwater, LS=Liquid Sludge, SS=Solid Sludge, S=Soil, Sed=Sediment, PC=Paint Chips, F=Filter, Oil = Oil ☐

Lab No:	Sample Identification	S.P.L.	Sample Matrix *	Date Collected (yy-mm-dd)	Time Collected	Orillia Storm & Sanitary	PWQO metals	O.Reg 153/04 metals	PHC	PAH	VOC including BTEX	~~VOC Trip Blank~~	Indicate Test For Each Sample By Using A Check Mark In The Box Provided							Suspected Highly Contaminated	Field pH	Field Temp.	# Bottles/ Sample	Field Filtered(Y/N)
~~1~~	~~BH/MW17~~		GW	2020-12-21	15:00	X	X														✓			N
2	BH/MW8		GW	2020-12-21	13:30			X	X	X	X	X	X										~~4~~ 3	Y
3	BH/MW20		GW	2020-12-21	15:30			X	X	X	X	X											~~3~~ 1	Y
4	DUP A		GW	2020-12-21	14:00			X	X	X	X	X	X										~~2~~ 1	Y
①	TRIP BLANK										X													
	#4 - solids present in Hg bottle - filter fresh from gen chem CS																							

ao per client call CS

SAMPLE SUBMISSION INFORMATION

	Sampled By:	Submitted by:
Print:	S.Griffith	S.Griffith
Sign:		
	2020-12-21	2020-12-22
	Date (yy-mm-dd)/Time:	Date (yy-mm-dd)/Time:

SHIPPING INFORMATION

Client's Courier ☐ Invoice ☐
Caduceon's Courier ☐ # of Pieces
Drop Off ☐ 1
Caduceon (Pick-up) ☒

REPORTING / INVOICING

Report by Fax ☐
Report by Email ☐
Invoice by Email ☒
Invoice by Mail ☐

SAMPLE RECEIVING INFORMATION (LABORATORY USE ONLY)

Received By (print): Allie Signature: CS
Date Received (yy-mm-dd): 20-12-22 Time Received: 11:30
Laboratory Prepared Bottles: (Yes) No
Sample Temperature °C: 9.0
Labeled by: AM

Page 1 of 1
GH0121

Comments:
Vials - 7RH
1L Amber + 500mL Amber + cyanide - 7
metals + Hg + chromium - 70

Quality Assurance Report

Report No: B20-40108

Report To:
Peto MacCallum Ltd
19 Churchill Drive,
Barrie ON L4N 8Z5
Attention: Alicia Kimberley

Caduceon Environmental Laboratories
112 Commerce Park Drive
Barrie ON L4N 8W8
Tel: 705-252-5743
Fax: 705-252-5746

Date Submitted:	22-Dec-20	Job/Project No.:	
Samples Submitted By:	Sarah Griffith	COC No.:	GH0121
Samples Received By:	Eleanor S.	P.O. Number:	20BF055
Date Reported:	15-Jan-21	Waterworks No.:	
Sample Matrix:	Groundwater	Quote No.:	
Temperature Upon Receipt		Invoice To:	

Analyses	Qty	Site Analyzed	Analyst Initials	Date Extracted	Date Analyzed	Time Analyzed	Date Approved	Lab Method	Method Reference
Chromium (VI)	3	Holly Lane	LMG	30-Dec-20	30-Dec-20	09:28	30-Dec-20	D-CRVI-01 (o)	MOE E3056
Conductivity	2	Holly Lane	SYL	14-Jan-21	14-Jan-21	08:28	15-Jan-21	A-COND-02 (o)	SM 2510B
Cyanide	2	Kingston	US	14-Jan-21	14-Jan-21	16:15	14-Jan-21	A-CN-001 (k)	SM 4500CN
Mercury	3	Holly Lane	PBK	29-Dec-20	29-Dec-20	15:08	29-Dec-20	D-HG-02 (o)	SM 3112 B
Metals - ICP-MS	3	Holly Lane	TPR	30-Dec-20	30-Dec-20	11:55	30-Dec-20	D-ICPMS-01 (o)	EPA 200.8
Metals - ICP-OES	3	Holly Lane	AHM	29-Dec-20	29-Dec-20	15:53	29-Dec-20	D-ICP-01 (o)	SM 3120
pH	2	Holly Lane	SYL	14-Jan-21	14-Jan-21	08:21	15-Jan-21	A-PH-01 (o)	SM 4500H
PHC(F1)	3	Richmond Hill	JE	23-Dec-20	23-Dec-20	09:39	24-Dec-20	C-VPHW-01 (rh)	MOE E3421
PHC(F2-F4)	3	Kingston	KPR	23-Dec-20	23-Dec-20	10:29	23-Dec-20	C-PHC-W-001 (k)	MOE E3421
SVOC	3	Kingston	sge	23-Dec-20	29-Dec-20	08:17	29-Dec-20	C-NAB-W-001 (k)	EPA 8270
VOC's	4	Richmond Hill	JE	23-Dec-20	23-Dec-20	08:47	24-Dec-20	C-VOC-02 (rh)	EPA 8260

CADUCEON
ENVIRONMENTAL LABORATORIES

Quality Assurance Report

REPORT No. B20-40108 (i)

PARAMETERS	R.L.	QC DATA								
		LCS Sample (% Rec.)		Duplicate				Lab	Matrix Spike (% Recovery)	
		Found	Limits	Result 1	Result 2	R.P.D.	Limits (%)	Blank	Found	Limits
pH @ 25°C		0.02	0.2 pH units	7.81	7.89	0.08	0.3 pH units	< R.L	NA	-
Conductivity @ 25°C	0.001	99	80-120	1.36	1.36	0	30	< R.L	NA	-
Cyandie (Free)	5	112	80-120	< R.L	< R.L	NC	30	< R.L	103	70-130
Sodium	200	109	80-120	57300	57100	0.3	30	< R.L	110	70-130
Antimony	0.1	98	80-120	0.1	0.1	NC	30	< R.L	85	70-130
Arsenic	0.1	98	80-120	0.3	0.3	NC	30	< R.L	108	70-130
Barium	1	99	80-120	126	129	2.4	30	< R.L	86	70-130
Beryllium	0.1	98	80-120	< R.L	< R.L	NC	30	< R.L	119	70-130
Boron	5	109	70-130	149	149	0	30	< R.L	121	60-140
Cadmium	0.015	94	80-120	0.018	0.017	NC	30	< R.L	120	70-130
Chromium	2	100	80-120	< R.L	< R.L	NC	30	< R.L	117	70-130
Cobalt	0.1	104	80-120	0.6	0.6	NC	30	< R.L	116	70-130
Copper	2	97	80-120	< R.L	< R.L	NC	30	< R.L	112	70-130
Lead	0.02	100	80-120	0.14	0.12	NC	30	< R.L	105	70-130
Mercury	0.02	108	80-120	< R.L	< R.L	NC	30	< R.L	87	70-130
Molybdenum	0.1	104	80-120	1.5	1.4	6.9	30	< R.L	95	70-130
Nickel	0.2	100	80-120	2.6	2.5	3.9	30	< R.L	113	70-130
Selenium	1	82	80-120	< R.L	< R.L	NC	30	< R.L	110	70-130
Silver	0.1	103	80-120	< R.L	< R.L	NC	30	< R.L	103	70-130
Thallium	0.05	104	80-120	< R.L	< R.L	NC	30	< R.L	112	70-130
Uranium	0.05	112	80-120	0.52	0.54	3.8	30	< R.L	89	70-130
Vanadium	0.1	98	80-120	0.7	0.7	NC	30	< R.L	117	70-130
Zinc	5	104	80-120	< R.L	< R.L	NC	30	< R.L	123	70-130

All values expressed as µg/L unless stated otherwise
LCS = Laboratory Control Standard
R.P.D. = Relative Percent Difference of Duplicate Pairs at > 10 x's M.D.L.
M.D.L. = Method Detection Limit

NC = Not Calculated
- = Not Requested/Analyzed
NA = Not Applicable

Quality Assurance Report

Report No: B20-40108 (ii)

Parameter	MDL	QC Data								
		LCS Sample (% Rec.)		Duplicate				Lab Blank	Matrix Spike (% Rec.)	
		Found	Limits	Result 1	Result 2	R.P.D.	Limits (%)		Found	Limits
Acetone	30	122 [8]	50-140	1070	1110 [4]	3.67	50	<MDL [8]	120 [4]	50-140
Benzene	0.5	84 [8]	60-130	<MDL	<MDL [2]	NC	50	<MDL [8]	112 [8]	50-140
Bromodichloromethane	2	89 [8]	60-140	<MDL	<MDL [8]	NC	50	<MDL [8]	108 [8]	50-140
Bromoform	5	92 [8]	50-140	<MDL	<MDL [8]	NC	50	<MDL [8]	102 [8]	50-140
Bromomethane	0.5	72 [8]	50-140	<MDL	<MDL [8]	NC	50	<MDL [8]	84 [8]	50-140
Carbon Tetrachloride	0.2	77 [8]	60-130	<MDL	<MDL [7]	NC	50	<MDL [8]	77 [4]	50-140
Monochlorobenzene (Chlorobenzene)	0.5	91 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	112 [8]	50-140
Chloroform	1	90 [8]	60-130	<MDL	<MDL [7]	NC	50	<MDL [8]	90 [4]	50-140
Dibromochloromethane	2	119 [1]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	110 [8]	50-140
Dichlorobenzene,1,2-	0.5	104 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	119 [8]	50-140
Dichlorobenzene,1,3-	0.5	90 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	115 [8]	50-140
Dichlorobenzene,1,4-	0.5	107 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	125 [8]	50-140
Dichloroethane,1,1-	0.5	95 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	109 [8]	50-140
Dichloroethane,1,2-	0.5	94 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	111 [8]	50-140
Dichloroethylene,1,1-	0.5	98 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	138	50-140
Dichloroethene, cis-1,2-	0.5	85 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	99 [8]	50-140
Dichloroethene, trans-1,2-	0.5	84 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	110 [8]	50-140
Dichloropropane,1,2-	0.5	85 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	106 [8]	50-140
Dichloropropene, cis-1,3-	0.5	90 [8]	60-130	<MDL	<MDL [7]	NC	50	<MDL [8]	81 [4]	50-140
Dichloropropene, trans-1,3-	0.5	96 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	115 [8]	50-140
Ethylbenzene	0.5	80 [8]	60-130	<MDL	<MDL [2]	NC	50	<MDL [8]	105 [8]	50-140
Dibromoethane,1,2- (Ethylene Dibromide)	0.2	95 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	107 [8]	50-140
Hexane	5	65 [8]	60-130	<MDL	<MDL [4]	NC	50	<MDL [8]	70 [4]	50-140
Methyl Ethyl Ketone	20	100 [8]	50-140	<MDL	<MDL [8]	NC	50	<MDL [8]	100 [8]	50-140
Methyl Isobutyl Ketone	20	99 [8]	50-140	<MDL	<MDL [4]	NC	50	<MDL [8]	100 [4]	50-140
Methyl-t-butyl Ether	2	94 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	98 [8]	50-140

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Quality Assurance Report

Report No: B20-40108 (ii)

Parameter	MDL	QC Data								
		LCS Sample (% Rec.)		Duplicate				Lab Blank	Matrix Spike (% Rec.)	
		Found	Limits	Result 1	Result 2	R.P.D.	Limits (%)		Found	Limits
Dichloromethane (Methylene Chloride)	5	113 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	128	50-140
Styrene	0.5	84 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	103 [8]	50-140
Tetrachloroethane,1,1,1,2-	0.5	86 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	103 [8]	50-140
Tetrachloroethane,1,1,2,2-	0.5	90 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	99 [8]	50-140
Tetrachloroethylene	0.5	80 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	116 [8]	50-140
Toluene	0.5	87 [8]	60-130	<MDL	<MDL [2]	NC	50	<MDL [8]	115 [8]	50-140
Trichloroethane,1,1,1-	0.5	84 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	109 [8]	50-140
Trichloroethane,1,1,2-	0.5	97 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	111 [8]	50-140
Trichloroethylene	0.5	79 [8]	60-130	<MDL	<MDL [8]	NC	50	<MDL [8]	108 [8]	50-140
Trichlorofluoromethane	5	80 [8]	50-140	<MDL	<MDL [7]	NC	50	<MDL [8]	90 [4]	50-140
Vinyl Chloride	0.2	61 [8]	50-140	<MDL	<MDL [8]	NC	50	<MDL [8]	88 [8]	50-140
Xylene, m,p-	1.0	84 [8]	60-130	<MDL	<MDL [2]	NC	50	<MDL [8]	110 [8]	50-140
Xylene, o-	0.5	84 [8]	60-130	<MDL	<MDL [2]	NC	50	<MDL [8]	106 [8]	50-140
PHC F1 (C6-C10)	25	87 [9]	80-120	62.0	63.0 [6]	NC	50	<MDL [9]	88 [9]	60-140
PHC F2 (>C10-C16)	50	74 [5]	60-140	990	1110 [3]	11.4	50	<MDL [5]	94 [3]	60-110
PHC F3 (>C16-C34)	400	121 [5]	60-140	3300	3400 [3]	NC	50	<MDL [5]	113 [3]	60-140
PHC F4 (>C34-C50)	400	65 [5]	60-140	<MDL	<MDL [3]	NC	50	<MDL [5]	65 [3]	60-140

Soil results are expressed in µg/g unless otherwise stated
Water results are expressed in mg/L, except SVOC and VOC are in µg/L, unless otherwise stated
LCS = Laboratory Control Standard
R.P.D. = Relative Percent Difference of Duplicate Pairs at > 10x M.D.L.
SS = Surrogate Standard
MDL = Method Detection Limit

NC = Not Calculated
-- = Not Requested / Analyzed
NA = Not Applicable

CADUCEON ENVIRONMENTAL LABORATORIES
Client committed. Quality assured.

Quality Assurance Report

Report No: B20-40108 (iii)

Parameter	MDL	QC Data								
		LCS Sample (% Rec.)		Duplicate				Lab Blank	Matrix Spike (% Rec.)	
		Found	Limits	Result 1	Result 2	R.P.D.	Limits (%)		Found	Limits
Acenaphthene	0.05	127 [2]	50-140	13.2	13.0 [2]	1.53	50	<MDL [3]	132 [2]	50-140
Acenaphthylene	0.05	130 [2]	50-140	13.5	13.3 [2]	1.49	50	<MDL [3]	132 [2]	50-140
Anthracene	0.05	128 [2]	50-140	12.7	13.2 [2]	3.86	50	<MDL [3]	136 [2]	50-140
Benzo(a)anthracene	0.05	135 [2]	50-140	14.4	13.6 [2]	5.71	50	<MDL [3]	120 [2]	50-140
Benzo(a)pyrene	0.01	140 [2]	50-140	14.0	13.5 [2]	3.64	50	<MDL [3]	126 [2]	50-140
Benzo(b)fluoranthene	0.05	135 [2]	50-140	13.7	13.2 [2]	3.72	50	<MDL [3]	120 [2]	50-140
Benzo(g,h,i)perylene	0.05	135 [2]	50-140	13.5	13.0 [2]	3.77	50	<MDL [3]	126 [2]	50-140
Benzo(k)fluoranthene	0.05	134 [2]	50-140	13.4	13.0 [2]	3.03	50	<MDL [3]	130 [2]	50-140
Chrysene	0.05	134 [2]	50-140	14.4	13.4 [2]	7.19	50	<MDL [3]	120 [2]	50-140
Dibenzo(a,h)anthracene	0.05	135 [2]	50-140	13.6	13.0 [2]	4.51	50	<MDL [3]	124 [2]	50-140
Fluoranthene	0.05	133 [2]	50-140	14.3	13.5 [2]	5.76	50	<MDL [3]	136 [2]	50-140
Fluorene	0.05	130 [2]	50-140	13.6	13.3 [2]	2.23	50	<MDL [3]	128 [2]	50-140
Indeno(1,2,3,-cd)pyrene	0.05	136 [2]	50-140	13.8	13.1 [2]	5.20	50	<MDL [3]	118 [2]	50-140
Methylnaphthalene,2-	0.05	111 [2]	50-140	11.9	11.7 [2]	1.69	50	<MDL [3]	118 [2]	50-140
Naphthalene	0.05	111 [2]	50-140	11.8	11.5 [2]	2.58	50	<MDL [3]	118 [2]	50-140
Phenanthrene	0.05	133 [2]	50-140	13.2	13.4 [2]	1.50	50	<MDL [3]	140 [2]	50-140
Pyrene	0.05	NC [2]	50-140	14.9	14.1 [2]	5.52	50	<MDL [3]	132 [2]	50-140

Soil results are expressed in µg/g unless otherwise stated
Water results are expressed in mg/L, except SVOC and VOC are in µg/L, unless otherwise stated
LCS = Laboratory Control Standard
R.P.D. = Relative Percent Difference of Duplicate Pairs at > 10x M.D.L.
SS = Surrogate Standard
MDL = Method Detection Limit

NC = Not Calculated
-- = Not Requested / Analyzed
NA = Not Applicable

APPENDIX C

Statement of Limitations

STATEMENT OF LIMITATIONS

This report is prepared for and made available for the sole use of the client named. Peto MacCallum Ltd. (PML) hereby disclaims any liability or responsibility to any person or entity, other than those for whom this report is specifically issued, for any loss, damage, expenses, or penalties that may arise or result from the use of any information or recommendations contained in this report. The contents of this report may not be used or relied upon by any other person without the express written consent and authorization of PML.

This report shall not be relied upon for any purpose other than as agreed with the client named without the written consent of PML. It shall not be used to express or imply warranty as to the fitness of the property for a particular purpose. A portion of this report may not be used as a separate entity: that is to say the report is to be read in its entirety at all times.

The report is based solely on the scope of services which are specifically referred to in this report. No physical or intrusive testing has been performed, except as specifically referenced in this report. This report is not a certification of compliance with past or present regulations, codes, guidelines and policies.

The scope of services carried out by PML is based on details of the proposed development and land use to address certain issues, purposes and objectives with respect to the specific site as identified by the client. Services not expressly set forth in writing are expressly excluded from the services provided by PML. In other words, PML has not performed any observations, investigations, study analysis, engineering evaluation or testing that is not specifically listed in the scope of services in this report. PML assumes no responsibility or duty to the client for any such services and shall not be liable for failing to discover any condition, whose discovery would require the performance of services not specifically referred to in this report.

The findings and comments made by PML in this report are based on the conditions observed at the time of PML's site reconnaissance. No assurances can be made and no assurances are given with respect to any potential changes in site conditions following the time of completion of PML's field work. Furthermore, regulations, codes and guidelines may change at any time subsequent to the date of this report and these changes may effect the validity of the findings and recommendations given in this report.

The results and conclusions with respect to site conditions are therefore in no way intended to be taken as a guarantee or representation, expressed or implied, that the Site is free from any contaminants from past or current land use activities or that the conditions in all areas of the Site and beneath or within structures are the same as those areas specifically sampled.

Any investigation, examination, measurements or sampling explorations at a particular location may not be representative of conditions between sampled locations. Soil, ground water, surface water, or building material conditions between and beyond the sampled locations may differ from those encountered at the sampling locations and conditions may become apparent during construction which could not be detected or anticipated at the time of the intrusive sampling investigation.

STATEMENT OF LIMITATIONS

Budget estimates contained in this report are to be viewed as an engineering estimate of probable costs and provided solely for the purposes of assisting the client in its budgeting process. It is understood and agreed that PML will not in any way be held liable as a result of any budget figures provided by it.

The Client expressly waives its right to withhold PML's fees, either in whole or in part, or to make any claim or commence an action or bring any other proceedings, whether in contract, tort, or otherwise against PML in any way connected with advice or information given by PML relating to the cost estimate or Environmental Remediation/Cleanup and Restoration or Soil and Ground Water Management Plan Cost Estimate.

Environmental site assessment studies are performed in different phases by the application of different levels of effort and expense. The phase or phases in this report and the level of effort proposed for this assignment were based solely on PML's understanding of the client's needs as described in the scope of services contained in this report.

This assessment does not wholly eliminate uncertainty regarding the potential for existing or future costs, hazards or losses in connection with the subject property and must be viewed as a mechanism to reduce risk rather than eliminate the risk of contamination concerns.

The parties agree that PML cannot and does not warrant or represent that bids or negotiated prices will not vary from the Environmental Remediation/Cleanup and Restoration or Soil and Ground Water Management Plan Cost Estimate. The parties further agree that nothing in their agreement shall be deemed to be a cost condition or representation that the project cleanup can be completed for the amount of the Environmental Remediation/Cleanup and Restoration or Soil and Ground Water Management Plan Cost Estimate or any other amount.